

VICINITY MAP

SCALE 1"= 1/2 MILE T 3 N, R 98 W, SEC. 1, 2, 3, & 10 SEWARD MERIDIAN U.S.G.S. NUNIVAK ISLAND (B-4), ALASKA ELEVATIONS IN FEET

CONSTRUCTION PLANS

MEKORYUK AIRPORT

MEKORYUK, ALASKA AIRPORT REHABILITATION PROJECT No. CFAPT00288 AIP No. 3-02-0178-003-2022

SNOW REMOVAL EQUIPMENT BUILDING PROJECT No. CFAPT00269 AIP No. 3-02-0178-003-2022

> PRE-PS&E **DECEMBER 2021**

CONCUR DATE JOEL G. ST. AUBIN, P.E. REGIONAL CONSTRUCTION ENGINEER **APPROVED** DATE ONAL PRECONSTRUCTION ENGINEE **APPROVED** DATE **APPROVED** DATE PHIL CHEASEBRO, P.E. PROJECT MANAGER

| DE | | | |
|----|----------|------|----|
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| | REVISION | DATE | BY |
| | | | |

CITY OF

MEKORYUK

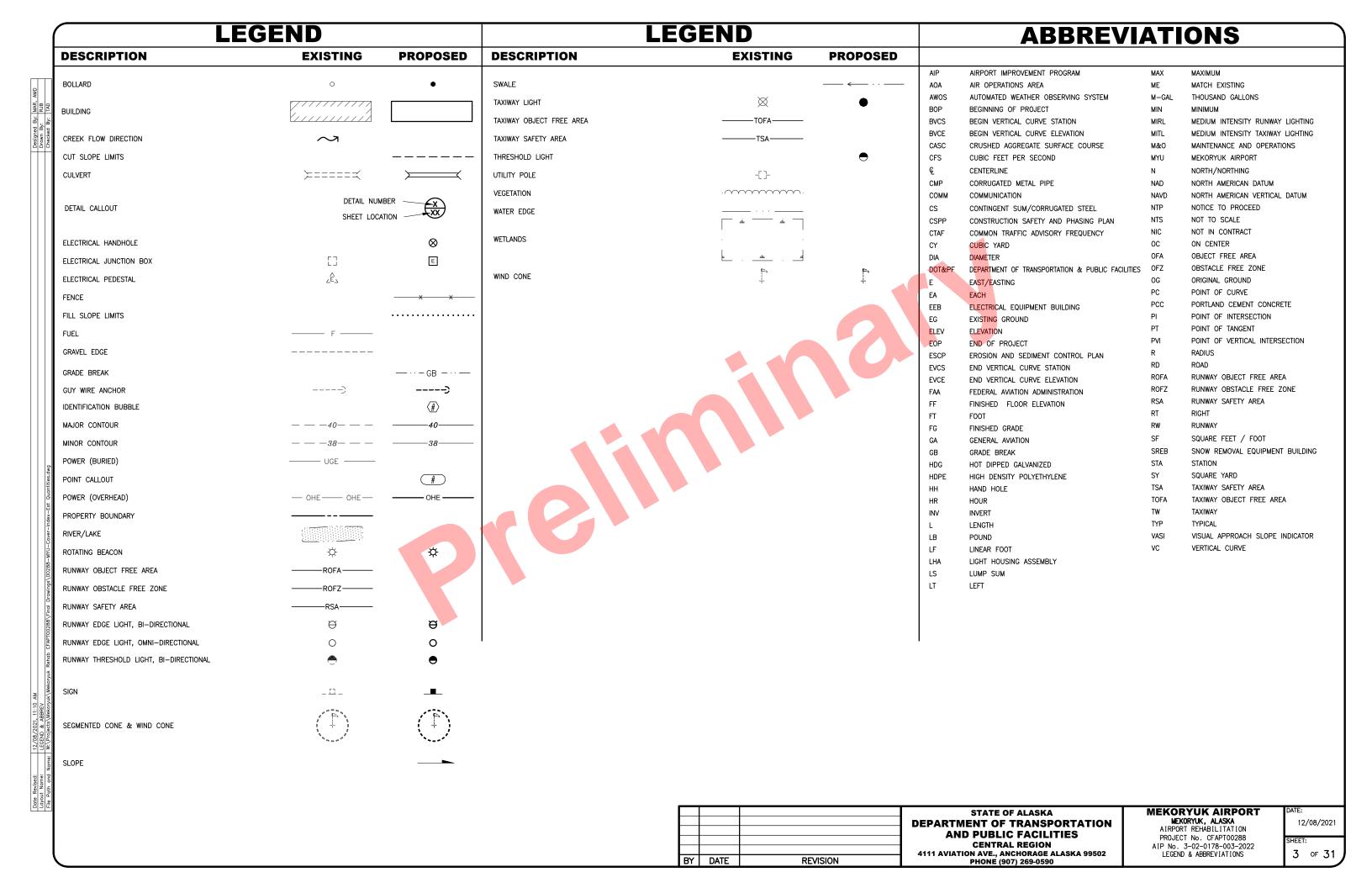
STATE OF ALASKA PARTMENT OF TRANSPORTATION **AND PUBLIC FACILITIES**

CENTRAL REGION 11 AVIATION AVE., ANCHORAGE ALASKA 99502 PHONE (907) 269-0590

MEKORYUK AIRPORT MEKORYUK, ALASKA AIRPORT REHABILITATION

PROJECT No. CFAPT00288 AIP No. 3-02-0178-003-2022 TITLE, SIGNATURES, LOCATION MAP, & VICINITY MAP 12/08/2021

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| | | EEB ELECTRICAL DETAILS | L33 | CHAIN LINK FENCE | F-01.04 |
| | | | | CHAIN LINK FENCE GATE | F-03.02 |
| | | | | SIGN FRAMING AND POST SPACING | S-00.12 |
| | | | | BRACING FOR SIGNS MOUNTED ON SINGLE POST | S-01.02 |
| | | | | | |
| | | | | STATE OF ALASKA DEPARTMENT OF TRANSPORTATION | MEKORYUK AIRPORT MEKORYUK, ALASKA DATE: 12/0 |
| | | | | AND PUBLIC FACILITIES CENTRAL REGION | AIRPORT REHABILITATION PROJECT No. CFAPT00288 AIP No. 3-02-0178-003-2022 |



| | | ESTIM | ATED | QUAN | TITIES | | | • |
|---------------|---|--------|----------------|----------------------------|----------------------------|--|--|--------------------|
| No. | ITEM | UNIT Q | AIP UANTITY | No. | ITEM | | UNIT | AIP QUANTITY |
| D701.040.0024 | CS PIPE, 24-INCH | LF | 811 | L108.050.1010 | UNDERGROUND #10 AWG, CO | PPER, 600V | LF | 700 |
| D701.040.0114 | CS PIPE, 114-INCH | LF | 98 | L108.070.0000 | GROUND ROD | | EA | 22 |
| D752.060.3010 | CONCRETE HEADWALL, TYPE I | EA | 2 | L109.030.0000 | ELECTRICAL ENCLOSURE AND | FOUNDATION IN PLACE | EA | 1 |
| G100.010.0000 | MOBILIZATION AND DEMOBILIZATION | LS | ALL REQ'D | L109.040.0000 | INSTALLATION OF ELECTRICAL | EQUIPMENT IN NEW OR EXISTING STRUCTURE | EA | 1 |
| G115.010.0000 | WORKER MEALS AND LODGING, OR PER DIEM | LS | ALL REQ'D | L110.030.1002 | RIGID STEEL CONDUIT, 2-INC | н | LF | 500 |
| G130.010.0000 | FIELD OFFICE | LS | ALL REQ'D | L110.080.1002 | HDPE CONDUIT, 2-INCH | | LF | 7,300 |
| G130.020.0000 | FIELD LABORATORY | LS | ALL REQ'D | L125.020.0000 | REGULATOR, L-828 | | EA | 1 |
| G130.040.0000 | MEAL | EA | 2,250 | L125.030.0000 | MEDIUM INTENSITY RUNWAY E | DGE AND THRESH <mark>OLD</mark> LIGHT, L-861 AND L-861E | EA | 46 |
| G130.050.0000 | LODGING | EA | 750 | L125.040.0000 | TAXIWAY EDGE LIGHT, L-861 | | EA | 16 |
| G130.060.0000 | NUCLEAR TESTING EQUIPMENT STORAGE SHED | EA | 1 | L125.050.0000 | WIND CONE HANDHOLE, L-8 | S7, SIZE D | EA | 1 |
| G130.070.0000 | STORAGE CONTAINER | EA | 1 | L125.060.0000 | PRIMARY HANDHOLE, L-868, | SIZE B | EA | 4 |
| G130.090.0000 | ENGINEERING COMMUNICATIONS | CS | ALL REQ'D | L125.070.0000 | REMOVE RUNWAY AND TAXIWA | Y LIGHT | EA | 67 |
| G131.025.0000 | ENGINEERING TRANSPORTATION (UTV) | EA | 5 | L125.170.0000 | SPARE PARTS | | CS | ALL REQ'D |
| G135.010.0000 | CONSTRUCTION SURVEYING BY THE CONTRACTOR | LS | ALL REQ'D | L125.080.0000 | TEMPORARY RUNWAY LIGHTIN | G SYSTEM | LS | ALL REQ'D |
| G135.020.0000 | EXTRA THREE PERSON SURVEY PARTY | HOUR | 50 | P152.010.0000 | UNCLASSIFIED EXCAVATION | | CY | 3,000 |
| G135.050.0000 | CONTRACTOR FURNISHED ENGINEERING TOOLS | cs | ALL REQ'D | P152.050.0000 | MUCK EXCAVATION | | CY | 5,650 |
| G135.060.0000 | CONTRACTOR FURNISHED COMPUTATIONS | LS | ALL REQ'D | P152.200.0000 | BORROW | | TON | 52,000 |
| G150.010.0075 | EQUIPMENT RENTAL, DOZER 75-HP MINIMUM | HOUR | 50 | P152.440.0000 | AREA GRADING | | SY | 31,900 |
| G300.010.0000 | CPM SCHEDULING | LS | ALL REQ'D | P165.010.0000 | REMOVAL OF STRUCTUREAS | | LS | ALL REQ'D |
| G700.010.0000 | AIRPORT FLAGGER | cs | ALL REQ'D | P167.020.0000 | DUST PALLIATIVE | | LS | ALL REQ'D |
| G710.010.0000 | HIGHWAY TRAFFIC MAINTENANCE | LS | ALL REQ'D | P180.040.0000 | RIPRAP, CLASS II | | TON | 303 |
| G710.020.0000 | HIGHWAY FLAGGER | CS | ALL REQ'D | P299.020.0000 | CRUSHED AGGREGATE SURFA | CE COURSE | TON | 59,000 |
| G710.030.0000 | HIGHWAY TRAFFIC PRICE ADJUSTMENT | CS | ALL REQ'D | P299.070.0000 ³ | * CRUSHED AGGREGATE SURFA | CE COURSE STOCKPILE (NON-PARTICIPATING) | TON | 400 |
| G710.040.0000 | HIGHWAY TRAFFIC CONTROL | CS | ALL REQ'D | P620.070.0000 | TEMPORARY RUNWAY & TAXII | AY PAINTING | LS | ALL REQ'D |
| L101.020.0000 | ROTATING BEACON, MEDIUM INTENSITY, L-801A | EA | 1 | P640.020.0000 | SEGMENTED CIRCLE (PANEL- | TYPE) | LS | ALL REQ'D |
| L103.010.0030 | 30-FEET HINGED POLE BEACON TOWER | EA | 1 | P641.010.0000 | EROSION, SEDIMENT, AND PO | LLUTION CONTROL ADMINISTRATION | LS | ALL REQ'D |
| L107.010.0008 | 8-FEET LIGHTED WIND CONE, IN PLACE | EA | 1 | P641.020.0000 | TEMPORARY EROSION, SEDIM | INT, AND POLLUTION CONTROL | CS | ALL REQ'D |
| L108.010.2008 | UNDERGROUND CABLE #8 AWG, COPPER, 5KV FAA TYPE C, L-824 | LF | 8,800 | P641.060.0000 | WITHOLDING | | CS | ALL REQ'D |
| L108.030.0005 | #6 BARE COPPER GROUND CONDUCTOR | LF | 16,800 | P641.070.0000 | SWPPP MANAGER | | LS | ALL REQ'D |
| * = NON-AIP | JECT CFAPT00269 | | | * = NON-AII ** = SEE PR | P OJECT CFAPT00269 | | | |
| = SEE PROG | DECT OF WE LONG COS | | F | - SEE PRO | 00E01 01A1100203 | STATE OF ALASKA | MEKORYUK AIRPOR MEKORYUK, ALASKA | |
| | | | | | | DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES | AIRPORT REHÅBILITATION PROJECT No. CFAPTO0288 | 12/08/20 SHEET: |
| U | | | B | r DATE | REVISION | CENTRAL REGION 4111 AVIATION AVE., ANCHORAGE ALASKA 99502 PHONE (907) 269-0590 | AIP No. 3-02-0178-003-202: ESTIMATED QUANTITIES | 4 of 3 |

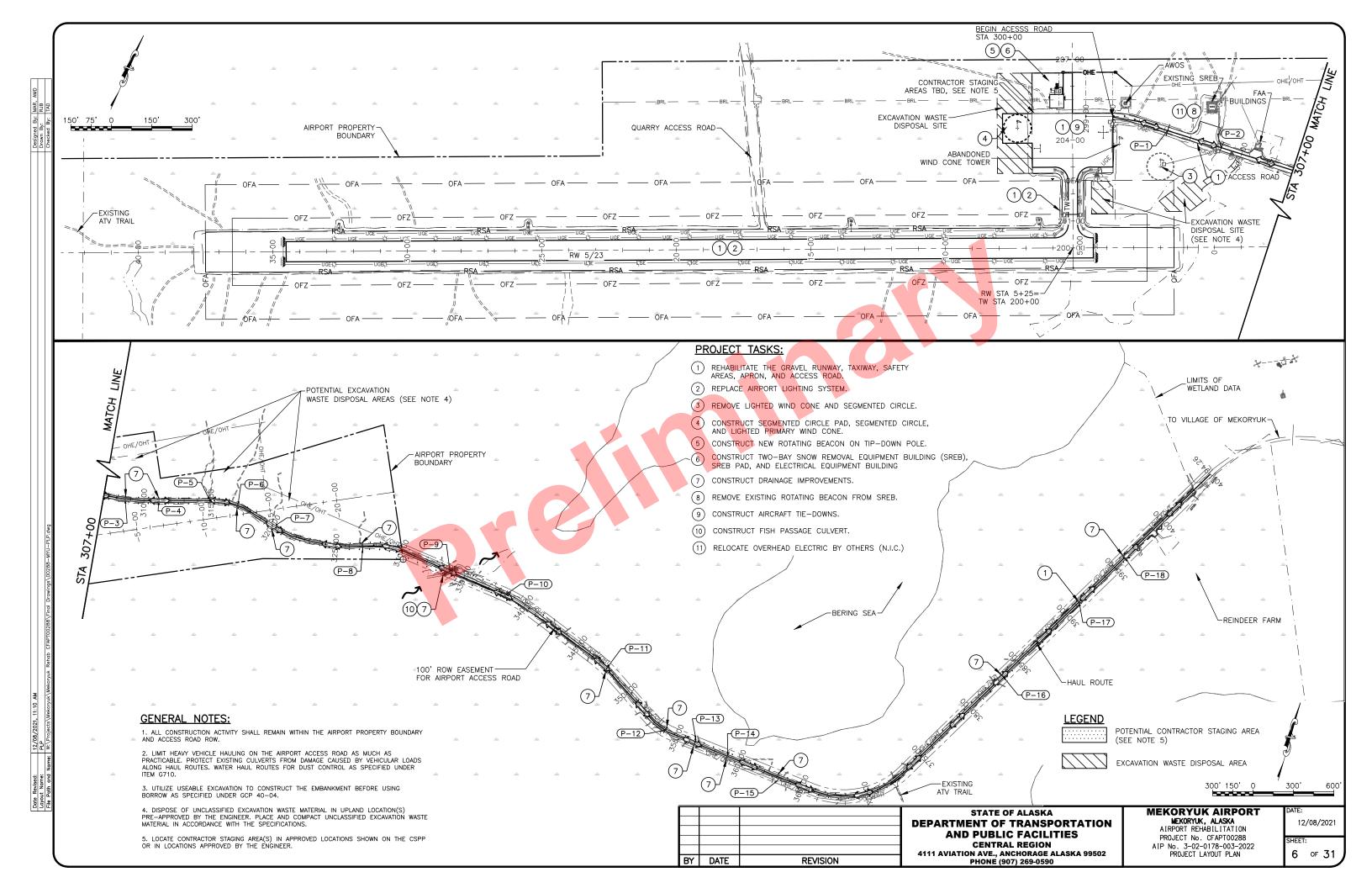
ESTIMATING FACTORS

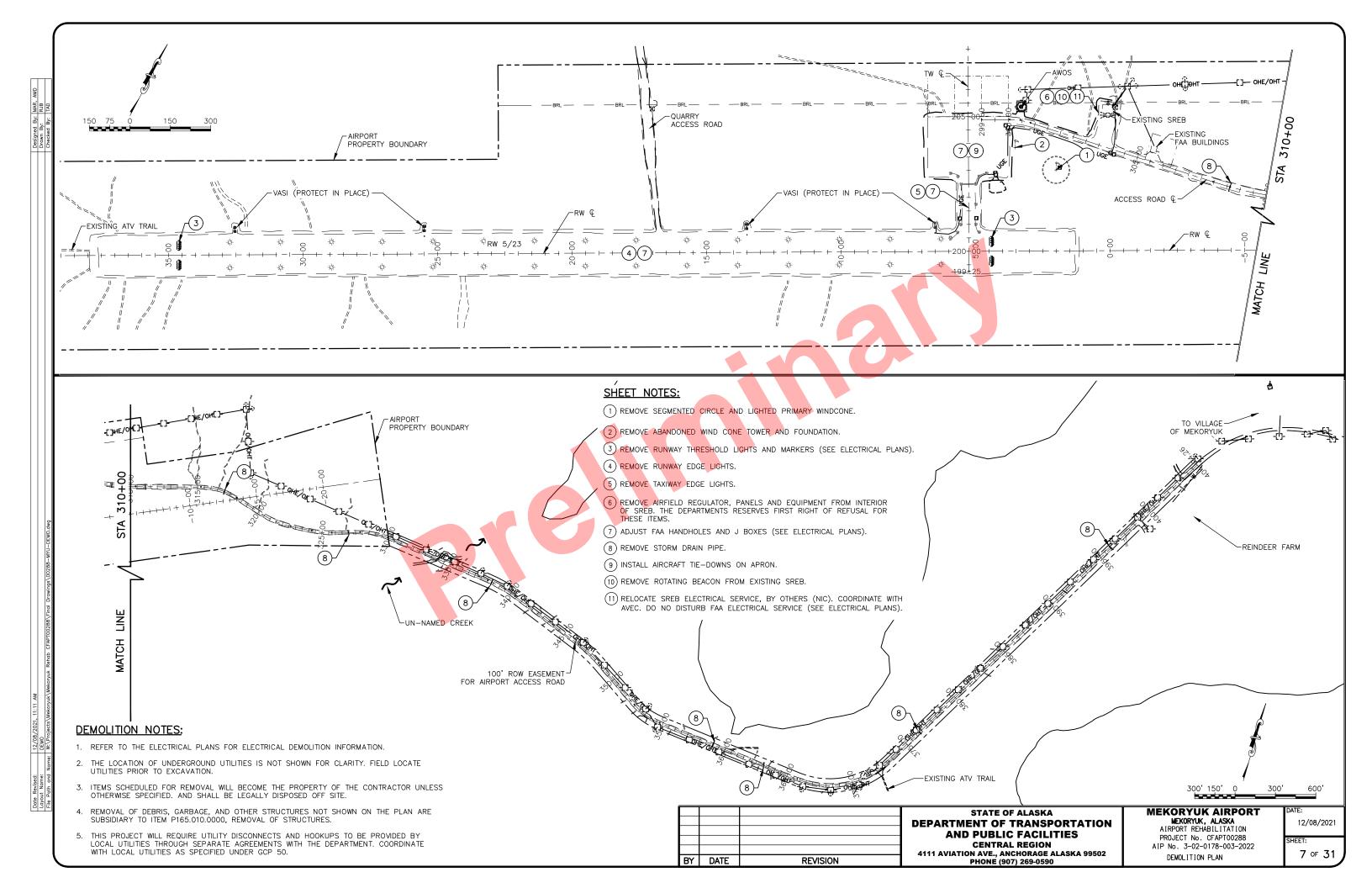
| No. | ITEM | FACTOR |
|---------------|----------------------------------|-------------|
| P152.200.0000 | BORROW | 1.80 TON/CY |
| P180.040.0000 | RIPRAP, CLASS II | 1.46 TON/CY |
| P299.020.0000 | CRUSHED AGGREGATE SURFACE COURSE | 2.00 TON/CY |
| T901.020.0000 | SEEDING | 86 LB/ACRE |
| | | |

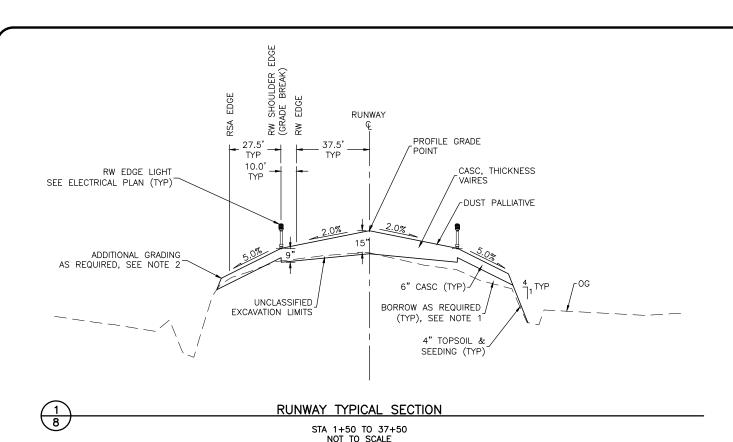
| STATE OF ALASKA | | | |
|--|----------|------|----|
| DEPARTMENT OF TRANSPORTATION | | | |
| AND PUBLIC FACILITIES | | | |
| CENTRAL REGION | | | |
| 4111 AVIATION AVE., ANCHORAGE ALASKA 99502 | | | |
| PHONE (907) 269-0590 | REVISION | DATE | BY |
| | | | |

MEKORYUK AIRPORT MEKORYUK, ALASKA AIRPORT REHABILITATION PROJECT No. CFAPT00288 AIP No. 3-02-0178-003-2022 ESTIMATED QUANTITIES

12/08/2021







ACCESS

ROAD €

∕12" CASC

TABLE)

ACCESS ROAD SLOPE TABLE **BEGIN STA** END STA FILL SLOPE 300+00.00 333+00.00 3:1 PROFILE GRADE 333+00.00 333+25.00 TRANSITION 333+25.00 334+50.00 2:1 334+50.00 334+75.00 TRANSITION -DUST PALLIATIVE 334+75.00 398+60.00 3:1

GEOTEXTILE FABRIC TABLE (STABILIZATION) END STA LAYERS BEGIN STA 324+00 327+75 327+75 329+25 4" TOPSOIL & 329+25 336+50 3 SEEDING (TYP) 336+50 338+00 338+00 341+00

NOTE: THE TOP LAYER OF FABRIC SHALL BE LOCATED

IMMEDIATELY BELOW CASC LAYER. SUBSEQUENT UNDERLYING BORROW AS REQUIRED LAYERS OF FABRIC SHALL BE INSTALLED AT 2' VERTICAL INCREMENTS BELOW THE PREVIOUS LAYER OF FABRIC. TYP), SEE NOTE 1

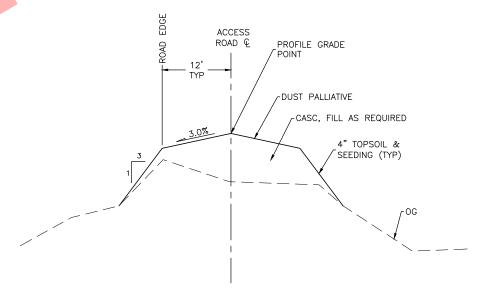
ACCESS ROAD TYPICAL SECTION $\binom{3}{8}$ STA 300+00 TO 398+60 NOT TO SCALE

UNCLASSIFIED

EXCAVATION LIMITS

EDGE SHOI RUNWAY TSA ₹(6R. ≥ PROFILE GRADE 12.0' TYP TYP TW EDGE LIGHT 10.0' SEE ELECTRICAL PLAN (TYP) CASC, THICKNESS VAIRES TYP ADDITIONAL GRADING -DUST PALLIATIVE AS REQUIRED, SEE NOTE 27 6" CASC (TYP)-BÖRROW AS REQUIRED (TYP), SEE NOTE 1 UNCLASSIFIED EXCAVATION LIMITS 4" TOPSOIL & SEEDING (TYP)

TAXIWAY TYPICAL SECTION STA 200+50 - 202+50 NOT TO SCALE



(4 8 ACCESS ROAD TYPICAL SECTION STA 398+60 TO 403+25 NOT TO SCALE

SECTION NOTES:

BEFORE USING BORROW, UTILIZE USEABLE EXCAVATION AS REQUIRED PER

GEOTEXTILE FABRIC FOR

FOR LOCATIONS

(SEE NOTE 4)

STABILIZATION, SEE TABLE -

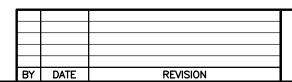
AND SEED DISTURBED AREAS

(SEE NOTE 4)

ADDITIONAL GRADING AS REQUIRED FOR DRAINAGE, 4" TOPSOIL

TOE OF EXISTING EMBANKMENT

- 2. FOR CUT CONDITION AT THE EDGE OF THE SAFETY AREA, OR APRON EDGE, EXTEND THE CASC SECTION AS REQUIRED TO DAYLIGHT EXISTING GROUND.
- 3. AFTER EXCAVATION TO PLAN DEPTH, COMPACT THE BOTTOM OF EXCAVATION AS REQUIRED BY ITEM P-152. IF UNSTABLE MATERIALS ARE FOUND, NOTIFY THE ENGINEER IMMEDIATELY.
- 4. FOR CUT CONDITION AT EDGE OF ROAD, EXTEND EXCAVATION AT 3% CROSS SLOPE TO DAYLIGHT. FOR CUT CONDITIONS THAT DO NOT DAYLIGHT WITHIN THE TOE OF EXISTING EMBANKMENT, PLACE ADDITIONAL CASC FILL AS REQUIRED AND GRADE TO PROVIDE DRAINAGE.



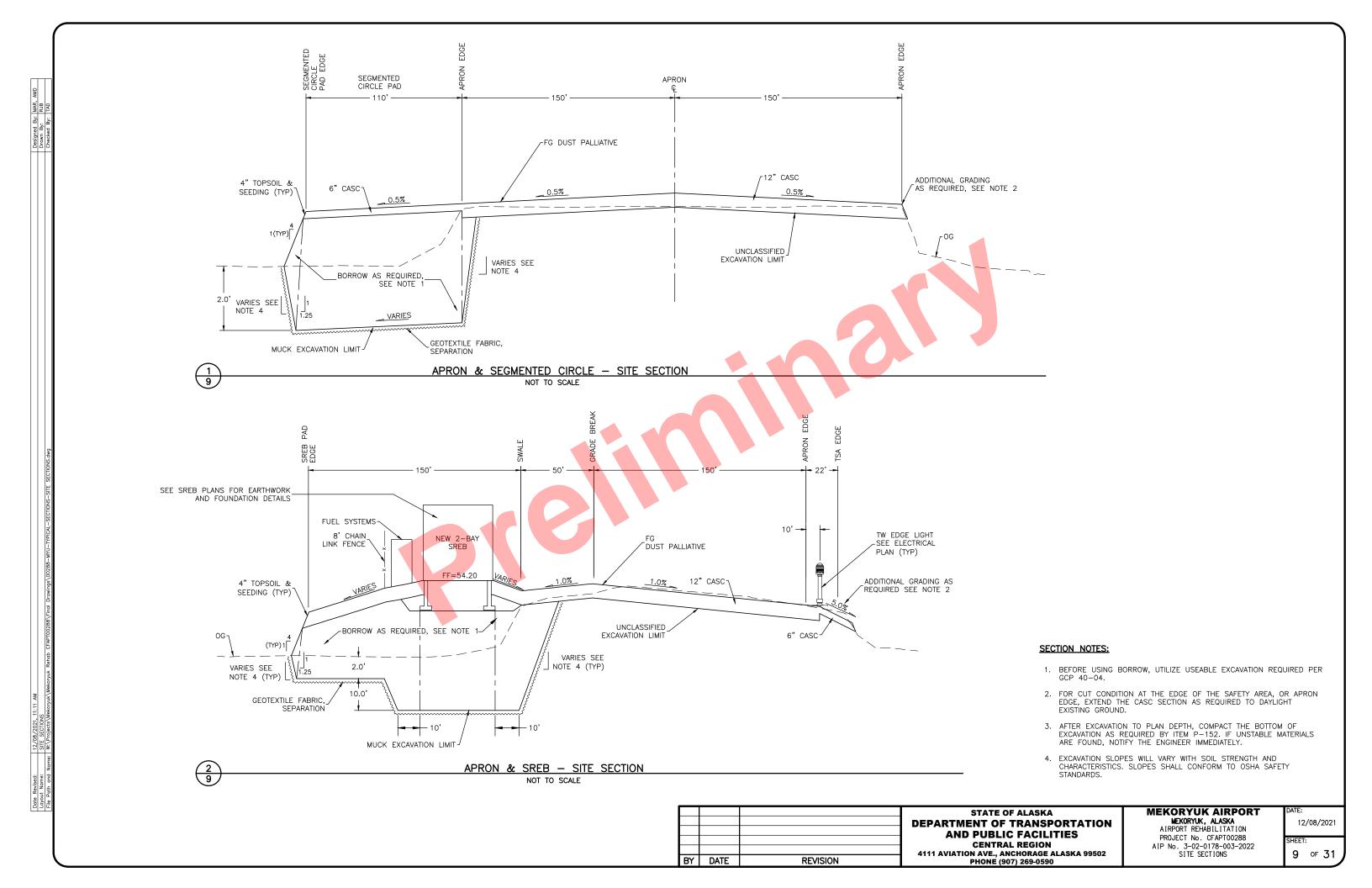
STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION** AND PUBLIC FACILITIES

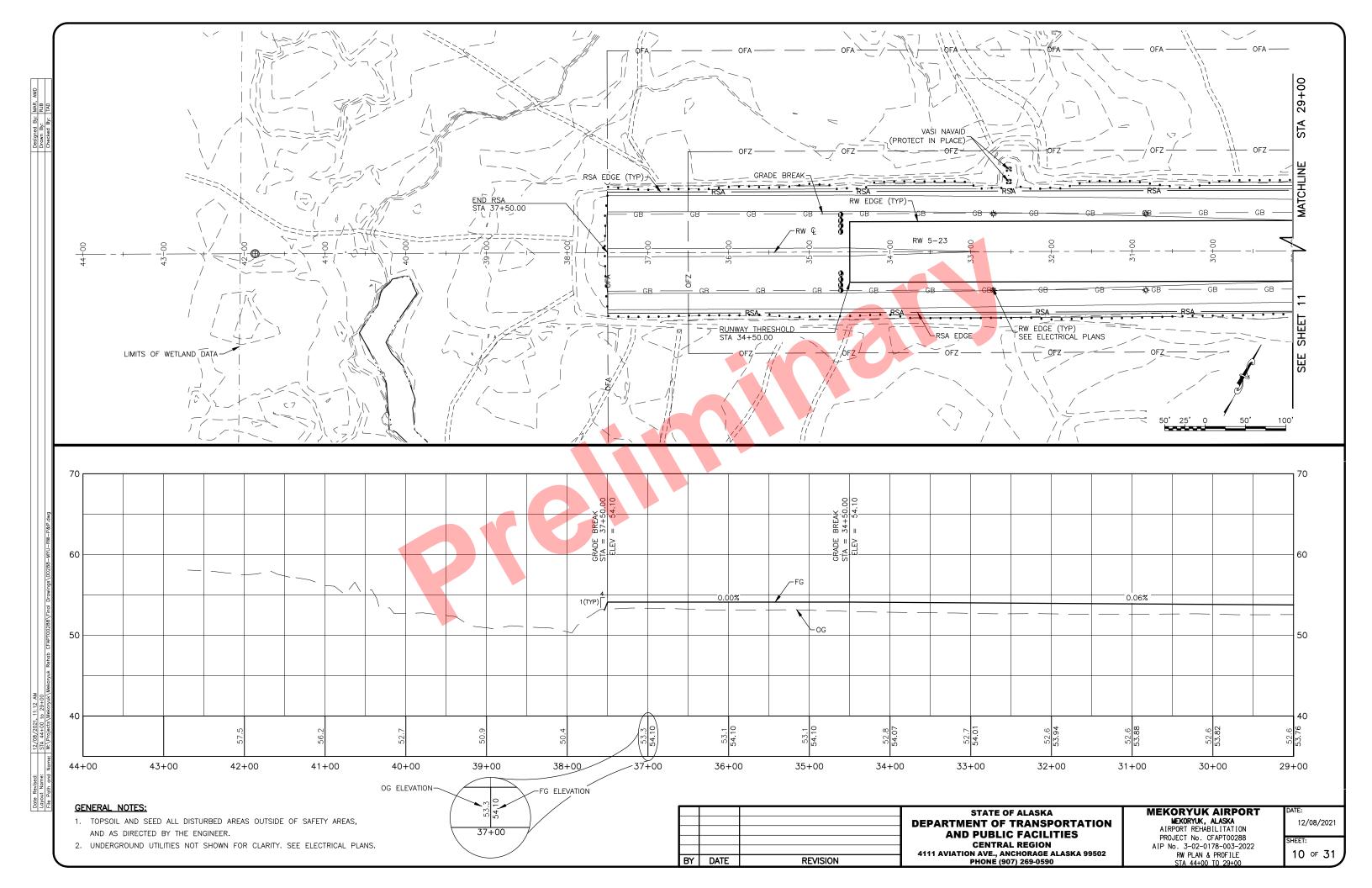
CENTRAL REGION 4111 AVIATION AVE., ANCHORAGE ALASKA 99502 PHONE (907) 269-0590

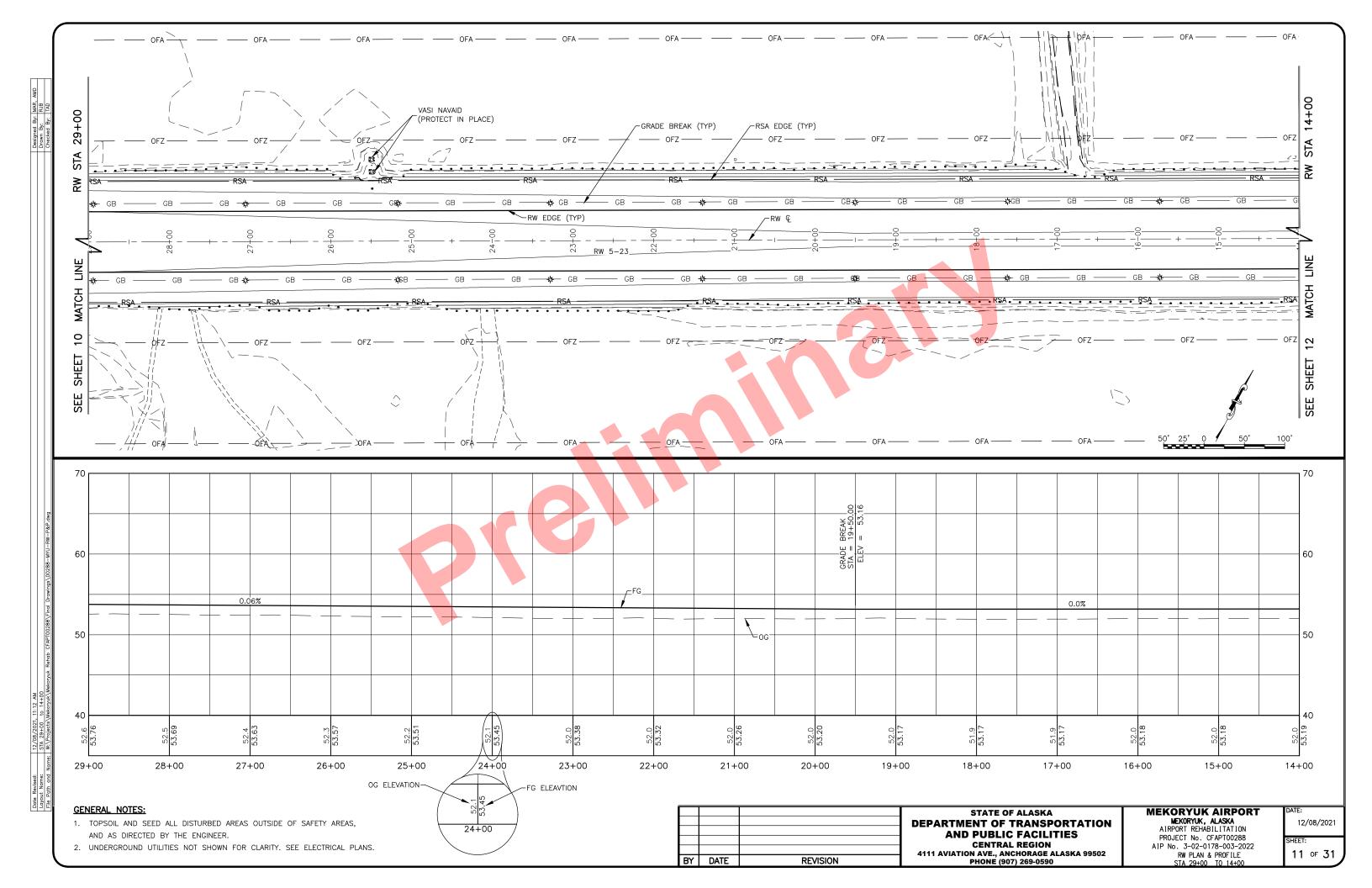
MEKORYUK AIRPORT MEKORYUK, ALASKA AIRPORT REHABILITATION PROJECT No. CFAPT00288 AIP No. 3-02-0178-003-2022

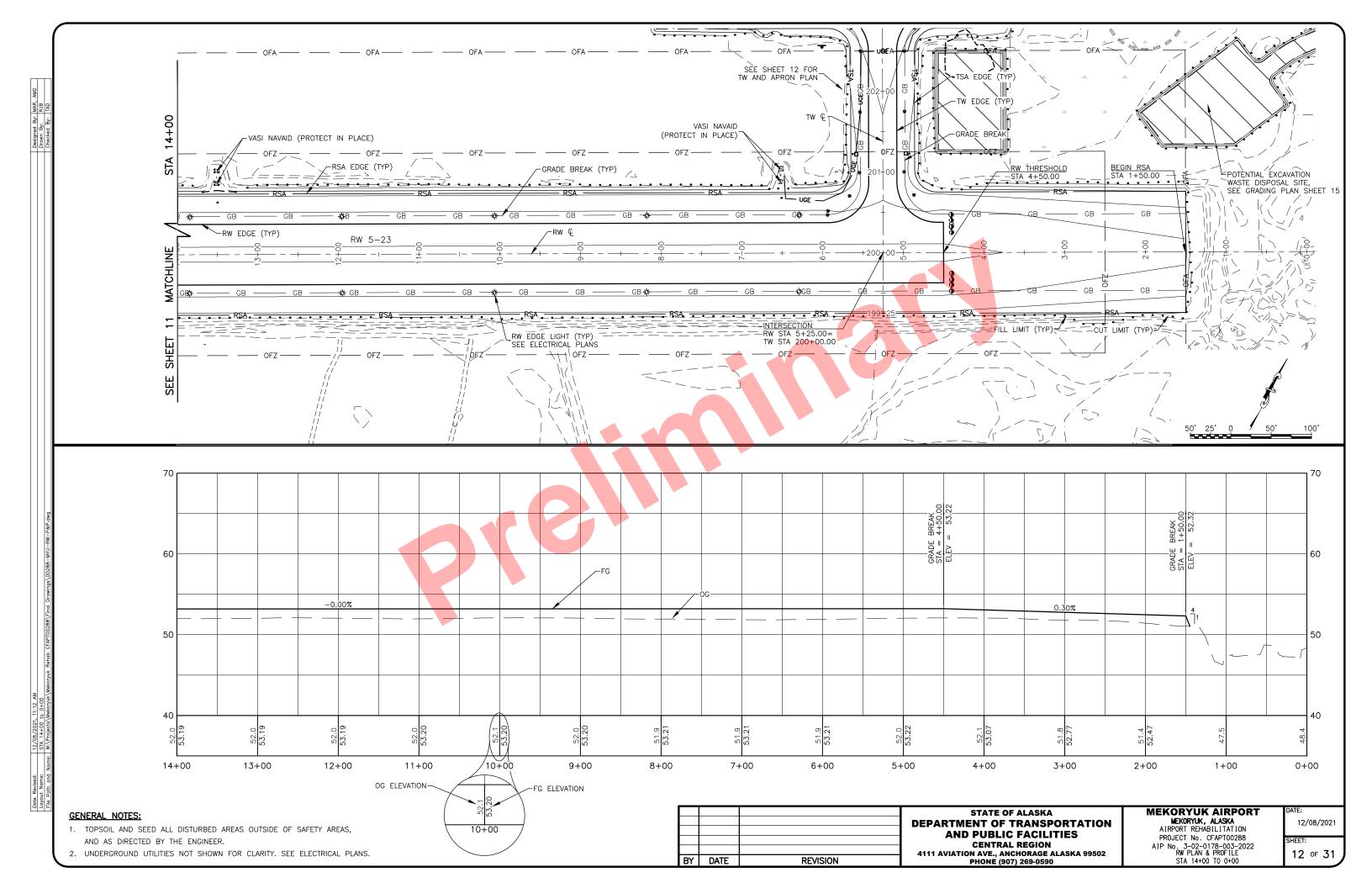
TYPICAL SECTIONS

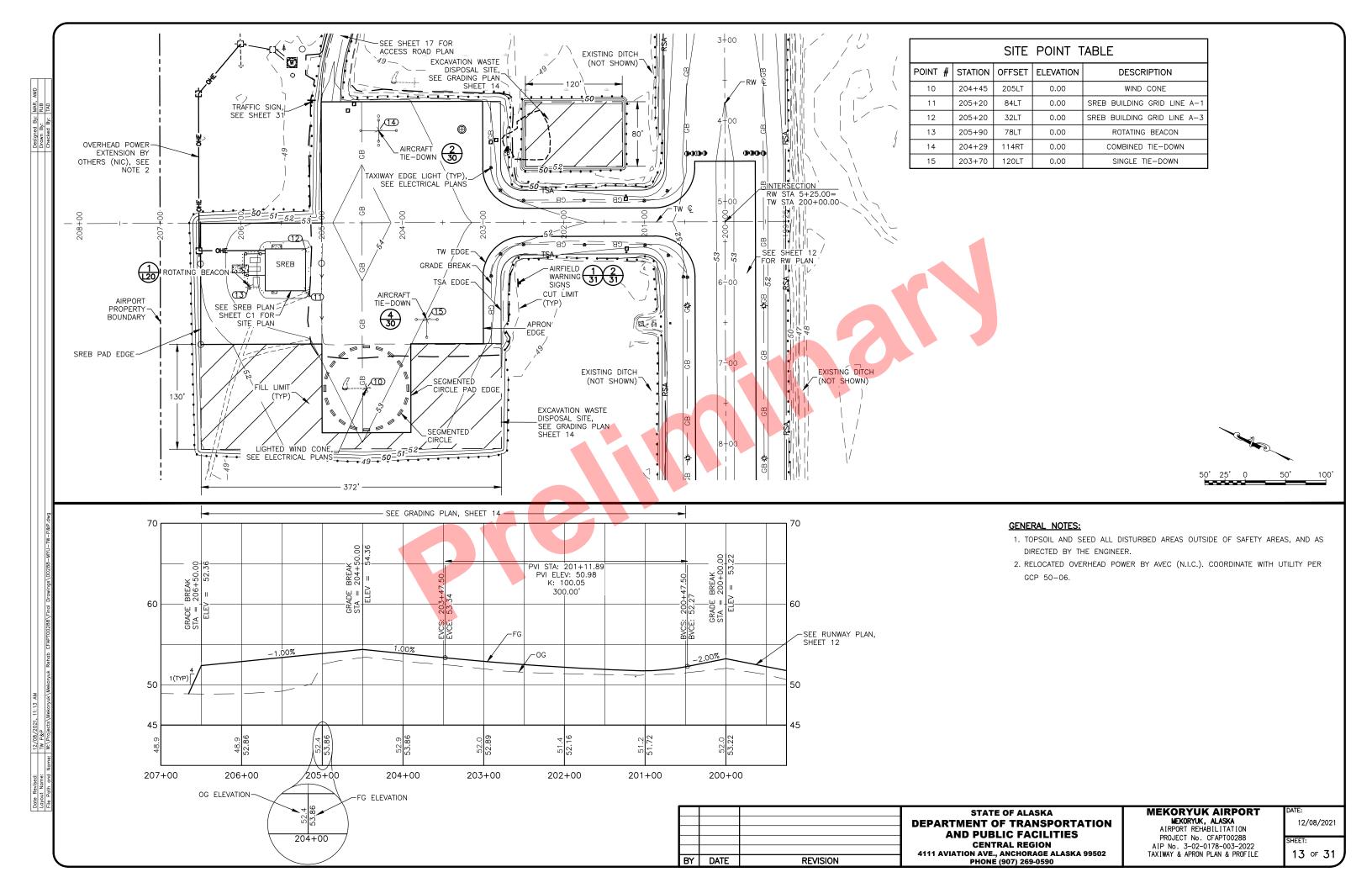
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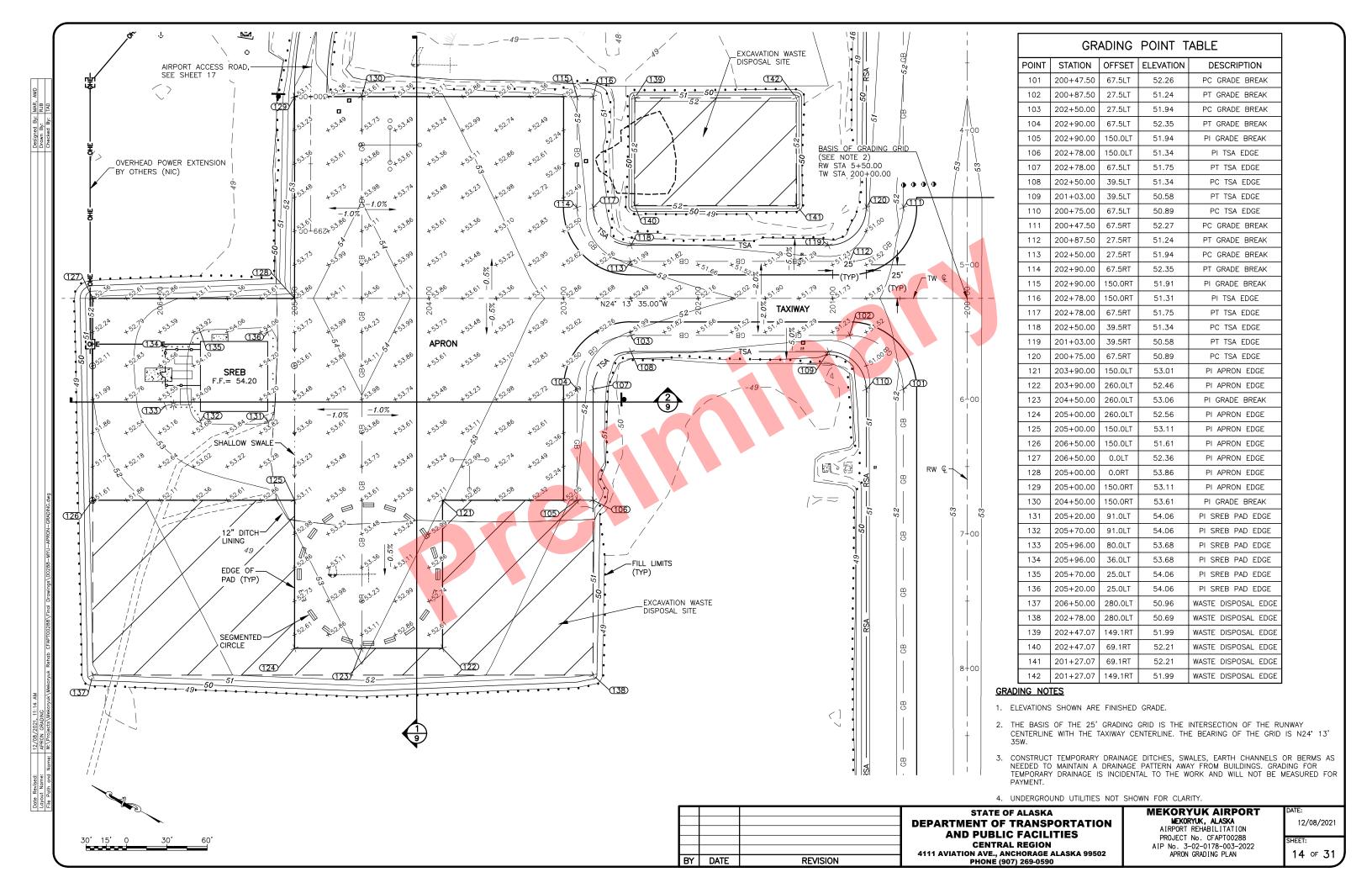


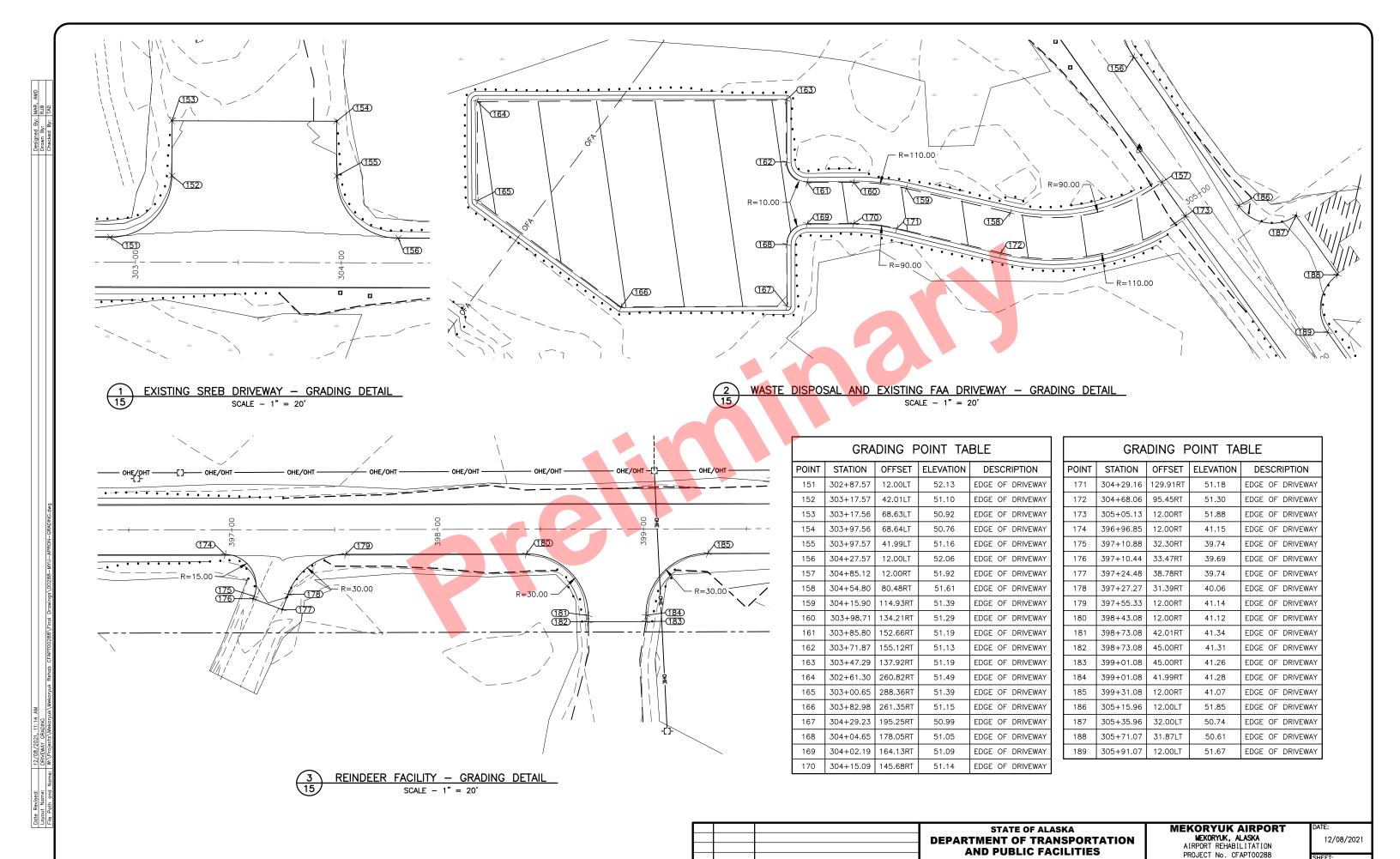












BY DATE

REVISION

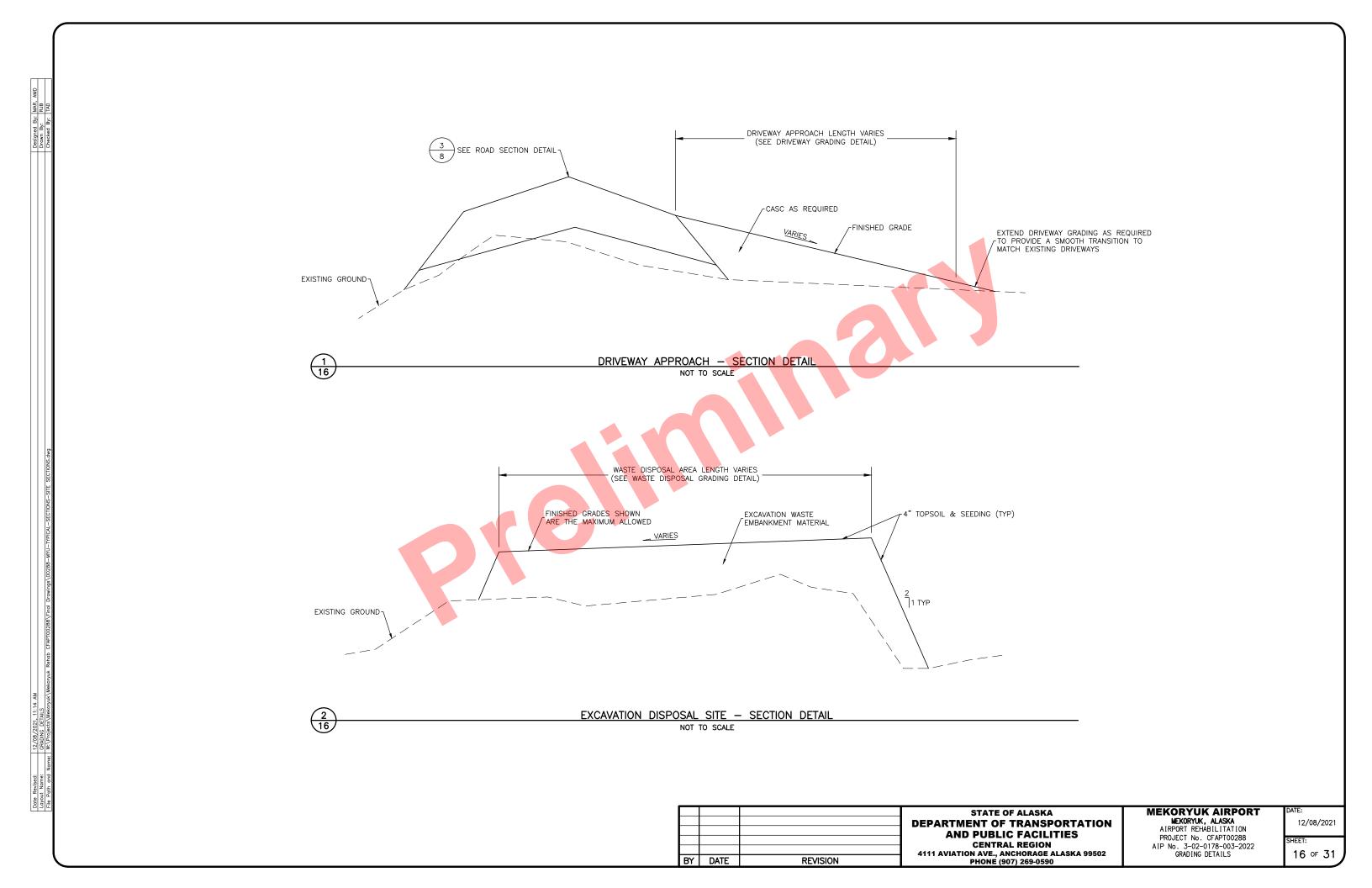
CENTRAL REGION

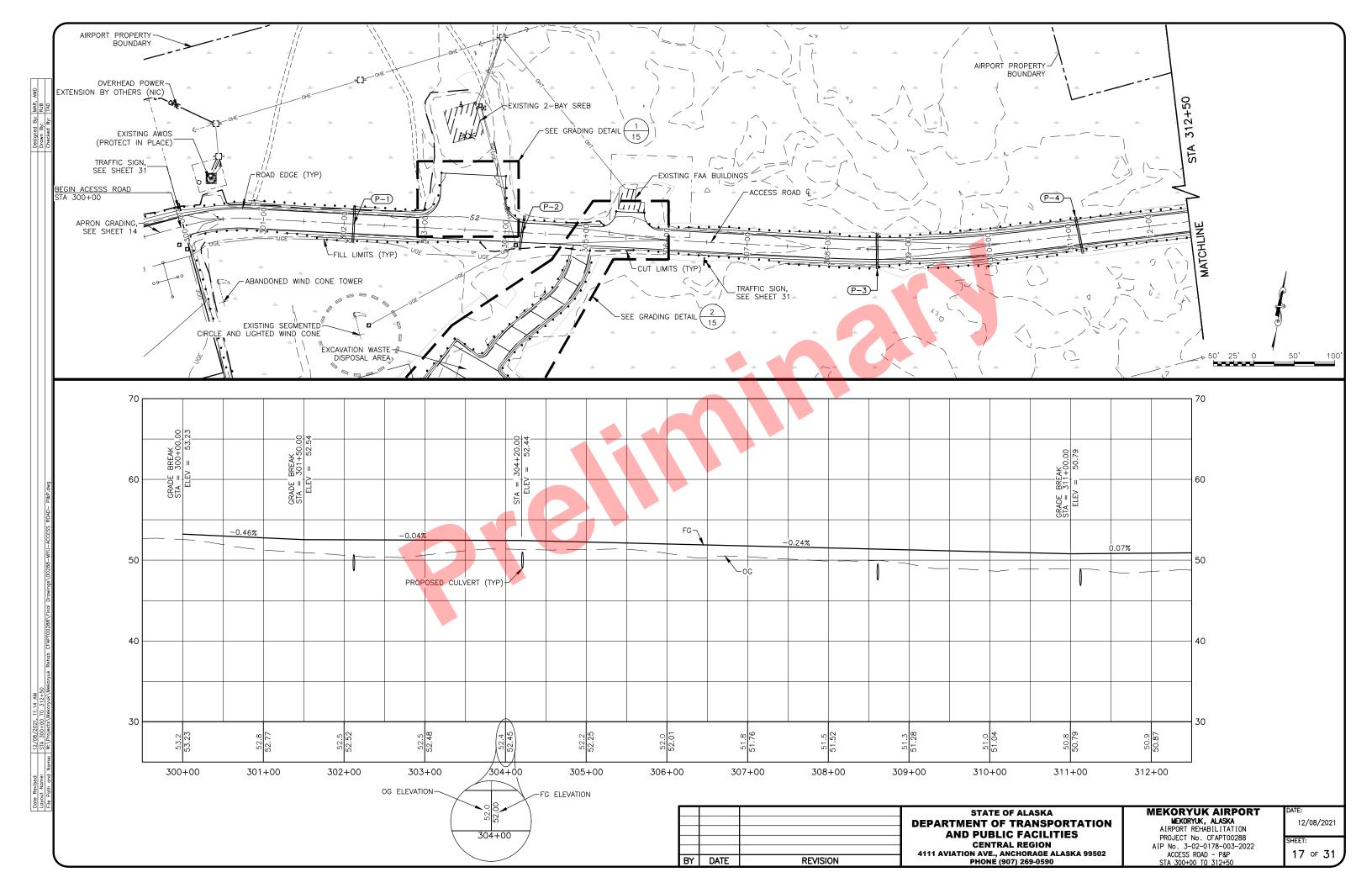
4111 AVIATION AVE., ANCHORAGE ALASKA 99502

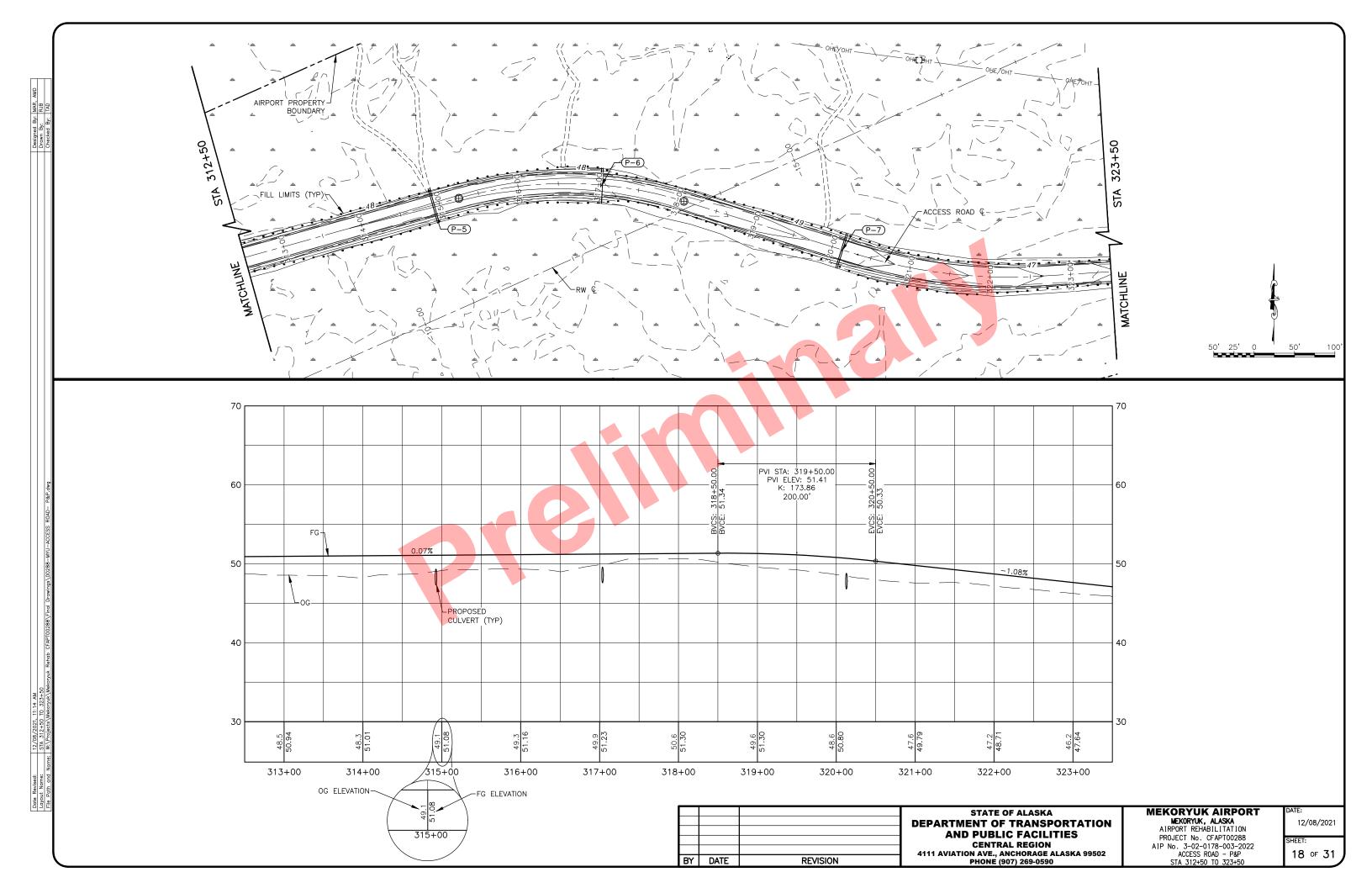
PHONE (907) 269-0590

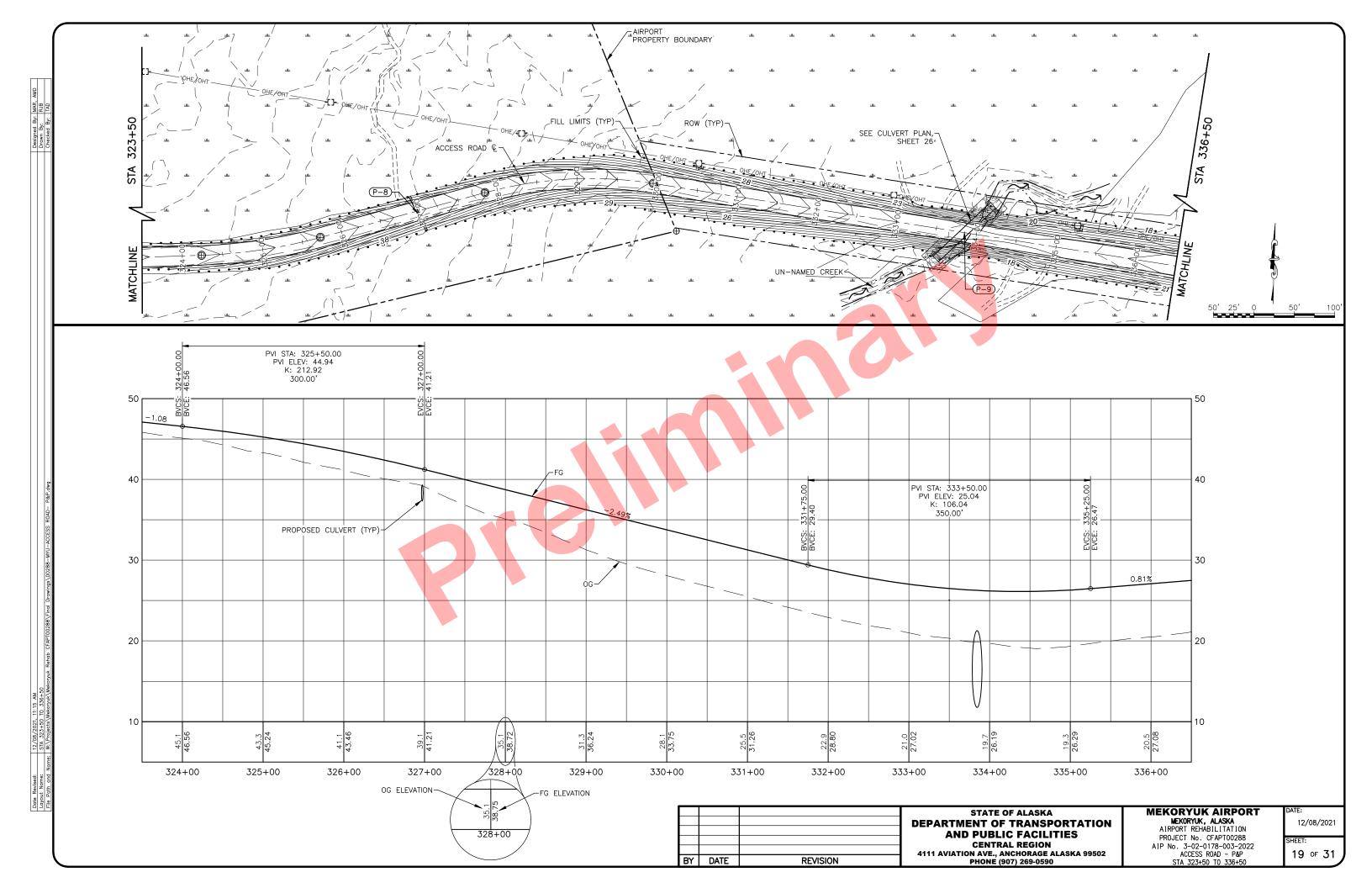
AIP No. 3-02-0178-003-2022

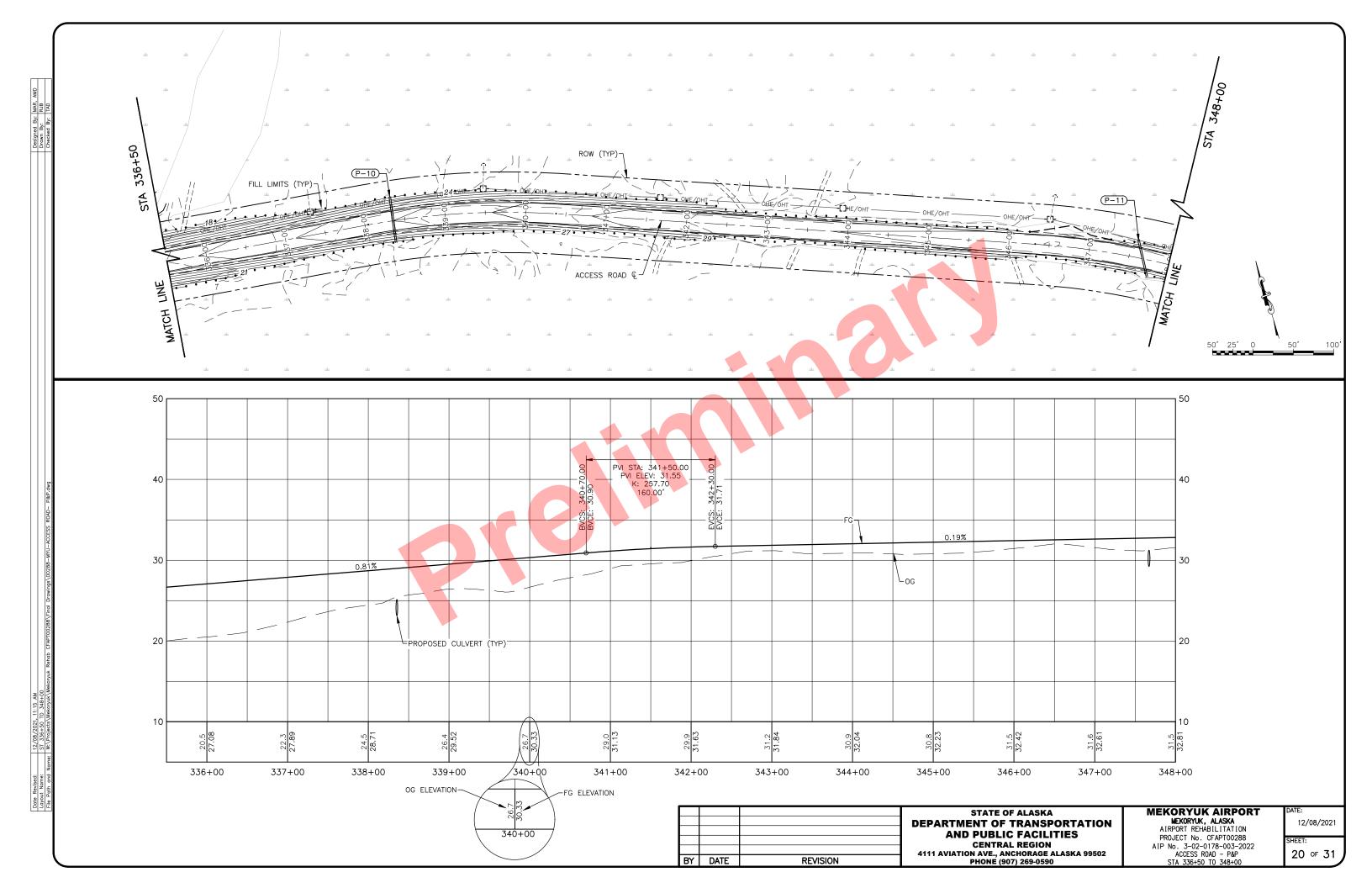
DRIVEWAY GRADING

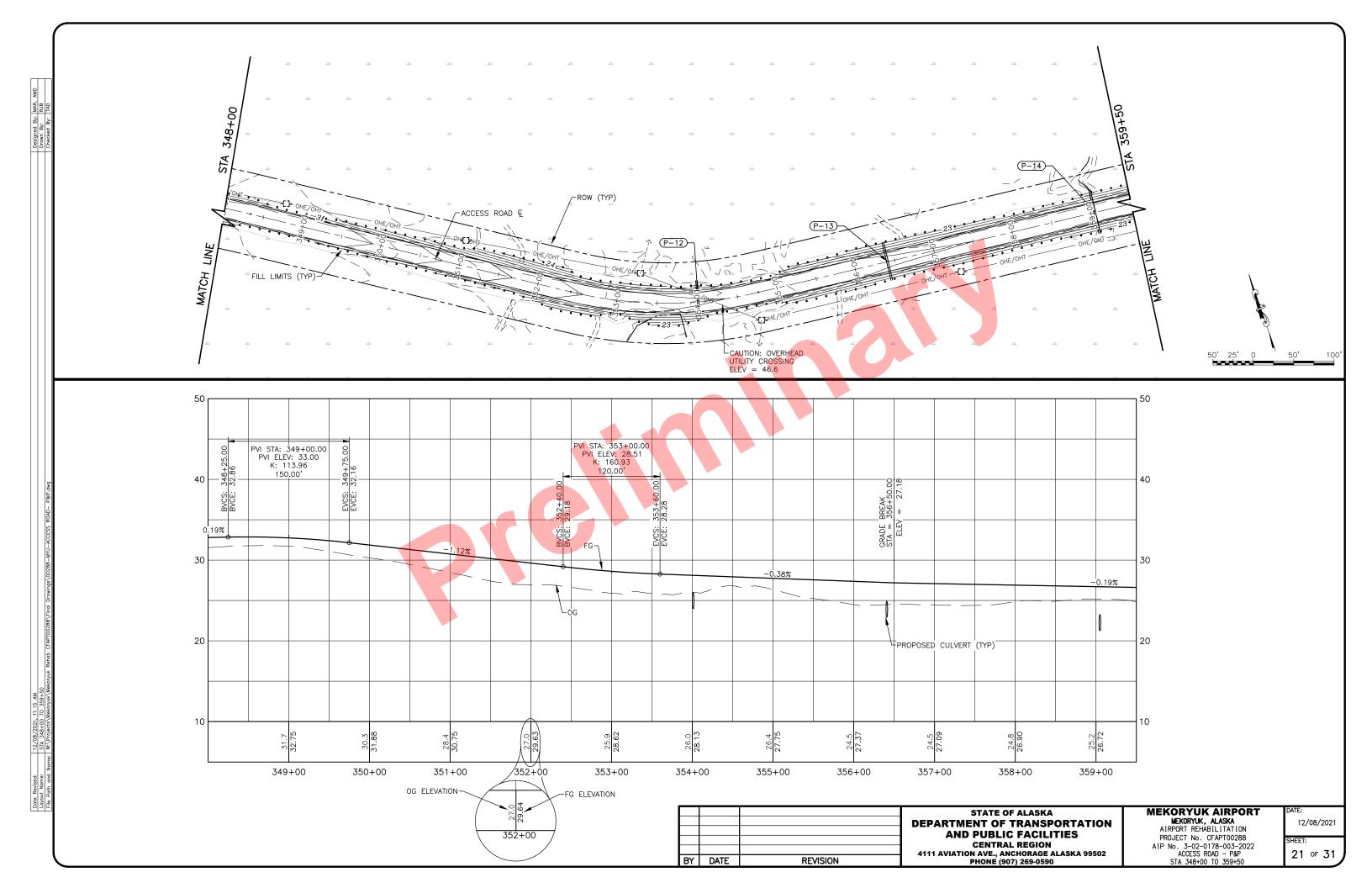


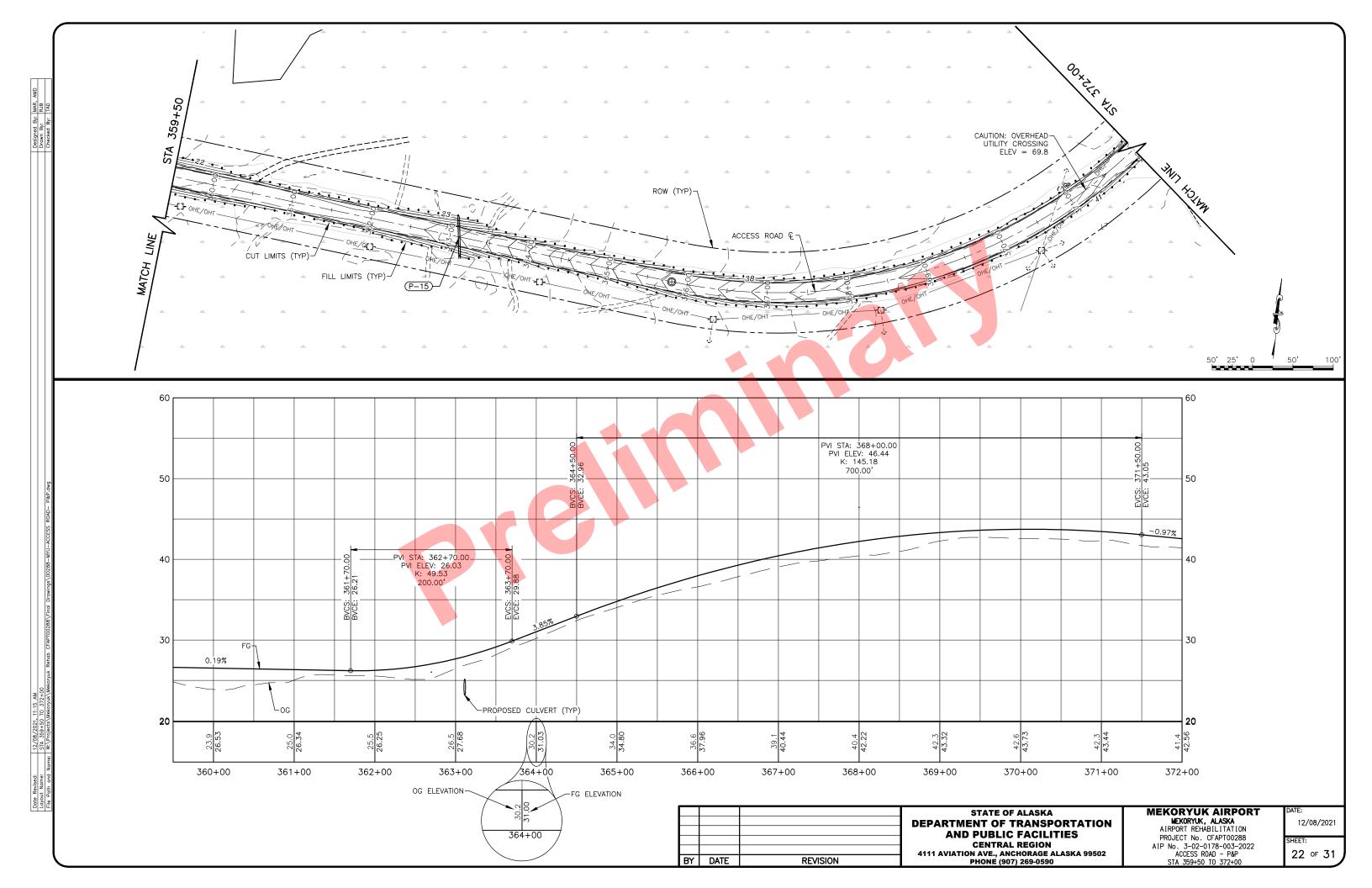


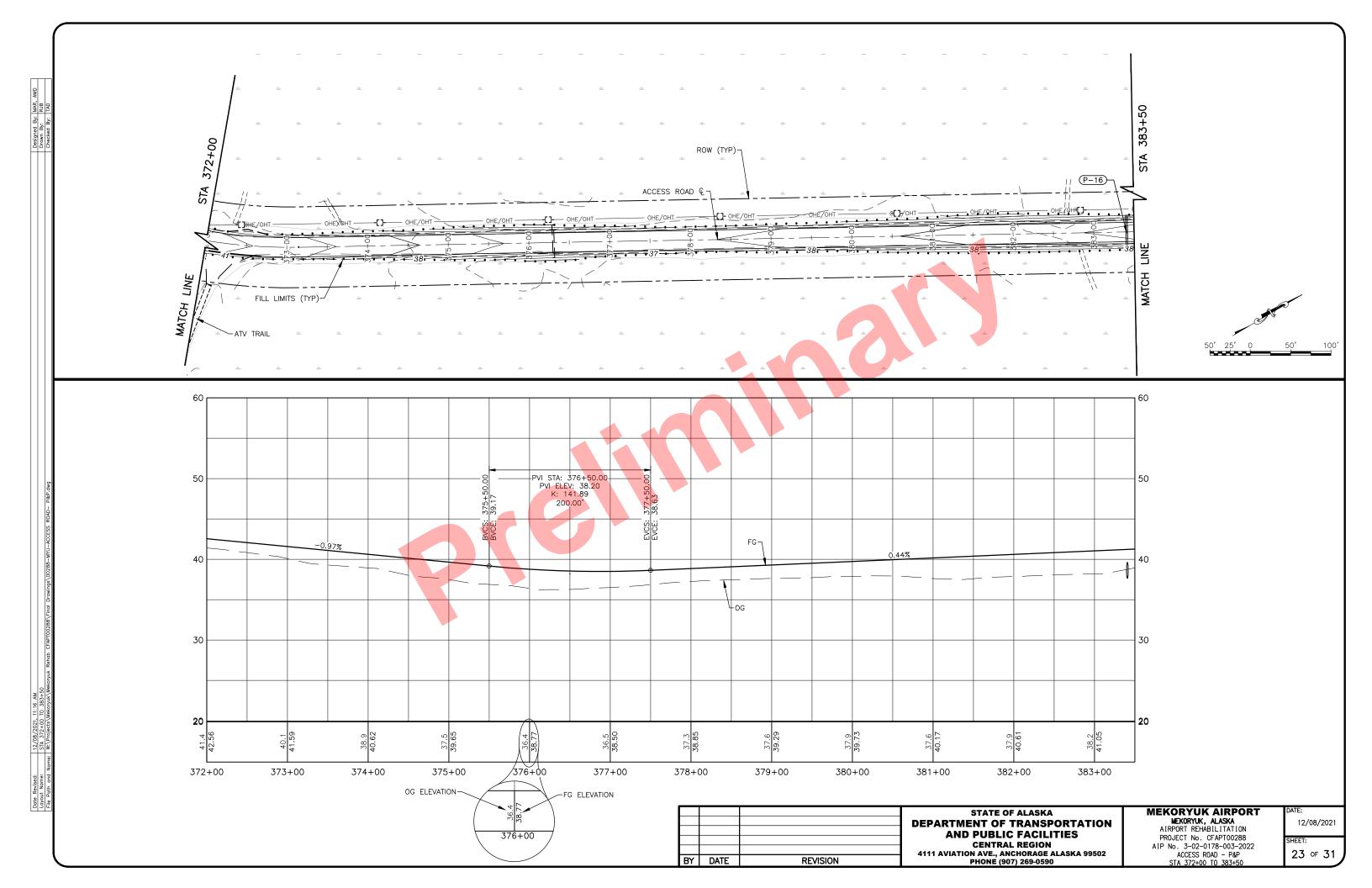


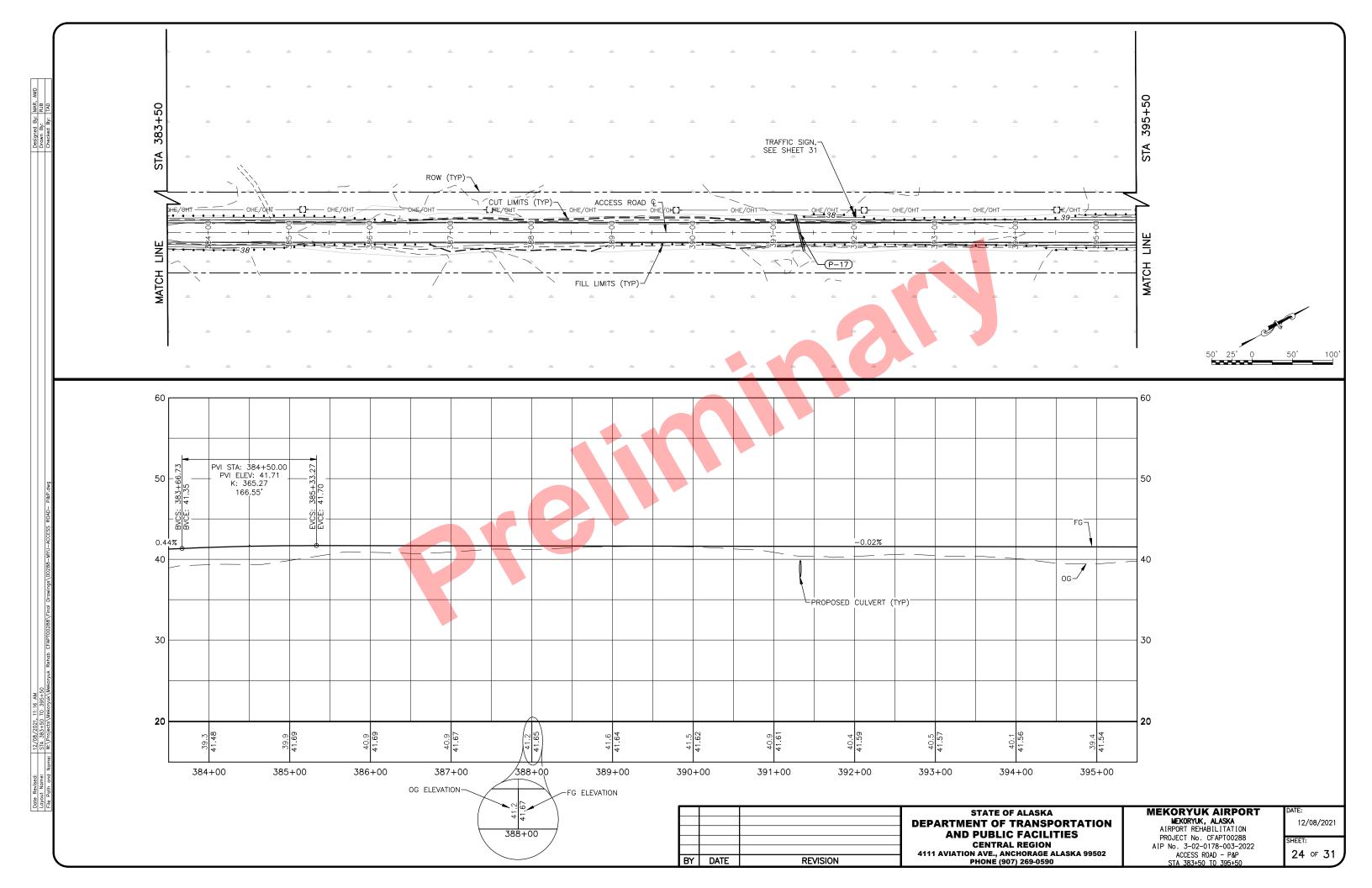


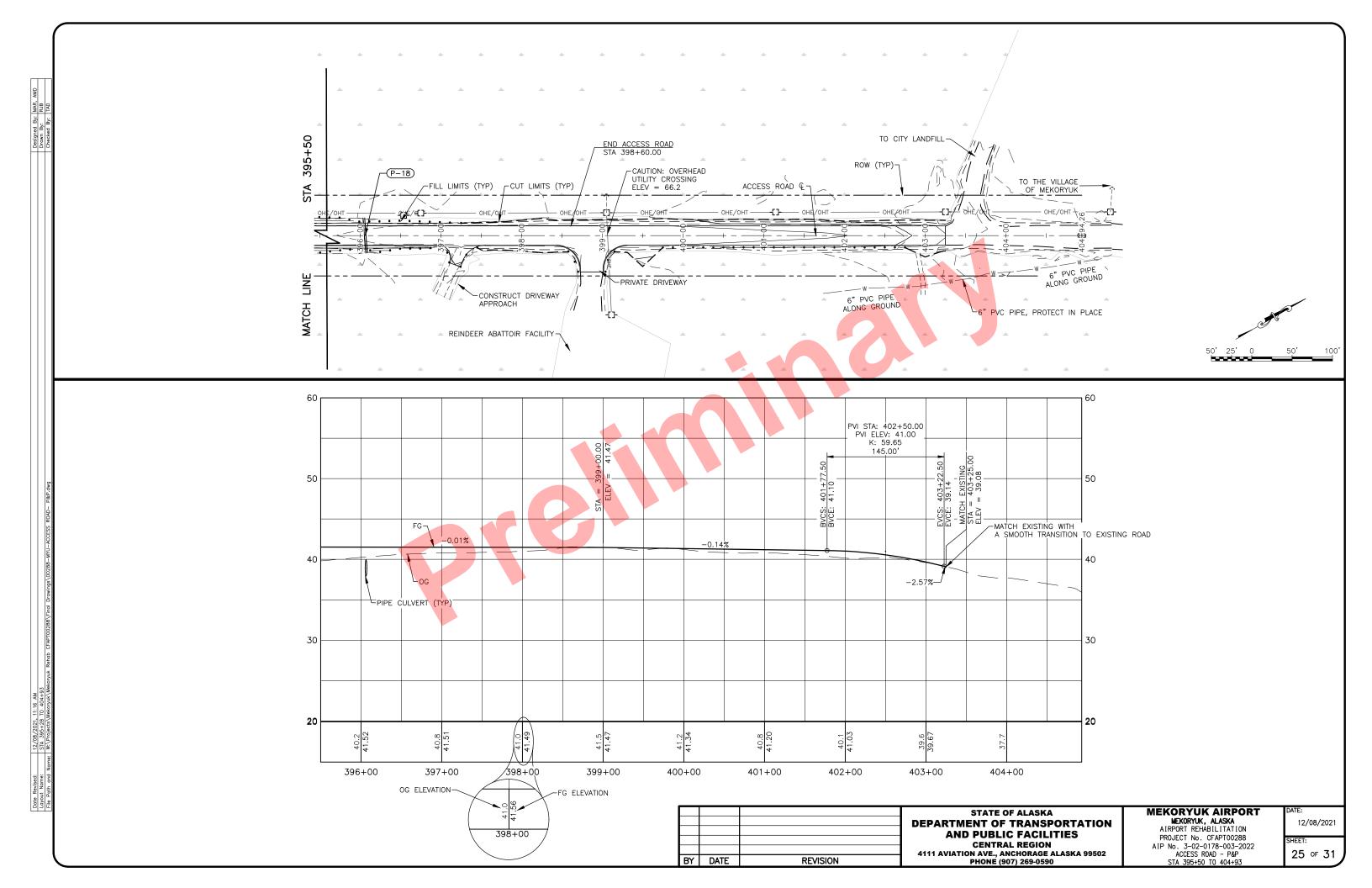


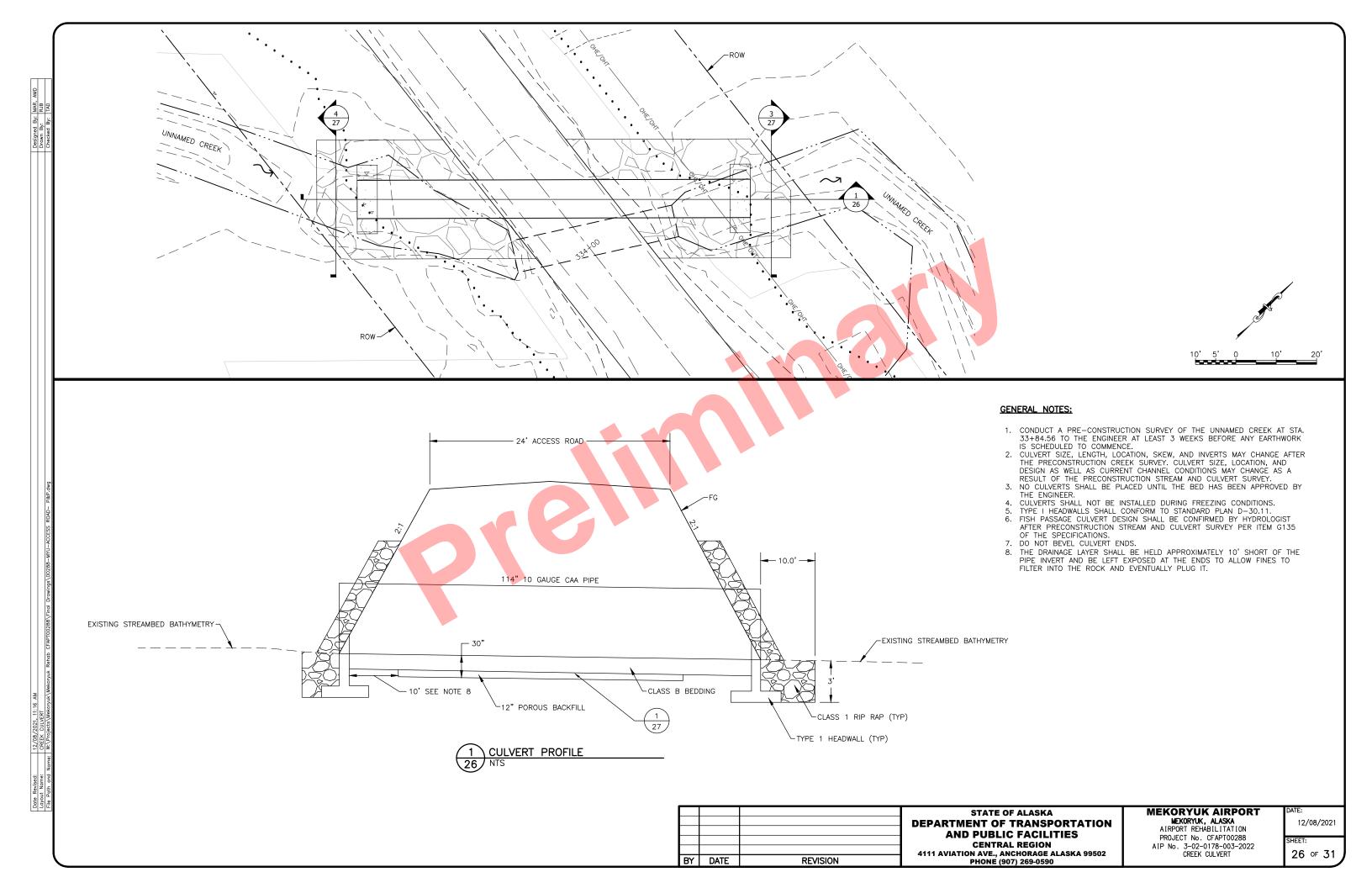


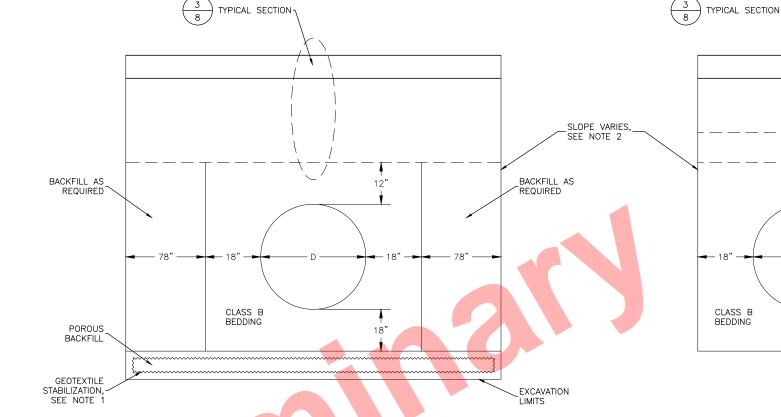


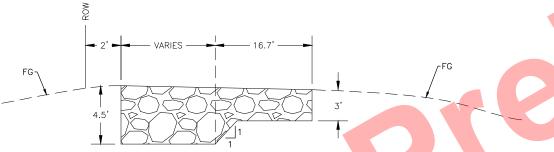












ELEV.

48.66

48.88

47.96

46.55

47.06

47.33

46.47

35.93

12.19

23.58

28.99

23.50

22.59

21.70

23.30

37.83

38.00

GENERAL NOTES:

FISH PASSAGE CULVERT DETAIL

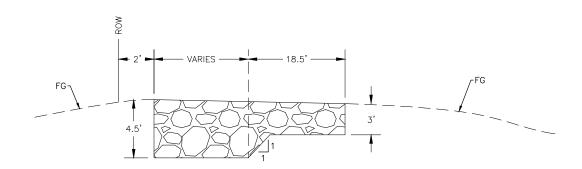
NOT TO SCALE

BY

- 1. NO GEOTEXTILE SHALL BE PLACED AT THE INLET END OF CULVERTS
- TO ALLOW THE DRAINAGE LAYER TO PLUG WITH SILT.

 2. EXCAVATION SLOPES WILL VARY WITH SOIL STRENGTH AND CHARACTERISTICS. SLOPES SHALL CONFORM TO OSHA SAFETY
- AFTER EXCAVATION TO PLAN DEPTH, COMPACT THE BOTTOM OF EXCAVATION AS REQUIRED BY ITEM P152. IF UNSTABLE MATERIALS ARE FOUND, NOTIFY THE ENGINEER IMMEDIATELY. BEFORE USING BORROW, UTILIZE USEABLE EXCAVATION REQUIRED PER GCP 40-04.

RIP RAP OUTLET SECTION VIEW NOT TO SCALE



RIP RAP INLET SECTION VIEW NOT TO SCALE

HYDROLOGIC AND HYDRAULIC SUMMARY

 $\frac{2}{27}$

| | CULVERT P-9 - 114" | | |
|---|-------------------------|-------------------------|------------------|
| DRAINAGE AREA = 1.7 SQUARE MILES | | | |
| EXCEEDANCE PROBABILITY | UNKONWN * | UNKNOWN * | REGULATORY FLOOD |
| RETURN PERIOD | UNKNOWN * | UNKNOWN * | N/A |
| DESIGN DISCHARGE | 50 CFS | 58 CFS | N/A |
| DESIGN HIGH WATER ELEVATION | 11.9 FEET ABOVE CULVERT | 13.4 FEET ABOVE CULVERT | N/A |
| | INLET INVERT | INLET INVERT | |
| ANTICIPATED ADDITIONAL BACKWATER = 0.0 FEET | | | |

* THE EXCEEDANCE PROBABILITY AND RETURN PERIOD IN THE HYDROLOGIC AND HYDRAULIC SUMMARY ARE UNKNOWN BECAUSE THE DISCHARGES ARE BASED ON THE HIGHEST WATER SURFACE ELEVATION AT THIS SITE REPORTED BY LOCAL RESIDENTS. HIGH WATER EVENTS HERE ALWAYS OCCUR DURING SPRING BREAKUP AND STANDARD TECHNIQUES FOR CALCULATING DISCHARGES WITH DESIGNATED RETURN INTERVALS ARE NOT APPLICABLE FOR SPRING BREAKUP CONDITIONS. THE 58 CFS IS THE ESTIMATED DISCHARGE BECAUSE THIS IS THE ESTIMATED DISCHARGE DURING THE HIGHEST WATER SURFACE ELEVATION AT THIS SITE REPORTED BY LOCAL RESIDENTS.

| | | STATE OF ALASKA |
|------|----------|--|
| | | DEPARTMENT OF TRANSPORTATION |
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| | | CENTRAL REGION |
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| DATE | REVISION | PHONE (907) 269-0590 |

TATION

MEKORYUK AIRPORT MEKORYUK, ALASKA AIRPORT REHABILITATION PROJECT No. CFAPT00288 AIP No. 3-02-0178-003-2022 PIPE DETAILS

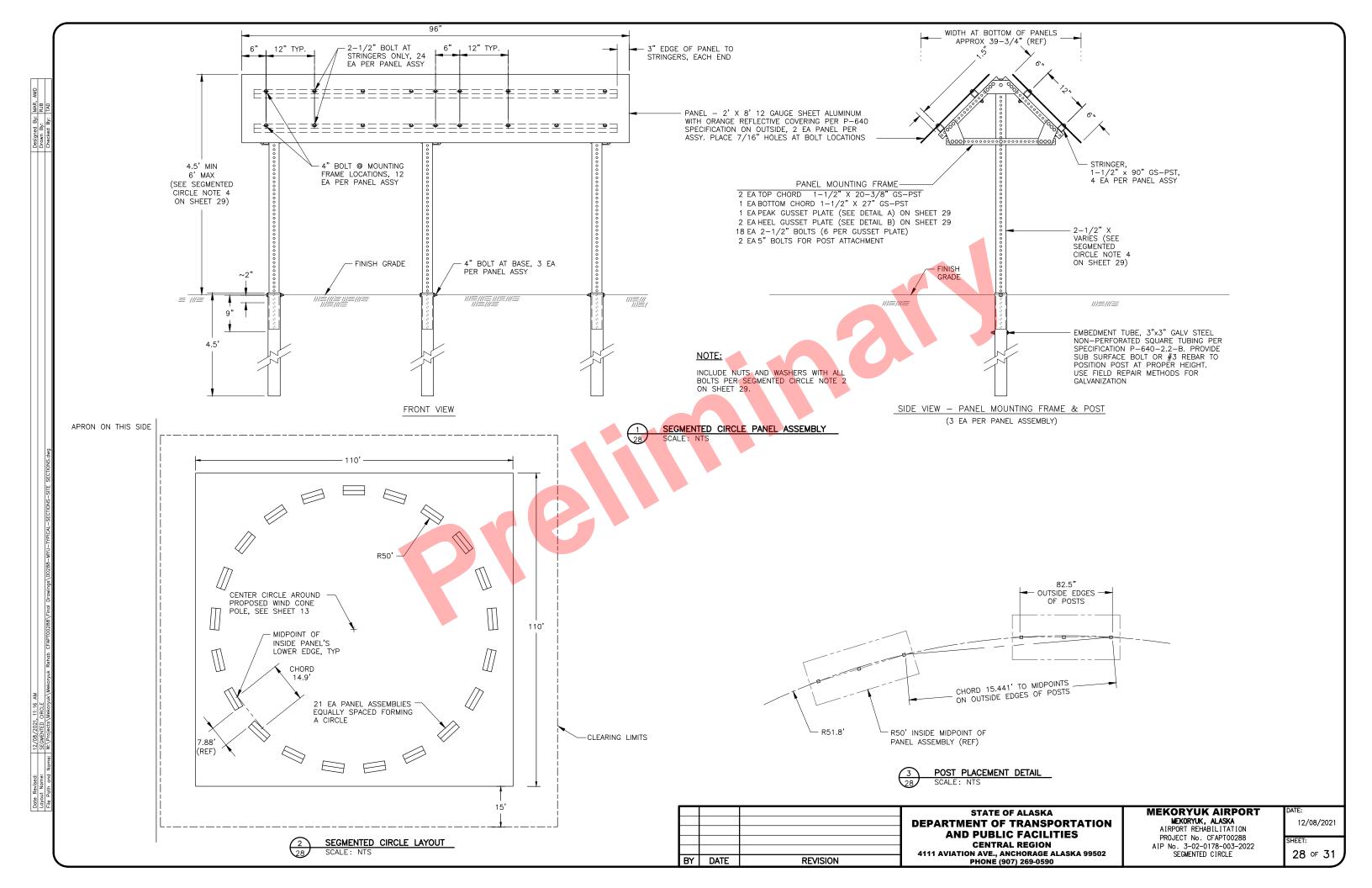
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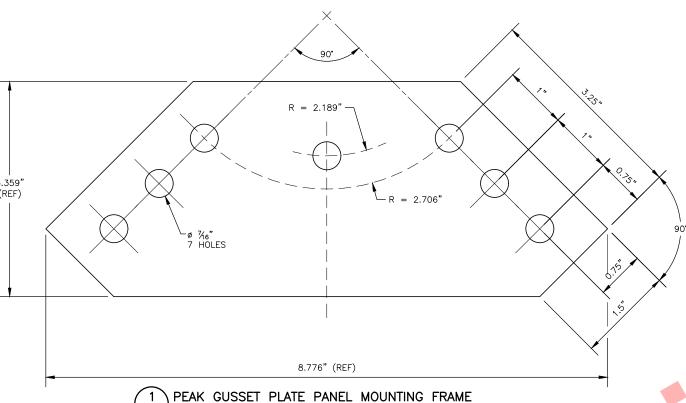
BACKFILL AS REQUIRED

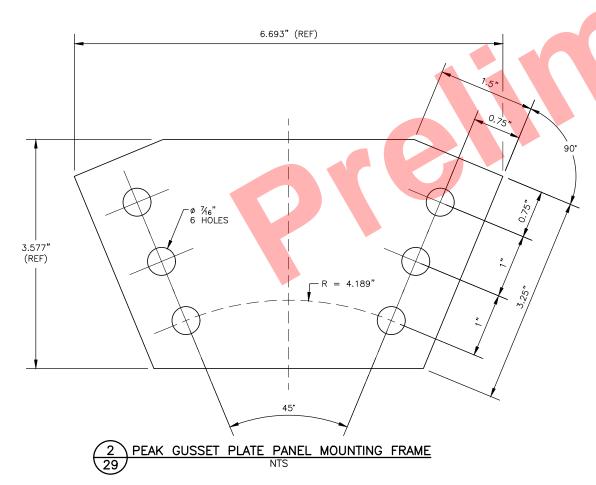
EXCAVATION LIMITS

CULVERT TRENCH DETAIL

NOT TO SCALE







SEGMENTED CIRCLE NOTES:

- 1. ALL STRUCTURAL MEMBERS OF PANEL ASSEMBLY ARE GS-PST (GALVANIZED SQUARE PERFORATED STEEL TUBING), SIZE AS INDICATED IN DRAWING, IN CONFORMANCE WITH SECTION P-640-22 b
- 2. ALL BOLTS, NUTS, AND WASHERS SHALL CONFORM TO FASTENER SPECIFICATION TABLE INCLUDED IN THIS PLAN SET. ALL BOLTS USED IN PANEL ASSEMBLY SHALL BE \(\frac{3}{2} \)" DIA. X LENGTH CALLED OUT IN PLANS, UNLESS OTHERWISE NOTED. FOR EACH BOLT INCLUDE 1 EA 3/8" NUT, AND 2 EACH 3/8" WASHERS (7/16" ID X 1" OD) ONE AT THE BOLT HEAD AND ONE AT THE NUT.
- 3. GUSSET PLATES SHALL CONFORM TO AIRPORT SPECIFICATION P-640-2.2 c(1) INCLUDED WITH THIS PLAN SET.
- 4. FINISH HEIGHT OF ALL INSTALLED PANEL ASSEMBLIES COMPRISING A SINGLE SEGMENTED CIRCLE SHALL BE UNIFORM WITH A MAXIMUM VARIANCE OF 6" THROUGHOUT CIRCLE LAYOUT, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- 5. PANEL ASSEMBLIES ARE TO BE REMOVABLE FROM EMBEDMENT TUBES FOR MAINTENANCE PURPOSES.
- 6. DIMENSIONS LABELED "(REF)" ARE FOR INFORMATIONAL PURPOSES ONLY.
- 7. INSTALLATION OF POSTS MAY REQUIRE MINOR TENCHING IF OCCASIONAL ROCK IS ENCOUNTERED IN THE PAD BORROW EMBANKMENT. BACKFILL EXCAVATED MATERIAL AND RESTORE LEVEL SURFACE. THIS WORK IS SUBSIDIARY TO THE RESPECTIVE P-640 PAY ITEM AT EACH LOCATION.

| FASTENER | SPECIFICATION | TABLE |
|---------------|-----------------------------------|-----------------|
| FASTENER TYPE | STEEL HOT DIPPED GALVANIZED | STAINLESS STEEL |
| BOLTS | ASTM A 307 | ASTM F 593 |
| NUTS | ASTM A 563 | ASTM F 594 |
| WASHERS | ASTM F 844 | ASTM A 480 |

STATE OF ALASKA
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AND PUBLIC FACILITIES
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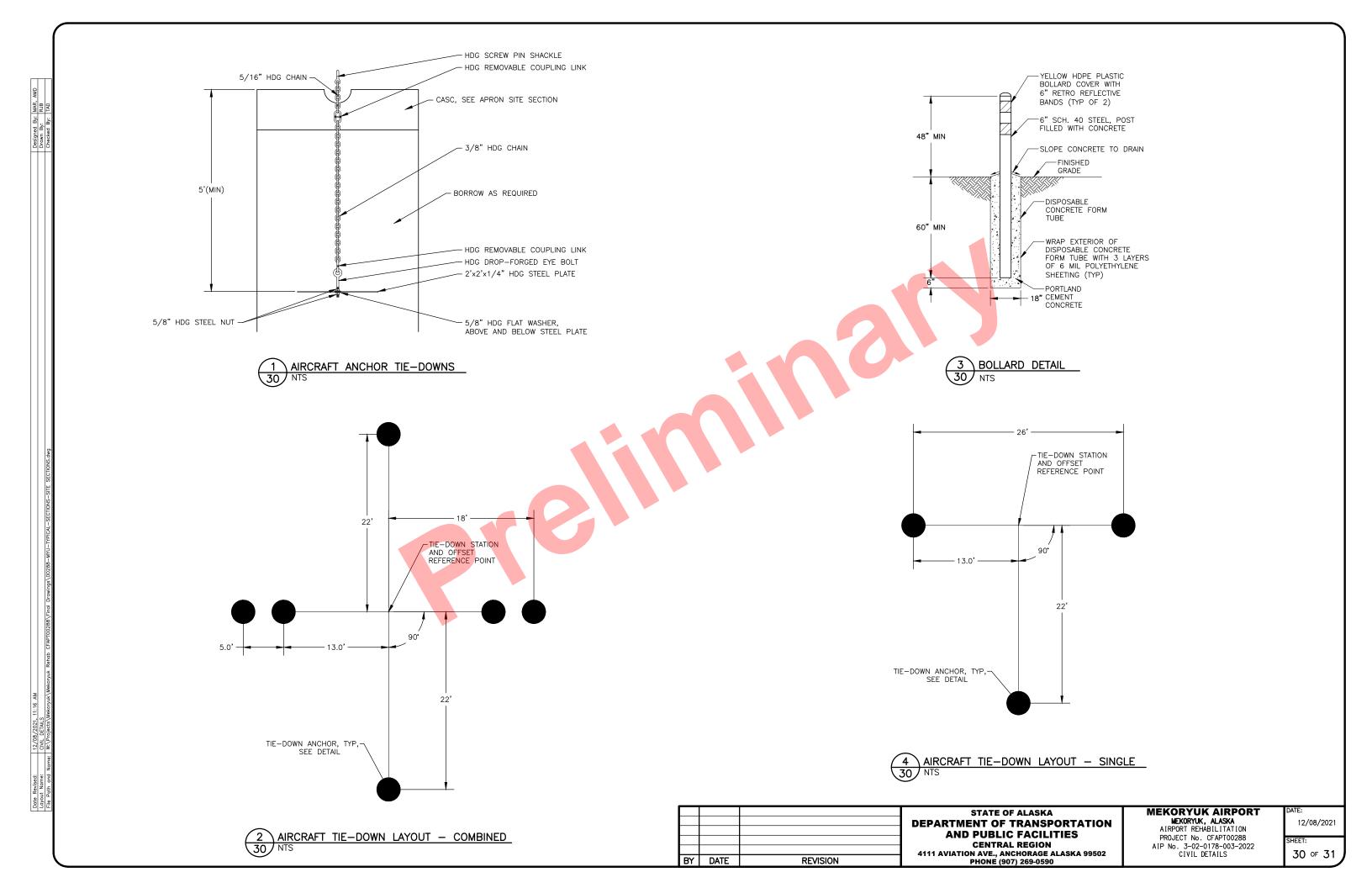
MEKORYUK AIRPORT

MEKORYUK, ALASKA

AIRPORT REHABILITATION

AIRPORT REHABILITATION
PROJECT No. CFAPT00288
AIP No. 3-02-0178-003-2022
SEGMENTED CIRCLE DETAILS

DATE: 12/08/2021



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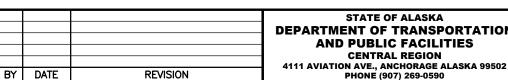
| | | | | | SIGNING SUMM | ARY | | | | |
|------|---------------|--------|--------|----------|----------------------|----------|-----------|------------|---------|---------------|
| SIGN | LOCATION | OFF | SET | CODE NO. | LEGEND | SIZE | C | OLOR | AREA | POST TYPE (*) |
| NO. | LUCATION | LEFT | RIGHT | CODE NO. | LEGEND | (INCHES) | LEGEND | BACKGROUND | SQ. FT. | POST TIPE (*) |
| 1 | TW STA 202+55 | 75.00' | _ | SPECIAL | SELECTIVE EXCLUSIONS | 36x48 | BLACK/RED | WHITE | 12.00 | 2.5" PST |
| 2 | TW STA 202+55 | 75.00' | - | SPECIAL | RESTRICTED AREA | 30x54 | BLACK | WHITE | 11.25 | 2.5" PST |
| 3 | AR STA 300+00 | 24.00' | _ | R1-1 | STOP | 30x30 | WHITE | RED | 6.25 | 2.5" PST |
| 4 | AR STA 306+50 | - | 24.00' | R2-1 | SPEED LIMIT 25 | 24x30 | BLACK | WHITE | 5.00 | 2.5" PST |
| 5 | AR STA 392+00 | 24.00' | _ | R2-1 | SPEED LIMIT 25 | 24x30 | BLACK | WHITE | 5.00 | 2.5" PST |
| | | | | | | | | TOTAL | 39.50 | |



SIGNING NOTES:

- 1. SEE STANDARD PLAN S-00.12 FOR MINIMUM SIGN PANEL THICKNESS, FRAMING REQUIREMENTS
- 2. SEE STANDARD PLAN S-01.02 FOR BRACING REQUIREMENTS.
- 3. SIGN POST EMBEDMENT SHALL BE SLEEVE TYPE WITH SOIL EMBEDMENT, SEE STANDARD PLAN
- 4. SIGN LOCATIONS ARE APPROXIMATE AND SUBJECT TO FIELD ADJUSTMENTS BY THE ENGINEER.
- 5. POST LENGTHS SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR TO MEET HEIGHT REQUIREMENTS SPECIFIED BY STANDARD PLAN S-05.01, UNLESS DETERMINED OTHERWISE BY THE ENGINEER. ALL POSTS AND HARDWARE SHALL BE SUBSIDIARY TO THE SIGNING BID ITEM. SEE STANDARD PLAN S-00.12
- 6. PRIOR TO INSTALLING POSTS OR FOUNDATIONS, OR DOING ANY EXCAVATION, THE CONTRACTOR SHALL LOCATE AND PROTECT ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES. THE LOCATION OF UTILITIES AND POLES THAT ARE SHOWN ON THE PLAN SHEETS ARE APPROXIMATE, AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACTUAL LOCATION WHEN WORKING IN THE AREA.





DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

MEKORYUK, ALASKA AIRPORT REHABILITATION PROJECT No. CFAPT00288 AIP No. 3-02-0178-003-2022 SIGN DETAILS

MEKORYUK AIRPORT

12/08/2021

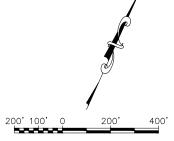
| INDEX | | | LEGEN | ID | | GENERAL ELECTRICAL NOTES |
|--|---|--|---|--|--|--|
| SHEET TITLE | SHEET No. | DESCRIPTION | DEMO | EXISTING | PROPOSED | |
| ELECTRICAL LEGEND AND NOTES ABBREVIATIONS FINAL OVERALL AIRPORT PLAN DEMOLITION RUNWAY LIGHTING PLAN (1 OF 3 DEMOLITION RUNWAY LIGHTING PLAN (2 OF 3 DEMOLITION RUNWAY LIGHTING PLAN (3 OF 3 DEMOLITION SREB SITE PLAN RUNWAY LIGHTING PLAN (1 OF 3) RUNWAY LIGHTING PLAN (2 OF 3) RUNWAY LIGHTING PLAN (3 OF 3) RUNWAY THRESHOLD LIGHTING PLAN TAXIWAY LIGHTING PLAN EEB SITE PLAN AIRPORT LIGHTING DETAILS AIRPORT LIGHTING DETAILS AIRPORT LIGHTING DETAILS | L1 L2 L3) L4) L5 | ANTENNA AWOS DETAIL CALLOUT ELECTRICAL HANDHOLE ELECTRICAL PEDESTAL GUY ANCHOR JUNCTION BOX LIGHT (EDGE WITH 180–180 TWO COLOR (ATTRIBUTE)) LIGHT (TAXIWAY, RUNWAY) LIGHT POLE NON-DIRECTIONAL BEACON PAPI PHOTOELECTRIC CONTROL REIL ROTATING BEACON SEGMENTED CIRCLE THRESHOLD LIGHTS, BI-DIRECTIONAL VASI WIND CONE OVERHEAD ELECTRICAL | DEMO | EXISTING A B C C C C C C C C C C C C | PROPOSED A 1 1 XXX E XY W A A A A A A A A A A A A | 1. COORDINATE ALL WORK WITH PROJECT CSPP, THIS WORK IS SUBSIDIARY TO THE CONTRACT AND NO SEPARATE PAYMENT WILL BE MADE. 2. COMPLY WITH NFPA 70, NATIONAL ELECTRICAL COODE 2017 EDITION; NECA 1, STANDARD FOR GOOD WORKMANSHIP IN ELECTRICAL CONSTRUCTION; AND NATIONAL ELECTRICAL SAFETY CODE. 3. ELECTRICAL COMPONENTS, DEVICES, ASSEMBLIES, AND ACCESSORIES ARE REQUIRED TO BE LISTED AND LABELED AS DEFINED IN NFPA 70, ARTICLE 100. BY A TESTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, AND MARKED FOR INTENDED USE. 4. EXISTING ELECTRICAL CONDITIONS BASED ON AS-BUILT DOCUMENTS. CONTRACTOR SHALL VERIEY. 5. DRAWINGS SHOW THE GENERAL LOCATIONS OF THE ELECTRICAL FEATURES ONLY, UNLESS OTHERWISE INDICATED, MAKE MINOR RELOCATIONS AS REQUIRED FOR PROJECT CONDITIONS WHEN NECESSARY TO PRESENT SYMMETRICAL APPEARANCE OR TO AVOID INTERFERENCE WITH OTHER INSTALLATIONS. 6. NEUTRAL CONDUCTORS SHALL NOT BE SHARED BETWEEN BRANCH CIRCUITS, UNLESS OTHERWISE INDICATED. 7. PROVIDE INSULATED EQUIPMENT GROUNDING CONDUCTORS WITH ALL FEEDERS AND BRANCH CIRCUITS. TERMINATE EACH END ON SUITABLE LUG, BUS, OR BUSHING, SIZE FOUIPMENT GROUNDING CONDUCTORS IN DEACH OR CIRCUITS. TERMINATE EACH END ON SUITABLE LUG, BUS, OR BUSHING, SIZE FOUIPMENT GROUNDING CONDUCTORS IN DEACH OR CIRCUITS. 8. OUTLET AND DEVICE BOXES FOR USE WITH EXPOSED PRACEYMY SYSTEMS SHALL BE HERADED HUB, CAST METAL TYPE. 9. UNDERGROUND NON-METALLE CONDUITS SHALL BE CONNECTED TO WIDE-SWEEP RSC ELBOWS FOR TRANSITION TO VERTICAL RESER CONDUITS. ALL RISER CONDUITS SHALL BE RSC UNLESS OTHERWISE INDICATED. 10. CONTRACTOR SHALL BE RSC UNLESS OTHERWISE INDICATED. 11. CONDUITS PASSING THROUGH HAZARDOUS LOCATIONS SHALL BE UNBROKENT THROUGH THE AREA, NO NON-HAZARDOUS LOCATION LISTED UNIONS, COUPLINGS, BOXES OR FITTINGS ASER ALLOWED IN THE CLASSIFIED AREA. 12. MEKORYUK ELECTRICAL UTILITY PROVIDER IS ALASKA VILLAGE ELECTRIC COOPERATIVE (AVEC) |
| AIRPORT LIGHTING DETAILS AIRPORT LIGHTING DETAILS AIRPORT BEACON DETAILS AIRPORT BEACON DETAILS WIND CONE DETAILS EEB ELECTRICAL COVER SHEET EEB SCHEMATIC ARRANGEMENT EEB ELECTRICAL PLAN EEB ELECTRICAL EQUIPMENT LIST EEB ELECTRICAL PANEL SCHEDULE EEB ELECTRICAL ONE—LINE AIRPORT LIGHTING CONTROL PANEL GENERAL ARRANGEMENT AIRPORT LIGHTING CONTROL SCHEMATIC AIRPORT LIGHTING CONTROL SCHEMATIC | L18 L19 L20 L21 L22 L23 L24 L25 L26 L27 L28 L29 L30 L31 | UNDERGROUND AIRPORT LIGHTING ELECTRICAL, CIRCUIT AND CONDUIT SIZE AS INDICATED ON DRAWING, SLASHES DENOTE NUMBER OF FAA TYPE C 5KV CONDUCTORS, UON. | | | | |
| EEB HVAC CONTROL SCHEMATIC EEB ELECTRICAL DETAILS | L32 L33 | PS&E REVIE\ | PLANS DEVELOPED BY: PDC ENGINEERS A RESPEC COMPANY 1028 AURORA DRIVE FAIRBANKS, ALASKA 9 (907) 452-1414 CERT. OF AUTHORIZATI NO.: AECC605 | 9709 | REVISION | STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION 4111 AVIATION AVE., ANCHORAGE ALASKA 99502 PHONE (907) 269-0590 MEKORYUK AIRPORT MEKORYUK, ALASKA AIRPORT REHABILITATION PROJECT No. CFAPT00288 AIP No. 3-02-0380-004-2021 ELECTRICAL LEGEND AND NOTES DATE: 10/28/ SHEET: L1 OF |

ABBREVIATIONS

| | | | | ADDIN | EVIATIONS | | | | | |
|--------|---|------------|---|--|---|----------|--|----------|---|----------|
| | | | | | | | | | | |
| E) | EXISTING | GND | GROUND | OHE | OVERHEAD ELECTRICAL | | | | | |
| A, AMP | AMPERES | Н | HEIGHT | OZ | OUNCE | | | | | |
| ASHTO | AMERICAN ASSOCIATION OF STATE HIGHWAY | HDPE, PE | HIGH DENSITY POLYETHYLENE (RACEWAY) | Р | POLE | | | | | |
| | TRANSPORTATION OFFICIALS | HVAC | HEATING VENTILATION AND AIR | PC | PHOTOELECTRIC CONTROL | | | | | |
| VIC . | AMPERE INTERRUPTING CAPACITY | | CONDITIONING | PH | PHASE | | | | | |
| ALCP | AIRPORT LIGHTING CONTROL PANEL AIRPORT LIGHTING RADIO CONTROLLER | ICC | INTERNATIONAL CODE COUNCIL | PVC | POLYVINYL CHLORIDE | | | | | |
| ALRC | AIRPORT LIGHTING RADIO CONTROLLER AIRPORT LIGHTING RADIO CONTROLLER | IMC | INTERMEDIATE METAL CONDUIT | R | RADIUS | | | | | |
| ALRCA | ANTENNA | J-BOX K | JUNCTION BOX KELVIN | RD | ROAD | | | | | |
| ANSI | AMERICAN NATIONAL STANDARDS INSTITUTE | KIAC | KILOAMPERES INTERRUPTING CAPACITY | RGS | RIGID STEEL CONDUIT, GALVANIZED | | | | | |
| APLHH | AIRPORT LIGHTING HANDHOLE | KV | KILOVOLT | RPM | REVOLUTIONS PER MINUTE | | | | | |
| APWHH | AIRPORT WIND CONE HANDHOLE | KVA | KILOVOLT—AMPERES | RT | RIGHT | | | | | |
| SOS | SURFACE WEATHER OBSERVATION STATION | KW | KILOWATT | RW, RWY | RUNWAY | | | | | |
| STM | AMERICAN SOCIETY FOR TESTING MATERIALS | KWH | KILOWATT HOURS | SC0 | SERIES CIRCUIT CUTOUT | | | | | |
| VUTO | AUTOMATIC | LBS | POUNDS | SCTE | SOCIETY OF CABLE TELECOMMUNICATIONS ENGINEERS | | | | | |
| \WG | AMERICAN WIRE GUAGE | LED | LIGHT EMITTING DIODE | SPD | SURGE PROTECTION DEVICE | | | | | |
| WOS | AUTOMATED WEATHER OBSERVING SYSTEM | LFMC | LIQUIDTIGHT FLEXIBLE METAL CONDUIT | SPDT | SINGLE POLE DOUBLE THROW | | | | | |
| WWF | ALL—WEATHER WOOD FOUNDATION | LFNC | LIQUIDTIGHT FLEXIBLE NON-METALLIC | SREB | SNOW REMOVAL EQUIPMENT BUILDING | | | | | |
| BCU | BARE COPPER WIRE | | CONDUIT | STA | STATION | | | | | |
| ; | CELSIUS | LPC | LIGHTNING PROTECTION COUTERPOISE | | | | | | | |
| CR | CONSTANT CURRENT REGULATOR | LT | LEFT | SVD | SERVICE DISCONNECT | | | | | |
| FM | CUBIC FEET PER MINUTE | MA | MILLIAMPERS | SW TWO | SWITCH | | | | | |
| KT | CIRCUIT | MAN | MANUAL MEDIUM INTENSITY APPROACH LIGHTING | TW, TWY | TAXIWAY | | | | | |
| L | CENTERLINE, CLASS | MASR | SYSTEM WITH RUNWAY ALIGNMENT | TYP | TYPICAL | | | | | |
| LR | CLEAR | | INDICATOR LIGHTS | UG | UNDERGROUND | | | | | |
| RI | COLOR RENDERING INDEX | MAX | MAXIMUM | UON | UNLESS OTHERWISE NOTED | | | | | |
| SPP | CONSTRUCTION SAFETY PHASING PLAN | MED | MEDIUM | V VA | VOLT | | | | | |
| :U | COPPER | MFR | MANUFACTURER | | VOLT-AMPERES VISUAL APPROACH SLOPE INDICATOR | | | | | |
|) | DEPTH | MIN | MINIMUM | VASI | WIRE, WIDTH | | | | | |
| EG | DEGREES | MIN | MINUTES | W | WATTS | | | | | |
| DIA | DIAMETER | MISC | MISCELLANEOUS MAIN LUG ONLY | w. | WITH | | | | | |
| | ELECTRICAL EQUIPMENT BUILDING | MLO MM | MILLIMETERS | "/ | Willi | | | | | |
| EB | (ENCLOSURE) | MPH | MILES PER HOUR | | | | | | | |
| GC . | EQUIPMENT GROUNDING CONDUCTOR | MTD | MOUNTED | | | | | | | |
| GEC | EQUIPMENT GROUNDING ELECTRODE CONDUCTOR | MTS | MANUAL TRANSFER SWITCH | | | | | | | |
| MT | ELECTRICAL METALLIC TUBING | N | NEUTRAL | | | | | | | |
| XH | EXHAUST | NEC | NATIONAL ELECTRIC CODE | | | | | | | |
| | FAHRENHEIT | NECA | NATIONAL ELECTRICAL CONTRACTORS | | | | | | | |
| -AA | FEDERAL AVIATION ADMINISTRATION | 1120/1 | ASSOCIATION | | | | | | | |
| ·C | FOOTCANDLES | NEMA | NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION | | | | | | | |
| MC | FLEXIBLE METAL CONDUIT | NFPA | NATIONAL FIRE PROTECTION ASSOCIATION | | | | | | | |
| ND | FOUNDATION | NIC | NOT IN CONTRACT | | | | | | | |
| SA . | GAUGE | NO | NUMBER | | | | | | | |
| EC | GROUNDING ELECTRODE CONDUCTOR | NTS | NOT TO SCALE | | | | | | | |
| FCI | GROUND FAULT CIRCUIT INTERRUPTER | OC | ON CENTER | | | | | | | |
| | | | | | | | | | | |
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| | | | | B1 1110 BE1 | | <u> </u> | STATE OF ALASKA | <u> </u> | MEKORYUK AIRPORT | DA |
| | | | PS&E | PLANS DEVELOPED BY: PDC ENGINEERS A RESPEC COMPANY | | | DEPARTMENT OF TRANSPORTA | ATION | MEKORYLIK ALASKA | |
| | | REVIEW | | - FAIRBANKS, ALASKA 997 | 09 | | AND PUBLIC FACILITIES | | AIRPORT REHABILITATION PROJECT No. CFAPT00288 | <u> </u> |
| | | | | (907) 452-1414 CERT. OF AUTHORIZATIO NO.: AECC605 | · | | CENTRAL REGION | | AIP No. 3-02-0380-004-2021 | SH |
| | | | | ■ NO.: AECC605 | BY DATE REVI | SION | 4111 AVIATION AVE., ANCHORAGE ALASKA PHONE (907) 269-0590 | 4 99502 | ABBREVIATIONS | |

SHEET NOTES

 AIRPORT PLAN ON THIS SHEET SHOWS FINAL OUTCOME OF THIS PROJECT. ADJUST FOR AS—BUILT CONDITIONS AS REQUIRED.



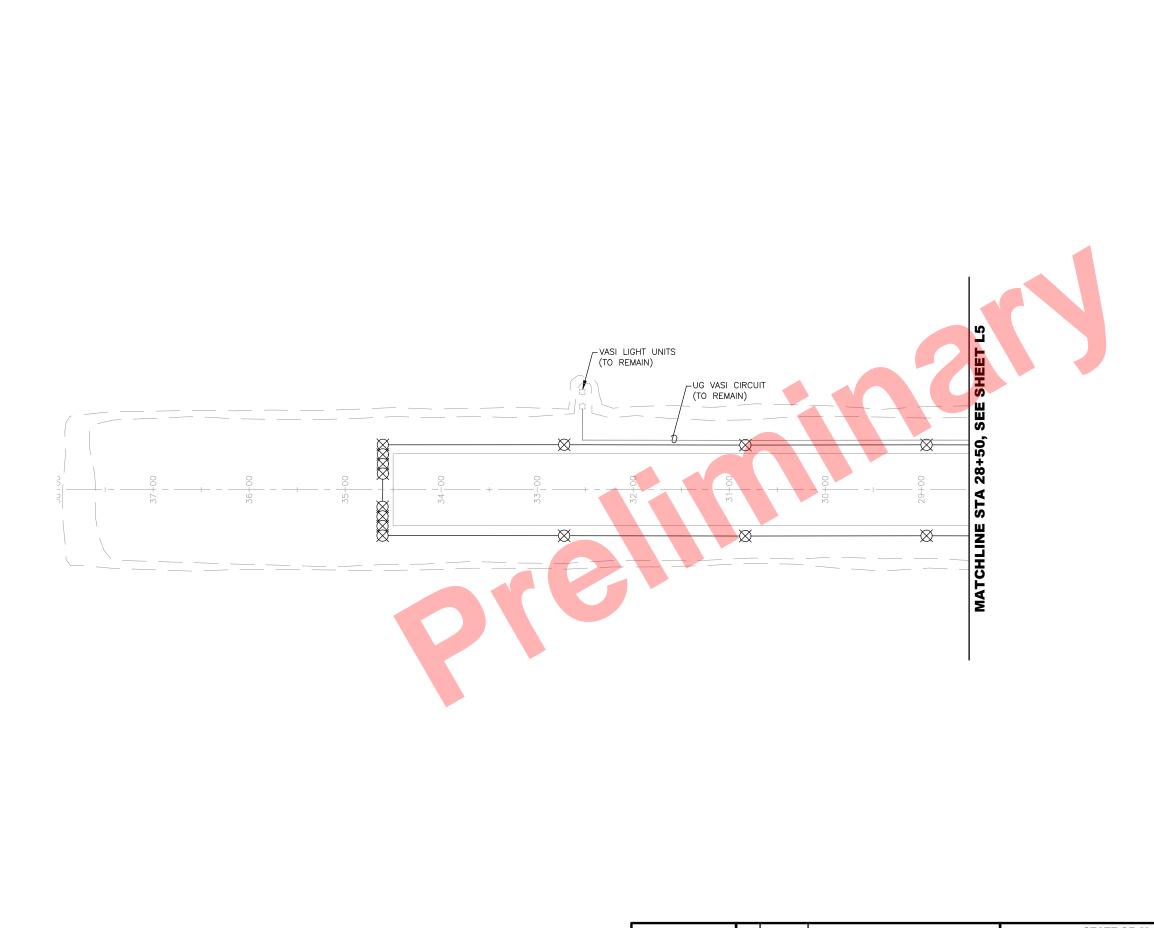
PS&E REVIEW

| PLANS DEVELOPED BY: | | | | |
|--|----------|------|----------|---|
| PDC ENGINEERS | | | | D |
| A RESPEC COMPANY 1028 AURORA DRIVE | | | | _ |
| FAIRBANKS, ALASKA 99709 | | | | |
| (907) 452-1414 CERT. OF AUTHORIZATION | | | | |
| NO.: AECC605 | - | | | |
| | BY | DATE | REVISION | |

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
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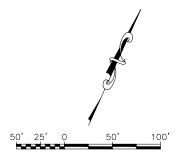
MEKORYUK AIRPORT
MEKORYUK, ALASKA
AIRPORT REHABILITATION
PROJECT No. CFAPT00288
AIP No. 3-02-0380-004-2021
FINAL OVERALL AIRPORT PLAN

10/28/2021 SHEET: L3 OF L33



GENERAL ELECTRICAL DEMOLITION NOTES

- 1. SEE ELECTRICAL PHASING NOTES ON SHEET L7.
- 2. EXISTING RUNWAY, THRESHOLD, AND TAXIWAY EDGE LIGHTING TO BE DEMOLISHED EALRY IN CONSTRUCTION. TEMPORARY LIGHTING SHALL BE USED DURING CONSTRUCTION. SEE CSPP FOR MORE INFORMATION.
- 3. REMOVE AIRPORT LIGHTING AND OTHER EQUIPMENT INDICATED ON DEMOLITION PLANS. REMOVAL INCLUDES ALL LIGHT FIXTURES, TRANSFORMERS, CONDUCTORS, REFLECTIVE MARKERS, LIGHT BASES, EXPOSED GROUND RODS, FOUNDATIONS, AND CONCRETE UNLESS OTHERWISE INDICATED.
- 4. WHERE EXISTING CONDUITS AND DIRECT BURIED CABLE IS NOT REPLACED BY NEW WORK, ABANDON IN PLACE DIRECT BURIED CABLE AND EMPTY CONDUITS UNLESS OTHERWISE INDICATED.
- 5. ALL LAMPS, LIGHT FIXTURES AND TRANSFORMERS SHALL BE OFFERED TO AIRPORT MAINTENANCE. DISPOSAL OF EQUIPMENT AND MATERIAL DEEMED NON—SALVAGEABLE BY AIRPORT MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AT AN APPROVED SITE OFF OF AIRPORT PROPERTY IN ACCORDANCE WITH FEDERAL AND STATE REGULATIONS. DISPOSAL COST SHALL BE SUBSIDIARY TO THE CONTRACT.
- 6. DO NOT DISTURB THE EXISTING VASI SYSTEMS AND UNDERGROUND CABLING ROUTED FROM THE EXISTING SREB TO THE LIGHT UNITS.
 - A. COORDINATE WITH FAA TO LOCATE ALL FAA-OWNED UNDERGROUND WIRING IN THE PROJECT AREA.
 - B. AIRPORT RUNWAY GRADE IS BEING RAISED. DOT-CR IS IN THE PROCESS OF COORDINATING WITH FAA TO DETERMINE HOW THIS WILL AFFECT THE EXISTING VASI SYSTEM.



PS&E REVIEW

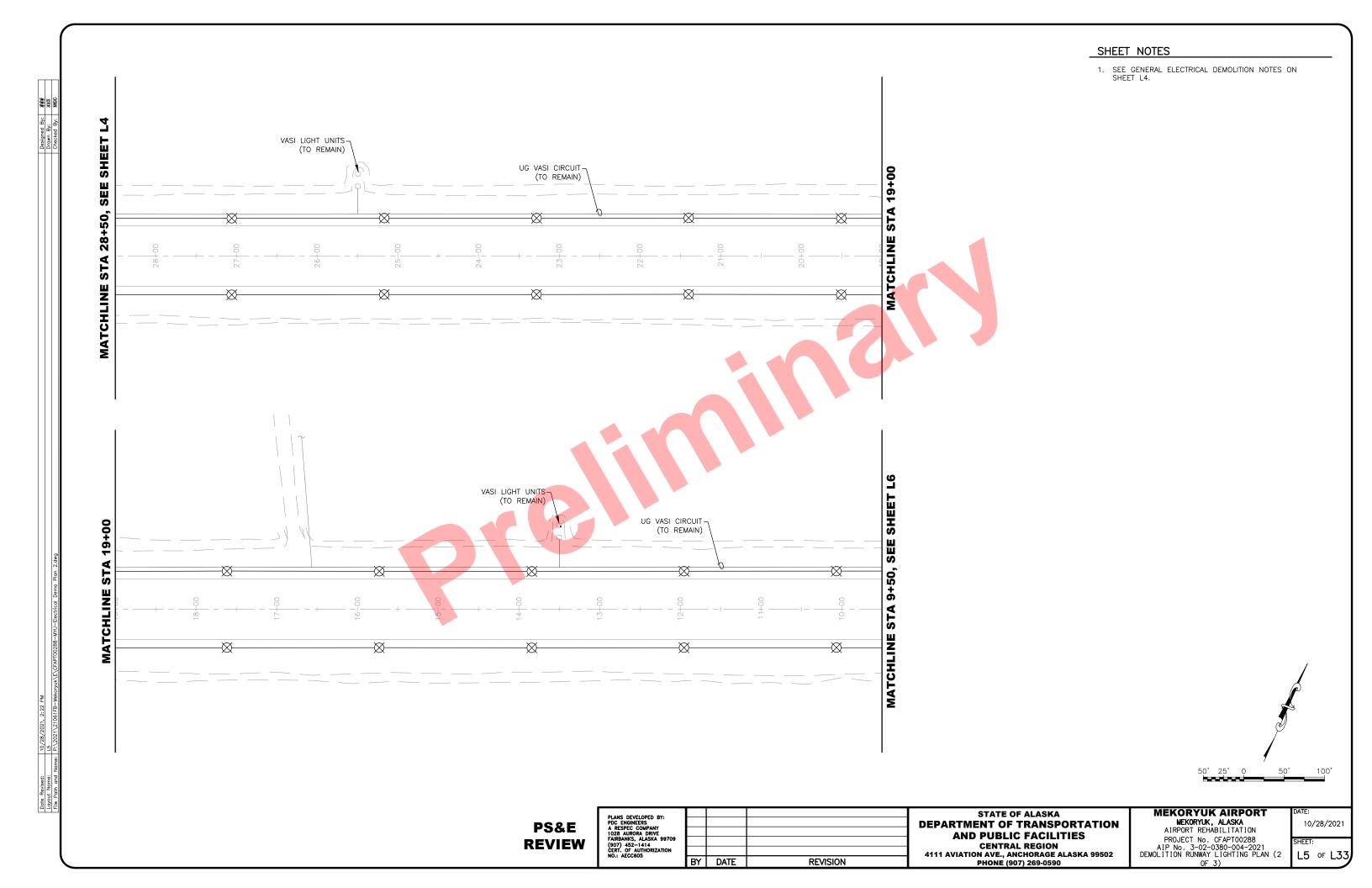
| PLANS DEVELOPED BY: PDC ENGINEERS A RESPEC COMPANY 1028 AURORA DRIVE FAIRBANKS, ALASKA 99709 (907) 452-1414 CERT. OF AUTHORIZATION NO.: AECC605 | BY | DATE | REVISION | ſ |
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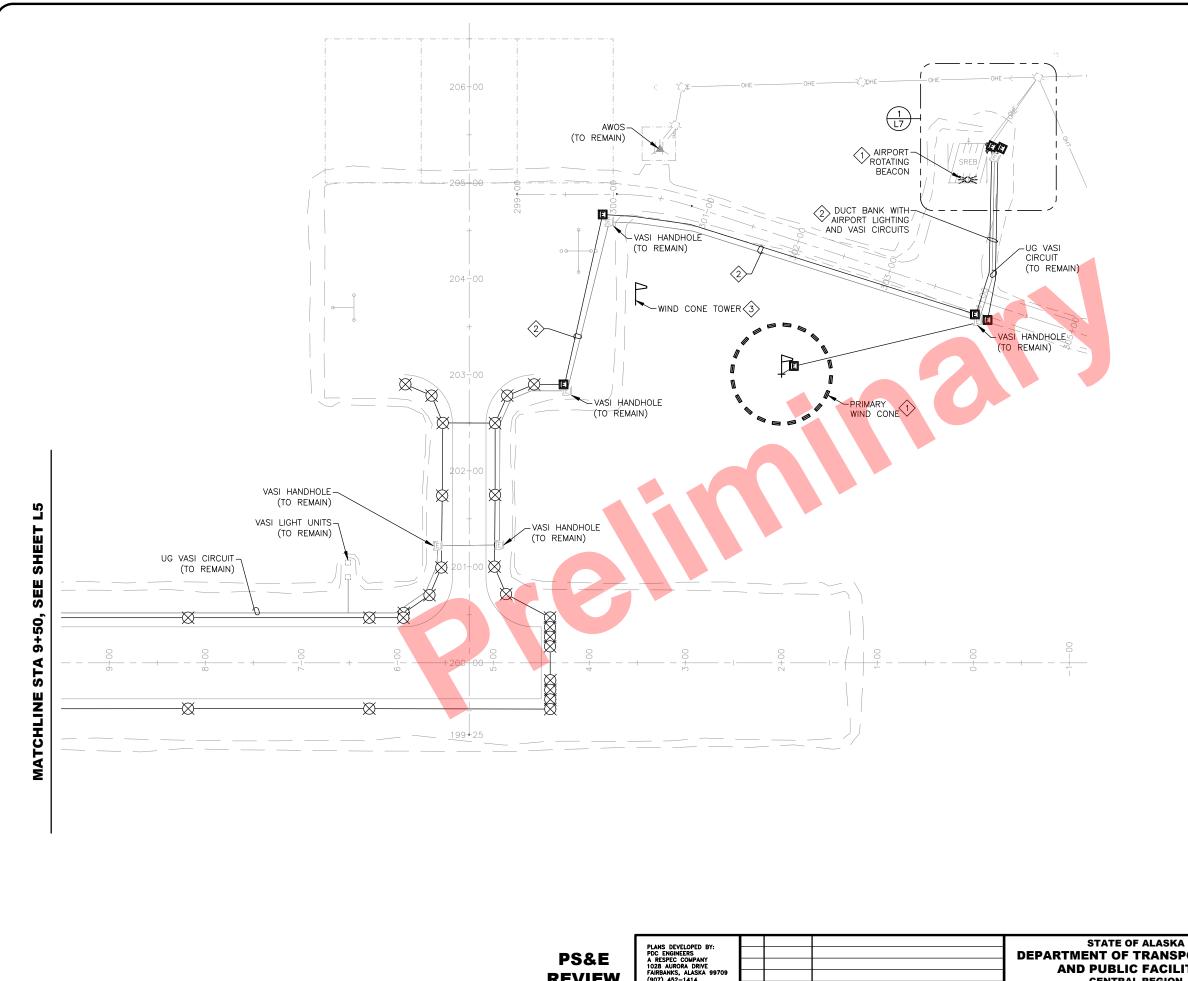
STATE OF ALASKA
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AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

MEKORYUK AIRPORT
MEKORYUK, ALASKA
AIRPORT REHABILITATION
PROJECT No. CFAPT00288
AIP No. 3-02-0380-004-2021
DEMOLITION RUNWAY LIGHTING PLAN
(1 OF 3)

DATE: 10/28/2021 SHEET:

L4 of L33



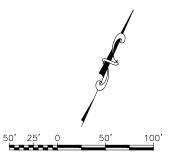


1. SEE ELECTRICAL DEMOLITION NOTES ON SHEET L4.

SHEET KEYNOTES 🏶



- THE EXISTING PRIMARY WIND CONE AND AIRPORT BEACON SHALL REMAIN IN SERVICE UNTIL THE NEW EQUIPMENT IS PLACED INTO SERVICE.
- 2. REMOVE AIRPORT LIGHTING CABLES FROM UNDERGROUND CONDUITS, THEN REMOVE ALL ASSOCIATED HANDHOLES. ABANDON THE EMPTY AIRPORT LIGHTING CONDUITS IN PLACE.
- 3. THE "WIND CONE TOWER" WORK IS TO BE DETERMINED.



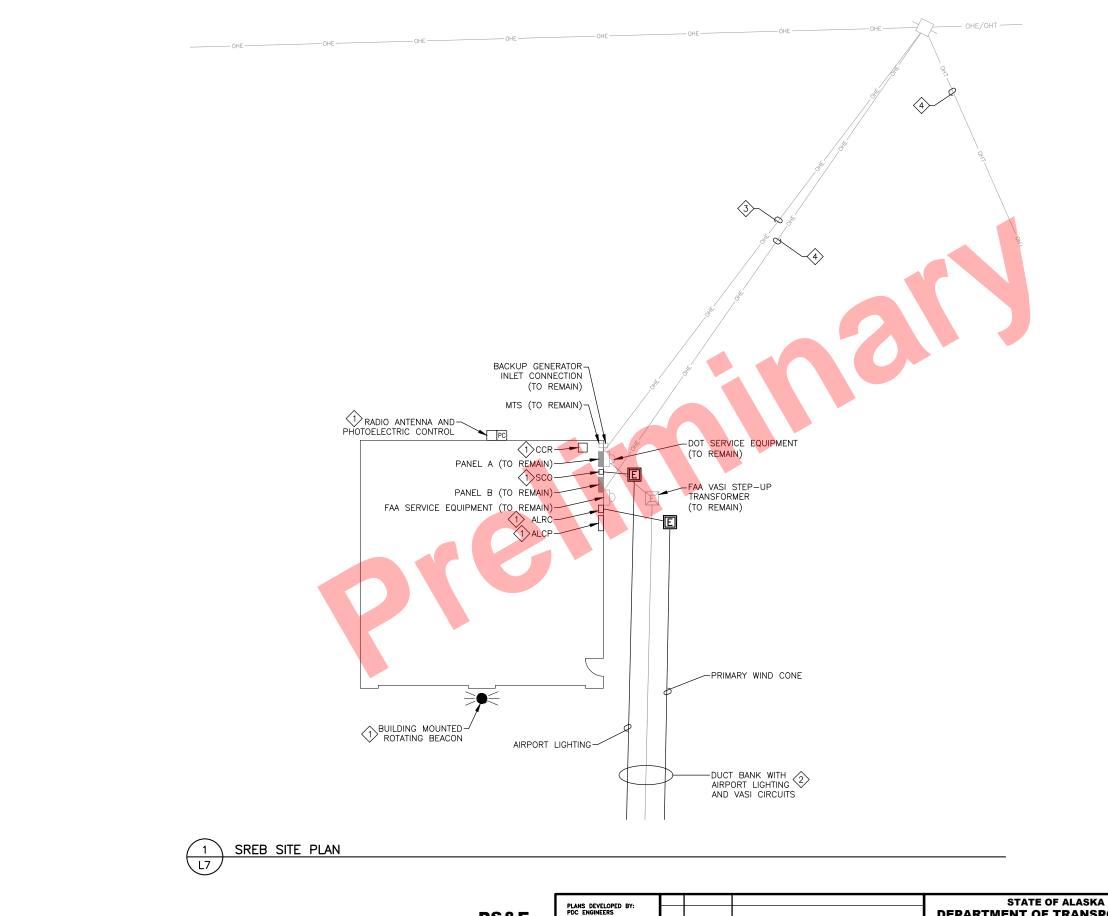
REVIEW

| PLANS DEVELOPED BY: | | | | |
|--|----|------|----------|----|
| PDC ENGINEERS A RESPEC COMPANY | | | | DE |
| 1028 AURORA DRIVE FAIRBANKS, ALASKA 99709 | | | | |
| (907) 452-1414 CERT. OF AUTHORIZATION | | | | |
| CERT. OF AUTHORIZATION NO.: AECC605 | | | | 41 |
| NO ALOGOUS | BY | DATE | REVISION | - |

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

MEKORYUK AIRPORT MEKORYUK, ALASKA AIRPORT REHABILITATION PROJECT NO. CFAPTO0288
AIP No. 3-02-0380-004-2021
DEMOLITION RUNWAY LIGHTING PLAN
(3 0F 3)

10/28/2021 L6 of L33



1. SEE GENERAL ELECTRICAL DEMOLITION NOTES ON SHEET L4.

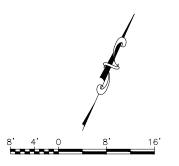
SHEET KEYNOTES 🏶



- THE EXISTING AIRPORT LIGHTING EQUIPMENT SUPPLYING THE PRIMARY WIND CONE AND AIRPORT BEACON SHALL REMAIN IN SERVICE UNTIL THE NEW EQUIPMENT IS PLACED INTO SERVICE. REMOVE EQUIPMENT TAGGED WITH THIS NOTE WHEN CUTOVER TO NEW EQUIPMENT IS
- REMOVE AIRPORT LIGHTING CABLES FROM UNDERGROUND CONDUITS, THEN REMOVE ALL ASSOCIATED HANDHOLES. ABANDON THE EMPTY AIRPORT LIGHTING CONDUITS IN PLACE.
- 3. UTILITY OVERHEAD SERVICE DROP TO BE REMOVED BY THE MEKORYUK AIRPORT SNOW REMOVAL EQUIPMENT BUILDING PROJECT.
- 4. NO WORK ON UTILITY OVERHEAD SERVICE DROPS TAGGED BY THIS NOTE.

ELECTRICAL PHASING NOTES

1. TO BE DETERMINED.



PS&E **REVIEW** PLANS DEVELOPED BY:
PDC ENGINEERS
A RESPEC COMPANY
1028 AURORA DRIVE
FAIRBANKS, ALASKA 99709
(907) 452—1414
CERT. OF AUTHORIZATION
NO.: AECC805 ΒY DATE REVISION

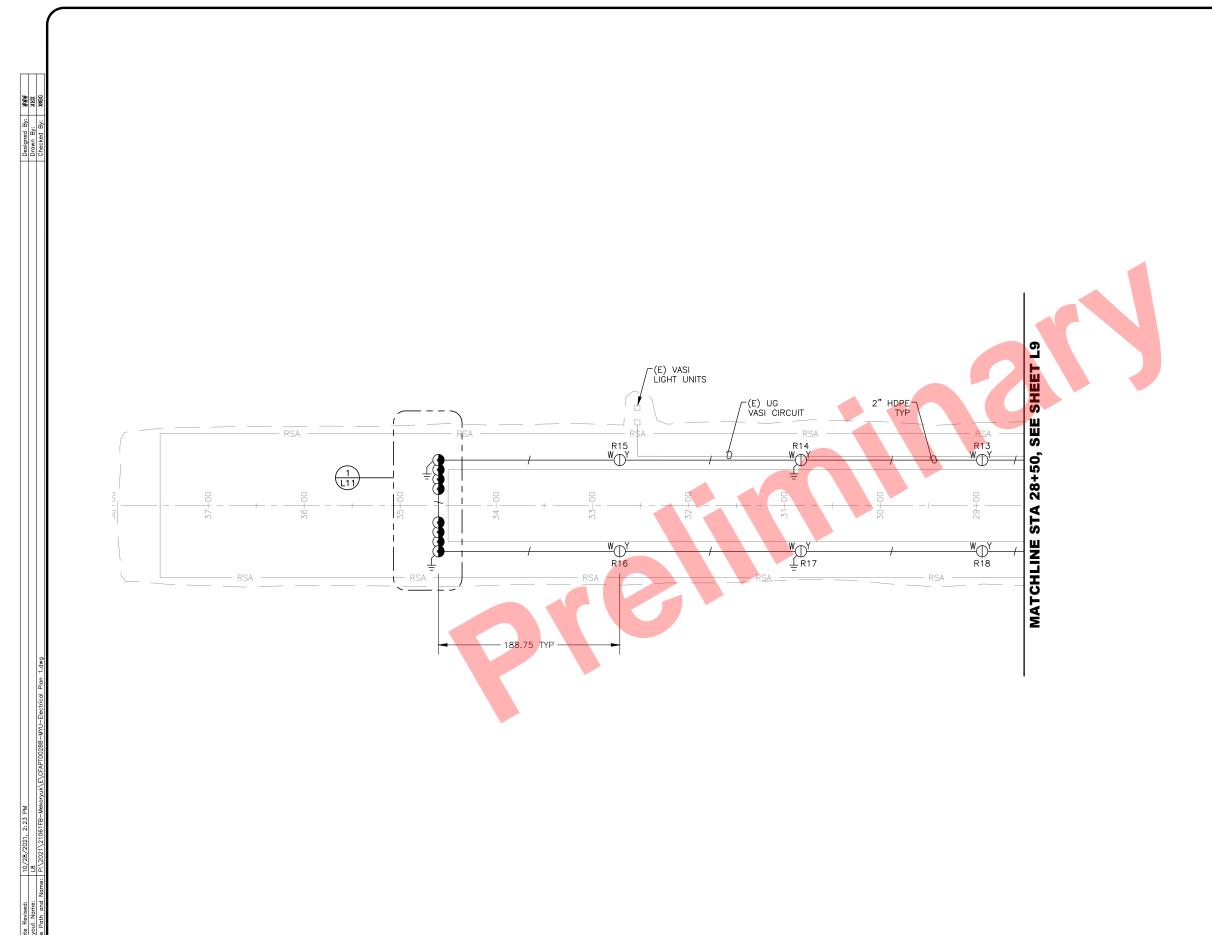
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES **CENTRAL REGION** 4111 AVIATION AVE., ANCHORAGE ALASKA 99502 PHONE (907) 269-0590

MEKORYUK AIRPORT MEKORYUK, ALASKA AIRPORT REHABILITATION PROJECT No. CFAPT00288 AIP No. 3-02-0380-004-2021

DEMOLITION SREB SITE PLAN

10/28/2021 HEET:

L7 of L33

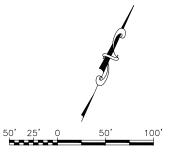


GENERAL AIRPORT LIGHTING NOTES

- EXISTING ELECTRICAL CONDITIONS BASED ON AS-BUILT DOCUMENTS. CONTRACTOR SHALL VERIFY.
- 2. PROVIDE TWO AIRPORT LIGHTING GROUNDING SYSTEMS:
- A. EQUIPMENT GROUNDING SYSTEM: A #6 BCU
 EQUIPMENT GROUNDING CONDUCTOR WITH SUPPLY
 CONDUCTORS FOR RUNWAY/TAXIWAY LIGHTING, WIND
 CONES, AND EXTENSIONS TO OTHER EQUIPMENT. GROUND RODS SPACED 500 FEET MAXIMUM APART,
- UNLESS OTHERWISE INDICATED.

 B. LIGHTNING PROTECTION COUNTERPOISE (LPC): A #6
 BCU DIRECT BURIED ABOVE AIRPORT LIGHTING CONDUITS OR DIRECT BURIED CONDUCTORS. LPC IS BONDED TO EXTERNAL GROUND LUG ON ALL LIGHT BASES AND SHARES THE EQUIPMENT GROUNDING SYSTEM GROUND RODS, UNLESS OTHERWISE INDICATED.
- 3. LOCATE RUNWAY/TAXIWAY EDGE LIGHTS ARE 10 FEET FROM DEFINED RUNWAY/TAXIWAY EDGE, UNLESS OTHERWISE INDICATED.
- 4. PROVIDE NEW REFLECTIVE MARKER ON TRAFFIC SIDE OF ALL VASI HANDHOLES, UNLESS OTHERWISE INDICATED. SEE SHEET L18 FOR INFORMATION.
- 5. TEMPORARY AIRPORT LIGHTING WORK NOT SHOWN ON RUNWAY LIGHTING PLAN SHEETS.
- 6. DO NO DISTURB THE EXISTING VASI SYSTEM AND ASSOCIATED UNDERGROUND CABLING ROUTED FROM THE EXISTING SREB TO THE LIGHT UNITS.
 - A. COORDINATE WITH FAA TO LOCATE ALL FAA-OWNED
- UNDERGROUND WIRING IN THE PROJECT AREA.

 B. AIRPORT RUNWAY GRADE IS BEING RAISED. DOT—CR
 IS IN THE PROCESS OF COORDINATING WITH FAA
 TO DETERMINE HOW THIS WILL AFFECT THE EXISTING VASI SYSTEM.
- 7. ALL RUNWAY EDGE LIGHTS ARE INCANDESCENT. ALL TAXIWAY EDGE LIGHTS ARE LED TYPE.



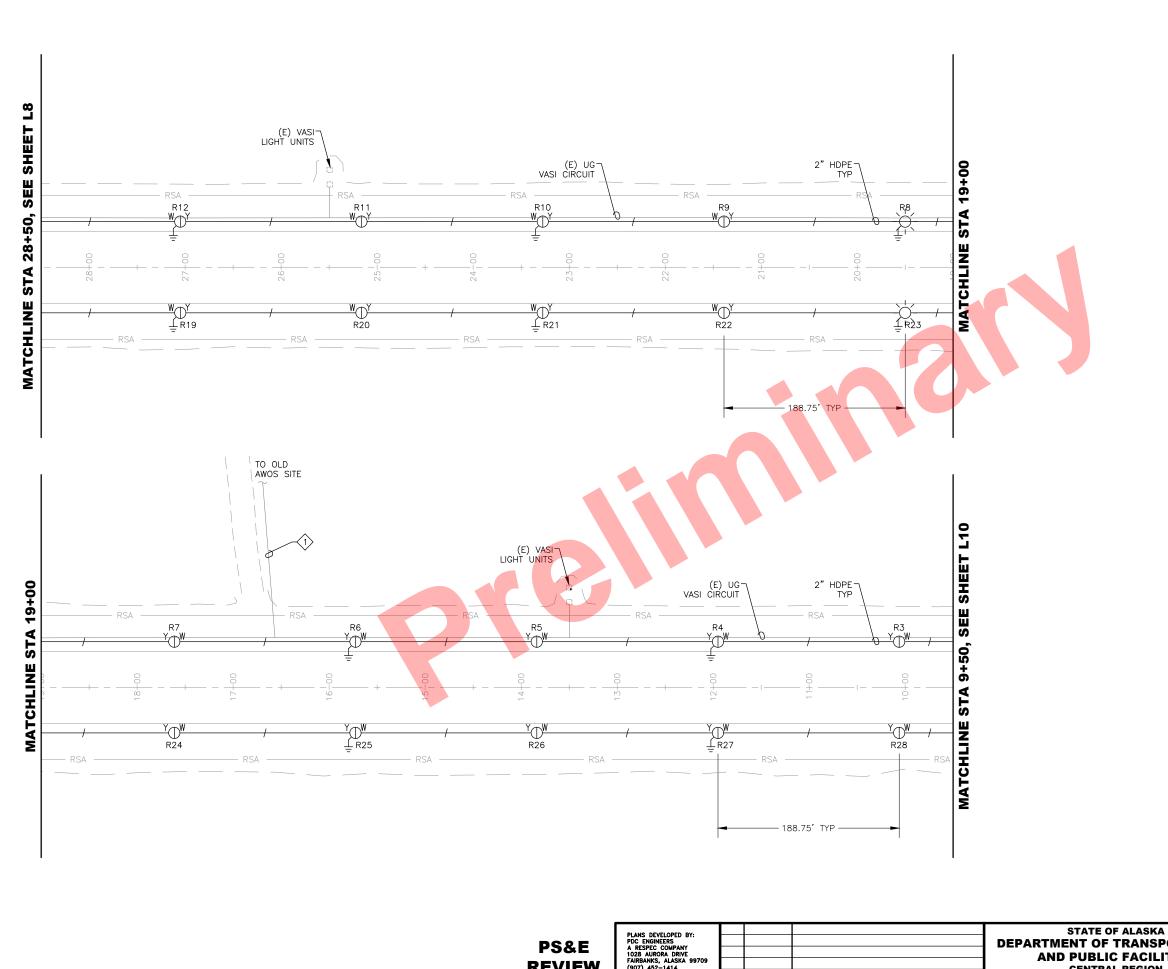
PS&E **REVIEW** PLANS DEVELOPED BY:
PDC ENGINEERS
A RESPEC COMPANY
1028 AURORA DRIVE
FAIRBANKS, ALASKA 99709
(907) 452—1414
CERT. OF AUTHORIZATION
NO.: AECC605 BY DATE REVISION

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

MEKORYUK AIRPORT MEKORYUK, ALASKA AIRPORT REHABILITATION

PROJECT No. CFAPT00288 AIP No. 3-02-0380-004-2021 RUNWAY LIGHTING PLAN (1 OF 3)

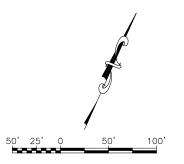
10/28/2021 HEET: L8 of L33



1. SEE GENERAL AIRPORT LIGHTING NOTES ON SHEET L8.

SHEET KEYNOTES

MAY ENCOUNTER ABANDONED CIRCUIT FOR THE OLD FAA AWOS SITE. SEE SHEET L3 FOR ADDITIONAL INFORMATION.



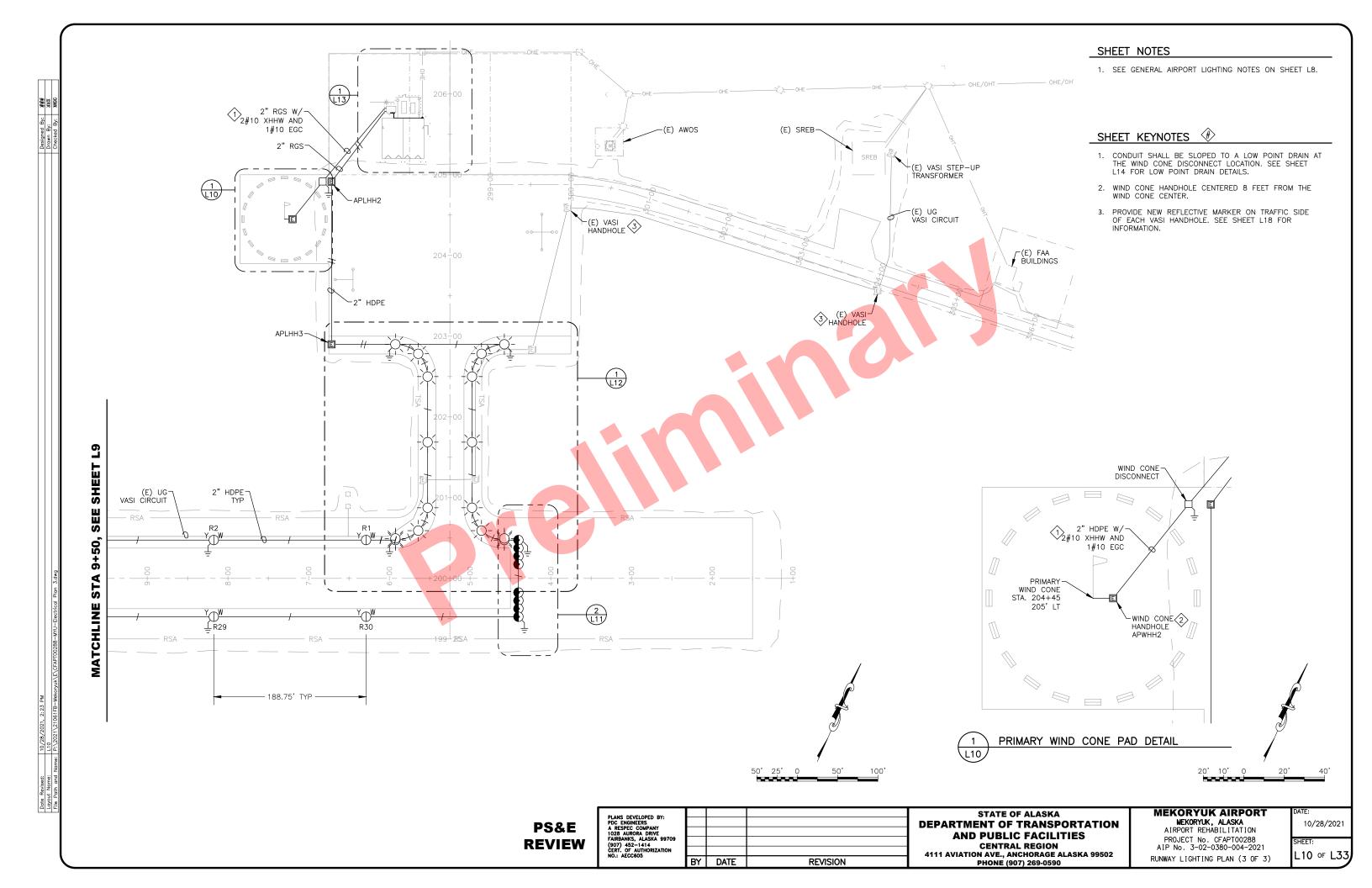
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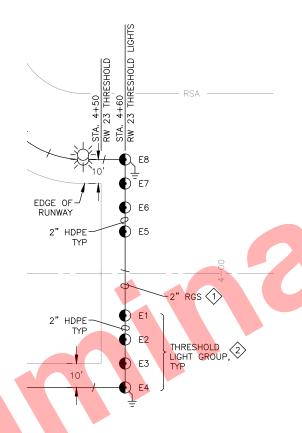
MEKORYUK AIRPORT
MEKORYUK, ALASKA
AIRPORT REHABILITATION
PROJECT No. CFAPT00288
AIP No. 3-02-0380-004-2021 RUNWAY LIGHTING PLAN (2 OF 3)

10/28/2021 SHEET: L9 of L33



RUNWAY 05 THRESHOLD LIGHTING DETAIL

E11 E12



RUNWAY 23 THRESHOLD LIGHTING DETAIL

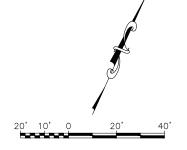
SHEET NOTES

- 1. SEE GENERAL AIRPORT LIGHTING NOTES ON SHEET L8.
- 2. THRESHOLD UNDERGROUND CONDUIT CROSSING RUNWAY SHALL BE SLOPED TO DRAIN TOWARDS THRESHOLD OUTER LIGHT BASES WITH CONDUIT HIGH POINT AT RUNWAY CENTERLINE.

SHEET KEYNOTES

- AREA BETWEEN THE NORTH AND SOUTH THRESHOLD LIGHT GROUPS IS CONSIDERED A TRAFFIC AREA.
- 2. WITHIN THRESHOLD LIGHT GROUPS SPACE LIGHTS 10 FEET APART UNLESS OTHERWISE INDICATED. SEE SHEET L19 FOR ADDITIONAL INFORMATION.

| THRE | THRESHOLD LIGHT STATION OFFSET TABLE | | | | | | |
|-------|--------------------------------------|---------------|-----------|--|--|--|--|
| LIGHT | STATION | OFFSET (FEET) | DIRECTION | | | | |
| E1 | 4+60 | 17.50 | LT | | | | |
| E2 | 4+60 | 27.50 | LT | | | | |
| E3 | 4+60 | 37.50 | LT | | | | |
| E4 | 4+60 | 47.50 | LT | | | | |
| E5 | 4+60 | 17.50 | RT | | | | |
| E6 | 4+60 | 27.50 | RT | | | | |
| E7 | 4+60 | 37.50 | RT | | | | |
| E8 | 4+60 | 47.50 | RT | | | | |
| E9 | 34+60 | 17.50 | LT | | | | |
| E10 | 34+60 | 27.50 | LT | | | | |
| E11 | 34+60 | 37.50 | LT | | | | |
| E12 | 34+60 | 47.50 | LT | | | | |
| E13 | 34+60 | 17.50 | RT | | | | |
| E14 | 34+60 | 27.50 | RT | | | | |
| E15 | 34+60 | 37.50 | RT | | | | |
| E16 | 34+60 | 47.50 | RT | | | | |



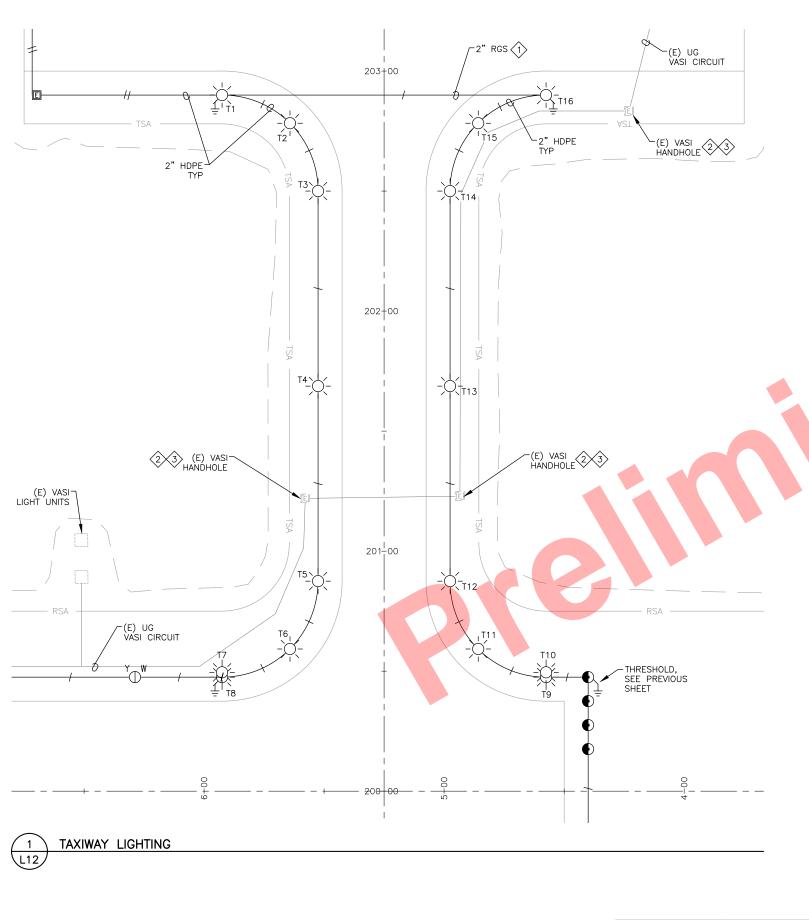
PS&E **REVIEW**

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| | PLANS DEVELOPED BY: | | | | |
| | PDC ENGINEERS | | | | D |
| | A RESPEC COMPANY 1028 AURORA DRIVE | | | | |
| | FAIRBANKS, ALASKA 99709 | | | | |
| ı | (907) 452-1414 CERT. OF AUTHORIZATION NO.: AECC605 | | | | _ |
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MEKORYUK AIRPORT MEKORYUK, ALASKA AIRPORT REHABILITATION PROJECT No. CFAPT00288 AIP No. 3-02-0380-004-2021 RUNWAY THRESHOLD LIGHTING PLAN

10/28/2021 L11 of L33



Designed By: XXXX
Drawn By: XXXX
Checked By: XXXX

| TAXIWAY E | DGE LIGHT STA | TION AND OFF | SET TABLE |
|-----------|---------------|--------------|------------------|
| TWY LIGHT | STATION | DIRECTION | OFFSET (FEET) |
| T1 | 202+90 | LT | 67.50 |
| T2 | 202+78 | LT | 39.22 |
| T3 | 202+50 | LT | 27.50 |
| T4 | 201+69 | LT | 27.50 |
| T5 | 200+88 | LT | 27.50 |
| T6 | 200+59 | LT | 39.21 |
| T7 | 200+50 | LT | 67.50 |
| Т8 | 200+48 | LT | 67.50 |
| Т9 | 200+48 | RT | 67.50 |
| T10 | 200+50 | RT | 67.50 |
| T11 | 200+59 | RT | 39.21 |
| T12 | 200+88 | RT | 27.50 |
| T13 | 201+69 | RT | 27.50 |
| T14 | 202+50 | RT | 27.50 |
| T15 | 202+78 | RT | 39.22 |
| T16 | 202+90 | RT | 67.50 |

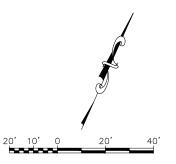
SHEET NOTES

- 1. SEE GENERAL AIRPORT LIGHTING NOTES ON SHEET L8.
- 2. ALL TAXIWAY EDGE LIGHTS SHALL BE LED TYPE.

SHEET KEYNOTES *****



- UNDERGROUND CONDUIT CROSSING TAXIWAY SHALL BE SLOPED TO DRAIN TOWARDS EDGE LIGHT BASES WITH CONDUIT HIGH POINT AT TAXIWAY CENTERLINE.
- 2. FIELD VERIFY ROUTING OF EXISTING UNDERGROUND VASI CABLES AND HANDHOLES PRIOR TO ANY WORK.
- 3. PROVIDE NEW REFLECTIVE MARKER ON TRAFFIC SIDE OF EACH VASI HANDHOLE. SEE SHEET L18 FOR INFORMATION.



PS&E **REVIEW**

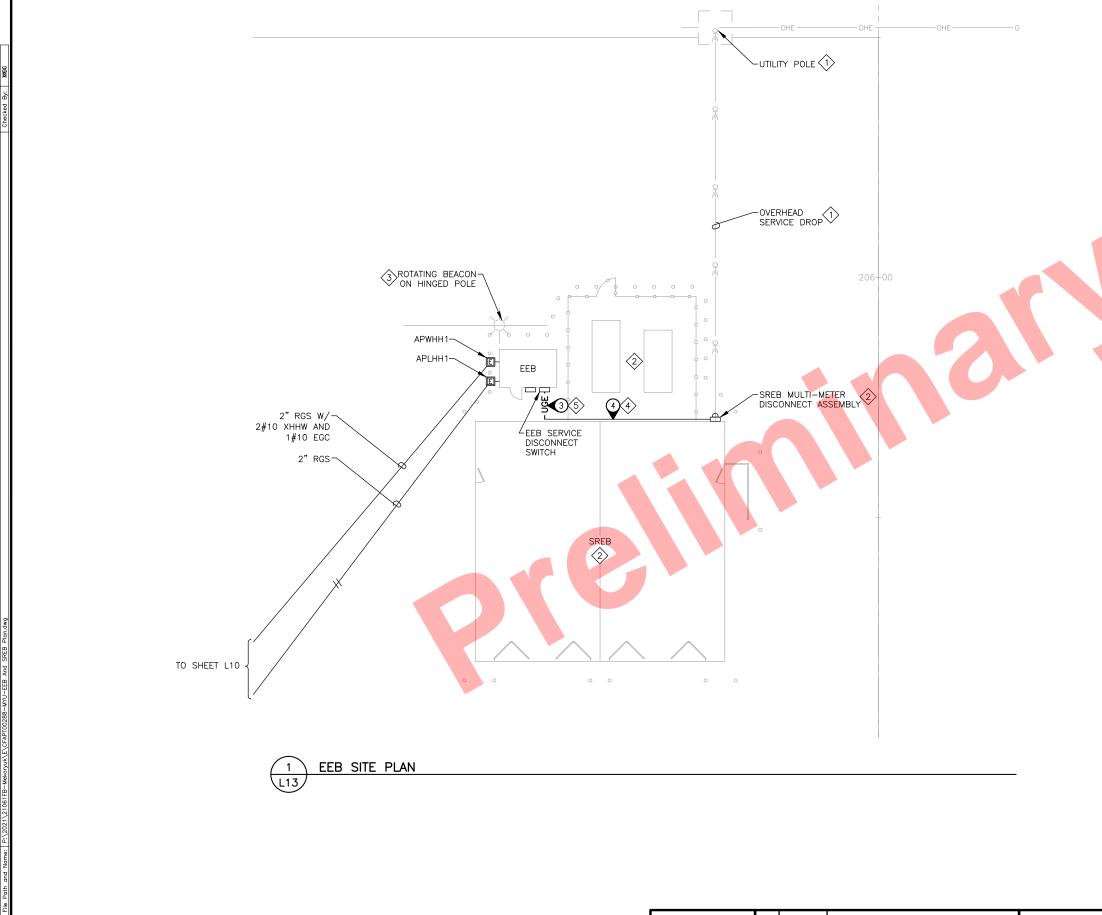
| PLANS DEVELOPED BY: PDC ENGINEERS A RESPEC COMPANY 1028 AURORA DRIVE FAIRBANKS, ALASKA 99709 (907) 452-414 (907) 452-1410 | | | | ı |
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MEKORYUK AIRPORT MEKORYUK, ALASKA AIRPORT REHABILITATION PROJECT No. CFAPT00288 AIP No. 3-02-0380-004-2021

TAXIWAY LIGHTING PLAN

10/28/2021 SHEET: L12 of L33

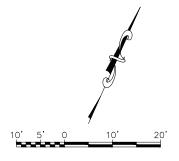


- 1. SEE GENERAL AIRPORT LIGHTING NOTES ON SHEET L8.
- THE EEB PLACEMENT AND ACCESS DOOR SWING IS BASED ON PREVAILING WIND OUT OF THE EAST.

SHEET KEYNOTES



- 1. WORK PROVIDED BY OTHERS.
- 2. SEE MEKORYUK AIRPORT SNOW REMOVAL EQUIPMENT BUILDING PLANS FOR ADDITIONAL INFORMATION.
- 3. SEE SHEET L20 FOR ADDITIONAL INFORMATION.
- 4. ROUTE FEEDER 4 EXPOSED ON THE SIDE OF THE SREB, UNDERGROUND SEGMENT TO EEB IS FEEDER 3. SEE THE EEB PLAN SHEETS FOR INFORMATION.
- 5. PROVIDE A LOW POINT DRAIN IN HDPE SEGMENT OF UNDERGROUND FEEDER 3.



PS&E REVIEW

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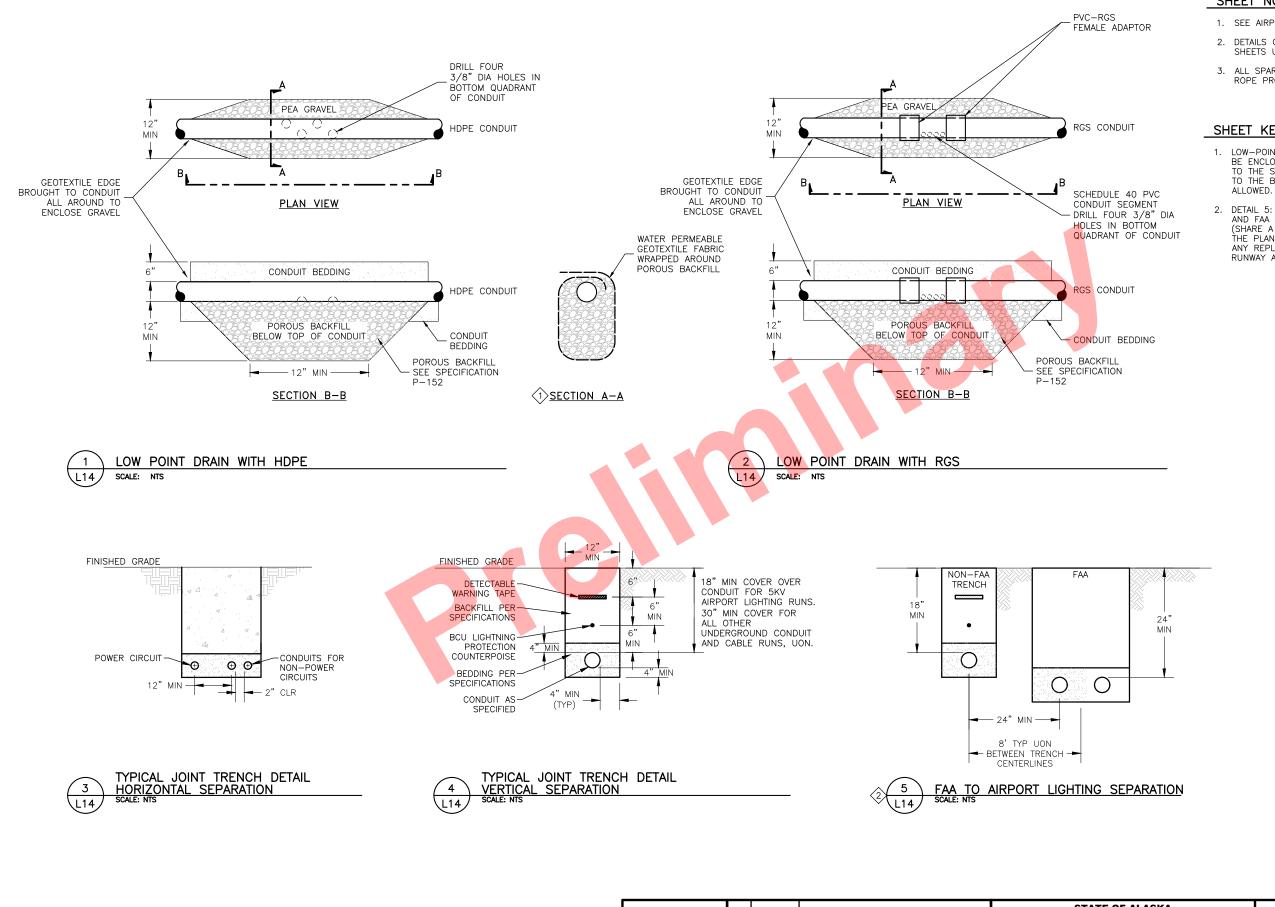
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MEKORYUK AIRPORT
MEKORYUK, ALASKA
AIRPORT REHABILITATION
PROJECT No. CFAPT00288
AIP No. 3-02-0380-004-2021

EEB SITE PLAN

DATE: 10/28/2021 SHEET:

L13 of L33



SHEET NOTES

1. SEE AIRPORT LIGHTING GENERAL NOTES ON SHEET L3.

2. DETAILS ON THIS SHEET APPLY TO ALL OTHER PLAN SHEETS UNLESS OTHERWISE NOTED.

3. ALL SPARE OR EMPTY DUCTS SHALL HAVE A PULL ROPE PROVIDED IF NO CONDUCTORS ARE INSTALLED.

SHEET KEYNOTES 🏶



1. LOW-POINT DRAIN DETAILS: MULTIPLE CONDUITS MAY BE ENCLOSED BY THE GEOTEXTILE, EITHER ABOVE OR TO THE SIDE OF THE CONDUIT SHOWN. THE DISTANCE TO THE BOTTOM OF THE GEOTEXTILE IS THE MINIMUM

2. DETAIL 5: THE 24" APPLIES WHERE AIRPORT LIGHTING AND FAA CONDUITS ARE TO BE JOINT TRENCHED (SHARE A TRENCH) AS SPECIFICALLY INDICATED ON THE PLANS. THE 8 FEET SEPARATION WILL APPLY FOR ANY REPLACEMENT OF FAA RACEWAY SYSTEMS IN THE RUNWAY AND TAXIWAY SAFTEY AREAS (RSA AND TSA).

PS&E **REVIEW**

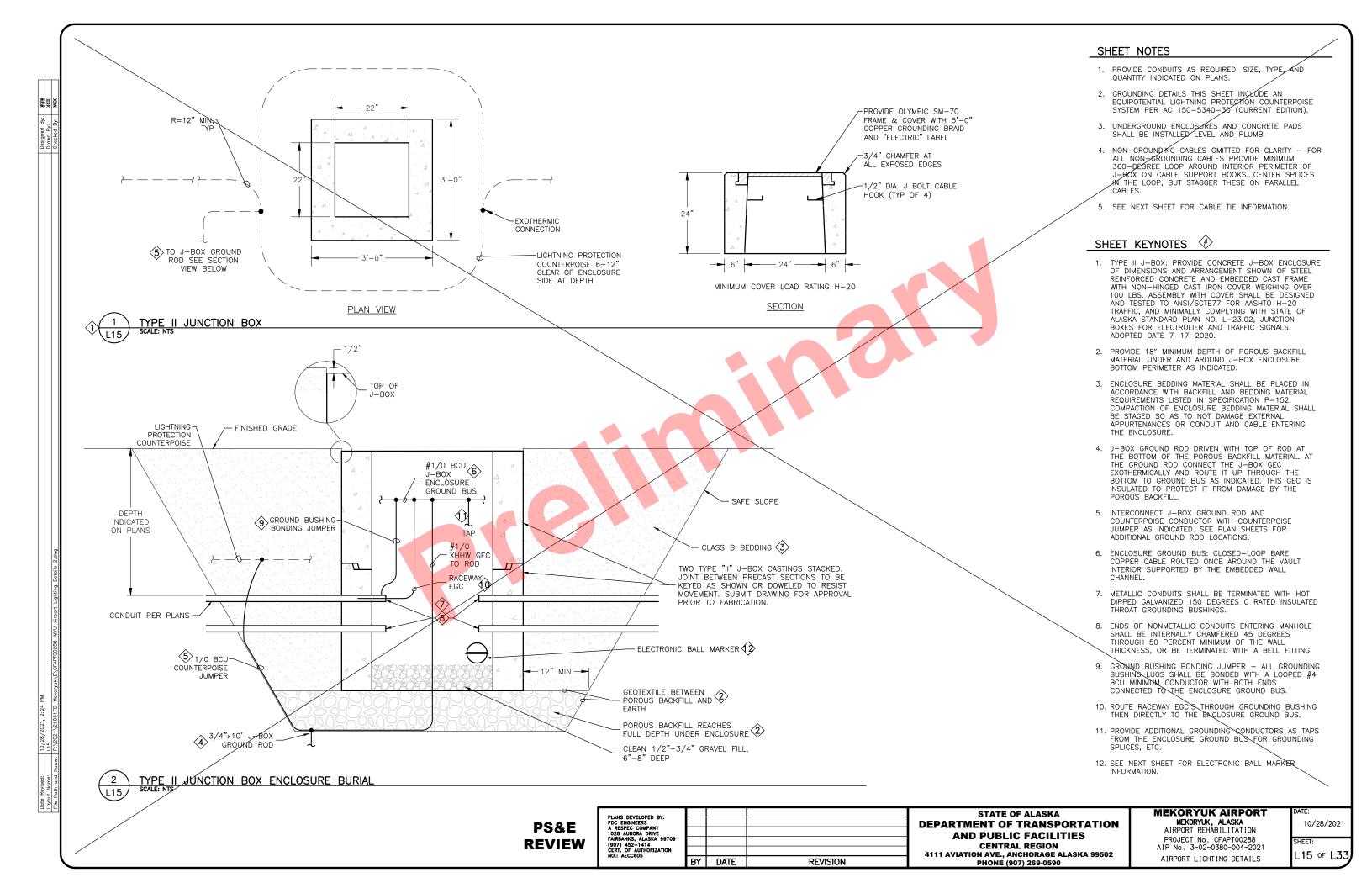
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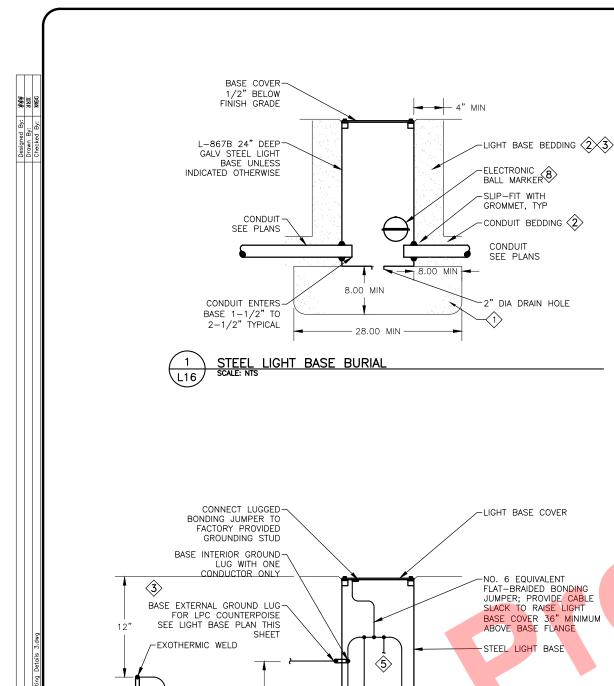
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MEKORYUK AIRPORT MEKORYUK, ALASKA AIRPORT REHABILITATION PROJECT No. CFAPT00288 AIP No. 3-02-0380-004-2021 AIRPORT LIGHTING DETAILS

10/28/2021

L14 of L33



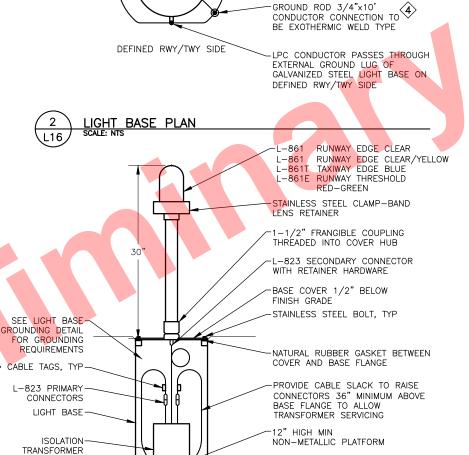


LIGHT BASE FOUNDATION GROUNDING

-3/4"x10' GROUND

ON PLANS

ROD WHERE SHOWN



EQUIPMENT GROUND

CONDUIT

CONDUIT

CONDUCTOR THROUGH LIGHT BASE DRAIN HOLE

SEE DETAIL THIS SHEET

PS&E **REVIEW** CABLE TIE

BINDS CABLES

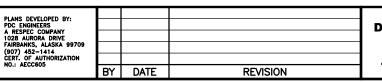
L16,

CONDUIT

NO. 6 BCU

EQUIPMENT GROUND

CONDUCTOR, TYP



ELEVATED EDGE LIGHT WITH STEEL LIGHT BASE

STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION**

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MEKORYUK AIRPORT MEKORYUK, ALASKA AIRPORT REHABILITATION

PROJECT No. CFAPT00288 AIP No. 3-02-0380-004-2021 AIRPORT LIGHTING DETAILS

10/28/2021 L16 of L33

5. FOR EQUIPMENT GROUNDING SYSTEM BRANCHES TO LOCATIONS OUTSIDE THE LIGHT BASE, PROVIDE COMPRESSION CONNECTORS SEPARATE FROM THOSE FOR THE GROUND ROD AND LIGHT BASE COVER. FOR COMPONENTS WITHIN THE LIGHT BASE THAT REQUIRE GROUNDING. PROVIDE COMPRESSION OR BRONZE MECHANICAL CONNECTORS SEPARATE FROM THOSE FOR THE GROUND ROD AND LIGHT BASE COVER.

6. CABLE TIES IN BASES SHALL BE HEAVY DUTY (0.25" WIDE MINIMUM), HIGH DENSITY POLYETHYLENE RATED FOR LOW TEMPERATURE INSTALLATION TO -40 DEGREES F OR LESS, PANDUIT PLT4H-TL140 OR ACCEPTED

SHEET NOTES

GROUNDING DETAILS THIS SHEET INCLUDE AN EQUIPOTENTIAL LIGHTNING PROTECTION COUNTERPOISE

2. LIGHT BASES AND LIGHTING FIXTURES SHALL BE

THAT THE LIGHT BASE IS L-868B WITH A TRAFFIC-RATED BLANK BASE COVER UNLESS

3. ALL LIGHT BASES THIS SHEET ARE L-867B GALVANIZED

THIS SHEET ALSO APPLIES TO HANDHOLES EXCEPT

5. SEE AIRPORT LIGHTING PLANS FOR CONDUCTOR TYPE

PROVIDE 3 CUBIC FEET MINIMUM OF DRAIN ROCK UNDER 12" DIAMETER LIGHT BASE, DRAIN ROCK DIMENSIONING SHOWN GOVERNS FOR LIGHT BASES OTHER THAN 12" DIAMETER. PLACE WATER—PERMEABLE

NON-WOVEN GEOTEXTILE FABRIC AROUND BOTTOM AND SIDES OF DRAIN ROCK, THEN PLACE A SEPARATE TOP LAYER OF GEOTEXTILE WITH 4" OPENING FOR LIGHT BASE DRAIN HOLE ON TOP OF THE PLACED AND

COMPACTED DRAIN ROCK. SEE CIVIL SHEETS FOR DRAIN

2. PLACE LIGHT BASE BEDDING MATERIAL IN ACCORDANCE

WITH SPECIFICATION L-125 FOR THE LIGHT BASE, L-110 FOR THE CONDUIT AND L-108 FOR DIRECT

BURIED CABLE. BACKFILL AND BEDDING MATERIALS

SPECIFIED ON THE DRAWINGS OVERRIDE MATERIAL

3. COMPACTION OF LIGHT BASE BEDDING MATERIAL SHALL BE STAGED SO AS TO NOT DAMAGE THE EXTERNAL

4. EQUIPMENT GROUNDING SYSTEM AND EQUIPOTENTIAL LIGHTNING PROTECTION COUNTERPOISE SYSTEM SHALL

AIRPORT LIGHTING PLANS FOR GROUND ROD

GROUND LUG OR ATTACHED GROUNDING CONDUCTOR.

SHARE THE SINGLE GROUND ROD. POSITION GROUND ROD 6" TO 12" FROM THE LIGHT BASE AND 6" TO 8"

FROM THE CONDUIT AS IT ENTERS THE TRENCH. SEE

REQUIREMENTS IN THE SPECIFICATION.

(LPC) SYSTEM PER AC 150-5340-30.

INSTALLED LEVEL AND PLUMB.

AND SIZE INFORMATION.

SHEET KEYNOTES

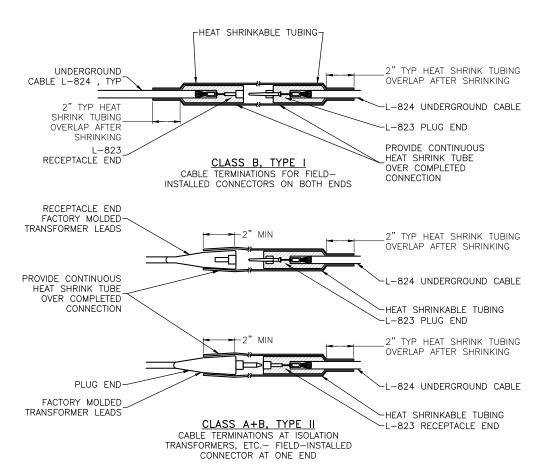
ROCK SPECIFICATIONS.

LOCATIONS

STEEL UNLESS OTHERWISE NOTED.

- 7. CABLE TAGS SHALL BE UTILITY TYPE, MARKING AREA 3 INCHES LONG BY 1-1/2" WIDE MINIMUM, TEAR-PROOF 22-OZ. MINIMUM POLYESTER-REINFORCED VINYL WITH ATTACHMENT STRAP THAT LOOPS AROUND THE CABLE AND IS LOCKED IN A SLOT CUT INTO THE TAG BODY.
 MARK LEGIBLY IN THE FIELD WITH PERMANENT MARKER PEN, RADAR ENGINEERS FLAGTAG NO. 609 OR ACCEPTED EQUAL.
- 8. PROVIDE ELECTRONIC BALL MARKERS IN HANDHOLES AND J-BOXES. BALL MARKERS SHALL BE INTENDED FOR POWER UTILITY LOCATING, SPHERICAL FORM 4-1/2" MAXIMUM DIAMETER, FLUID-FILLED WITH FLOATING SELF-LEVELING PASSIVE RFID ANTENNA INSIDE, OUTDOOR DIRECT BURIED DETECTION RANGE OF 5 FEET MINIMUM, MINIMUM TEMPERATURE RANGE OPERATING -4 TO 122 DEG F AND STORAGE -40 TO 122 DEG F. PROVIDE A MATCHING PORTABLE HAND-HELD LOCATOR THAT TRANSMITS A SIGNAL TO THE BALL MARKER INTERNAL ANTENNA THAT RESPONDS BY RETURNING A SIGNAL TO THE LOCATOR INDICATING THE MARKER LOCATION.

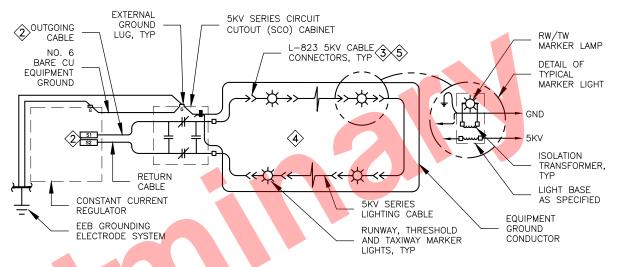
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CABLE CONNECTION NOTES

- 1. PROVIDE L-823 PLUG AND RECEPTACLE CONNECTORS FOR L-824 5KV CABLE UNLESS OTHERWISE NOTED.
- 2. CABLE CONNECTORS ARE TO BE SEALED WITH A CONTINUOUS LENGTH OF COATED HEAT SHRINK TUBING. PREMEASURE AND SLIP THE TUBING AND MARKER TUBING OVER THE CABLES AS REQUIRED BEFORE TERMINATING WITH THE CONNECTORS.
- 3. APPLY COAT OF SILICONE DI-ELECTRIC GREASE TO THE PLUG CONNECTOR PIN AND ALL CONDUCTOR CONNECTIONS.
- CONDUCTOR TERMINATING BARREL SHALL PROPERLY MATCH AND BE INTENDED FOR THE CABLE TERMINATED. STRIP, INSERT AND CRIMP THE CONDUCTOR IN ACCORDANCE WITH MANUFACTURER INSTRUCTIONS, ASSEMBLE AND INSPECT THE PLUG AND RECEPTACLE ELEMENTS FOR PROPER POSITIONING, THEN FULLY SEAT THE CONNECTORS.
- 5. WHEN THE CONNECTION IS COMPLETED SATISFACTORILY POSITION AND APPLY THE HEAT-SHRINK TUBING, THEN POSITION AND APPLY MARKER TUBING AND HAND-TAPE AS REQUIRED. KEEP THE COMPLETED CONNECTION ABOVE GRADE AND HELD STRAIGHT UNTIL FULLY COOLED BEFORE PLACING INTO THE ENCLOSURE
- 6. PROVIDE YELLOW COLORED HEAT SHRINK MARKER TUBING ON THE PLUG (MALE) CONNECTORS.





SHEET NOTES

- SEE AIRPORT LIGHTING PLANS AND EEB (ELECTRICAL EQUIPMENT BUILDING) PLANS FOR CABLE TYPE AND
- 2. ON THIS SHEET THE EQUIPOTENTIAL LIGHTNING PROTECTION COUNTERPOISE SYSTEM IS OMITTED FOR

SHEET KEYNOTES 🏶



- 1. THE 5KV SERIES LIGHTING CIRCUITS SHALL COMPLY WITH A DEFINED ORIENTATION OF THE L-823 5KV CONNECTOR PLUG (MALE) ENDS AROUND THE LOOP.
- 2. THE "OUTGOING" CABLE SHALL BE CONNECTED TO THE OUTPUT TERMINAL OF THE CCR (5KV TERMINAL ALPHANUMERICALLY FIRST) AND THE "RETURN" CABLE IS CONNECTED TO THE OTHER CCR OUTPUT TERMINAL
- 3. ORIENTATION OF THE L-823 5KV CONNECTOR PLUG (MALE) ENDS AROUND THE LOOP SHALL BEGIN WITH THE PLUG END ON THE "OUTGOING" CABLE. THIS PLUG-TO-RECEPTACLE SEQUENCE WILL REMAIN UNCHANGED AROUND THE LOOP.
- 4. GENERALLY, THE 5KV "OUTGOING" TO "RETURN" CABLE PROGRESSION SHALL BE CLOCKWISE WHEN VIEWED ON THE PLANS. THE OUTGOING CABLE PASSES THROUGH ALL ISOLATION TRANSFORMERS AND THEN THE RETURN CABLE RETURNS ELECTRICALLY UNBROKEN.
- 5. SEE 5KV PRIMARY CABLE CONNECTION DETAIL FOR CABLE CONNECTOR MARKING REQUIREMENTS.

RUNWAY/TAXIWAY LIGHTING ONE-LINE DIAGRAM SCALE: NTS

PS&E **REVIEW**

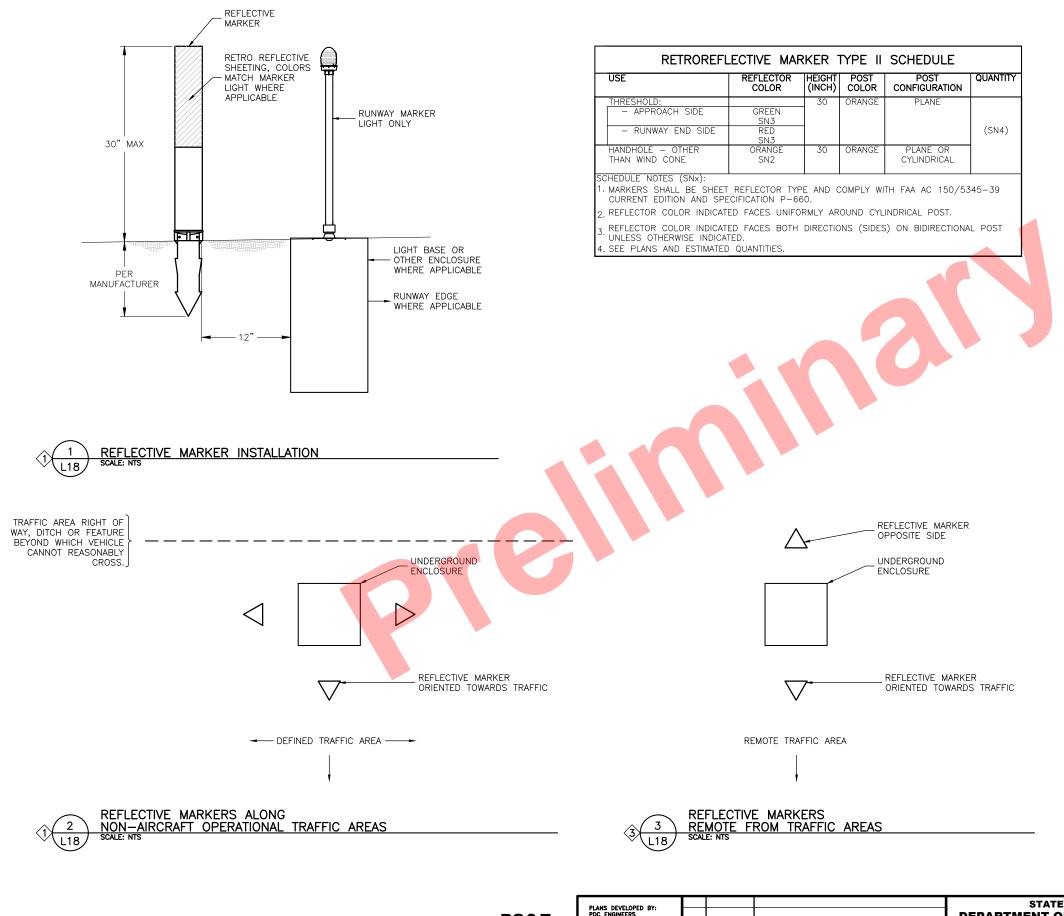
| PLANS DEVELOPED BY: PDC ENGINEERS | | | | D |
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STATE OF ALASKA DEPARTMENT OF TRANSPORTATION **AND PUBLIC FACILITIES CENTRAL REGION** 4111 AVIATION AVE., ANCHORAGE ALASKA 99502 PHONE (907) 269-0590

MEKORYUK AIRPORT MEKORYUK, ALASKA AIRPORT REHABILITATION PROJECT No. CFAPT00288 AIP No. 3-02-0380-004-2021 AIRPORT LIGHTING DETAILS

10/28/2021

L17 of L33



- 1. DETAILS ON THIS SHEET APPLY TO ALL OTHER PLAN SHEETS WHERE NO OTHER SPECIFIC DETAIL REFERENCE IS MADE, OR IMPLIED.
- 2. PROVIDE TYPE II REFLECTIVE MARKERS AS INDICATED ON THIS SHEET UNLESS OTHERWISE INDICATED ON THE PLANS.

SHEET KEYNOTES (#)

- 1. REFLECTIVE MARKERS OUTSIDE OPERATIONAL SURFACES WITHIN AIRCRAFT OPERATIONAL AREAS, RUNWAY SAFETY AREA (RSA) AND TAXIWAY SAFETY AREAS (TSA) AS DEFINED ON THE CIVIL PLANS.
 - A. THRESHOLD LIGHTS AND RELATED HANDHOLES —
 PROVIDE REFLECTIVE MARKERS AS INDICATED ON THE
 THRESHOLD LIGHTING PLANS.
- 2. REFLECTIVE MARKERS ALONG NON-AIRCRAFT TRAFFIC AREAS INCLUDING ROADWAYS, FACILITY PADS AND RELATED PARKING AREAS. PROVIDE THREE REFLECTIVE MARKERS INDICATED. NO MARKER IS REQUIRED ON THE SHOULDER SIDE OF THE ENCLOSURE OR WHERE A PERMANENT STRUCTURE (BUILDING, FENCE, BOLLARD, TRAFFIC BARRIER, ETC.) OF THE SAME HEIGHT OR GREATER SERVES THE PURPOSE.
- 3. REFLECTIVE MARKERS BEYOND THE AREA DEFINED IN THE PREVIOUS SHEET KEYNOTE. PROVIDE TWO REFLECTIVE MARKERS INDICATED. NO MARKER IS REQUIRED WHERE A PERMANENT STRUCTURE (BUILDING, FENCE, BOLLARD, TRAFFIC BARRIER, ETC.) OF THE SAME HEIGHT OR GREATER SERVES THE PURPOSE.

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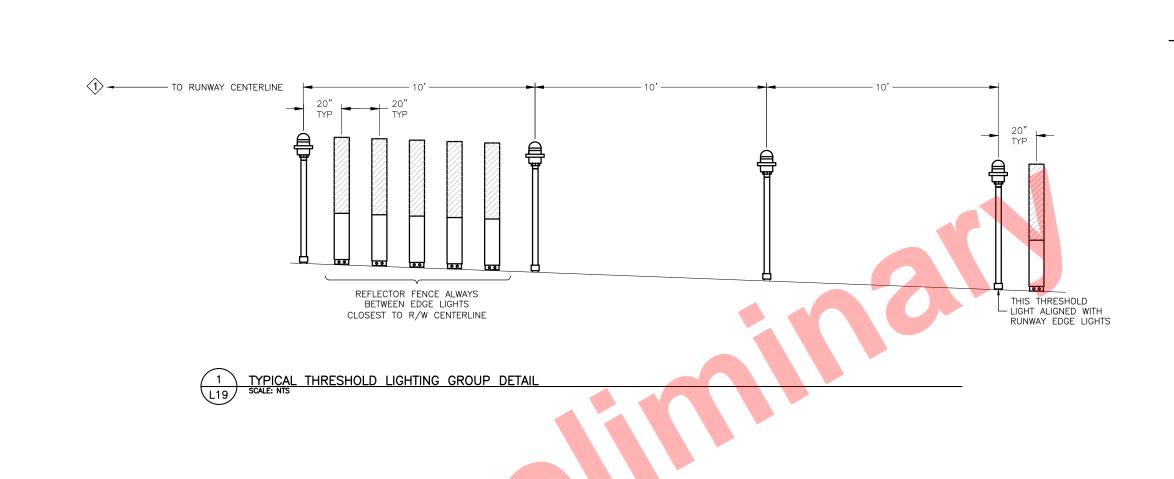
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MEKORYUK AIRPORT
MEKORYUK, ALASKA
AIRPORT REHABILITATION
PROJECT No. CFAPT00288
AIP No. 3-02-0380-004-2021
AIRPORT LIGHTING DETAILS

DATE: 10/28/2021 SHEET:

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1. SEE PREVIOUS SHEET FOR REFLECTIVE MARKER INFORMATION.

SHEET KEYNOTES 🏶



SEE RUNWAY AND THRESHOLD LIGHTING PLANS FOR TOTAL QUANTITY OF THRESHOLD LIGHTS AND LOCATION RELATIVE TO THE RUNWAY CENTERLINE AND RUNWAY EDGE LIGHTS.

PS&E **REVIEW** PLANS DEVELOPED BY:
PDC ENGINEERS
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CERT. OF AUTHORIZATION
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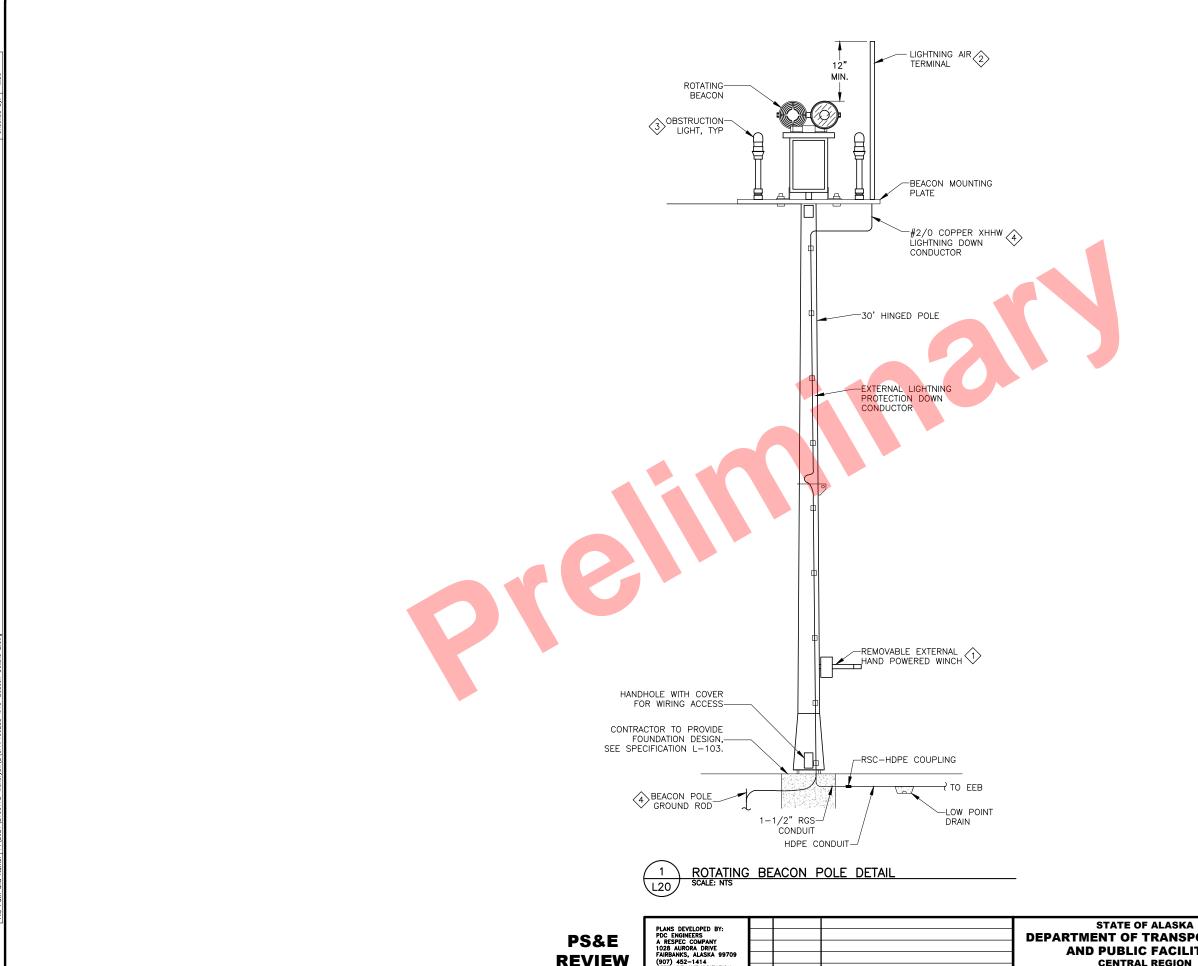
STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION** AND PUBLIC FACILITIES **CENTRAL REGION**

4111 AVIATION AVE., ANCHORAGE ALASKA 99502 PHONE (907) 269-0590

MEKORYUK AIRPORT MEKORYUK, ALASKA AIRPORT REHABILITATION PROJECT No. CFAPT00288 AIP No. 3-02-0380-004-2021 AIRPORT LIGHTING DETAILS

10/28/2021 SHEET:

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- 1. SEE GENERAL AIRPORT LIGHTING NOTES ON SHEET L8.
- 2. ALL WORK THIS SHEET IS PROVIDED UNDER SPECIFICATION L-103, UNLESS OTHERWISE INDICATED.
- 3. AIRPORT ROTATING BEACON IS PROVIDED UNDER SPECIFICATION L-101.
- 4. ALL WIRING AND CONDUIT UPSTREAM OF BEACON FOUNDATION AND LOW POINT DRAIN ARE PROVIDED UNDER SPECIFICATION L-109.
- 5. LIGHTNING PROTECTION ROD AND RELATED COMPONENTS SHALL COMPLY WITH NFPA-780 EXCEPT
- 6. EXCEPT FOR THE LIGHTNING PROTECTION DOWN CONDUCTOR, ALL ELECTRICAL WIRING SHALL BE ENCLOSED WITHIN THE TIP-DOWN POLE FROM THE FOUNDATION TO WIRING EXITS INDICATED BELOW THE BEACON MOUNTING PLATE. WIRING INSIDE THE POLE SHALL BE 600V TYPE SOOW ARCTIC CORD UNLESS THE MANUFACTURER REQUIRES OTHERWISE. ALL WIRING OUTSIDE THE POLE AT THE TOP SHALL BE TYPE SOOW ARCTIC CORD AS INDICATED ON THE NEXT SHEET.

SHEET KEYNOTES \circledast



- 1. THE TIP-DOWN WINCH SHALL BE EXTERNALLY MOUNTED AND REMOVABLE AFTER LOCKING THE POLE IN THE UPRIGHT POSITION. A LOCKABLE COVER SHALL BLOCK ACCESS TO THE POLE INTERIOR WITH THE WINCH
- 2. THE LIGHTNING PROTECTION AIR TERMINAL SHALL BE 5/8" DIAMETER WITH BLUNT TIP, EXTENDING 12" MÍNIMUM ABOVE OBJECTS IT PROTECTS. ONLY THE TERMINAL ROD ITSELF SHALL BE ABOVE THE BOTTOM OF THE BEACON LAMP LENSES WITH MAXIMUM UNSUPPORTED ROD LENGTH OF 24", ALL OTHER SUPPORTS HARDWARE AND OTHER COMPONENTS TO BE BELOW THE LENSES. IF THE AIR TERMINAL BOTTOM MOUNTING MUST BE ELEVATED TO MEET REQUIREMENTS AND THE ELEVATING STRUCTURE IS OF FERROUS MATERIAL, THE STRUCTURE ARRANGEMENT SHALL NOT ENCLOSE THE LIGHTING DOWN CONDUCTOR CREATING A
- 3. OBSTRUCTION LIGHTS SHALL BE 120VAC-POWERED LED-TYPE WITH NO INTEGRAL PHOTO-ELECTRIC CONTROL. NO PORTION OF THE OBSTRUCTION LIGHTS SHALL BE HIGHER THAN THE BOTTOM OF THE BEACON LAMP LENSES.
- 4. THE LIGHTING DOWN CONDUCTOR (LDC) SHALL BE SUPPORTED WITH NON-FERROUS SUPPORTS EVERY 36" MAXIMUM ON THE TIP-DOWN POLE EXTERIOR. THE SUPPORTS SHALL BE SPACED SO THE POLE HINGE IS CENTERED BETWEEN THE LDC SUPPORTS. INSTALLED DOWN CONDUCTOR BEND RADIUS SHALL BE 9" MINIMUM WHETHER THE POLE IS TIPPED UP OR FULLY DOWN. AT THE BOTTOM OF THE POLE ASSEMBLY THE LDC SHALL PASS THROUGH A 3/4" PVC CONDUIT ELBOW OF 9" RADIUS MINIMUM EMBEDDED IN THE CONCRETE FOUNDATION, THEN THE LDC CONTINUES WITH A 9" RADIUS DOWNWARD TURN TO EXOTHERMICALLY CONNECT TO THE BEACON POLE GROUND ROD.

REVIEW

(907) 452-1414 CERT. OF AUTHORIZATION NO.: AECC605 ΒY DATE **REVISION**

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION 4111 AVIATION AVE., ANCHORAGE ALASKA 99502

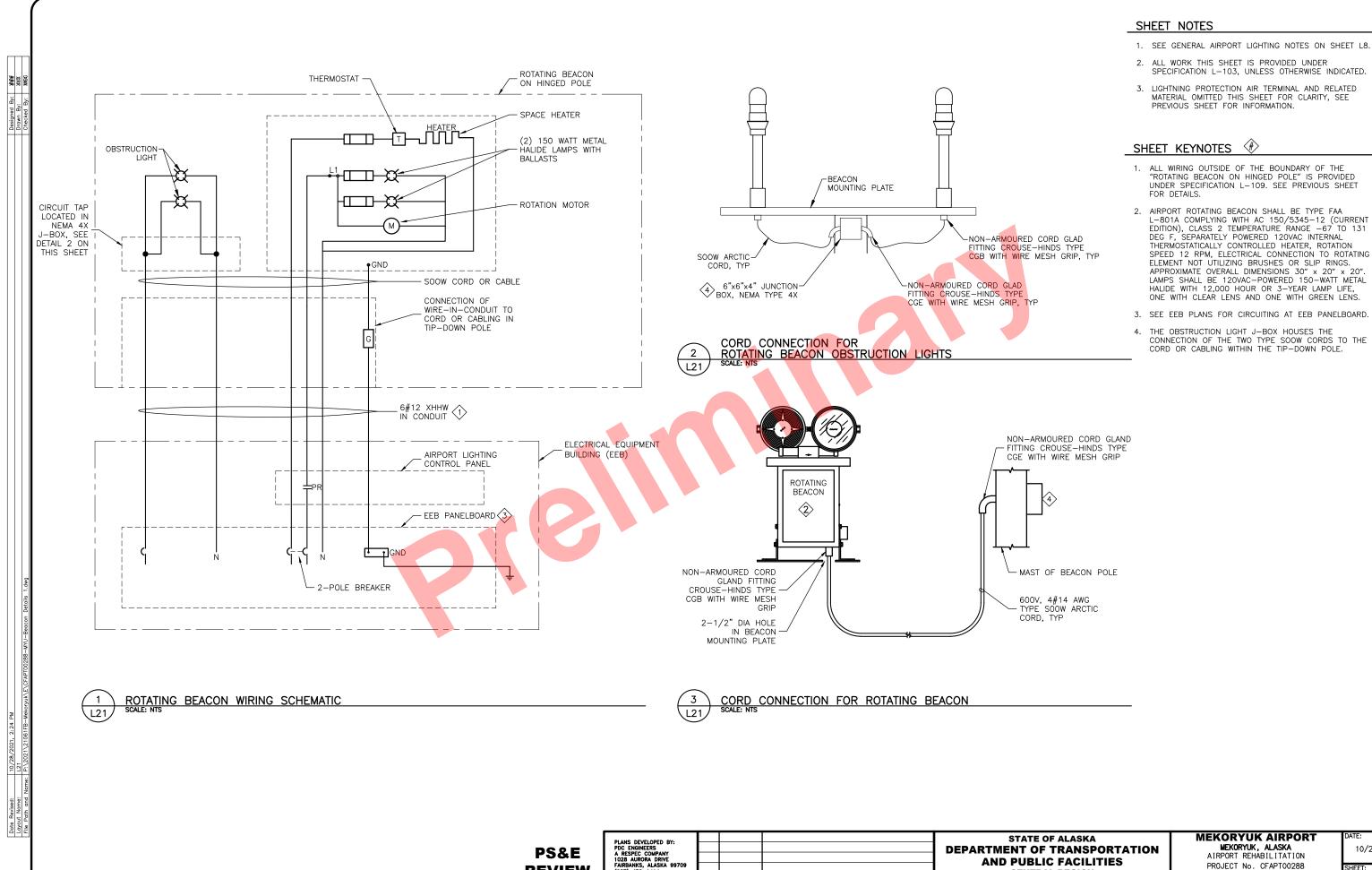
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MEKORYUK AIRPORT MEKORYUK, ALASKA AIRPORT REHABILITATION PROJECT No. CFAPT00288 AIP No. 3-02-0380-004-2021

AIRPORT BEACON DETAILS

10/28/2021

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REVIEW

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REVISION

MEKORYUK AIRPORT MEKORYUK, ALASKA AIRPORT REHABILITATION PROJECT No. CFAPT00288 AIP No. 3-02-0380-004-2021

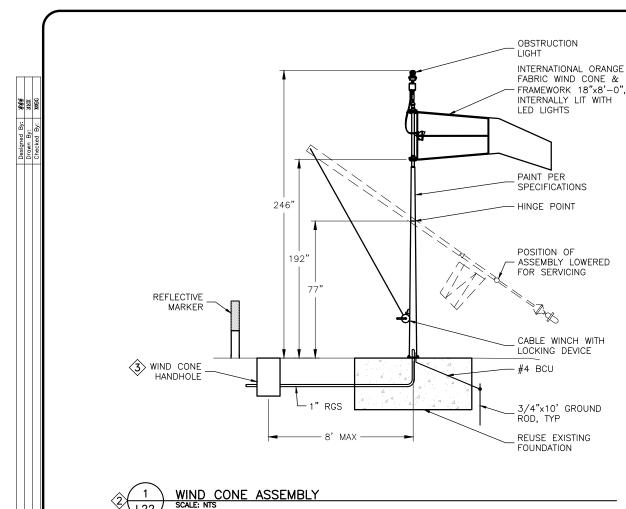
DEPARTMENT OF TRANSPORTATION

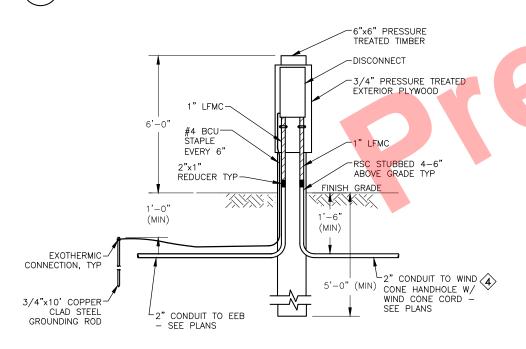
AND PUBLIC FACILITIES

CENTRAL REGION 4111 AVIATION AVE., ANCHORAGE ALASKA 99502 PHONE (907) 269-0590

10/28/2021 AIRPORT BEACON DETAILS

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WIND CONE DISCONNECT - FRONT VIEW SCALE: NTS

HOT DIP 1" MIN - GALVANIZED WASHERS, TYP POLE BASE PLATE MIN - REUSE EXISTING FOUNDATION DO NOT GROUT WIND CONE POLE MOUNTING ELEVATION REUSE EXISTING CONCRETE FOUNDATION 1" RSC ELECTRICAL CONDUIT STUB OUT 24" MIN FROM FOUNDATION BUSHING ON TOP OF CONDUIT ANCHOR BOLTS (NOTE: SEGMENTED CIRCLE PANELS NOT SHOWN) WIND CONE POLE MOUNTING — PLAN VIEW

POLE

HOT DIPPED

GALVANIZED : NUTS, TYP

SHEET NOTES

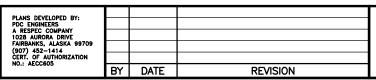
- WIND CONES SHALL BE COMPLIANT WITH CURRENT EDITION OF FAA AC 150-5345-27.
- PRIMARY WIND CONE SEGMENTED CIRCLE PLAN AND PANEL DETAILS OMITTED FOR CLARITY, SEE CIVIL.
- ON THIS SHEET THE EQUIPOTENTIAL LIGHTNING PROTECTION COUNTERPOISE SYSTEM IS OMITTED FOR CLARITY.

SHEET KEYNOTES 🏶



- 1. TYPE, SIZE, AND POSITIONING OF ANCHOR BOLTS WITH ASSOCIATED HARDWARE SHALL BE IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS. ANCHOR BOLTS SHALL BE THREADED FOR NUTS ABOVE AND BELOW WIND CONE BASEPLATE AS INDICATED. CONDUIT SIZE AND POSITION SHALL BE IN ACCORDANCE WITH MANUFACTURERS
- 2. WIND CONE SHALL BE FAA TYPE L-807 NON-FRANGIBLE TIP-DOWN STRUCTURE, STYLE I-B INTERNALLY LIGHTED WIND SOCK AND L-810 OBSTRUCTION LIGHT WITH LIGHT EMITTING DIODE LAMPS, WIND SOCK SIZE 1 (18" DIA X 8' LONG), BOTTOM OF WIND SOCK 16 FEET MINIMUM ABOVE GRADE, BOTH INTERNALLY LIGHTED WIND SOCK LED AND OBSTRUCTION LIGHT ARE TO OPERATE ON
- 3. PROVIDE L-867 HAND HOLE, CLASS 1A (GALVINIZED STEEL), SIZE D (12" DIAMETER BY 24" DEEP). SEE WIND CONE PLAN FOR HANDHOLE LOCATION RELATIVE TO THE WIND CONE.
- 4. PROVIDE WIND CONE FLEXIBLE CORD, TYPE SOOW-A/SOOW, 600V, 3-CONDUCTOR COPPER #14 AWG UNLESS OTHER CONDUCTOR COUNT/SIZING"IS REQUIRED BY MANUFACTURER.

PS&E **REVIEW**



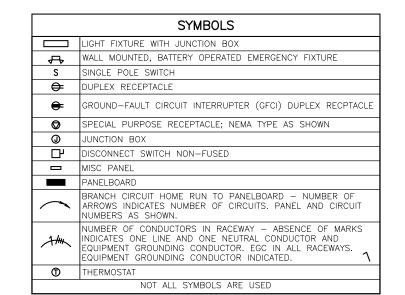
STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION** 4111 AVIATION AVE., ANCHORAGE ALASKA 99502 PHONE (907) 269-0590

MEKORYUK AIRPORT MEKORYUK, ALASKA AIRPORT REHABILITATION PROJECT No. CFAPT00288 AIP No. 3-02-0380-004-2021

WIND CONE DETAILS

10/28/2021

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| MOUNTING HEIGHT SCHEDULE | |
|---------------------------|-------|
| *SWITCHES | 4'-0" |
| *OUTLETS | 2'-0" |
| BRANCH PANELS (TOP) | 5'-6" |
| DISCONNECT SWITCHES (TOP) | 5'-6" |
| | • |

MOUNTING HEIGHTS SHALL PREVAIL ON ALL NEW CONSTRUCTION UNLESS OTHERWISE NOTED.

MOUNTING HEIGHTS ARE TO CENTER AND ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED.

*MOUNTING HEIGHTS COMPLY WITH ICC/ANSI A117.1-03

SHEET NOTES

- 1. SEE GENERAL ELECTRICAL NOTES ON SHEET L1.
- 2. ELECTRICAL RACEWAYS, EQUIPMENT, AND DEVICES SHALL BE EXPOSED SURFACE—MOUNTED UNLESS OTHERWISE INDICATED.
- 3. DRAWINGS SHOW THE GENERAL LOCATIONS OF THE ELECTRICAL FEATURES ONLY, UNLESS OTHERWISE INDICATED. MAKE MINOR RELOCATIONS AS REQUIRED FOR PROJECT CONDITIONS WHEN NECESSARY TO PRESENT SYMMETRICAL APPEARANCE OR TO AVOID INTERFERENCE WITH OTHER INSTALLATIONS.
- CONDUIT ENTIRELY WITHIN THE EEB INTERIOR SHALL BE 3/4" MINIMUM EMT WITH COMPRESSION-TYPE CONNECTORS. CONDUIT SHALL BE SUPPORTED WITH 2-HOLE STRAPS WHEN FASTENED DIRECTLY TO THE EEB SURFACES.
- 5. CONDUCTORS SHALL BE COPPER TYPE XHHW-2.
 MINIMUM CONDUCTOR SIZE FOR BRANCH CIRCUITS IS SOLID #12 AWG UNLESS OTHERWISE NOTED. CONTROL AND SIGNALING WIRE SHALL BE STRANDED COPPER OF THE TYPE AND SIZE REQUIRED BY COMPONENT AND
- 6. NEUTRAL CONDUCTORS SHALL NOT BE SHARED BETWEEN BRANCH CIRCUITS, UNLESS OTHERWISE
- 7. PROVIDE INSULATED EQUIPMENT GROUNDING CONDUCTORS (EGC) WITH ALL FEEDERS AND BRANCH CIRCUITS. TERMINATE EGC ENDS ON SUITABLE LUG IN FIXTURES, J-BOXES, DEVICES, GROUND BUSES, BUSHINGS AND ENCLOSURES. SIZE EQUIPMENT GROUNDING CONDUCTORS IN ACCORDANCE WITH NEC, UNLESS OTHERWISE INDICATED, BUT NOT SMALLER THAN NO 12 AWG
- 8. OUTLET AND DEVICE BOXES FOR USE WITH EXPOSED RACEWAY SYSTEMS SHALL BE THREADED HUB, CAST METAL TYPE.
- 9. DO NOT PENETRATE THE EEB FLOOR UNLESS SPECIFICALLY INDICATED TO DO SO.
- 10. ALL EEB WALL AND FLOOR PENETRATIONS SHALL BE EXTERNALLY SEALED WITH SILICONE SEALANT.
- 11. ALL CONDUITS PENETRATING EEB WALLS AND FLOOR SHALL BE INTERNALLY SEALED WITH CLOSED CELL FOAM TYPE DUCT SEALANT LISTED FOR THE PURPOSE.
- 12. ARRANGE CONDUIT PENETRATIONS OF EEB WALL AND UNDERGROUND ROUTING OUTSIDE THE EEB SUCH THAT POWER AND SIGNALING CIRCUITS (ANTENNA CABLE, DATA NETWORK CABLES, ETC.) ARE 24" MINIMUM APART IF NOT IN METALLIC RACEWAYS.
- 13. NO RACEWAY SHALL PENETRATE THE EEB ROOF OR ANY POINT ABOVE THE BOTTOM OF THE ROOF FLASHING.

PS&E **REVIEW** PLANS DEVELOPED BY: PDC ENGINEERS A RESPEC COMPANY 1028 AURORA DRIVE FAIRBANKS, ALASKA 99709 (907) 452-1414 CERT. OF AUTHORIZATION NO.: AECC605 ΒY DATE **REVISION**

STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION**

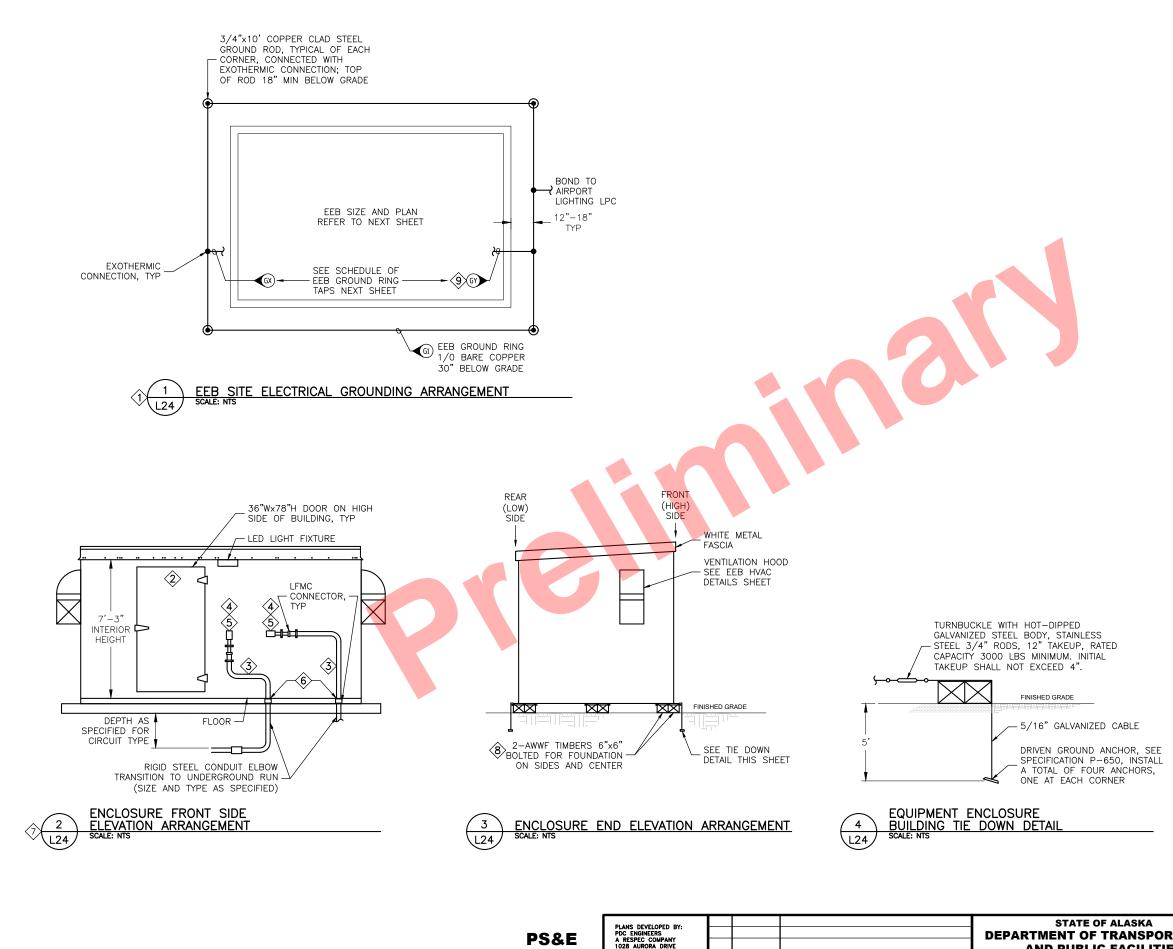
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MEKORYUK AIRPORT MEKORYUK, ALASKA AIRPORT REHABILITATION PROJECT No. CFAPT00288 AIP No. 3-02-0380-004-2021

10/28/2021 HEET: EEB ELECTRICAL COVER SHEET

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SHEET NOTES

- THIS SHEET PROVIDES COMMON SCHEMATIC ARRANGEMENT REQUIREMENTS ONLY. COMPLY WITH SPECIFIC REQUIREMENTS WHERE INDICATED. SEE NEXT SHEET FOR DIMENSIONED OR SCALED FLOOR PLANS SHOWING BUILDING LENGTH AND WIDTH.
- 2. SEE SHEET NOTES ON PREVIOUS SHEET

SHEET KEYNOTES 🏶



- 1. ALL UNDERGROUND GROUNDING CONNECTIONS SHALL BE EXOTHERMIC TYPE. ALL CONDUCTORS BRANCHING INTO THE EEB ENVELOPE RISE ABOVE GRADE INSIDE THE OUTER SKIDS (TO LIMIT THEFT ACCESS) AND PENETRATE THE FLOOR OF THE EEB.
- 2. EEB DOOR: HEAVY DUTY "REFRIGERATOR TYPE" HINGED DOOR ASSEMBLY, HARDWARE INCLUDES PAD-LOCKABLE DOOR LATCH ASSEMBLY WITH AN INTERIOR SAFETY LOCK-OVERRIDE PUSH-TO-EXIT OPERATOR.
- 3. POSITIONING OF LB FITTINGS AND FREE LENGTH OF LFMC SHALL ACCOMMODATE MINIMUM OF PLUS/MINUS 3" OF EEB MOVEMENT RELATIVE TO THE GROUND IN ALL DIRECTIONS WITHOUT CREATING A WATER TRAPPING BEND. THE EEB—END OF THE LFMC SHALL BE SECURED WITHIN 12" TO THE EEB EXTERIOR WITH A CLAMP FASTENED TO A HOT-DIPPED GALVANIZED CHANNEL SEGMENT. FOR THE LB FITTING ELEVATION INDICATED, THE LFMC S-ROUTING IS FOR SIZE 1-1/4" OR LESS, AND THE LFMC L-ROUTING IS FOR SIZE 1-1/2" AND UP.
- 4. LOCATE RACEWAY PENETRATIONS OF EEB WALL SUCH THAT ENTRANCE OF ANY MOISTURE THROUGH OR AROUND THE CONDUIT CANNOT GRAVITY-ENTER EQUIPMENT ENCLOSURES. IN ADDITION, RACEWAYS PENETRATING THE WALL SHALL BE ARRANGED SO ALL MOISTURE WITHIN THE RACEWAYS DRAINS TO EXTERIOR ENCLOSURES AND UNDERGROUND CONDUITS OUTSIDE
- 5. PROVIDE LB—TYPE CONDUIT BODIES FOR EXTERIOR—SIDE OF CONDUIT PENETRATIONS OTHER THAN THE AIRPORT RADIO CONTROLLER ANTENNA CABLE. CONDUITS PENETRATING THE EEB WALL SHALL BE IMC, AND SHALL REMAIN IMC INSIDE THE EEB WHEN UTILIZED TO SUPPORT FULLY OR IN PART EXTERIOR CONDUIT BODIES SUCH AS LB FITTINGS, ETC. RACEWAYS PENETRATING THE WALL SHALL BE ARRANGED SO ALL MOISTURE WITHIN DRAINS TO ENCLOSURES AND UNDERGROUND CONDUITS OUTSIDE THE EEB. EACH LB FITTING SHALL BE FASTENED TO THE EEB EXTERIOR WITH AN RSC NIPPLE CLAMPED TO TWO HOT-DIPPED GALVANIZED CHANNEL SEGMENTS, OR ONE CLAMP-TO-CHANNEL SUPPORT IF A SECOND EQUIVALENT MEANS OF SUPPORT IS INSIDE THE EEB. FOR THE AIRPORT RADIO CONTROLLER ANTENNA CABLE CONDUIT ENTRY SEE SEPARATE DETAIL.
- 6. TOP OF UNDERGROUND CONDUIT STUB-UP (WITHOUT LFMC CONNECTOR) SHALL BE 0" - 2" ABOVE TOP OF
- 7. USE THIS DETAIL FOR ALL UNDERGROUND CONDUIT CONNECTIONS TO ANY STRUCTURE WITH A SKID—TYPE FOUNDATION.
- 8. SECURE TIMBERS TO EEB FLOOR WITH 3/4" GALVANIZED MACHINE BOLTS AND WIDE WASHERS. COUNTERSINK BOLT HEADS INTO BOTTOM SIDE OF
- EQUIPMENT GROUNDING ELECTRODE CONDUCTORS (EGEC) ARE ROUTED ON FINISHED GRADE BETWEEN THE EEB SKIDS TO THE CLOSEST EEB END, THEN AT 12"-18" INSIDE THE EEB SHELTER OUTLINE THE CABLES ARE DIRECT BURIED TO THE GROUND RING. INTENT IS TO CONCEAL THE GEC'S FROM VANDALS.

REVIEW

1028 AURORA DRIVE FAIRBANKS, ALASKA 99709 (907) 452-1414 CERT. OF AUTHORIZATION NO.: AECC605 RY DATE **REVISION**

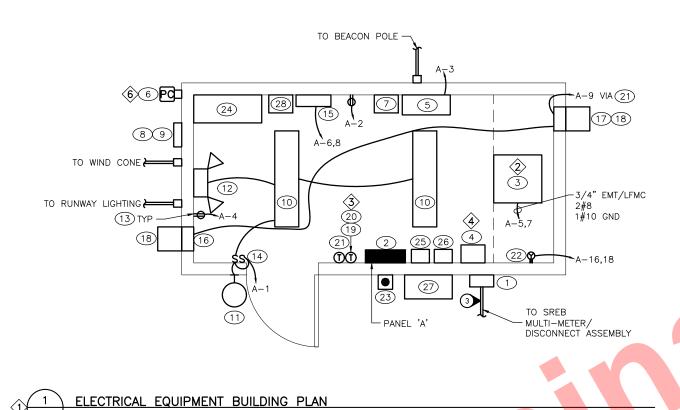
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES **CENTRAL REGION** 4111 AVIATION AVE., ANCHORAGE ALASKA 99502 PHONE (907) 269-0590

MEKORYUK AIRPORT MEKORYUK, ALASKA AIRPORT REHABILITATION PROJECT No. CFAPT00288 AIP No. 3-02-0380-004-2021

EEB SCHEMATIC ARRANGEMENT

10/28/2021

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| | SCHEDULE OF EEB GROUND RING TAPS | | | | | | | |
|---------|-------------------------------------|---------|-----------------|----------------|--|--|--|--|
| GX - T/ | APS ONTO EXTERIOR OF EEB ENCLOSURE | | | | | | | |
| X = | EQUIPMENT ITEM OR DESCRIPTION | CABLE | EEB PENETRATION | COMMENTS | | | | |
| 2 | ITEM 1 - EEB SERVICE DISCONNECT GEC | #4 XHHW | N/A | SEE SN1 | | | | |
| 3 | ITEM 26, 27 - GENERATOR GEC | ,, | SEE PLANS | SEE SN1 | | | | |
| 4 | ITEM 8, 9 - RADIO ANTENNA | " | N/A | SEE SN2, SN4 | | | | |
| GY - TA | APS INTO INTERIOR OF EEB ENCLOSURE | | | | | | | |
| Y = | EQUIPMENT ITEM OR DESCRIPTION | CABLE | EEB PENETRATION | COMMENTS | | | | |
| 5 | ITEM 2 - EEB PANELBOARD EGEC | #4 XHHW | FLOOR | SEE SN2, SN3 | | | | |
| 6 | ITEM 3 - CONSTANT CURRENT REGULATOR | " | " | SEE SN2 | | | | |
| 7 | ITEM 4 - SERIES CIRCUIT CUTOUT | " | " | SEE SN2, SN3 | | | | |
| | F NOTES (CM.) | | | SEE SINZ, SINS | | | | |

SCHEDULE NOTES (SNx):

- SEE EEB ELECTRICAL ONE-LINE AND PANELBOARD SHEET.
- THIS IS AN EGEC (EQUIPMENT GROUNDING ELECTRODE CONDUCTOR).
- SINGLE CABLE G4 CAN BE TAPPED INSIDE EEB TO SERVE BOTH ITEMS IF EQUIPMENT IS COLOCATED.
- THE RADIO ANTENNA ARRANGEMENT HAS A #10 AWG MINIMUM GROUNDING CONDUCTOR THAT SHALL BE IN-LINE CONNECTED TO THIS GEC ABOVE GRADE.

PS&E **REVIEW** PLANS DEVELOPED BY: PDC ENGINEERS A RESPEC COMPANY 1028 AURORA DRIVE FAIRBANKS, ALASKA 99709 (907) 452-1414 CERT. OF AUTHORIZATION NO.: AECC605 BY DATE **REVISION**

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STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES**

CENTRAL REGION 4111 AVIATION AVE., ANCHORAGE ALASKA 99502 PHONE (907) 269-0590

4. PROVIDE MINIMUM OF 18 INCHES LFMC FOR ALL CONDUIT CONNECTIONS TO THE CCR. PROVIDE MINIMUM OF 12 INCHES FMC FOR ALL CONDUIT CONNECTIONS TO INTERIOR MECHANICAL EQUIPMENT.

SHEET KEYNOTES 🏶

SHEET NOTES

- 1. NOMINAL SIZE OF EEB SHELTER IS 8 BY 16 FEET MINIMUM.
- 2. POSITION CCR WITH 30" MINIMUM WORKSPACE ON BOTH SIDES. ANY EXTRA SPACE SHALL BE ALLOTTED TO THE SIDE WITH THE VENTILATION WALL OPENING. ON THE WALLS AROUND THE CCR NO EQUIPMENT OTHER THAN CONDUITS, OUTLET BOXES AND THE HVAC EQUIPMENT SHALL BE WITHIN 4" OF A LINE BETWEEN THE EEB SIDE WALLS AND THE FRONT OF THE CCR.

1. SEE GENERAL ELECTRICAL NOTES ON SHEETS L1 AND

2. THE "OVAL NUMBERS" ON THIS SHEET ARE KEYED TO THE EQUIPMENT LIST ON NEXT SHEET.

3. SEE PREVIOUS SHEET FOR SCHEMATIC ARRANGEMENT OF EXTERIOR EEB SITE GROUNDING AND SITE CONDUIT

- 3. MOUNT THERMOSTATS AND RELATED EQUIPMENT ABOVE THE LIGHTING SWITCHES.
- 4. THE OVAL NUMBER "4A" IS NOT SHOWN ON THIS PLAN BUT IS REQUIRED. PROVIDE THE TWO ITEMS LOOSE AT THE BOTTOM OF THE OVAL NUMBER "4" CABINET ADD 6" OF HEIGHT TO THE SCO CABINET MINIMUM DIMENSIONS REQUIRED BY THE SCO MANUFACTURER.
- 5. MOUNT ANTENNA ON EEB AS INDICATED. SEE DETAIL "ANTENNA MOUNTING DETAIL" ON "EEB ELECTRICAL DETAILS" SHEETS FOR INSTALLATION DETAILS.
- 6. PHOTOELECTRIC CONTROL RACEWAY PENETRATES WALL TO AN EXTERIOR LB FITTING, WITH IMC CONDUIT EXTENDING UPWARDS TO 12" MINIMUM ABOVE ANY OBSTRUCTION ON THE EEB LOOKING NORTH. AIM THE PHOTOELECTRIC CONTROL APERTURE NORTH.
- 7. GROUNDING ELECTRODE CONDUCTORS (GEC) AND EQUIPMENT GEC'S (EGEC) ARE NOT SHOWN IN THE PLAN ON THIS SHEET. SÉE SCHEDULE THIS SHEET LINKING EQUIPMENT "OVAL NUMBERS" TO REQUIRED GEC'S AND EGEC'S. EACH EGEC PENETRATES THE FLOOR THROUGH PVC SLEEVES (1/2" MIN, 3/4" FOR #1/0 AND LARGER) NEAR THE EQUIPMENT, THEN ARE ROUTED UNDER THE EEB ON FINISH GRADE AS DESCRIBED ON THE PREVIOUS SHEET.

MEKORYUK AIRPORT MEKORYUK, ALASKA AIRPORT REHABILITATION PROJECT No. CFAPT00288 AIP No. 3-02-0380-004-2021 EEB ELECTRICAL PLAN

10/28/2021

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| | EQUIPMENT LIST (OVAL NUMBERS) |
|------|---|
| ITEM | DESCRIPTION |
| 1 | EEB SERVICE EQUIPMENT: NONFUSED SWITCH, SEE PLANS AND POWER ONE-LINE DIAGRAM. |
| 2 | CIRCUIT BREAKER PANELBOARD: RATINGS, BREAKERS AND ACCESSORIES AS INDICATED ON PANEL SCHEDULE AND POWER ONE—LINE, SURFACE MOUNTED, 20 INCHES WIDE. MOUNT WITH TOP AT 5'—6" ABOVE FINISHED FLOOR. |
| 3 | CONSTANT CURRENT REGULATOR (CCR): NON—FERRORESONANT, L—828, 7.5 KW, 6.6A, 3—STEP, 240—VOLTS INPUT. SECURE TO FLOOR WITH THROUGH BOLTS. |
| 4 | SERIES CIRCUIT CUTOUT (SCO): S-1 SERIES, 5-kV PLUG STYLE, IN NEMA 1 ENCLOSURE WITH HINGED AND LOCKABLE DOOR. ENCLOSURE SIZED TO HOUSE SCO WITH TWO 2-INCH CONDUITS TOP OR BOTTOM WITH WIRING CONNECTION SPACE AND ALLOWING FULL OPERATION. |
| 4A | SCO TROUBLESHOOTING PLUGS: MATCHED TO THE SCO FIXED—MOUNTED BODY. THE PURPOSE OF THESE COMPONENTS IS TO REPLACE THE NORMAL OPERATION SCO PLUG WITH ONE OF TWO PLUGS THAT INTENTIONALLY GROUND ONE OR THE OTHER CCR OUTPUT TERMINALS FOR TROUBLESHOOTING OF THE CONNECTED AIRFIELD LIGHTING CIRCUIT. |
| 5 | AIRPORT LIGHTING CONTROL PANEL (ALCP): L-821, MOUNT TOP AT 5'-6" ABOVE FINISHED FLOOR. SEE ALCP PLAN AND SCHEMATIC. |
| 6 | PHOTOELECTRIC CONTROL (PC): WEATHERPROOF THERMAL TYPE, ON 1-5FC / OFF 3-15FC, SWITCHING DELAY 30-120 SECONDS, 120VAC SUPPLY, 3-WIRE LINE - COMMON NEUTRAL - SWITCHED LEAD, 2000W INCANDESCENT, 1800VA BALLAST, 600VA LED, OPERATING RANGE -40°F TO +140°F, FAIL MODE ON, HEAVY DUTY DIE CAST ZINC HOUSING, MEETING ANSI/UL773A. INSTALL WITH TYPE "C" CONDUIT BODY IMMEDIATELY BELOW DEVICE FOR WIRE SPLICING. MOUNTED ON 3/4" MINIMUM RSC 18" MINIMUM ABOVE EEB ROOF UNLESS INDICATED OTHERWISE ON PLANS. |
| 7 | AIRPORT LIGHTING RADIO CONTROLLER (ALRC): L-854. CONTROLLER SHALL CONFORM TO FAA SPEC L-854 AND FAA REGULATIONS PART 15. THREE SEPARATE CONTROL FUNCTIONS, FIELD RECONFIGURABLE RADIO FREQUENCY, ADJUSTABLE RECEIVER SENSITIVITY. MOUNT TOP AT 5'-6" ABOVE FINISHED FLOOR. |
| 8 | AIRPORT LIGHTING RADIO CONTROLLER ANTENNA: HEAVY DUTY CONSTRUCTION, 3/8" RADIALS ON A 1" DIAMETER ALUMINUM TUBE RADIATOR, INTEGRAL LIGHTING ARRESTOR, CORROSION RESISTANT PER MIL-81706 AND 5541. MOUNTED ON MINIMUM 1" DIAMETER PIPE OR 1 -1/4" O.D. TUBE, AND ABLE TO WITHSTAND 100 MPH WINDS. SEE PLANS FOR LOCATION AND INSTALLATION DETAILS. |
| 9) | AIRPORT LIGHTING RADIO CONTROLLER ANTENNA SURGE ARRESTOR: ENCLOSED FOR OUTDOOR USE, OPERATING RANGE -40°F TO +140°F, MATCHED TO PROVIDED CABLE, RADIO AND ANTENNA. SEE PLANS FOR LOCATION AND INSTALLATION DETAILS. |
| 10 | INTERIOR LIGHTING: LED TYPE WITH POLYCARBONATE FROSTED LENS, SURFACE MOUNTED WITH EXPOSED RACEWAY, LOW PROFILE MOUNTED DEPTH LESS THAN 5 INCHES, VAPOR TIGHT SUITABLE FOR WET AND DAMP LOCATIONS, LOW TEMPERATURE RATED -25 DEG F OR COLDER. FUSED 120V DRIVER, LED 6000, LUMENS, COLOR TEMPERATURE 4000K, 80 CRI MINIMUM , L80 SERVICE LIFE 60,000 HOURS. |
| 11 | EXTERIOR LIGHTING: LED WALL DOWNLIGHT, HEAVY DUTY, VANDAL RESISTANT, SEALET CAST ALUMINUM HOUSING WITH BRONZE POLYESTER FINISH AND SEALED GLASS LENSES, 120V 14 WATT NOMINAL, 1200 LUMENS DELIVERING 2 FOOTCANDLES MINIMUM ON GRADE WITHIN 6 FEET, 4000K COLOR TEMPERATURE, 70 CRI MINIMUM, LOW TEMPERATURE RATED —40 DEG C OR COLDER, L80 SERVICE LIFE 60,000 HOURS, SURFACE MOUNTED ON WALL OVER RECESSED BACKBOX OR THROUGH—WALL CONDUIT. MOUNT ADJACENT TO BOTTOM OF FASCIA ABOVE LATCH SIDE OF DOOR. |
| 12 | EMERGENCY LIGHT: UNIT TYPE WITH LED LAMPS, NICKEL—CADMIUM BATTERY, WITH SELF—TEST DIAGNOSTICS AND STATUS INDICATOR, UL LISTED FOR DAMP LOCATION, MEET UL 924, AND NFPA 101. |
| 13 | DUPLEX RECEPTACLE, 20A, 125V, NEMA 5-20R. |
| 14 | SWITCH: SINGLE POLE, 20A, 120V. |
| 15 | EEB INTERIOR HEATER: CABINET HEATER TYPE, HEAVY DUTY ELECTRIC, WALL SURFACI MOUNTED, FAN FORCED AIR FLOW, 240—VOLTS, 2000W SHEATHED TYPE HEATING ELEMENTS 60W PER INCH MAXIMUM, MAXIMUM TEMPERATURE RISE 73 DEG F, MAXIMUM DIMENSIONS 24" HIGH BY 20" WIDE BY 8" DEEP, CONTACTOR WITH 120VA COIL FOR REMOTE THERMOSTAT, ENCLOSURE OF STEEL AND ALUMINUM CONSTRUCTION, HEATER FRONT WITHSTANDS MINIMUM 300LBS STATIC FORCE OVER 8 SQUARE INCHES AT CENTER OF GRILL WITH LESS THAN 1/16" PERMANENT DISTORTION. MOUNT WITH BOTTOM 12" MINIMUM ABOVE FLOOR. |

| | EQUIPMENT LIST (OVAL NUMBERS) | | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|--|
| ITEM | DESCRIPTION | | | | | | | | | |
| 16 | EXHAUST FAN: IN-WALL MOUNTED, 12" BLADE DIAMETER, APPROXIMATE 13" OPENING, 1/20HP, 120V, 470 CFM, 1625 RPM, FULLY ASSEMBLED WITH SHUTTERS THAT CLOSE WHEN FAN OR AIRFLOW STOPS, INTERIOR-SIDE OSHA-COMPLIANT WIRE GUARDS, COORDINATED WITH EXTERIOR HOOD. | | | | | | | | | |
| 17 | MOTORIZED DAMPER: GALVANIZED STEEL CONSTRUCTION, 13" OPENING, 1-1/2" FLANGED FRAME WIDTH, 4" WG MAXIMUM PRESSURE, 3500 FPM MAXIMUM VELOCITY, 120VAC POWER OPEN, SPRING RETURN SHUT, FOR EXHAUST OR SUPPLY APPLICATIONS. | | | | | | | | | |
| 18 | HOOD: ARCTIC TEE TYPE, SEE DETAIL. | | | | | | | | | |
| 19 | HEATING THERMOSTAT: 2-STAGE HEATING WITH MINIMUM 3 DEG F BETWEEN STAGES, AMBIENT SENSING WITH COILED HYDRAULIC SENSING ELEMENT, STEEL HOUSING SUITED FOR SURFACE MOUNTING AND CONDUIT CONNECTION, TWO SETS OF 1-POLE 2-THROW (SPDT) CONTACTS RATED 12A / 6A MINIMUM AT 12O / 240VAC RESISTIVE, MINIMUM ADJUSTABLE RANGE 40 TO 90 DEG F. PROVIDE INTERLOCK WIRING WITH COOLING THERMOSTAT TO PREVENT SIMULTANEOUS OPERATION OF THE ELECTRIC HEATERS AND EXHAUST FAN. | | | | | | | | | |
| HEATER CONTACTOR: LISTED ENCLOSED POWER RELAY, COIL VOLTAGE COORDINATED WITH HEATER CONTROL VOLTAGE, HORSEPOWER-RATED DOUBLE-POLE DOUBLE-THROW CONTACTS RATED 240-VAC 20-AMP MINIMUM, INTEGRAL LED PILC LIGHT INDICATES COIL IS ENERGIZED, ENCLOSED IN STEEL OR PLASTIC HOUSING SUITED FOR SURFACE MOUNTING AND CONNECTION TO A JUNCTION BOX OR WIREWAY. | | | | | | | | | | |
| 21 | COOLING THERMOSTAT: 1—STAGE COOLING, AMBIENT SENSING WITH COILED HYDRAULIC SENSING ELEMENT, STEEL HOUSING SUITED FOR SURFACE MOUNTING AND CONDUIT CONNECTION, 1—POLE 1—THROW (SPST) CONTACTS RATED 20 AMP AT 240VAC RESISTIVE MINIMUM, MINIMUM ADJUSTABLE RANGE 40 TO 90 DEG F. PROVIDE INTERLOCK WIRING WITH COOLING THERMOSTAT TO PREVENT SIMULTANEOUS OPERATION OF THE HEATER AND EXHAUST FAN. | | | | | | | | | |
| 22 | TWIST-LOCK SINGLE RECEPTACLE, 20A, 250V, 2-POLE 3-WIRE, NEMA L6-20R. | | | | | | | | | |
| 23 | AIRPORT LIGHTING TEST PUSH BUTTON: INDUSTRIAL 33.5 mm PANEL MOUNTING, NEMA 4/13 WATERTIGHT/OILTIGHT DEVICE, DEVICE BOX SURFACE MOUNTED CAST ALUMINUM NEMA 4/13, ENCLOSED IN A HINGED LOCKABLE NEMA 4X STAINLESS STEEL ENCLOSURE. METAL BACKED SIGN ON WALL STATES "PUSH TO TURN ON RUNWAY LIGHTS, AUTO-OFF IN 15 MINUTES". | | | | | | | | | |
| 24 | FLOOR CABINET: STEEL ASSEMBLY WITH CLOSED SHELVING SIDE AND REAR, GRAY FINISH, WITH 5 MIN ADJUSTABLE SHELVES, FLOOR—MOUNT 34"W BY 72"H BY 12"D MIN, TOTAL CAPACITY 350 LBS. MIN. MOUNT ON FLOOR AND TIE TO WALL. | | | | | | | | | |
| 25 | MANUAL TR <mark>ANS</mark> FER SWITCH: NEMA 1 HEAVY DUTY ENCLOSURE, SURFACE MOUNTED, MOUNT WITH TOP AT 5'-6" ABOVE FINISHED FLOOR. TYPE AND RATINGS AS INDICATED ON POWER ONE—LINE | | | | | | | | | |
| 26 | GENERATOR INLET BREAKER (GIB): SURFACE MOUNTED NEMA 1 ENCLOSED CIRCUIT BREAKER. MOUNT BELOW OR TO SIDE OF THE MANUAL TRANSFER SWITCH. TYPE AND RATINGS AS INDICATED ON POWER ONE—LINE | | | | | | | | | |
| 27 | GENERATOR INLET CABINET: SURFACE MOUNTED NEMA 3R OUTDOOR ENCLOSURE WITH LOCKABLE HINGED COVER, BOTTOM ENTRY FOR GENERATOR CABLES, MOUNT WITH BOTTOM 24" MINIMUM CLEAR TO EEB FLOOR LEVEL. ASSEMBLY COMPLYING WITH UL 1691, 240/120V 1-PHASE, 3-WIRE, 100 AMP MINIMUM, INDUSTRY STANDARD 600-VOLT, 400-AMP CAMLOCK RECEPTACLES AND MATCHING PLUGS (L1-BLACK, L2-RED, NEUTRAL-WHITE, GROUND-GREEN), PLUGS WITH 2-SET SCREW #4 TO #1/0 CU CABLE CONNECTION, AND TEMPERATURE RATING -40 TO 105 DEG C. | | | | | | | | | |

PS&E **REVIEW**

| PLANS DEVELOPED BY: PDC ENGINEERS A RESPEC COMPANY 1028 AURORA DRIVE FAIRBANKS, ALASKA 99709 (307) 452-1414 CERT. DF. AUTHORIZATION | | | | |
|---|----|------|----------|--|
| NO.: AECC605 | BY | DATE | REVISION | |

FIRE EXTINGUISHER: TYPE 2-A:10-B:C, IN WALL-MOUNTED ENCLOSURE, WITH ALASKA FIRE MARSHALL APPROVED SIGNS.

STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION** AND PUBLIC FACILITIES

CENTRAL REGION 4111 AVIATION AVE., ANCHORAGE ALASKA 99502 PHONE (907) 269-0590

MEKORYUK AIRPORT

SHEET NOTES

THE ITEM NUMBERS ON THIS SCHEDULE ARE KEYED TO "OVAL NUMBERS" ON THE PREVIOUS SHEET.

MEKORYUK, ALASKA AIRPORT REHABILITATION PROJECT No. CFAPT00288 AIP No. 3-02-0380-004-2021 EEB ELECTRICAL EQUIPMENT LIST

10/28/2021 SHEET:

L26 of L33

| | | | | | P/ | ANE | ELE | 30A | RD | 'A | ۱, | | | | |
|-------|----------------------------------|------|-------|-------|----------|--------------|-----|-------|------|----|-------|---------------|--------|--|--------|
| | VOLTAGE: 120/240V, 1PH, 3 | W | | SPECI | IFICATIO | NC. | TYP | E: BF | В | | | | | ENCLOSURE: NEMA 1 | |
| | BUS AMPS: 100 | | | M | IN AIC | RΑ | TIN | G: 10 | ,000 |) | | | | MOUNTING: SURFACE | |
| | MAIN: MLO | | | | | | | S: 30 | | | | | | LOCATION: EEB | |
| LOAD | | | NOTE | VA | AMP | | | | | ĪΡ | AMP | VA | NOTE | | LOAD |
| 1 | EEB LIGHTING | | | 200 | 15 | 1 | 1 | А | 2 | 1 | 20 | 180 | | INTERIOR RCPT | 2 |
| 6 | AIRPORT LIGHTING CONTROL PANEL | | 3 | 250 | 15 | 1 3 | 3 | В | | 1 | 20 | 180 | | INTERIOR RCPT | 2 |
| 1 | AIRPORT LIGHTING REGULATOR (CCR) | | 2,5 | 1224 | | 2 ! | 5 | A | 6 | 2 | 15 | 1000 | | EEB INTERIOR HEATER | 6 |
| 1 | " " | ,, | 2,5 | 1224 | | | 7 | В | 8 | 1- | _ | 1000 | | n n | 6 |
| 5 | EXHAUST FAN AND DAMPERS | | | 200 | 15 | 1 9 | 9 | A | 10 | | 20 | 510 | | ROTATING BEACON | 1 |
| 1 | WIND CONE | | | 120 | 15 | 1 1 | 1 | В | 12 | 1- | _ | 400 | | BEACON HEATER | 6 |
| | SPARE | | | | 15 | 1 1 | 3 | A | 14 | 1 | 15 | 54 | | BEACON OBSTRUCTION LIGHTS | 1 |
| | " " | " | | | 15 : | 2 1 | 5 | В | | 2 | 20 | 180 | | TWIST LOCK RCPT | 2 |
| | " | ,, | | | | - 1 | 7 | A | 18 | 1- | _ | 180 | | " " | 2 |
| | | | | | | 1 | 9 | В | 20 | 2 | 20 | | | SPARE | |
| | | | | | | | 21 | Α | 22 | Ι- | 20 | | | " " | |
| | | | | | | | 3 | В | 24 | Т | | | | | |
| | | | | | | 72 | 5 | A | 26 | П | | | | | |
| 9 | SURGE PROTECTIVE DEVICE (SPD) | | 4 | | 20 : | 2 2 | 7 | В | 28 | П | | | | | |
| 9 | ,, | | | | | - 2 | 9 | A | 30 | Т | | | | | |
| | | | | | | | | | | | | | | | |
| LOAD | SUMMARY AND | CON | VECTE |) KVA | % DI\ | , _ | NE | EC | | | | | | | |
| CODE | DEFINITIONS | PH A | PH B | TOTAL | / DIN | ′ 📙 | TO | TAL | NO | | | | | | |
| | LIGHTING = | 2.0 | 1.3 | | 125% | | | .2 | 1. | | | REAKER | | | |
| | RECEPTACLES = | 0.4 | 0.4 | 0.7 | 10K+5 | 5 0 % | 0. | .7 | 2. | | | | | 49 PERCENT OF CCR RATED LOAD, CCR IS 7. | .5KW. |
| | MOTORS = | | | | 100% | | | | 3. | LO | AD IN | ICLUDE | ES RAI | DIO CONTROLLER. | |
| | LARGEST MOTOR = | | | | 125% | | | | 4. | | | | | N WITH PANELBAORD, MANUFACTURER TO SIZE | |
| | MISC. NON-CONTINUOUS = | 0.2 | | | 100% | | | .2 | | | | ANCH | | | |
| | MISC. CONTINUOUS = | 1.0 | 1.7 | | 125% | | 3. | .3 | 5. | ΑD | JUST | CCR | BRANC | CH BREAKER SIZE TO MANUFACTURER REQUIREN | νΈΝΤS. |
| | NON-COINCIDENTAL = | | | | 0% | | | | | | | | | | |
| | SPARE = | | | | 100% | | | | | | | | | | |
| 9 | OTHER = | | | | 100% | | | | | | | | | | |
| | | | | | | | | | | | | | _ | | |
| | . KVA (PHASE) | 3.5 | 3.4 | 6.9 | | | | .4 | | | | | | | |
| TOTAL | AMPERES | 29.6 | 28.0 | 28.8 | | | 35 | 5.0 | | | | | | | |
| | | | | | | | | | | | | | | | |

| CCR LOAD CALCULATIONS ASSUM | IPTIONS: | |
|--|----------|---------|
| Conductor Size: | #8, 5kV | |
| Conductor AC Resistance [R(con)]: | 0.652 | Ω/1000' |
| 5kV Circuit Length: | 8800 | ft |
| 5kV Circuit Current [I(AC)]: | 6.6 | Amp |
| Isolation Xfrm Efficency [XFMR Eff]: | 80 | % |
| Isolation Xfrm Power Factor [XFMR PF]: | 95 | |
| L-861 Load [Load(Ltg,L861]): | 45 | W |
| L-861E Load [Load(Ltg,L861E]): | 45 | W |
| L—861T Load [Load(Ltg,L861T]): | 34 | W |
| L—861 Quantity: | 30 | |
| L—861E Qu <mark>antity:</mark> | 16 | |
| L—861T Quantity: | 16 | |

| | CCR LOAD CALCULATIONS | |
|-------------------|--------------------------------------|------------|
| Eq. 1 | | |
| R(ACtot)= R(con)* | Circuit Length | |
| R(Actot) | 6 Ω | |
| Eq. 2 | | |
| P(Line Loss)= I(A | C)^2*R(ACtot) | |
| P(Line Loss) | 250 W | |
| Eq. 3 | | |
| | d(Ltg,861x)+Load(Ltg,861x)(1-XFMR Ef | f/100*XFMR |
| PF/100))*L-861x | | |
| P(Ltg,L861) | 1674 W | |
| P(Ltg,L861E) | 893 W | |
| P(Ltg,L861T) | 855 W | |
| Eq.4 | | |
| P(Ltg,tot)= P(Ltg | ,,L861)+P(Ltg,L861E)+P(Ltg,L861T) | |
| D(1.1. 1.1) | 3422 W | |
| P(Ltg,tot)= | 0 (22 1) | |
| Eq.5 | 0.122.11 | |
| Eq.5 | | |
| , , | | |

PS&E **REVIEW**

| PLANS DEVELOPED BY: PDC ENGINEERS A RESPEC COMPANY 1028 AURORA DRIVE FAIRBANKS, ALASKA 99709 (907) 452-1414 CERT. OF AUTHORIZATION NO.: AECCE05 | | | | |
|---|----|------|----------|---|
| NO.: AECCOOS | BY | DATE | REVISION | L |

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

MEKORYUK AIRPORT

MEKORYUK, ALASKA

AIRPORT REHABILITATION

PROJECT No. CFAPT00288

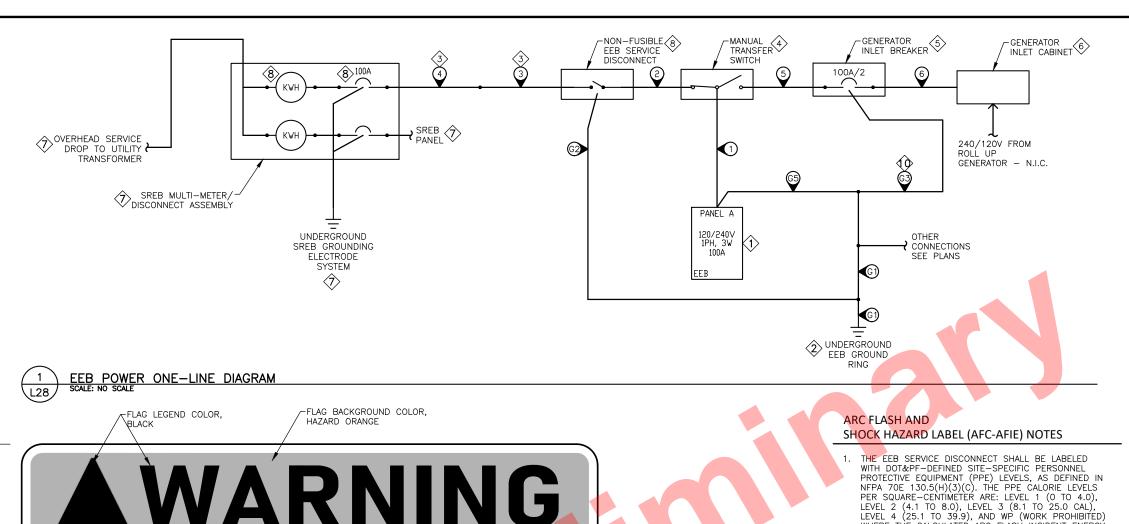
AIP No. 3-02-0380-004-2021 EEB ELECTRICAL PANEL SCHEDULE

SHEET NOTES

1. PANELBOARD SHALL BE 20" WIDE MINIMUM WITH SEPARATE LINE, NEUTRAL AND GROUND BUSES. BRANCH CIRCUIT BREAKERS SHALL BE THERMAL MAGNETIC TYPE, BOLT—ON, WITH TRIP INDICATION. INCLUDE SURGE PROTECTIVE DEVICE OPTION WITH PANELBOARD. SEE PANEL SCHEDULE AND PLANS FOR ADDITIONAL INFORMATION.

10/28/2021

SHEET: L27 of L33



SEE AFC-AFIE

SEE AFC-AFIE

WATERMARK IS OPTIONAL. WATERMARK COLOR,

MAIN BACKGROUND COLOR,

NOTE 1

NOTE 2

WHITE

WESC AND SAN

- PROTECTIVE EQUIPMENT (PPE) LEVELS, AS DEFINED IN NFPA 70E 130.5(H)(3)(C). THE PPE CALORIE LEVELS PER SQUARE—CENTIMETER ARE: LEVEL 1 (0 TO 4.0), LEVEL 2 (4.1 TO 8.0), LEVEL 3 (8.1 TO 25.0 CAL), LEVEL 4 (25.1 TO 39.9), AND WP (WORK PROHIBITED) WHERE THE CALCULATED ARC FLASH INCIDENT ENERGY $IS \geq 40$.
- 2. MINIMUM PPE REQUIREMENTS FOR EACH PPE LEVEL DESCRIBED IN THE PREVIOUS NOTE ARE THE SAME REQUIREMENTS AS DESCRIBED IN NEPA 70F TABLE 130.7(C)(15)(C). THESE PPE REQUIREMENTS ARE TO BE USED AS THE SITE-SPECIFIC PPE LEVELS.
- 3. PROVIDE DESCRIPTION OF EQUIPMENT CONFIGURATIONS IN WHICH A HAZARD EXISTS. FOR EXAMPLE, "WHEN COVER REMOVED"

SHEET NOTES

COORDINATE WORK WITH THE MEKORYUK AIRPORT SNOW REMOVAL EQUIPMENT BUILDING (SREB) PROJECT.

SHEET KEYNOTES



- 1. PANELBOARD: SEE PREVIOUS SHEET INFORMATION.
- 2. THE EEB GROUND RING WITH CONNECTIONS IS SHOWN ON THE EEB SCHEMATIC ARRANGEMENT AND ELECTRICAL EQUIPMENT BUILDING PLAN SHEET.
- 3. SEE EEB SITE PLAN SHEETS L10 AND L13.
- 4. MANUAL TRANSFER SWITCH: NEMA 1, MANUAL OPERATOR 3-POSITION ON-OFF-ON, QUICK-MAKE-QUICK BREAK, TWO POLE, SOLID NEUTRAL, GROUND BLOCK, 100 AMP, 240VAC, 10 KAIC AT 240/120 VAC.
- 5. ENCLOSED SERVICE ENTRANCE RATED THERMAL MAGNETIC BREAKER, 2-POLE, 100-AMP, 10 KAIC AT 240/120 VAC.
- 6. GENERATOR INLET CABINET: SEE EEB EQUIPMENT LIST FOR REQUIREMENTS.
- 7. ITEMS AND EQUIPMENT TAGGED WITH THIS NOTE ARE PROVIDED BY THE MEKORYUK AIRPORT SNOW REMOVAL EQUIPMENT BUILDING PROJECT.
- 8. NON-FUSIBLE DISCONNECT SWITCH: NEMA 3R, QUICK-MAKE-QUICK BREAK, TWO POLE, SOLID NEUTRAL, GROUND BLOCK, 100 AMP, 240 VAC, 10 KAIC AT 240/12 VAC.
- 9. PROVIDE EEB SERVICE DISCONNECT BREAKER MATCHED TO THE SREB MULTI-METER/DISCONNECT ASSEMBLY. COORDINATE WITH UTILITY THROUGH THE ENGINEER TO HAVE THE EEB KWH METER PROVIDED BY THE UTILITY.
- 10. THE EGC/GEC FEEDER STARTS AT THE GENERATOR INLET BREAKER, PASSES WITH THE FEEDER FROM THE BREAKER TO THE EXTERIOR GENERATOR INLET CABINET. THEN CONTINUES TO FEEDER G1. BOND THE EGC/GEC FEEDER TO A GROUND BAR WITHIN THE INLET CABINET
- 11. PROVIDE THE ARC FLASH AND SHOCK HAZARD (AFC-AFIE) LABEL INDICATED. COORDINATE WITH ENGINEER TO SUPPORT CALCULATION WITH AS-INSTALLED DISTRIBUTION SYSTEM AND EQUIPMENT

| | EEB FEEDER SCHEDULE | | | | | | | | | |
|------------|-------------------------|--------------------|---|--|--|--|--|--|--|--|
| NO. | CONDUCTORS | RACEWAY | REMARKS | | | | | | | |
| 1,2,4,5 | 3#2 XHHW 1#8 EGC | 1-1/4" IMC | ABOVE GRADE | | | | | | | |
| 3 | 3#2 XHHW 1#8 EGC | 1-1/4" HDPE/RGS | UNDERGROUND | | | | | | | |
| 6 | 3#2 XHHW 1#4 EGC/GEC | 1-1/4" IMC | | | | | | | | |
| G1 | #1/0 BCU | DIRECT BURIED | EEB GROUND RING CONDUCTOR | | | | | | | |
| G2, G3 | #4 XHHW | SEE PLANS | GROUNDING ELECTRODE CONDUCTOR (GEC). | | | | | | | |
| G5, G6, G7 | #4 XHHW | SEE PLANS | EQUIPMENT GROUNDING ELECTRODE CONDUCTOR (EGEC). | | | | | | | |

PS&E **REVIEW**

Level

SITE INFORMATION, IF APPLICABLE DATE CALCULATION WAS PERFORMED

FILL CALCULATION VALUES AND

VALUE AND NOTE LEGEND COLOR,

NOTES WITH BOLD TEXT.

Minimum PPE Requirements

NSERT DESCRIPTION OF MINIMUM PPE

Calculated available fault current:

REQUIREMENTS.

ARC FLASH AND SHOCK HAZARD PRESENT

APPROPRIATE PPE REQUIRED

STATIC LEGEND COLOR,

BLACK

VAC

-SEE AFC-AFIE

NOTE 3

ARC FLASH AND SHOCK HAZARD LABEL SCALE: NO SCALE

Arc Flash Boundary

Working Distance

Incident Energy in cal/cm²

Shock Hazard Exposure

Insulating Gloves Class

Limited Approach Boundary

ENCLOSURE TAG OR NAME

Restricted Approach Boundary

Shock Hazard

\L28

| PLANS DEVELOPED BY: PDC ENGINEERS A RESPEC COMPANY 1028 AURORA DRIVE FAIRBANKS, ALASKA 99709 (907) 452-1414 CERT. OF AUTHORIZATION NO: AECOGOS | | | | |
|--|----|------|----------|---|
| NO ALOUGO | BY | DATE | REVISION | L |

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

MEKORYUK AIRPORT MEKORYUK, ALASKA AIRPORT REHABILITATION PROJECT No. CFAPT00288 AIP No. 3-02-0380-004-2021 EEB ELECTRICAL ONE-LINE

10/28/2021 HEET: L28 of L33

AIRPORT LIGHTING CONTROL PANEL (ALCP)

THE AIRPORT LIGHTING CONTROL PANEL COORDINATES AUTOMATIC CONTROL OF AIRPORT LIGHTING BASED ON DAY/NIGHT LIGHT SENSING, AND REMOTE RADIO SIGNALS FROM AIRCRAFT. THE PANEL ALSO ALLOWS COMPLETE MANUAL OPERATION OF AIRPORT LIGHTING. AIRPORT LIGHTING CONTROLLED MINIMALLY INCLUDES RUNWAY/TAXIWAY LIGHTING CIRCUIT WITH ANY EQUIPMENT POWERED

SEE SCHEMATIC NEXT SHEET AND SPECIFICATION L-109 FOR ADDITIONAL REQUIREMENTS.

CONTROL PANEL FUNCTIONS

PANEL ON/OFF SWITCH AND PILOT LIGHT:
THIS IS THE MAIN POWER SWITCH FOR THE CONTROL PANEL AND ASSOCIATED RADIO CONTROLLER. THE PILOT LIGHT INDICATES THE CONTROL PANEL IS

SEE AIRPORT LIGHTING CONTROL PANEL FUNCTION MATRIX FOR AIRPORT LIGHTING

EXTERNAL DEVICES AND EQUIPMENT

CONSTANT CURRENT REGULATOR (CCR) THE CCR SUPPLIES CONSTANT CURRENT POWER TO THE RUNWAY/TAXIWAY LIGHTING WITH THREE OUTPUT CURRENT OR LIGHT INTENSITY LEVELS (LOW, MEDIUM, HIGH). SEE NEXT SHEET FOR ADDITIONAL INFORMATION.

AIRPORT LIGHTING RADIO CONTROLLER: THE RADIO CONTROLLER UNIT HAS THREE OUTPUT RELAYS (LOW, MEDIUM, HIGH) THAT ARE OPERATED BASED UPON THE AIRCRAFT PILOT KEYING THE MICROPHONE WITH 3, 5, OR 7 PULSES ON THE LOCAL COMMON TRAFFIC ADVISORY FREQUENCY (CTAF). THE RECEPTION OF 3, 5, OR 7 RADIO PULSES WILL ENERGIZE THE OUTPUT RELAYS IN A CORRESPONDING CUMULATIVE SEQUENCE. AFTER ACTIVATION OF OUTPUT RELAYS BY RADIO PULSES, THE RADIO CONTROL UNIT AUTOMATICALLY TURNS OFF ALL OUTPUT RELAYS AFTER 15 MINUTES ELAPSED TIME, UNLESS THE PILOT AGAIN KEYS THE MICROPHONE IN THE REQUIRED

THE EXTERIOR-MOUNTED PHOTOCELL TRANSMITS DAY/NIGHT LIGHTING LEVEL STATUS TO THE AIRPORT LIGHTING CONTROL PANEL. THE DESIGN IS BASED ON A 3-WIRE THERMAL-TYPE DEVICE. THE PHOTOCELL SIGNAL IS UTILIZED FOR FUNCTIONALITY DESCRIBED UNDER SECTION "CONTROL PANEL FUNCTIONS".

AIRPORT LIGHTING TEST PUSHBUTTON:
MOMENTARY PUSHBUTTON LOCATED REMOTE FROM THE
CONTROL PANEL. SEE SECTION "CONTROL PANEL FUNCTIONS" ON THIS SHEET FOR FUNCTIONAL INFORMATION. SEE NEXT SHEET FOR INFORMATION REGARDING PROVISION OF THIS DEVICE.

SHEET NOTES

- CONTROL PANEL CABINET SIZE AND ARRANGEMENT SHALL BE COORDINATED WITH ELECTRICAL EQUIPMENT BUILDING (EEB) SPATIAL ARRANGEMENT. SEE EEB PLANS FOR DÉTAILS.
- 2. CONTROL CABINET OPERATION AND MAINTENANCE INSTRUCTIONS SHALL BE BASED ON CONTROL DEVICE LABELING.

SHEET KEYNOTES

TEXT IN PARENTHESIS IS KEYED TO THE SCHEMATIC ON THE NEXT SHEET AND IS NOT REQUIRED TO BE INCLUDED ON LABEL PLATES.

| AIRPORT LIGHTING MODE | AIRPORT BEACON MODE | WIND CONE MODE | CCR MANUAL CONTROL - SEE SN9 | AIRPORT LIGHTING TEST — SEE SN10 |
|--------------------------|--|--|--|---|
| AUTO SEE SN2 | AUTO SEE SN3 OFF CONTINUOUSLY OFF ON CONTINUOUSLY ON | AUTO SEE SN4 OFF CONTINUOUSLY OFF ON CONTINUOUSLY ON | DISABLED | IF ACTIVATED EFFECTIVELY MAKES THE AIRPORT LIGHTING CONTROL MODE "MANUAL" THROUGHOUT THE TEST PERIOD. |
| OFF SEE SN5 | AUTO SEE SN6 OFF CONTINUOUSLY OFF ON CONTINUOUSLY ON | AUTO SEE SN7 OFF CONTINUOUSLY OFF ON CONTINUOUSLY ON | DISABLED | DISABLED |
| MANUAL SEE SN8 | AUTO SEE SN6 OFF CONTINUOUSLY OFF ON CONTINUOUSLY ON | AUTO SEE SN7 OFF CONTINUOUSLY OFF ON CONTINUOUSLY ON | LOW, MED, HIGH CCR OPERATES CONTINUOUSLY AT SETTING SELECTED | DISABLED |

SCHEDULE NOTES (SNx):

- 1. AIRPORT LIGHTING CONTROL PANEL MUST BE ENERGIZED WITH PANEL POWER SWITCH ON TO FUNCTION AS INDICATED.
- 2. RUNWAY AND TAXIWAY LIGHTING CONTROLLED BY RADIO CONTROLLER AND PHOTOCELL.
- 3. AIRPORT ROTATING BEACON CONTROLLED BY RADIO CONTROLLE<mark>R AND</mark> PHO<mark>TOCEL</mark>L. 4. WIND CONE LIGHTING CONTROLLED BY RADIO CONTROLLER AND PHOTOCELL.
- 5. RUNWAY/TAXIWAY LIGHTING CONTINUOUSLY OFF.
- 6. AIRPORT ROTATING BEACON CONTROLLED BY PHOTOCELL.
- 7. WIND CONE LIGHTING CONTROLLED BY PHOTOCELL.
- 8. RUNWAY/TAXIWAY LIGHTING OPERATES AT MANUALLY SELECTED BRIGHT<mark>NESS</mark>
- 9. THE CCR IS NOT ENTIRELY DEPENDENT ON THE AIRPORT LIGHTING CONTROL PANEL (ALCP) FOR OPERATION. MANUAL CONTROL OF CCR OUTPUT IS ALWAYS AVAILABLE WITH THE CCR-MOUNTED CCR REMOTE/LOCAL CONTROL SELECTOR SWITCH.
- IO. AIRPORT LIGHTING MODE SWITCH MUST BE IN "AUTO" AND AIRPORT LIGHTING TEST ENABLE SWITCH MUST BE IN THE "ON" POSITION TO ENABLE AIRPORT LIGHTING TEST FUNCTION. DURATION OF TEST SET BY LIGHTING TEST TIMER "TR1".

| | POWER | OFF ON PANEL POWER | |
|---|---------------------------|-------------------------------------|---|
| L | IGHTING TEST TIMER (TR1) | AUTO OFF MAN AIRPORT LIGHTING MODE | AUTO OFF ON AIRPORT BEACON AUTO OFF ON PRIMARY WIND CONE |
| | V | CCR MANUAL BRIGHTNESS | OFF ON AIRPORT LIGHTING TEST ENABLE |
| | | | |
| | | | |

CONTROL PANEL FRONT LAYOUT SCALE: NTS

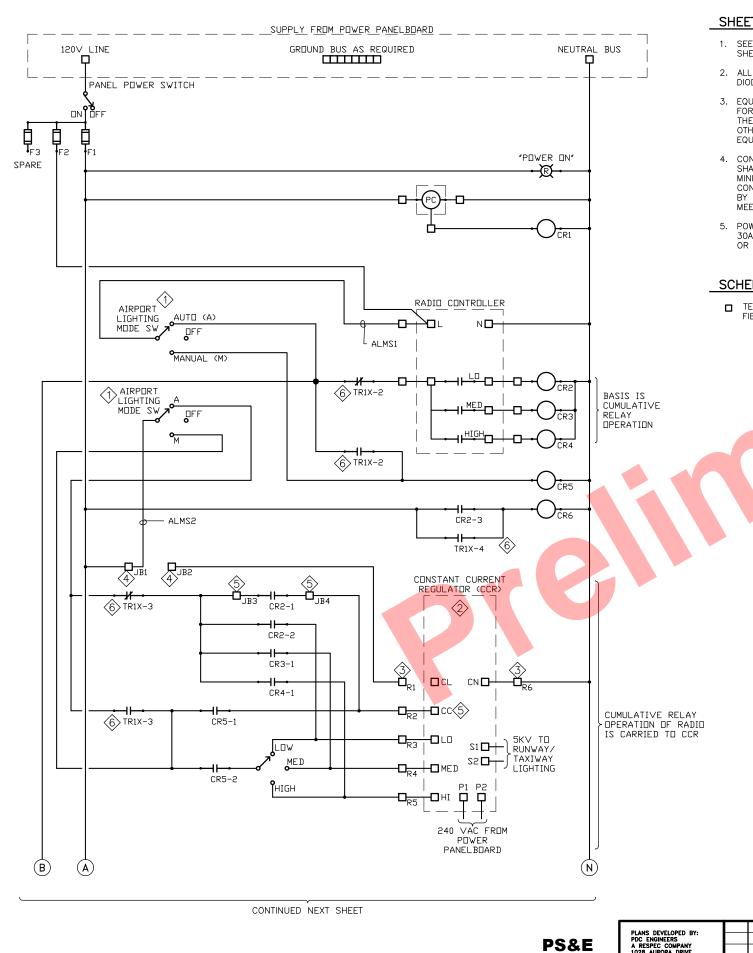
PS&E **REVIEW** PLANS DEVELOPED BY: PDC ENGINEERS A RESPEC COMPANY 1028 AURORA DRIVE FAIRBANKS, ALASKA 99709 (907) 452-1414 CERT. OF AUTHORIZATION NO.: AECC605 BY DATE **REVISION**

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

MEKORYUK AIRPORT MEKORYUK, ALASKA AIRPORT REHABILITATION PROJECT No. CFAPT00288

10/28/2021

AIP No. 3-02-0380-004-2021 AIRPORT LIGHTING CONTROL PANEL GENERAL ARRANGEMENT L29 of L33



ANSC ANSC

SHEET NOTES

- SEE SPECIFICATION L-109 AND PREVIOUS SHEET FOR ADDITIONAL REQUIREMENTS.
- 2. ALL PILOT LIGHTS SHALL BE LIGHT EMITTING DIODE TYPE.
- 3. EQUIPMENT GROUNDING CONDUCTORS OMITTED FOR CLARITY. ALL CIRCUITS CONNECTING TO THE AIRPORT LIGHTING CONTROL PANEL AND OTHER EQUIPMENT SHALL INCLUDE AN EQUIPMENT GROUNDING CONDUCTOR.
- 4. CONTROL RELAYS (CR-SERIES) AND TR1X SHALL BE 4-POLE-DOUBLE-THROW (4PDT) MINIMUM FOR SCHEMATIC SHOWN. ALL CONTROL RELAYS SHALL OTHERWISE BE SIZED BY THE SUPPLIER AND/OR CONTRACTOR TO MEET REQUIREMENTS.
- 5. POWER RELAYS (PR-SERIES) SHALL BE 2PDT 30A CONTACTS RATED FOR 1-1/2 HP AT 120 OR 240 VAC.

SCHEMATIC LEGEND

☐ TERMINAL BLOCK FOR EXTERNAL AND FIELD-CONFIGURABLE WIRING, UON.

SHEET KEYNOTES 🏶



- AIRPORT LIGHTING MODE SWITCH SHALL BE 3-POLE, 3-MAINTAINED-POSITION MINIMUM.
- CCR SHALL INCLUDE A "CCR REMOTE/LOCAL CONTROL SELECTOR SWITCH" WITH POSITIONS REMOTE-OFF-STEP1-STEP2-STEP3. THE CCR IS RESPONSIVE TO AIRPORT LIGHTING CONTROL PANEL (ALCP) SOURCED 120VAC CONTROL SIGNALS ONLY WITH THE SWITCH IN THE "REMOTE" POSITION. WHEN THE SWITCH IS IN ONE OF THE "LOCAL" STEP SETTINGS THE CCR OPERATES AT THAT STEP WITHOUT THE ALCP-SOURCED SIGNALS AND IS NOT RESPONSIVE TO THE ALCP. WHEN THE SWITCH IS IN THE "OFF" POSITION THE CCR OUTPUT IS COMPLETELY OFF.
- 3. ALCP TERMINALS R1 TO R6 SHALL BE POSITIONED TOGETHER. PROVIDE A MINIMUM OF SIX #14 STRANDED CONDUCTORS BETWEEN THE ALCP TERMINALS R1 TO R6 AND CCR. DO NOT CONNECT TERMINAL R1 TO CCR UNLESS
 REQUIRED BY CCR INSTALLATION INSTRUCTIONS FOR THIS APPLICATION.
- 4. ALCP TERMINALS JB1 AND JB2 SHALL BE POSITIONED TOGETHER. THIS CCR CONTROL SIGNALING IS BASED ON THE ALCP NEUTRAL (CN) BEING THE COMMON REFERENCE POINT.
 CONNECTING THE AIRPORT LIGHTING MODE SWITCH WIRE ALMS2 TO JB1 AS SHOWN CONFIGURES CCR CONTROL SIGNALS TO BE BASED ON ALCP-SOURCED 120VAC. IF FOR SOME REASON THE CCR REQUIRES USE OF CCR-SOURCED CONTROL POWER, MOVE WIRE ALMS2 TO JB2 AND CONNECT TERMINAL R1 TO THE CCR AS REQUIRED. DO NOT CONNECT TERMINALS JB1 AND JB2 TOGETHER.
- 5. TERMINALS JB3 AND JB4 SHALL BE POSITIONED TOGETHER. OFTEN CCR'S REQUIRE A SIGNAL APPLIED TO CCR TERMINAL CC (CC-SIGNAL) TO ALLOW EXTERNAL CONTROL. IF FOR SOME REASON THE CC-SIGNAL MUST BE CONTINUOUSLY APPLIED TO ALLOW EXTERNAL CONTROL, INSTALL JUMPERS BETWEEN TERMINALS JB3 - JB4, THEN CONNECT TERMINAL R2 TO THE CCR AS REQUIRED BY CCR INSTALLATION INSTRUCTIONS FOR THIS
- 6. TIMING RELAY TR1X CONTACT: ACTUATED (CLOSED) DURING TIMING RELAY TR1 TIMEOUT PERIOD. SEE NEXT SHEET FOR INFORMATION.

REVIEW

PLANS DEVELOPED BY: PDC ENGINEERS A RESPEC COMPANY 1028 AURORA DRIVE FAIRBANKS, ALASKA 99709 (907) 452-1414 CERT. OF AUTHORIZATION NO.: AECC605 DATE **REVISION**

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

MEKORYUK AIRPORT MEKORYUK, ALASKA AIRPORT REHABILITATION

PROJECT No. CFAPT00288 AIP No. 3-02-0380-004-2021 AIRPORT LIGHTING CONTROL SCHEMATIC

10/28/2021 L30 of L33

CONTINUED PREVIOUS SHEET (B) (A)(N)DLACON AUTO CR6-1 CR1-1 -□- AIRPORT BEACON PR1 \Box **-□→** SPARE PR1 PRIMARY WIND CONE AUTO
MODE SW OFF OFR2 CR6-2 CR1-2 PRIMARY WIND CONE PR2 -□- SPARE AIRPORT LIGHTING TEST ENABLE SW AIRPORT LIGHTING TEST PUSH BUTTON PR2 TIMING RELAY 1 0-30 MINUTES SET 15 MINUTES TR1X END

SHEET NOTES

1. SEE SHEET NOTES ON PREVIOUS SHEET.

SHEET KEYNOTES 🏶



- 1. TIMING RELAY TR1 SHALL BE FRONT-PANEL-MOUNTED MOTOR-DRIVEN MECHANICAL TYPE WITH FRONT-ADJUSTABLE TIMEOUT 0-30 MINUTES, FUNCTIONALLY CONFIGURED AS A SINGLE-SHOT INTERVAL TIMER UPON APPLYING POWER, AUTOMATICALLY RESETS IF POWER IS REMOVED DURING THE TIMEOUT PERIOD. BASIS OF DESIGN IS EAGLE SIGNAL 120VAC SYNCHRONOUS MOTOR DRIVEN RESET TIMER NO. HP5-5-A6 OR EQUAL.
- 2. TIMING RELAY TR1X CONTACT: ACTUATED (CLOSED) DURING TIMING RELAY TR1 TIMEOUT PERIOD. SEE PREVIOUS SHEET FOR ADDITIONAL CONTACTS.

SCHEMATIC LEGEND

TERMINAL BLOCK FOR EXTERNAL AND FIELD—CONFIGURABLE WIRING, UON.

PS&E **REVIEW** PLANS DEVELOPED BY:
PDC ENGINEERS
A RESPEC COMPANY
1028 AURORA DRIVE
FAIRBANKS, ALASKA 99709
(907) 452—1414
CERT. OF AUTHORIZATION
NO.: AECC805 BY DATE REVISION

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MEKORYUK AIRPORT MEKORYUK, ALASKA AIRPORT REHABILITATION PROJECT No. CFAPT00288 AIP No. 3-02-0380-004-2021 AIRPORT LIGHTING CONTROL SCHEMATIC

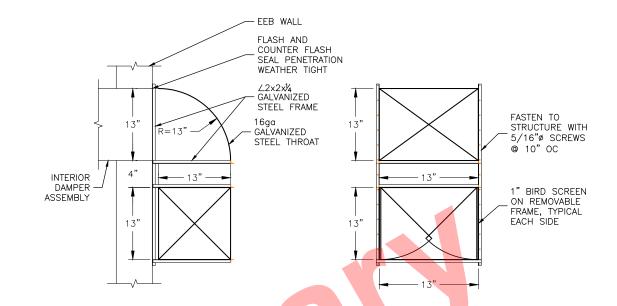
10/28/2021

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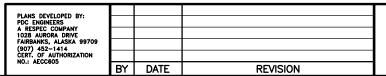
HVAC CONTROL NOTES

- HEATING AND COOLING CONTROL (HVAC) SCHEME SHALL NOT ALLOW SIMULTANEOUS OPERATION OF HEATING AND COOLING EQUIPMENT.
- 2. HEATING AND COOLING POWER SUPPLIES SHALL UTILIZE SEPARATE BRANCH BREAKERS.
- 3. THERMOSTATS SHALL BE CO-LOCATED AND EXPOSED (NOT FIELD INSTALLED IN ANY SOLID-SIDED ENCLOSURE) AND NOT POSITIONED OVER ANY HEAT SOURCE INCLUDING SPACE HEATERS AND THE CCR.
- 4. WIRING FOR THERMOSTATS AND HEATER CONTACTORS MAY SHARE AN ENCLOSURE OR WIREWAY. THE HEATER CONTACTORS SHALL BE FACTORY ENCLOSED AND MAY BE LOCATED WITHIN AN ENCLOSURE.

1 HVAC CONTROL 240V ONE—STAGE HEATING
SCALE: NTS



2 ARCTIC TEE VENTILATION HOOD DETAIL



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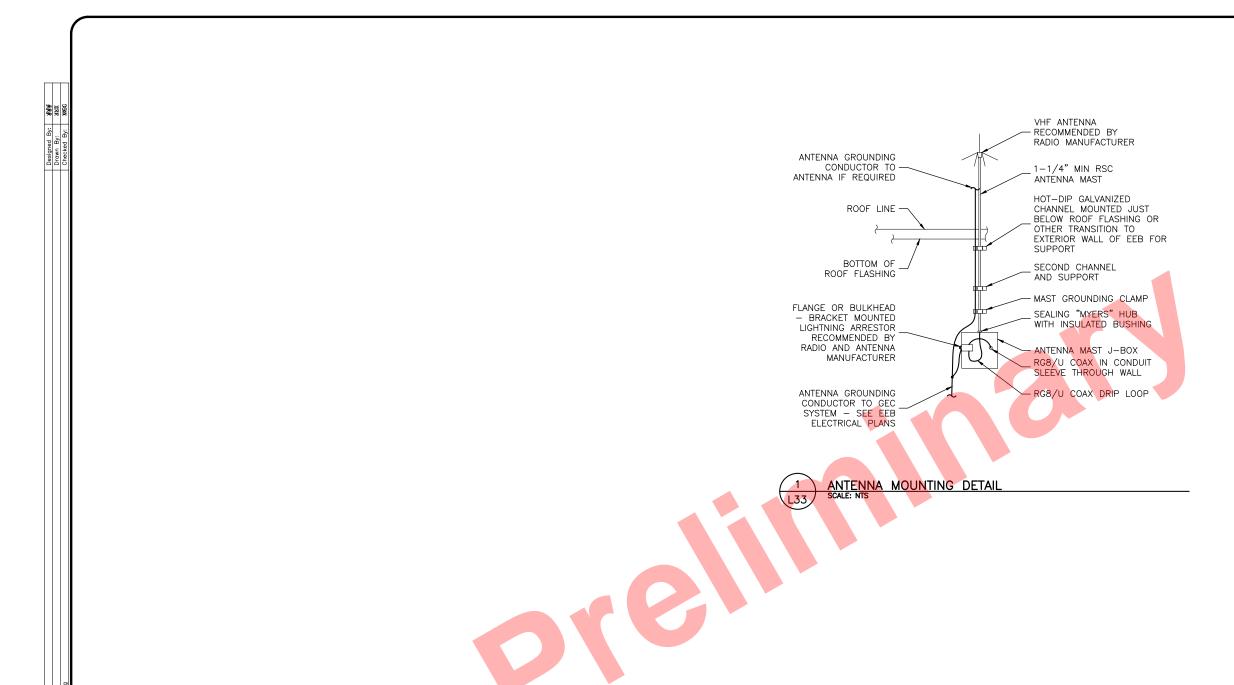
MEKORYUK AIRPORT
MEKORYUK, ALASKA
AIRPORT REHABILITATION
PROJECT No. CFAPT00288
AIP No. 3-02-0380-004-2021
EEB HVAC CONTROL SCHEMATIC

10/28/2021 SHEET: L32 OF L33

PS&E REVIEW

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Layout Name:



ANTENNA MOUNTING NOTES

- SEE EEB ELECTRICAL PLAN SHEETS FOR LOCATION OF RACEWAYS AND COMPONENTS, PHYSICAL ARRANGEMENT VARIES.
- THE COMMON BASIS OF DESIGN ANTENNA (RAMI MODEL AV-1) UTILIZES A BODY EQUIPPED WITH SLIP-FITTING MAST ATTACHMENT SECURED BY A CLAMP OR SETSCREW, AND THE COAX CABLE IS CONCEALED WITHIN THE ANTENNA MAST.
- 3. THE ANTENNA MAST SHALL BE 10 FEET MAXIMUM LONG TO LIMIT GRAVITY TENSION ON COAX CABLE WITHIN, CONTINUOUS AND WITHOUT COUPLING FROM THE ANTENNA THROUGH THE FIRST TWO SUPPORTS BELOW THE ANTENNA. SUPPORT THE MAST TO STRUCTURAL ELEMENTS AT TWO POINTS MINIMUM ABOVE ANY COUPLING OR CONNECTOR ON THE ANTENNA MAST J—BOX, WITH SPACING BETWEEN THESE SUPPORTS 24" MINIMUM, THEN BELOW THE SECOND SUPPORT COMPLYING WITH NEC SUPPORTING REQUIREMENTS FOR RIGID STEEL CONDUIT.
- 4. PROVIDE ANTENNA GROUNDING CONDUCTOR IN ACCORDANCE WITH MANUFACTURER INSTRUCTIONS. THE ANTENNA GROUNDING CONDUCTOR SHALL BE #10 AWG MINIMUM UNLESS REQUIRED TO BE LARGER BY THE MANUFACTURER, WHERE THE ANTENNA GROUNDING CONDUCTOR IS ROUTED WITH THE ANTENNA MAST IT SHALL BE SUPPORTED WITH GROUNDING CLAMPS SPACED 48" MAXIMUM APART, DO NOT WRAP THE CONDUCTOR AROUND THE MAST OR OTHER RACEWAYS AND SUPPORTS. MINIMALLY THE ANTENNA GROUNDING CONDUCTOR BEGINS AT A GROUNDING CLAMP ABOVE ANY FITTING IN THE MAST CONDUIT AND JUST ABOVE THE ANTENNA MAST J-BOX UNLESS THE MANUFACTURER INDICATES OTHERWISE, THEN THE CONDUCTOR IS ROUTED THROUGH OR PAST THE ANTENNA MAST J-BOX EXTERNAL GROUND LUG, AND CONTINUES DIRECTLY DOWNWARD TO THE GROUNDING ELECTRODE SYSTEM. IF A GROUNDING TERMINAL IS IDENTIFIED OR EVIDENT ON THE ANTENNA ASSEMBLY ITSELF OR OTHER MANUFACTURER SUPPLIED ANTENNA MOUNTING COMPONENTS, BEGIN THE ANTENNA GROUNDING CONDUCTOR AT THAT TERMINAL.
- 5. ANTENNA MAST J-BOX ON EEB: PROVIDES THE DEMARCATION BETWEEN THE ANTENNA MAST AND RACEWAY TO THE RADIO WITHIN THE EEB. J-BOX SHALL BE STEEL NEMA TYPE 3R, 10°W X 10°H X 4°D MINIMUM WITH LOCKABLE HINGED COVER SURFACE MOUNTED ON EEB EXTERIOR WALL. THIS J-BOX SHALL HOUSE 180-DEG MINIMUM DRIP-LOOP/ANTENNA-SIDE CABLE SLACK AND HOUSE THE LIGHTNING SURGE ARRESTOR. PROVIDE BRONZE EXTERNAL ANTENNA MAST J-BOX GROUNDING LUG COORDINATED WITH ANTENNA AND SURGE ARRESTOR GROUNDING REQUIREMENTS.
- 6. THE HEIGHT OF THE ANTENNA MAST SHALL ELEVATE THE UPPER END OF THE GROUND PLANE ELEMENTS 48" MINIMUM ABOVE HIGHEST POINT OF ROOF OR OTHER SIMILAR SURFACE, AND WITH PROJECTED GROUND PLANE 12" ABOVE THE TOP OF ANY SURROUNDING METALLIC OBJECT WITHIN 6 FEEL (PLUMBING VENT, CHIMNEY, UTILITY WEATHER HEAD, ROTATING BEACON, ETC.). THE PROJECTED GROUND PLANE IS DEFINED AS AN IMAGINARY SURFACE AROUND THE ANTENNA ALIGNED WITH THE AXIS OF THE GROUND PLANE ELEMENTS.

PS&E REVIEW

| PLANS DEVELOPED BY: PDC ENGINEERS A RESPEC COMPANY 1028 AURORA DRIVE FAIRBANKS, ALASKA 99709 (907) 452–1414 CERT. OF AUTHORIZATION NOI. AECOGOS | | | |
|---|----|------|----------|
| | BY | DATE | REVISION |

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DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502

PHONE (907) 269-0590

MEKORYUK AIRPORT
MEKORYUK, ALASKA
AIRPORT REHABILITATION
PROJECT No. CFAPT00288
AIP No. 3-02-0380-004-2021

EEB ELECTRICAL DETAILS

DATE: 10/28/2021

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2. THE CONTRACTOR SHALL SUBMIT A SAFETY PLAN COMPLIANCE DOCUMENT (SPCD), PER FAA AC 150/5370-2, TO THE ENGINEER FOR REVIEW AND ÀPPRÓVAL 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 AND 2 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 AC7, 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 MEKORYUK 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 3 FOR ALL ARRIVALS AND DEPARTURES.
- 6. ALL CONSTRUCTION VEHICLES AND EQUIPMENT SHALL OPERATE A FLASHING YELLOW BEACON AND 3'x3' CHECKERED FLAG WITH 1'x1 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 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.

-AIRPORT PROPERTY BOUNDARY

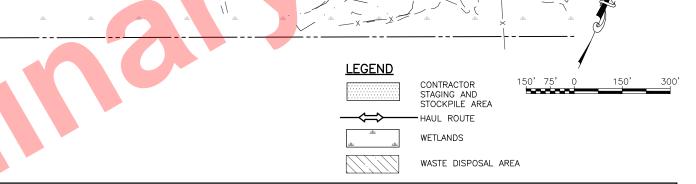
- 11. PROVIDE AIRPORT FLAGGER WHERE CONSTRUCTION ACTIVITY IS CONDUCTED IN CLOSE PROXIMITY TO OPERATING AIRCRAFT AND WHERE THE ENGINEER OR AIRPORT PERSONNEL DETERMINES A FLAGGER IS
- 12. CONTRACTOR HAULING OPERATIONS ARE LIMITED TO THE HAUL ROUTES SHOWN ON THE PLANS. FOLLOWING CONSTRUCTION COMPLETION, 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. IMMEDIATE 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 CLEAN UP OF ANY MATERIAL SPILLS.

RUNWAY STATUS CHANGE PROCEDURES

THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND FAA 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 6000-226 TO 9-AJV-SEC-WSA@FAA.GOV.

FOLLOW THESE PROCEDURES ANY TIME THE STATUS OF THE RUNWAY IS TO

- 1. CONTRACTOR NOTIFIES ENGINEER OF UPCOMING CHANGE IN AIRPORT STATUS. PROVIDE 72 HOURS ADVANCED 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.
- 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.



| | CONSTRUCTION PHASING SCHEDULE | | | | | | | | | | |
|-----------------------|---|--|-----------------------|-----------------------|---|--------|--|--|--|--|--|
| CONSTRUCTION PHASE | WORK TO BE COMPLETED | WORK PHASES THAT MUST PRECEDE WORK | RUNWAY CLOSURES | TAXIWAY CLOSURES | HAZARD MARKER BARRIER QUANTITY | LEGEND | | | | | |
| 1 | RECONSTRUCT SOUTH HALF OF THE RUNWAY, EAST HALF OF TAXIWAY AND APRON. | NONE | PARTIAL HALF—WIDTH | PARTIAL HALF—WIDTH | 18 | | | | | | |
| 2 | RECONSTRUCT NORTH HALF OF THE RUNWAY, WEST HALF OF TAXIWAY AND APRON. | PHASE 1 | PARTIAL HALF—WIDTH | PARTIAL HALF—WIDTH | 18 | | | | | | |
| 3 | CONSTRUCT SEGMENTED CIRCLE PAD AND SEGMENTED CIRCLE. CONSTRUCT APRON EXPANSION, SREB, ROTATING BEACON, AND RECONSTRUCT ACCESS ROAD. DEMOLISH EXISTING SEGMENTED CIRCLE. | NONE | N/A | N/A | 22 | | | | | | |
| 4 | INSTALL LIGHT FIXTURES. RECLAIM/RESTORE ACCESS ROUTES TO ORIGINAL CONDITION. | PHASE 1 PHASE 2 PHASE 3 | TEMPORARY | TEMPORARY | N/A | N/A | | | | | |

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STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION** AND PUBLIC FACILITIES **CENTRAL REGION**

WASTE DISPOSAL AREA (TYP

MEKORYUK AIRPORT MEKORYUK, ALASKA

AIP No. 3-02-0178-003-2022 CSPP OVERVIEW

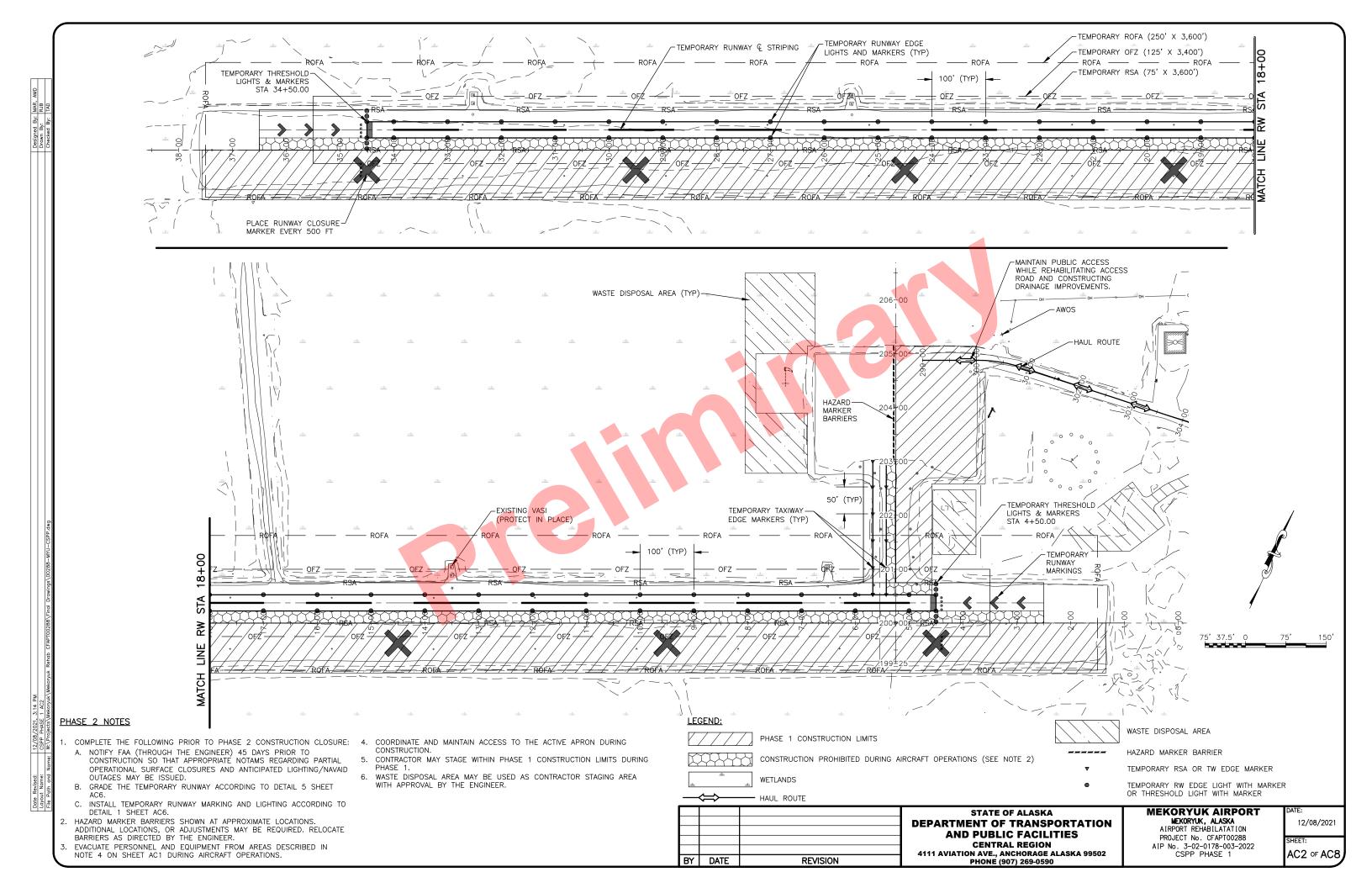
TO VILLAGE OF MFKORYUK AND BARGE LANDING

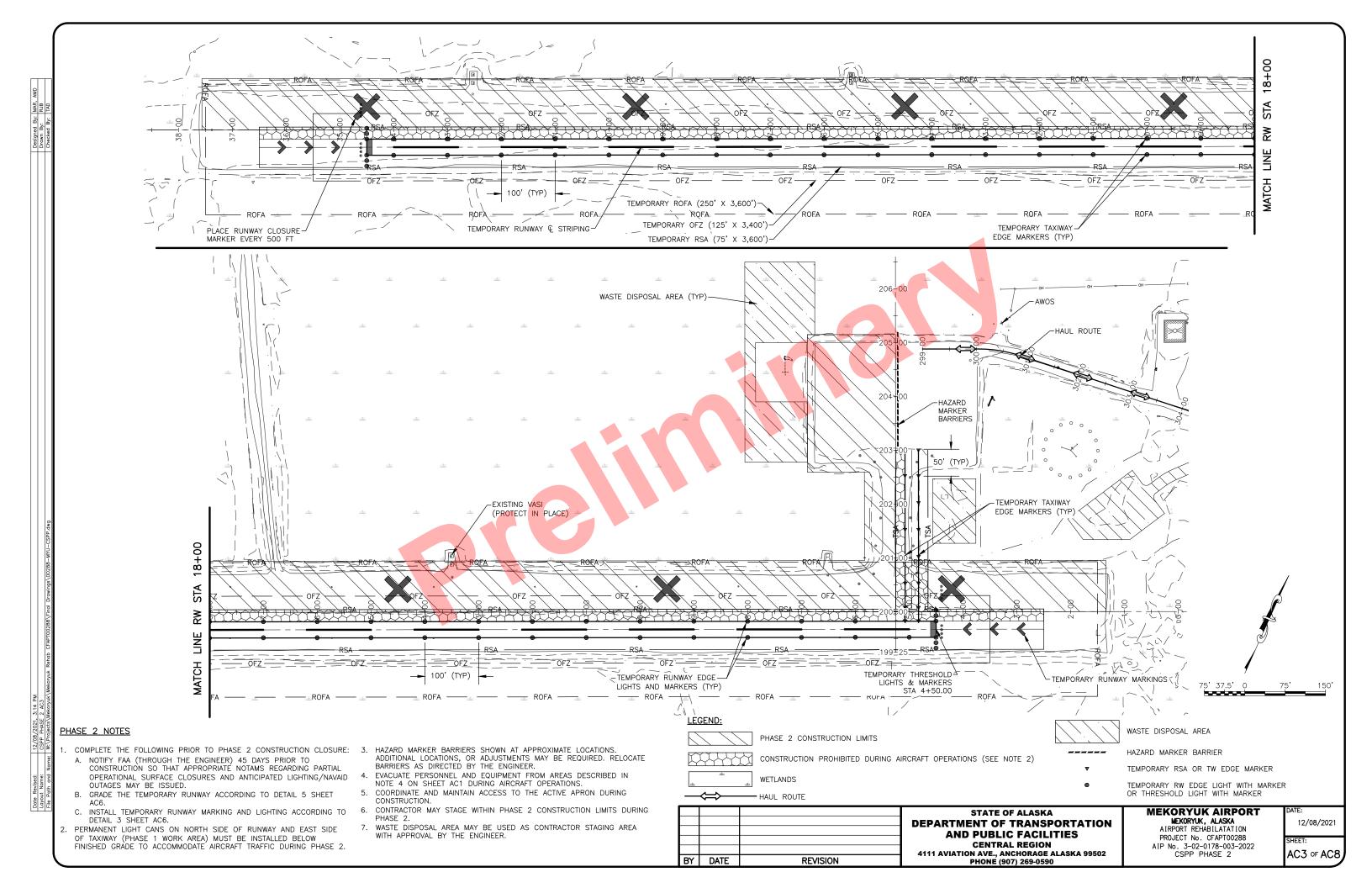
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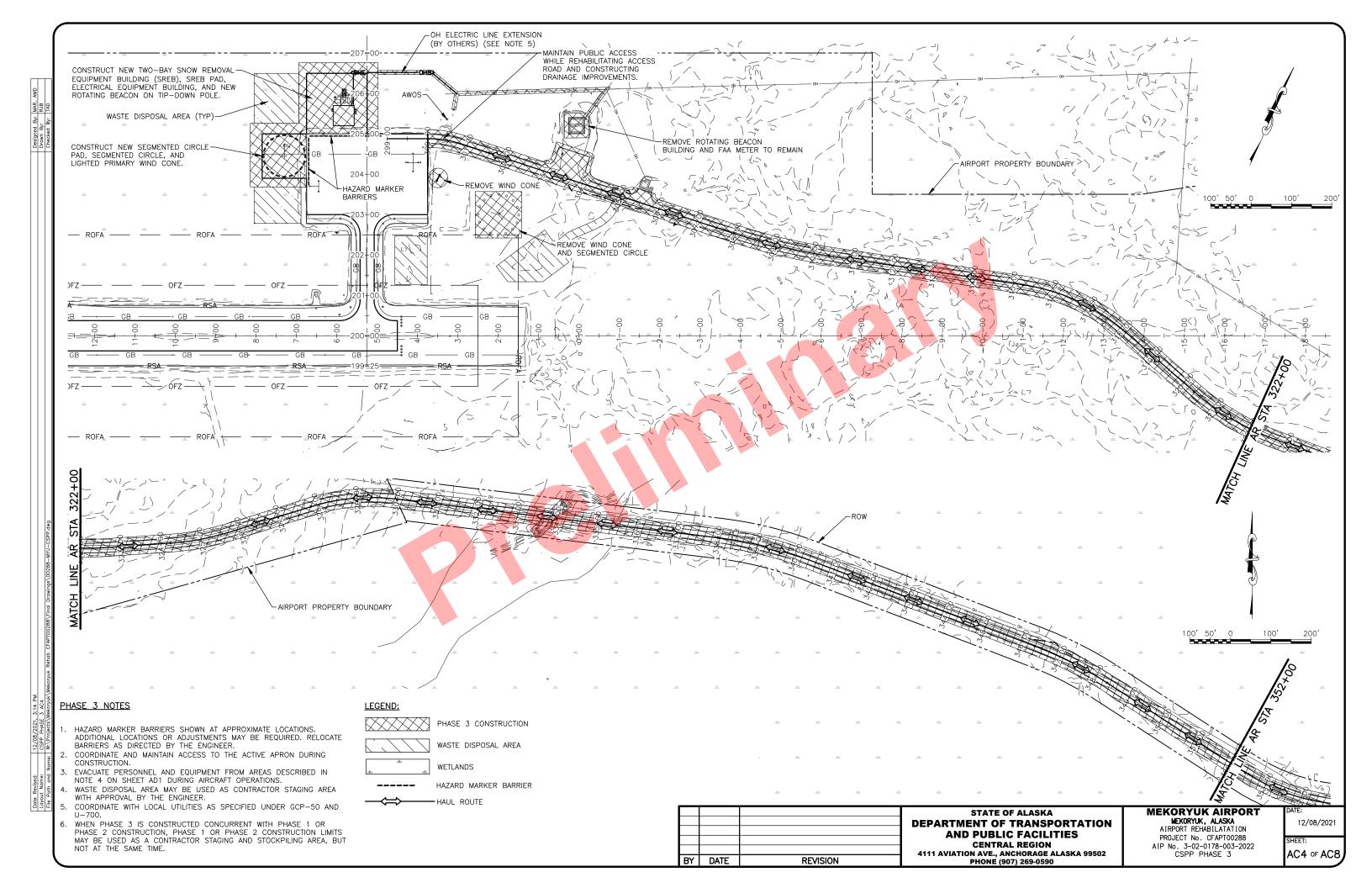
BY DATE **REVISION**

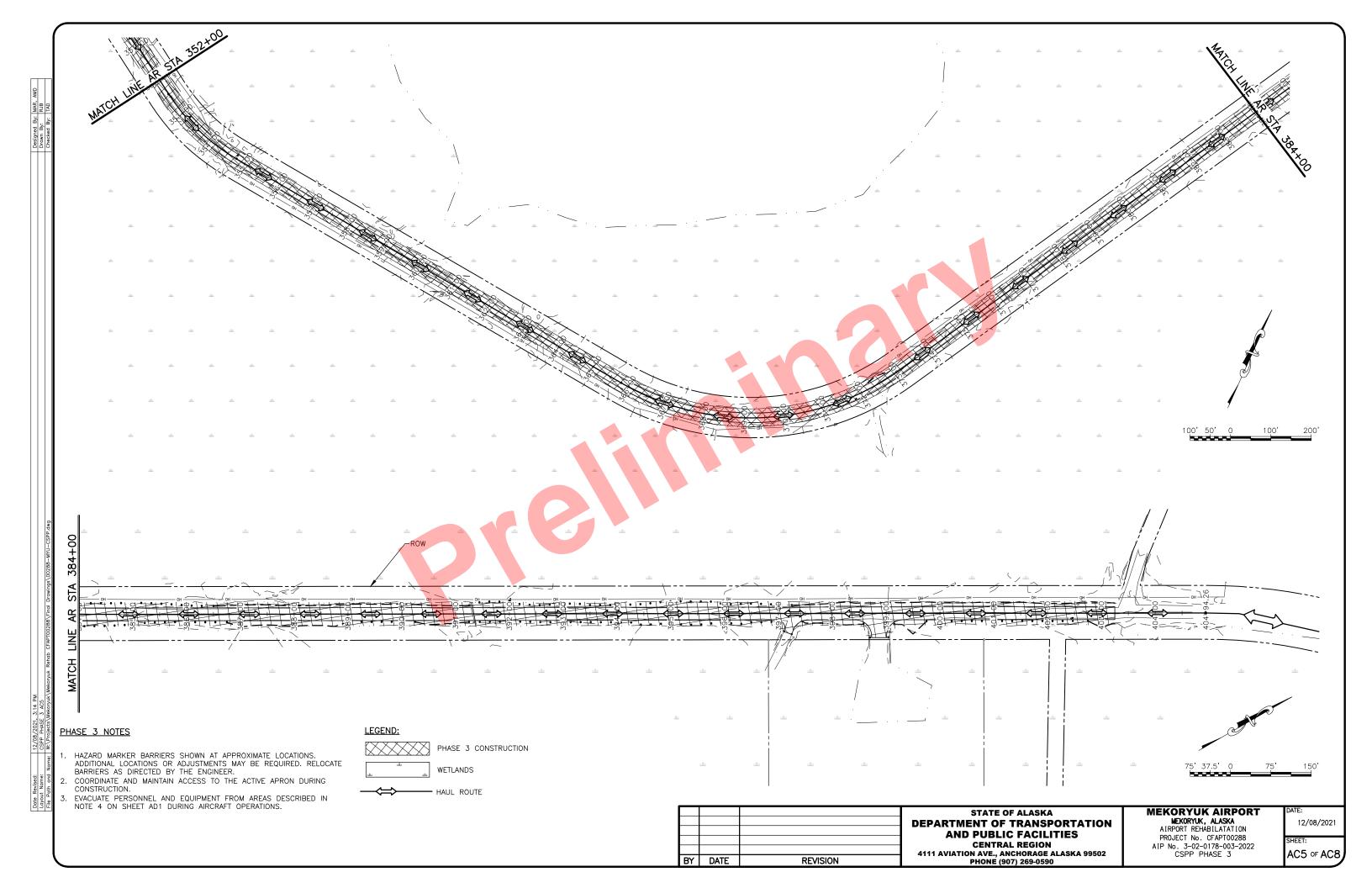
AIRPORT REHABILATATION PROJECT No. CFAPT00288

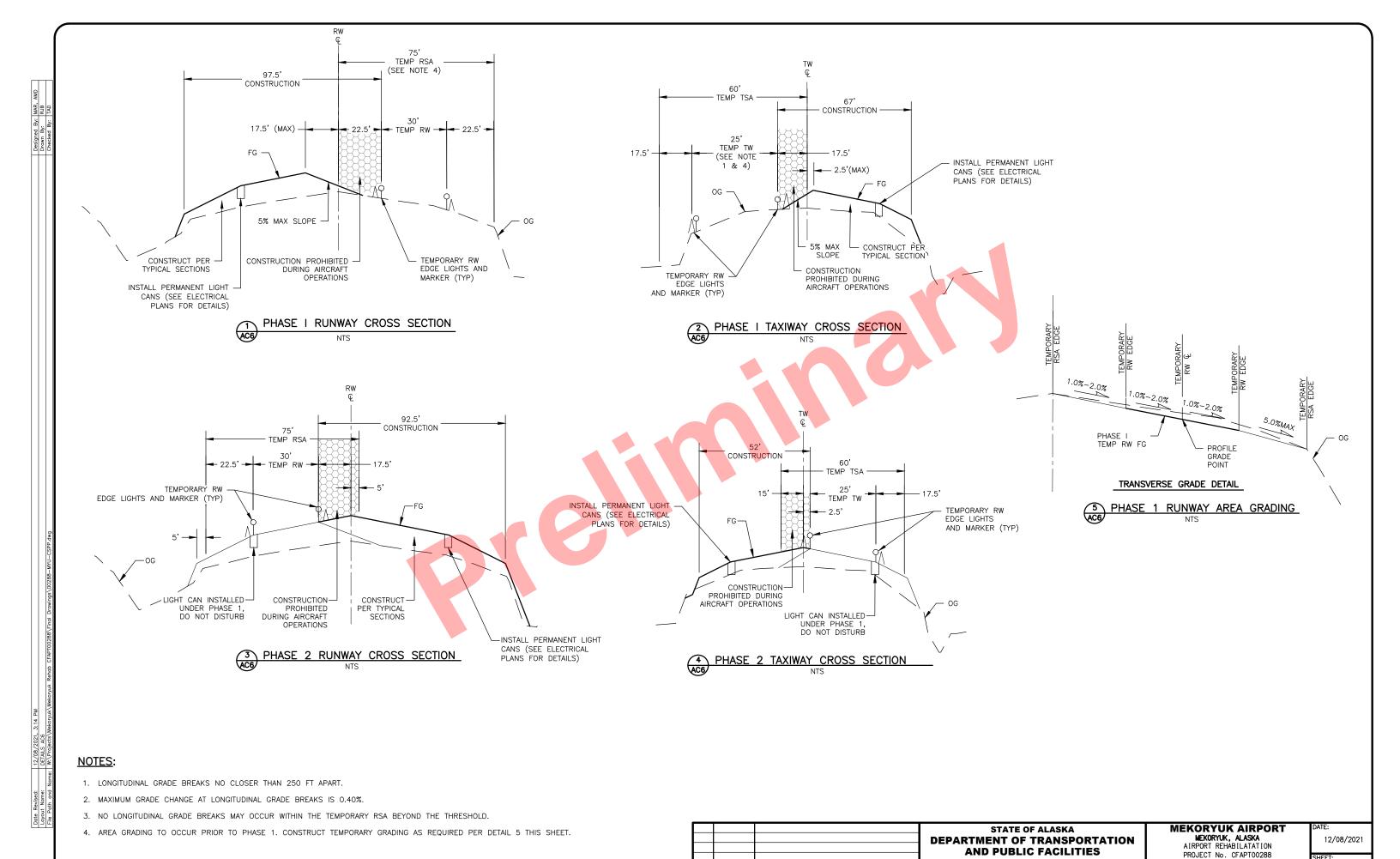
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BY DATE

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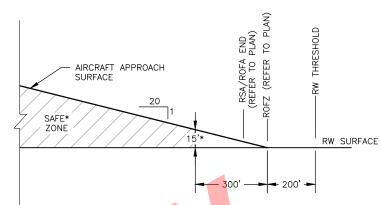
REVISION

AIP No. 3-02-0178-003-2022 PHASING PLAN DETAILS

AC6 of AC8

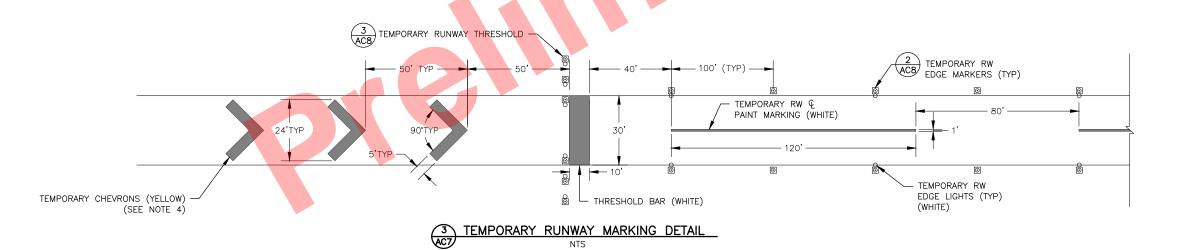
*VEHICLES TALLER THAN 15 FEET (INCLUDING ALL PARTS OF THE EQUIPMENT, E.G. AN EXCAVATOR) MUST REMAIN FARTHER AWAY FROM THE RUNWAY CENTERLINE. WHEN THIS IS THE CASE, NOTIFY AND COORDINATE SAFE ZONE LIMITS WITH THE ENGINEER.

SAFE ZONES ADJACENT TO RUNWAY EDGES



*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 IS BASED ON THE THRESHOLD ELEVATION, THE VEHICLE HEIGHT MAY NEED TO BE REDUCED IF THE GROUND ELEVATION RISES BEYOND THE THRESHOLD.

SAFE ZONES ALONG EXTENDED RUNWAY OR TEMPORARY RUNWAY &



NOTES:

- 1. TEMPORARY RW PAINT MARKINGS ARE PAID UNDER ITEM P-620.
- 2. TEMPORARY RW LIGHTING PAID UNDER ITEM L-125.
- 3. TEMPORARY MARKERS ARE PAID UNDER ITEM P-660.
- 4. YELLOW VINYL MESH CHEVRONS MAY BE USED IN LIEU OF PAINT MARKINGS. IF USING VINYL MESH, FOLLW THE REQUIREMENTS SPECIFICATION P-671.

REVISION BY DATE

STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION** AND PUBLIC FACILITIES

CENTRAL REGION 4111 AVIATION AVE., ANCHORAGE ALASKA 99502 PHONE (907) 269-0590

MEKORYUK AIRPORT MEKORYUK, ALASKA AIRPORT REHABILATATION PROJECT No. CFAPT00288 AIP No. 3-02-0178-003-2022 PHASING PLAN DETAILS

12/08/2021

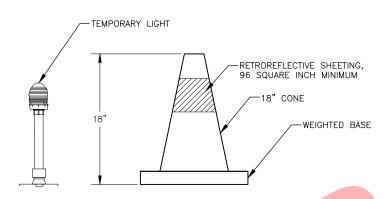
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HAZARD MARKER BARRIER (P-670) FLASHER UNIT (TYP) REFLECTIVE STRIPING PANEL HAZARD MARKER BARRIER (P-670) 4' SPACING TYP

NOTES:

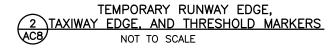
1. HAZARD MARKER BARRIERS ARE NOT TO BE PLACED WITHIN AN ACTIVE RSA OR TSA DISTANCE BETWEEN BARRIERS CAN BE ADJUSTED FOR CONSTRUCTION





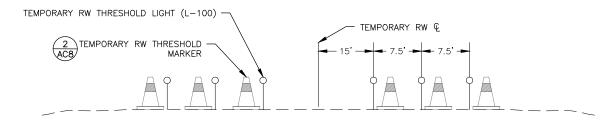
NOTES:

- 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.



NOTES:

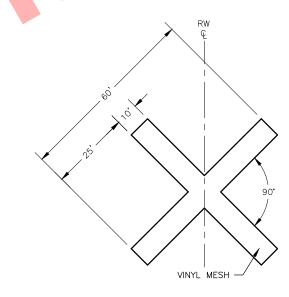
- 1. TEMPORARY RW LIGHTING PAID UNDER ITEM L-125.
- 2. TEMPORARY MARKERS ARE PAID UNDER ITEM P-660.
- 3. YELLOW VINYL MESH CHEVRONS MAY BE USED IN LIEU OF PAINT MARKINGS. IF USING VINYL MESH, FOLLW THE REQUIREMENTS SPECIFICATION P-671.



NOTES:

- 1. TEMPORARY RW THRESHOLD LIGHTS SHALL EMIT GREEN LIGHT ON THE APPROACH SIDE OF THE RW AND RED LIGHT TOWARD THE RW.
- 2. TEMPORARY RW THRESHOLD AND EDGE LIGHTS ARE PAID UNDER ITEM L-125.

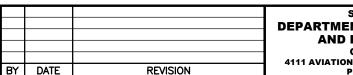




NOTES:

- 1. RW CLOSURE MARKERS WILL BE YELLOW.
- 2. INSTALL RW CLOSURE MARKERS NEAR EACH THRESHOLD OF THE CLOSED RUNWAY.
- 3. RW CLOSURE MARKERS ARE PAID UNDER ITEM P-671.





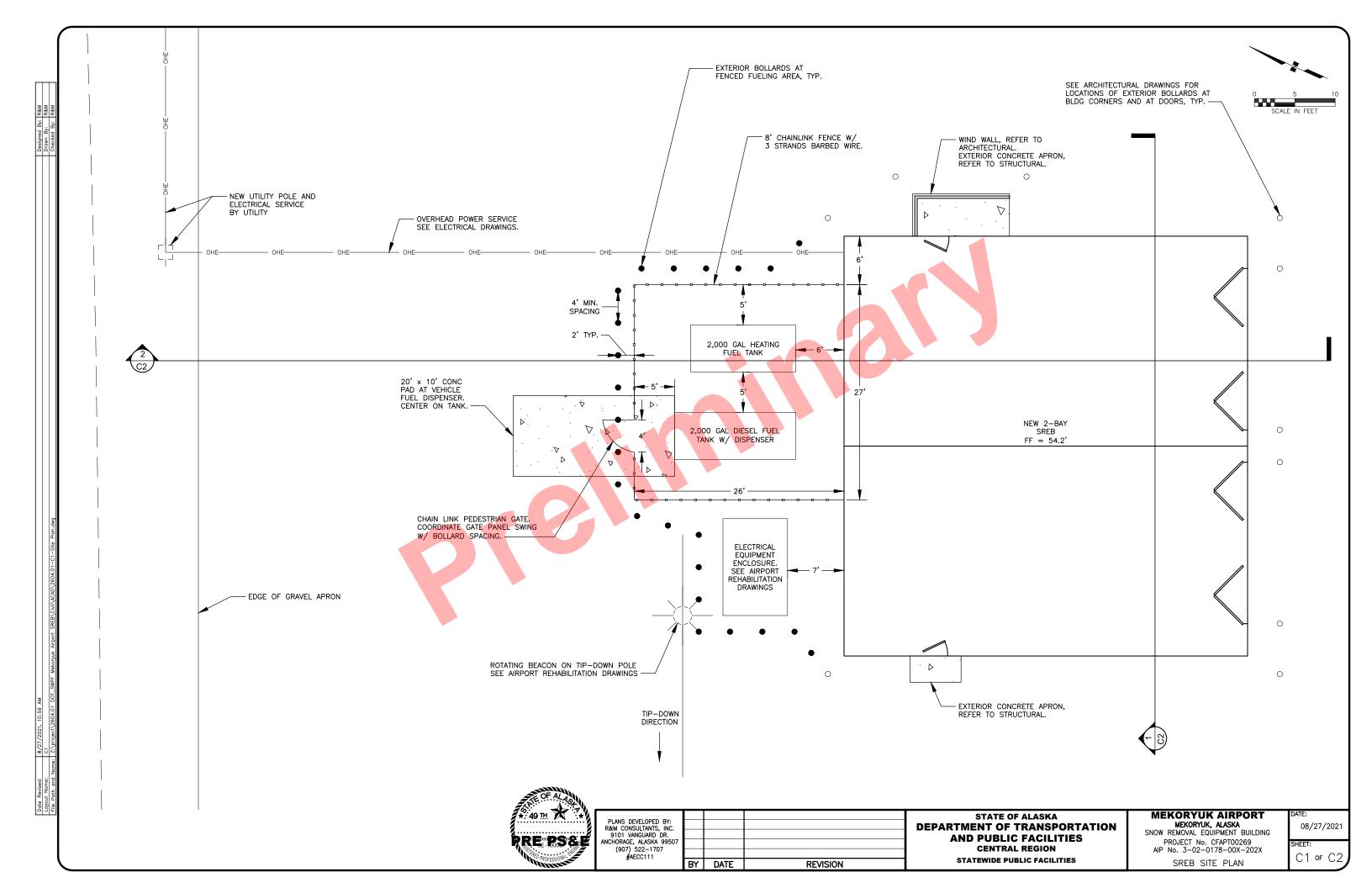
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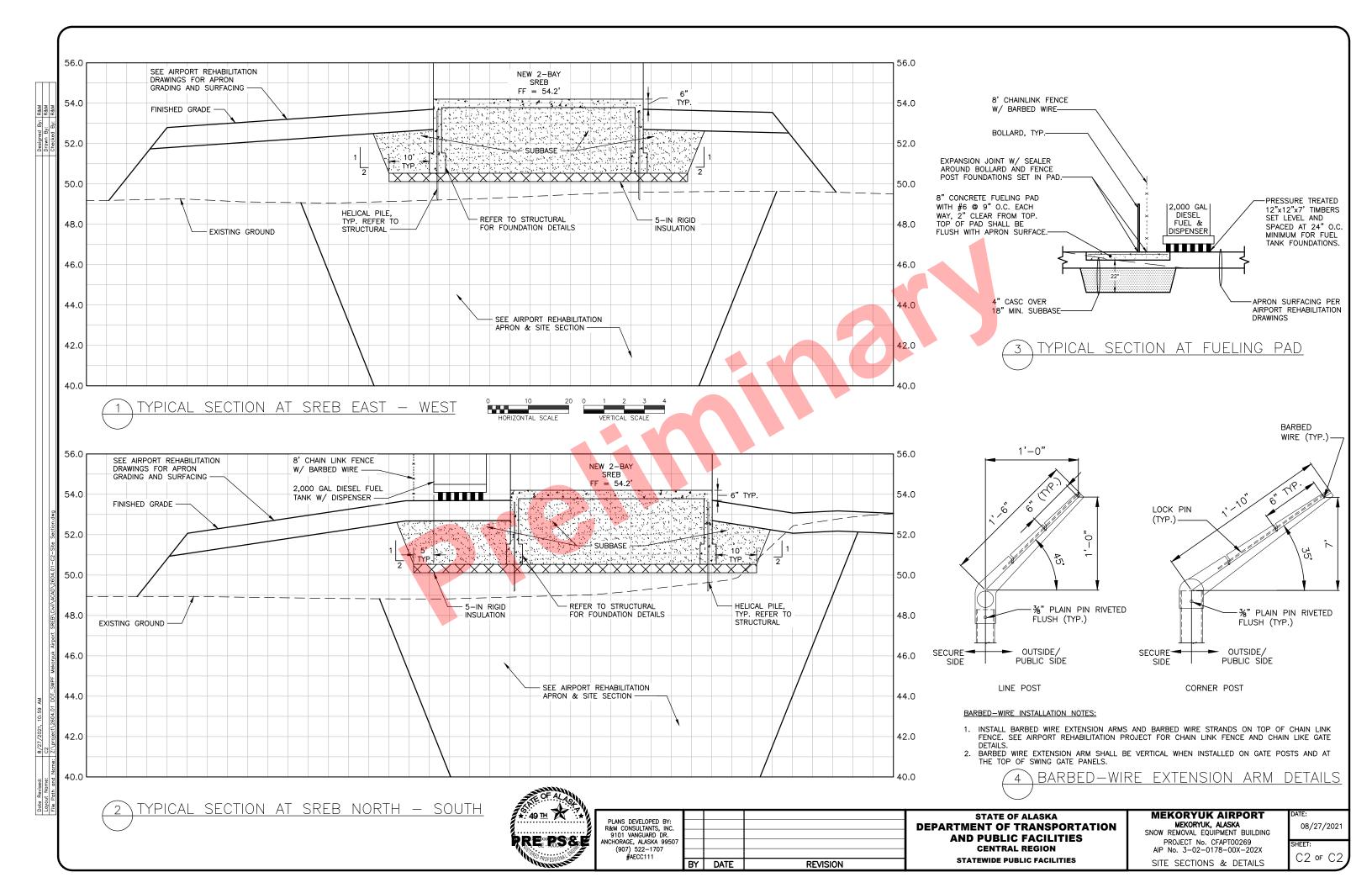
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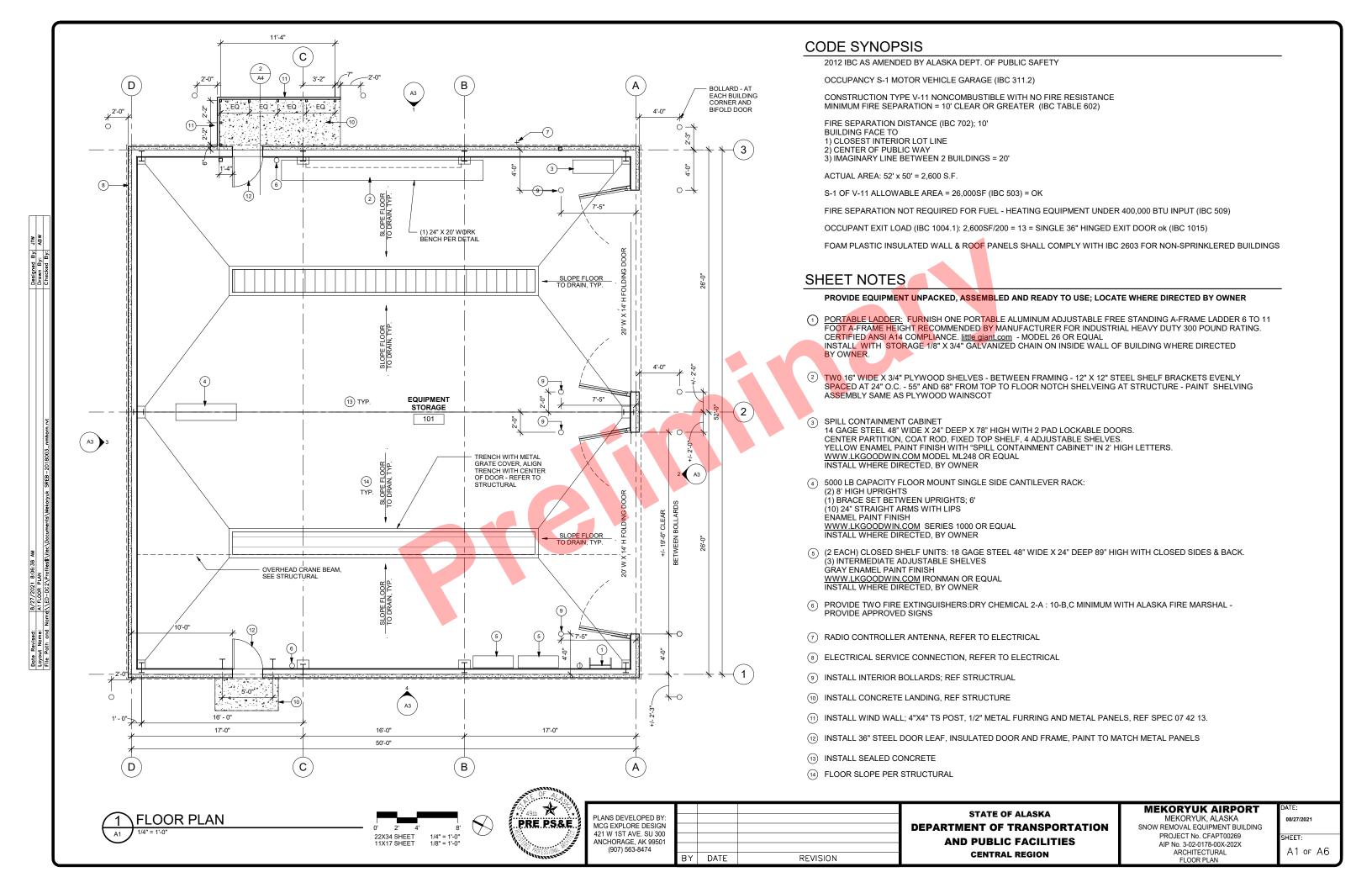
MEKORYUK AIRPORT MEKORYUK, ALASKA AIRPORT REHABILATATION

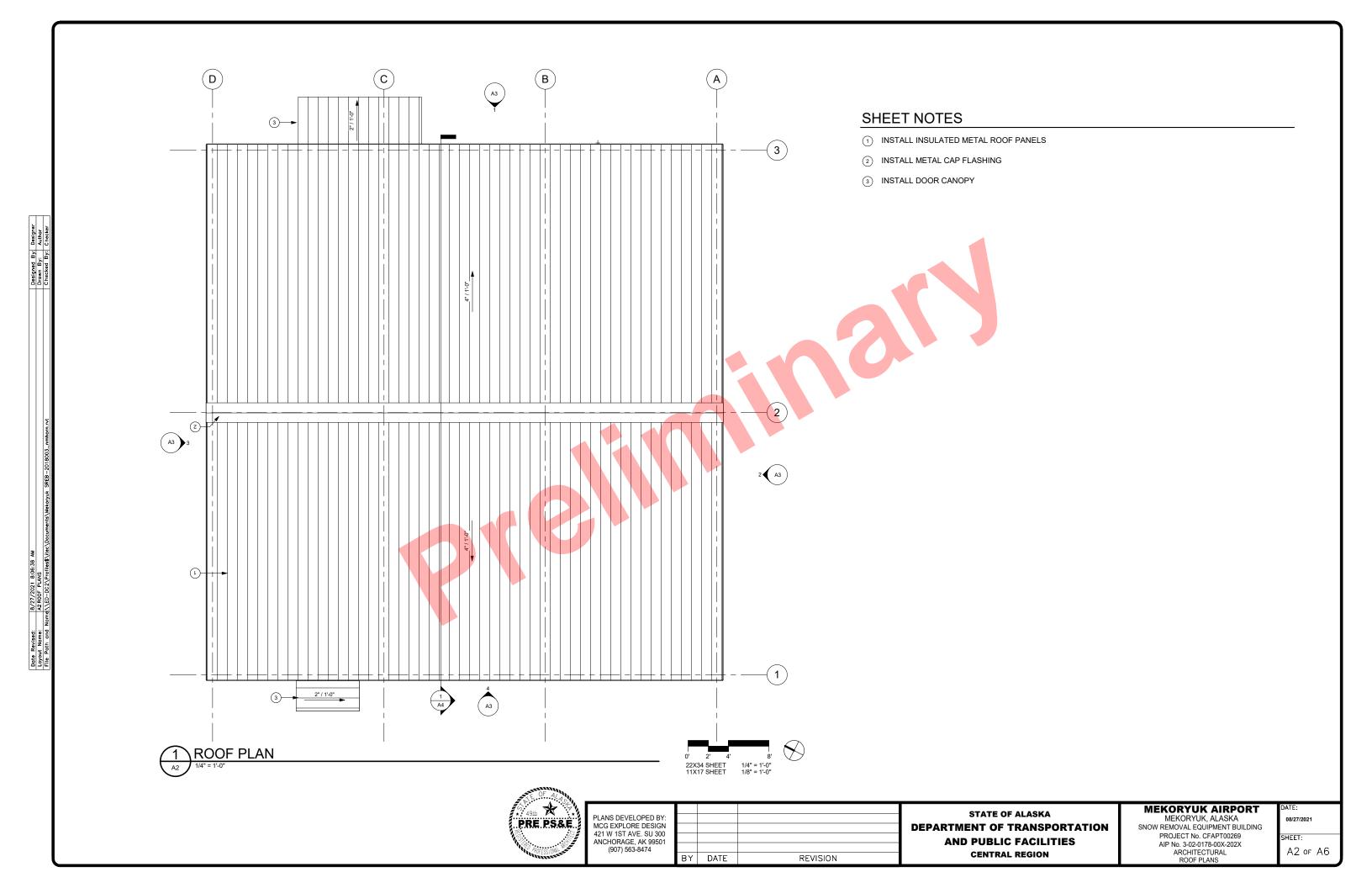
PROJECT No. CFAPT00288 AIP No. 3-02-0178-003-2022 PHASING PLAN DETAILS 12/08/2021

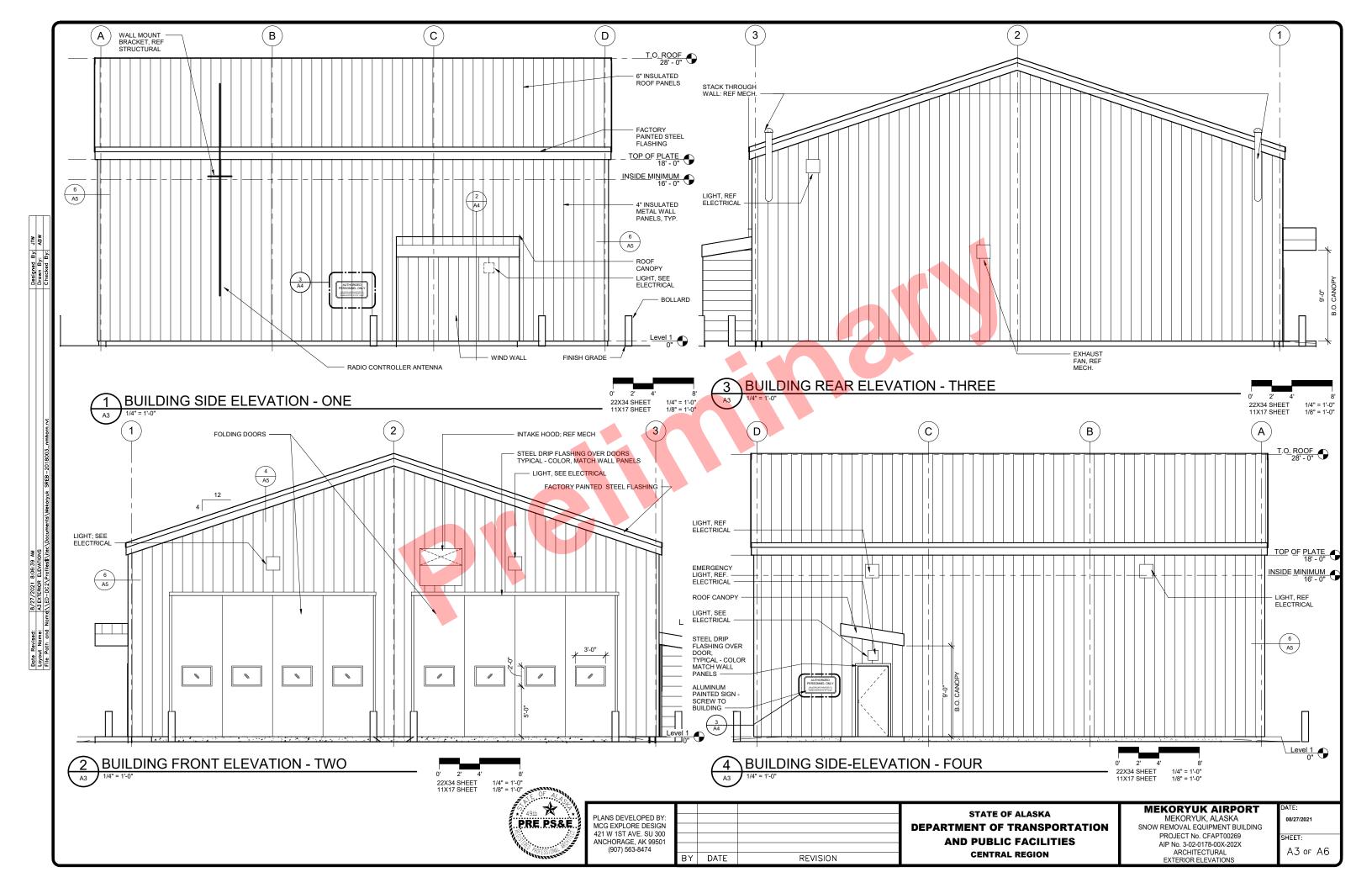
AC8 of AC8

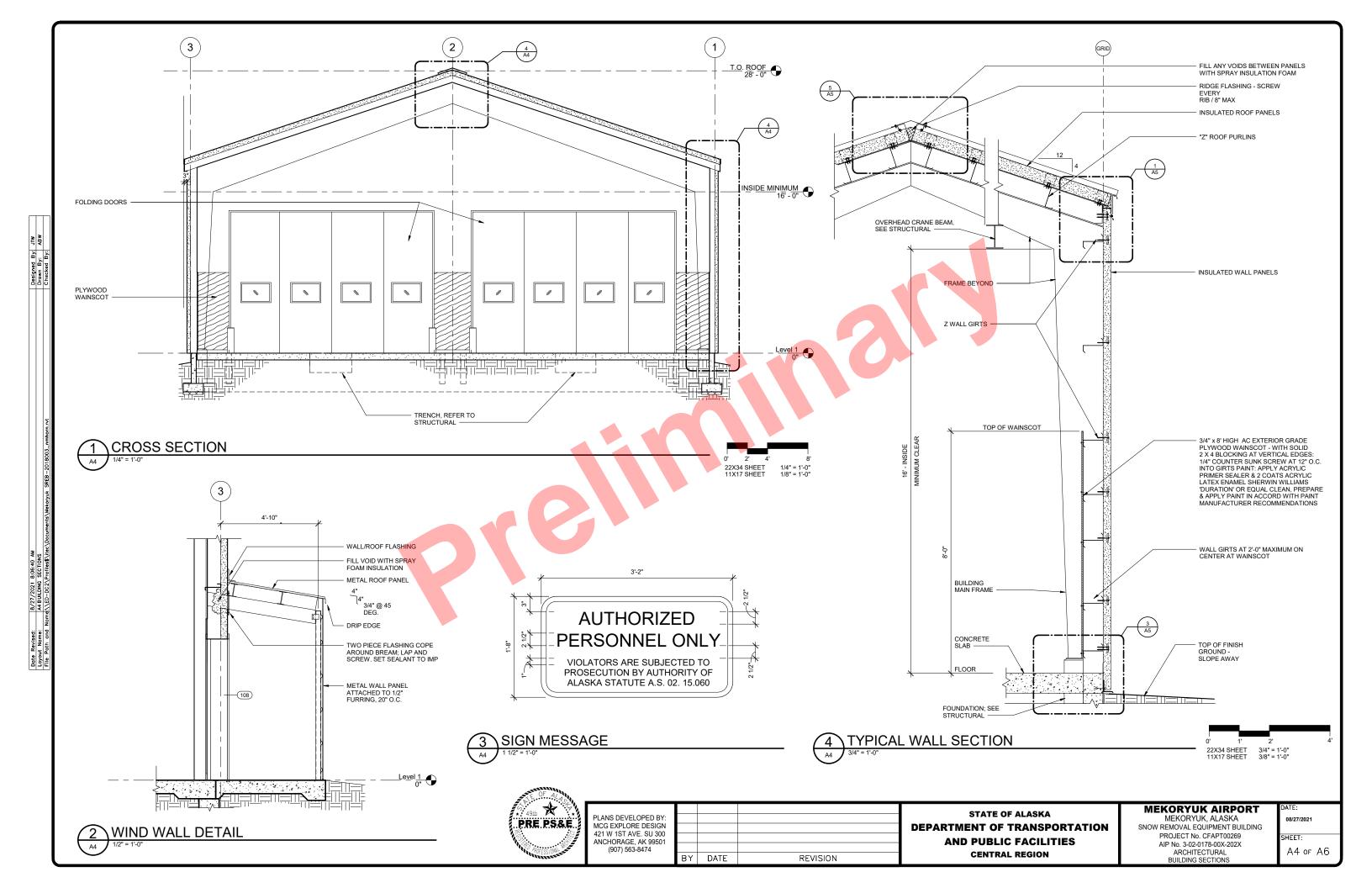


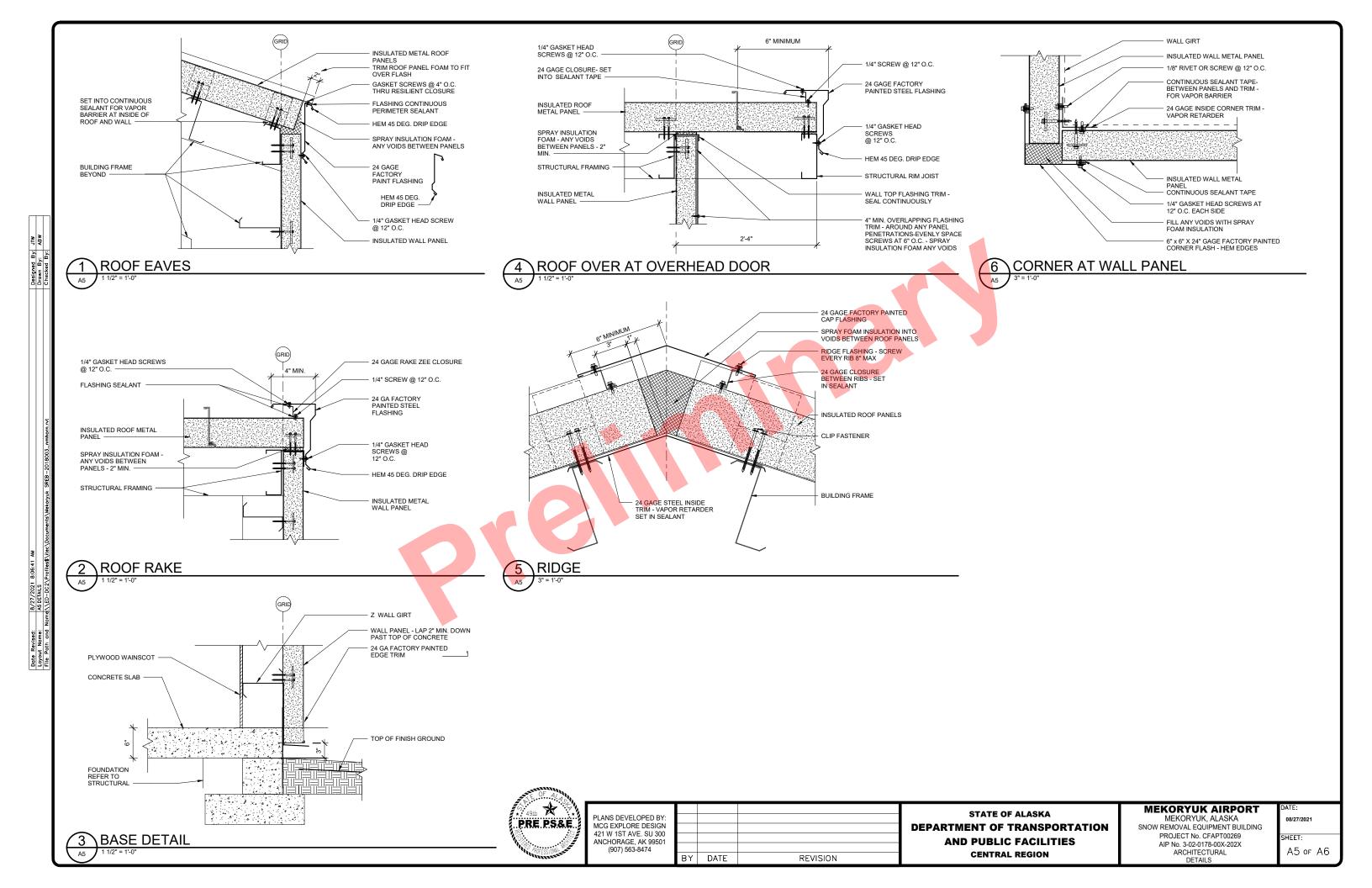


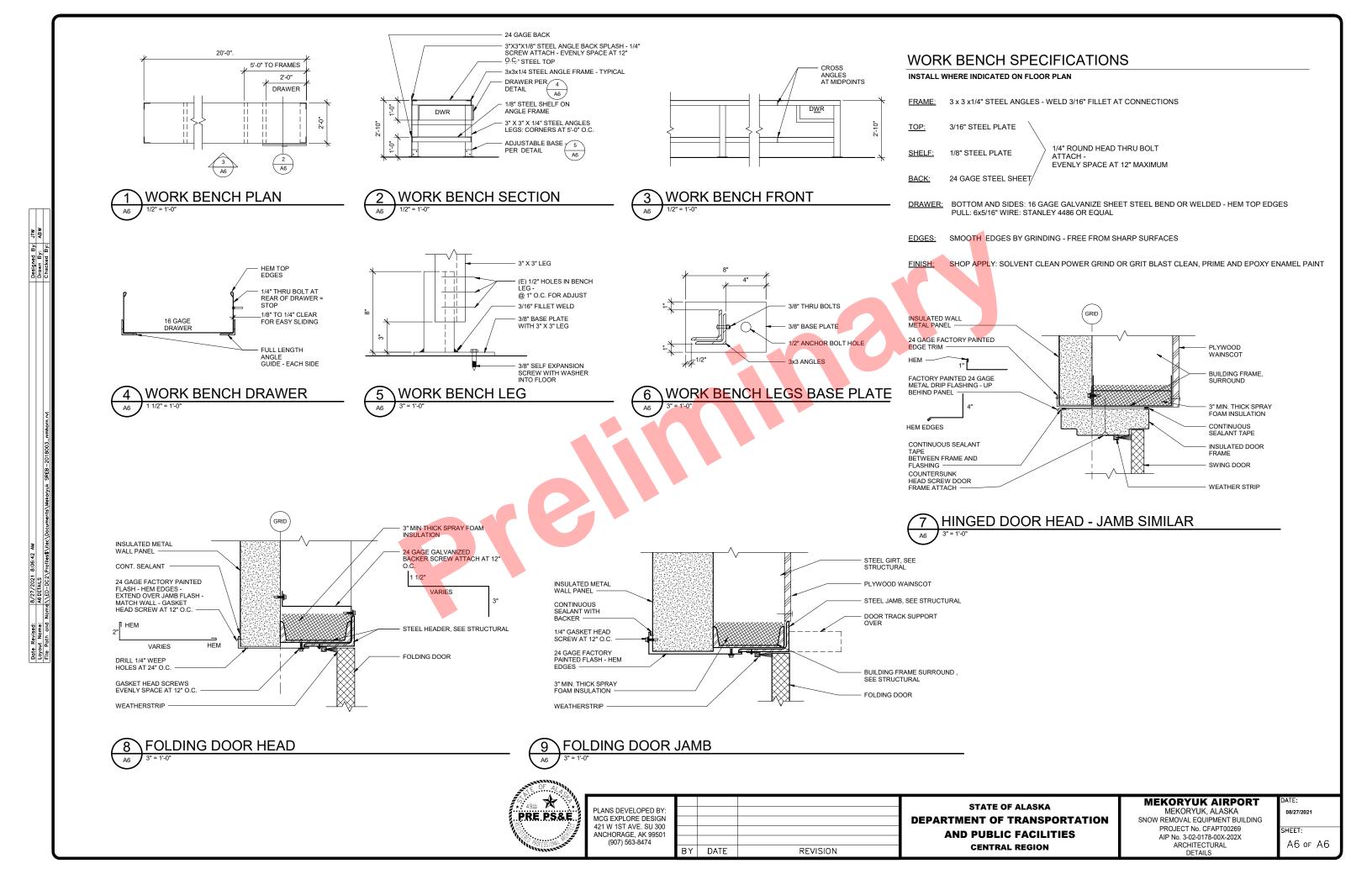












THE FOLLOWING NOTES APPLY UNLESS INDICATED OTHERWISE:

CODE: 2012 INTERNATIONAL BUILDING CODE (IBC)

DESIGN LOADS:

RISK CATEGORY: II

DEAD LOAD = SELF WEIGHT + 5 PSF COLLATERAL AT ROOF

LIVE LOAD 20 PSF FLOOR AT VEHICLE BAYS OR VEHICLE WHEEL LOAD 250 PSF FLOOR NOT AT VEHICLE BAYS...

GROUND SNOW LOAD, PG. IMPORTANCE FACTOR. .1.00 EXPOSURE FACTOR, CE. THERMAL FACTOR, CT MINIMUM FLAT ROOF SNOW LOAD, PF. .56 PSF IMPORTANCE FACTOR, 1.0 EXPOSURE FACTOR, CE 1.0 THERMAL FACTOR, CT. PER ASCE 7-10 SNOW DRIFT. UNBALANCED SNOW LOADS... PER ASCE 7-10

.125 PSF

80 PSF

WIND WIND SPEED, V. 167 MPH ENCLOSURE CLASSIFICATION... **ENCLOSED** EXPOSURE CATEGORY. IMPORTANCE FACTOR, IW. 1.00 TOPOGRAPHIC FACTOR, KZT 1.00 DIRECTION FACTOR. 0.85 GUST FACTOR, G.. 0.85 INTERNAL PRESSURE COEF, GCPI.

SEISMIC

 $S_{DS} = 0.099G$ $S_S = 0.093G$ $S_1 = 0.065G$ $S_{D1} = 0.104G$ SEISMIC DESIGN CATEGORY. SITE CLASS. IMPORTANCE FACTOR, I 1.00 STEEL ORDINARY CONCENTRICALLY **BRACED FRAMES RESPONSE** MOD FACTOR, R., 3.25 SYSTEM OVERSTRENGTH. Ω. STEEL ORDINARY MOMENT FRAMES RESPONSE MOD FACTOR, R SYSTEM OVERSTRENGTH O REDUNDANCY FACTOR, P.

MINIMUM COLLATERAL LOAD.

MONORAIL / BEAM CRANE CAPACITY...

GOVERNING CODE: THE DESIGN AND CONSTRUCTION OF THIS PROJECT IS GOVERNED BY THE INTERNATIONAL BUILDING CODE (IBC), 2012 EDITION, HEREAFTER REFERRED TO AS THE IBC, AS ADOPTED AND MODIFIED BY THE STATE OF ALASKA, UNDERSTOOD TO BE THE AUTHORITY HAVING JURISDICTION (AHJ).

5 PSF

..4.000 LBS

REFERENCE STANDARDS: REFER TO CHAPTER 35 OF THE IBC. WHERE OTHER STANDARDS ARE NOTED IN THE DRAWINGS, USE THE LATEST EDITION OF THE STANDARD UNLESS A SPECIFIC DATE IS INDICATED. REFERENCE TO A SPECIFIC SECTION IN A CODE DOES NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE ENTIRE STANDARD

DEFINITIONS: THE FOLLOWING DEFINITIONS COVER THE MEANINGS OF CERTAIN TERMS USED IN THESE NOTES:

- "STRUCTURAL ENGINEER OF RECORD" (SER) -THE STRUCTURAL ENGINEER WHO IS LICENSED TO STAMP & SIGN THE STRUCTURAL DOCUMENTS FOR THE PROJECT. THE SER IS RESPONSIBLE FOR THE DESIGN OF THE PRIMARY STRUCTURAL
- 2. "SUBMIT FOR REVIEW" SUBMIT TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION OR CONSTRUCTION.
- 3. "PER PLAN"- INDICATES REFERENCES TO THE STRUCTURAL PLANS, ELEVATIONS AND STRUCTURAL GENERAL NOTES.
- 4. "ENCLOSED" IN REFERENCE TO ENCLOSURE CLASSIFICATION FOR WIND LOADS, "ENCLOSED" MEANS THAT ELEMENTS, COMPONENTS, AND SUB-SYSTEMS SERVING TO CLOSE WHAT WOULD OTHERWISE BE OPENINGS IN THE BUILDING EXTERIOR ENVELOPE SHALL BE DESIGNED TO WITHSTAND THE APPLICABLE COMPONENT & CLADDING WIND LOADS PER ASCE-7

SITE VERIFICATION: THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE. CONFLICTS BETWEEN THE DRAWINGS AND ACTUAL SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE WORK

SOILS AND FOUNDATIONS:

DESIGN SOIL VALUES:

FOUNDATION DESIGN IS BASED ON AN ESTIMATED ALLOWARI E SOIL BEARING PRESSURE OF 3,000 PSF. ADDITIONAL 1/3 STRESS INCREASE ALLOWED FOR

HELICAL PILES:

3" NPS SHAFT EXTENSIONS COUPLED WITH 2" SOLID SQUARE LOWER LEAD SECTIONS AND 1/2" THICK HELICES PER THE DRAWINGS. NOMINAL OVERALL LENGTH = 14 FEET. MINIMUM INSTALLATION TORQUE OF 4,100 FT-LBS IS REQUIRED TO ACHIEVE 15,000 LB (UNFACTORED) DESIGN UPLIFT RESISTANCE. AFTER EXCAVATION & PLACEMENT OF HELICAL PILES, PRIOR TO POURING FOOTINGS, SPECIAL INSPECTION OF FOUNDATION EXCAVATION IS REQUIRED.

CAST -IN-PLACE CONCRETE:

MATERIALS:

REINFORCING BARS ASTM A615, GRADE 60, DEFORMED BARS. BAR SUPPORTS CRSI MSP-09 28TH EDITION, CHAPTER 3 "BAR SUPPORTS." TIE WIRE 16 GAGE OR HEAVIER BLACK ANNEALED

ASTM A706, GRADE 60, REINFORCING STEEL SHALL BE USED FOR WELDED BARS. WELDED WIRE FABRIC PER ASTM A185.

MIX DESIGNS

FOOTINGS/FOUNDATION WALLS: . .3000 PSI W/C 0.45 MAX INTERIOR SOG: 3000 PSI W/C 0 45 MAX EXTERIOR CONC SLABS/APRONS:. 3000 PSI W/C 0.45 MAX ALSO REFERENCE SPECIFICATION 03 30 00

CONCRETE COVER: CONFORM TO THE FOLLOWING COVER REQUIREMENTS UNLESS NOTED OTHERWISE IN THE DRAWINGS.

CONCRETE CAST AGAINST EARTH CONCRETE EXPOSED TO EARTH OR WEATHER . CONCRETE NOT EXPOSED TO EARTH OR WEATHER......1.5

FIELD BENDING: CONFORM TO ACI 301 SECTION 3.3.2.8. "FIELD BENDING OR STRAIGHTENING." BAR SIZES #3 THROUGH #5 MAY BE FIELD BENT COLD THE FIRST TIME. OTHER BARS REQUIRE PREHEATING. DO NOT TWIST BARS. BARS SHALL NOT

PRECAST CONCRETE:

PRECAST CONCRETE SHALL COMPLY WITH REQUIREMENTS APPLICABLE TO CAST-IN-PLACE CONCRETE EXCEPT AS MODIFIED BY SPECIFICATION 03 40 00:

MIX DESIGN

5000 PSI W/C 0.40 MAX PRECAST

GROUT - 5000 PSI MINIMUM 7-DAY CUBE STRENGTH. GROUT TO BE PREMIXED, NON-METALIC NON-SHRINK. ICBO CERTIFICATION REQUIRED. USE SPECIFIC GROUT MIX RECOMMENDED BY MANUFACTURER FOR EACH GROUT APPLICATION AND FOLLOW MANUFACTURER'S INSTRUCTIONS.

NEOPRENE BEARING PADS

BEARING PADS BENEATH BUILDING COLUMNS AND PRECAST WALL PANELS
SHALL BE UN-REINFORCED NEOPRENE COMPLYING WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES SECTION 18, BEARINGS -POLY-ISOPRENE GRADE 5, ASTM D2240 HARDNESS (SHORE A) 60. THICKNESS AND SIZE AS SHOWN ON THE DRAWINGS.

ANCHOR BOLTS, WHERE ALL-THREAD ANCHOR RODS ARE NOT INDICATED ON THE DRAWINGS: ASTM F1554 GRADE 55, HEAVY HEX HEAD, HOT DIP GALVANIZED. SIZE AS PER MBS MFGR. SET ALL ANCHOR BOLTS BY TEMPLATE.

ALL-THREAD ANCHOR RODS:

ASTM A193 B7, HOT DIP GALVANIZED, FURNISHED ASSEMBLED WITH (4) HEAVY HEX NUTS EACH, SIZE AS SHOWN ON THE DRAWINGS.

FOUNDATION AND SLAB INSULATION:

VERTICALLY ORIENTED (FOUNDATION WALL) INSULATION SHALL BE TYPE VII EPS -

EXTERIOR UNDER-SLAB INSULATION SHALL BE TYPE XIV EPS - 40 PSI MIN., OR

PRE PS&E

METAL BUILDING SYSTEM (MBS):

REFERENCE SPECIFICATION 133419 & SHEET S3 THROUGH S8 FRAMING SCHEMATICS

STRUCTURAL STEEL:

MATERIALS

| WIDE FLANGE (W), TEE (WT) SHAPES | ASTM A992 FY = 50 KSI |
|----------------------------------|---------------------------------|
| STRUCTURAL BARS & PLATES (PL) | ASTM A529 OR 572, FY = 50 KSI |
| HOLLOW STRUCTURAL SECTION (HSS) | ASTM A500 OR A1085, FY = 46 KSI |
| STRUCTURAL PIPE (PIPE) | ASTM A500, FY = 46 KSI |
| HIGH STRENGTH BOLTS | ASTM A325, HDG |
| WELDING ELECTRODES | E70XX, E71TXX UNO |

COLD FORMED METAL FRAMING:

MATERIALS

ASTM-A653, FY=50 KSI, EXCEPT 18 GAUGE AND LIGHTER MAY BE ASTM A570, FY=33 KSI. GALVANIZED G60 FOR INTERIOR STUD AND JOIST FRAMING. GALVANIZED G90 FOR PURLIN AND GIRT MEMBERS.

POST - INSTALLED ANCHORS (INTO CONCRETE AND MASONRY):

DESIGN STANDARDS

POST-INSTALLED ANCHORS INTO CONCRETE FOR THIS PROJECT ARE DESIGNED IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE, ACI 318-11, APPENDIX D SPECIFICATIONS.

POST - INSTALLED MECHANICAL ANCHORS: POST-INSTALLED MECHANICA ANCHORS SHALL BE WEDGE TYPE APPROVED FOR USE IN CRACKED CONCRETE AND APPROVED FOR SEISMIC APPLICATIONS. ALL POST- INSTALLED ANCHORS SHALL HAVE A CURRENT ICC EVALUATION SERVICE REPORT THAT PROVIDES RELEVANT DESIGN VALUES NECESSARY TO VALIDATE THE AVAILABLE STRENGTH EXCEEDS THE REQUIRED STRENGTH. SUBMIT CURRENT MANUFACTURER'S DATA AND ICC ESR REPORT TO SER FOR REVIEW. INSTALL ANCHORS IN STRICT ACCORDANCE TO ICC-ESR AND MANUFACTURERS INSTRUCTIONS, NO REINFORCING BARS SHALL BE DAMAGED DURING INSTALLATION OF POST-INSTALLED ANCHORS. SPECIAL INSPECTION SHALL BE PER THE TESTS AND INSPECTIONS SECTION OF THE APPLICABLE ESR REPORT. ANCHOR TYPE DIAMETER AND EMBEDMENT SHALL BE AS INDICATED ON DRAWINGS.

POST - INSTALLED ADHESIVE ANCHORS: POST-INSTALLED ADHESIVE ANCHORS
FOR HORIZONTAL OR OVERHEAD INSTALLATIONS SHALL BE INSTALLED BY ACI CERTIFIED INSTALLERS. INSTALL ONLY WHERE SPECIFICALLY SHOWN IN THE DETAILS OR ALLOWED BY THE SER. ALL POST- INSTALLED ANCHORS TYPES AND LOCATIONS SHALL BE APPROVED BY THE SER AND SHALL HAVE A CURRENT ICC EVALUATION SERVICE REPORT THAT PROVIDES RELEVANT DESIGN VALUES NECESSARY TO VALIDATE THE AVAILABLE STRENGTH EXCEEDS THE REQUIRED STRENGTH. SUBMIT CURRENT MANUFACTURER'S DATA AND ICC ESR REPORT TO SER FOR APPROVAL REGARDLESS OF WHETHER OR NOT IT IS A PRE-APPROVED ANCHOR INSTALL ANCHORS IN STRICT ACCORDANCE TO ICC-ESR AND MANUFACTURERS INSTRUCTIONS. NO REINFORCING BARS SHALL BE DAMAGED DURING INSTALLATION OF POST INSTALLED ANCHORS. SPECIAL INSPECTION SHALL BE PER THE TESTS AND INSPECTIONS SECTION. ANCHOR TYPE, DIAMETER AND EMBEDMENT SHALL BE AS INDICATED ON DRAWINGS

DEFERRED SUBMITTALS:

SUBMITTAL DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE ENGINEER TO BE FORWARDED TO THE SER AND SHALL BE REVIEWED FOR GENERAL CONFORMANCE WITH THE DRAWINGS AND FORWARD TO THE AHJ. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE FABRICATED OR INSTALLED UNTIL THE DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE ENGINEER OF RECORD AND THE AHJ.

DEFERRED SUBMITTAL ITEMS INCLUDE

- 1. PRE-ENGINEERED METAL BUILDING SHOP DRAWINGS AND CALCULATIONS, INCLUSIVE OF MEZZANINE
- 2 BRIDGE CRANE
- 3. HELICAL PILES

SPECIAL INSPECTIONS SHALL BE PERFORMED BY QUALIFIED PERSONNEL EMPLOYED BY THE ADOT&PF OR ADOT&PF'S AGENT. SPECIAL INSPECTORS SHALL BE QUALIFIED PERSONS WHO DEMONSTRATE COMPETENCE TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION PER 1704.1.

CONTRACTOR RESPONSIBILITY: PRIOR TO ISSUANCE OF THE BUILDING PERMIT, THE CONTRACTOR IS REQUIRED TO PROVIDE THE ADOT&PF A SIGNED, WRITTEN ACKNOWLEDGEMENT OF THE CONTRACTOR'S RESPONSIBILITIES ASSOCIATED WITH THE STATEMENT OF SPECIAL INSPECTIONS ADDRESSING THE REQUIREMENTS LISTED IN IBC SECTION 1714. CONTRACTOR IS REFERRED TO IBC CHAPTER 1705.11.5 AND 1705.11.6 FOR ARCHITECTURAL AND MEP BUILDING SYSTEMS THAT MAY BE SUBJECT TO ADDITIONAL INSPECTIONS (BASED ON THE BUILDING'S DESIGNATED SEISMIC DESIGN CATEGORY LISTED IN THE CRITERIA), INCLUDING ANCHORAGE OF HVAC DUCTWORK CONTAINING HAZARDOUS MATERIALS PIPING SYSTEMS AND MECHANICAL LINITS CONTAINING FLAMMABLE COMBUSTIBLE OR HIGHLY TOXIC MATERIALS, ELECTRICAL EQUIPMENT USED FOR EMERGENCY OR STANDBY POWER, EXTERIOR WALL PANELS AND SUSPENDED CEILING SYSTEMS

SPECIAL INSPECTION PLAN:

THE FOLLOWING SPECIAL INSPECTIONS SHALL BE PERFORMED BY QUALIFIED PERSONNEL EMPLOYED BY THE ADOT&PF OR ITS AGENT. THE CONTRACTOR SHALL COORDINATE WORK WITH THE SPECIAL INSPECTORS. SPECIAL INSPECTORS SHALL OBSERVE AND ACCEPTANCE TEST THE WORK ASSIGNED FOR CONFORMANCE WITH APPROVED DESIGN DRAWINGS AND SPECIFICATIONS. INSPECTION REPORTS SHALL BE FURNISHED TO ADOT&PF 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. 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 SPECIAL INSPECTIONS PER SECTION 1704 OF THE INTERNATIONAL BUILDING CODE WILL BE PROVIDED BY ADOT&PF.

STATEMENT OF SPECIAL INSPECTIONS PER 1704 AND 1705. SPECIAL INSPECTIONS AND TESTING ARE REQUIRED BY 1704 AND 1705 FOR THE

FABRICATORS PER IBC SECTION 1704.2 AND THE FOLLOWING: SPECIAL INSPECTIONS AS REQUIRED BY SECTION 1704.2 SHALL NOT BE REQUIRED WHERE THE WORK IS DONE ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION.

STEEL CONSTRUCTION PER IBC SECTION 1705.2, THE ATTACHED TABLES AND THE FOLLOWING:

THE SPECIAL INSPECTOR NEED NOT BE CONTINUOUSLY PRESENT DURING WELDING OF THE FOLLOWING ITEMS, PROVIDED THE CONDITIONS OF SECTION 1705.2 EXCEPTIONS ARE MET:

SINGLE-PASS FILLET WELDS NOT EXCEEDING 5/16" IN SIZE FLOOR AND ROOF DECK WELDING WELDING OF STAIRS AND RAILING SYSTEMS

SOILS & FOUNDATION CONSTRUCTION PER IBC SECTION 1705.6 AND THE ATTACHED TABLES.

NCRETE CONSTRUCTION PER IBC SECTION 1705.3 AND THE ATTACHED

WIND REQUIREMENTS PER IBC SECTION 1711 AND THE ATTACHED TABLES.

SEISMIC REQUIREMENTS PER IBC SECTION 1712 AND THE ATTACHED

STRUCTURAL TESTING FOR SEISMIC RESISTANCE PER IBC SECTION 1713 AND THE QUALITY ASSURANCE PLAN REQUIREMENTS OF AISC 341.

STRUCTURAL OBSERVATIONS

STRUCTURAL OBSERVATIONS, AS DEFINED IN IBC SECTION 1702, SHALL BE PROVIDED FOR SEISMIC RESISTANCE PER IBC SECTION 1704.5.1 AND WIND REQUIREMENTS PER IBC SECTION 1704.5.2.

POST - INSTALLED ANCHORS TO CONCRETE: SHALL COMPLY WITH IBC SECTION 1703. INSPECTIONS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN THE APPROVED ICC EVALUATION REPORT AND AS INDICATED BY THE DESIGN REQUIREMENTS SPECIFIED ON THE DRAWINGS. REFER TO THE POST INSTALLED ANCHORS SECTION OF THESE NOTES FOR ANCHORS THAT ARE THE BASIS OF THE DESIGN. SPECIAL INSPECTOR SHALL VERIFY ANCHORS ARE AS SPECIFIED IN THE POST INSTALLED ANCHORS SECTION OF THESE NOTES OR AS OTHERWISE SPECIFIED ON THE DRAWINGS. SUBSTITUTIONS REQUIRE APPROVAL BY THE SER AND REQUIRE SUBSTANTIATING CALCULATIONS AND CURRENT IBC RECOGNIZED ICC EVALUATION SERVICES (ES) REPORT, SPECIAL INSPECTOR SHALL DOCUMENT IN THEIR SPECIAL INSPECTION REPORT COMPLIANCE WITH EACH OF THE ELEMENTS REQUIRED WITHIN THE APPLICABLE ICC EVALUATION SERVICES (ES) REPORT

95% DESIGN DEVELOPMENT

STATE OF ALASKA PLANS DEVELOPED BY: **DEPARTMENT OF TRANSPORTATION** R&M CONSULTANTS, INC. 9101 VANGUARD DR. ANCHORAGE, ALASKA 9950 AND PUBLIC FACILITIES **CENTRAL REGION** (907) 522-1707 #AECC111 STATEWIDE PUBLIC FACILITIES RY DATE REVISION

MEKORYUK AIRPOR MEKORYUK, ALASKA SNOW REMOVAL EQUIPMENT BUILDING

PROJECT No. CFAPT00269 AIP No. 3-02-0178-00X-202X

S1 of S16

08/27/2021

GENERAL NOTES

| | VERIFICATION & INSPECTION | FREQUENCY OF INSPECTION | REFERENCE |
|----------------------|--|----------------------------|---|
| MA | TERIAL VERIFICATION OF HIGH STREN | GTH BOLTS, NUTS | AND WASHERS |
| A. | IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS. | PERIODIC | AISC 360 SECTION A3.3 & APPLICABLE ASTM STANDARDS |
| 3. | MANUFACTURER'S CERTIFICATE COMPLIANCE REQUIRED | PERIODIC | |
| INS | PECTION OF HIGH STRENGTH BOLTS | | |
| A. | SNUG-TIGHT JOINTS | PERIODIC | |
| В. | PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITH MATCH MARKING MARKING, TWIST OFF BOLT OR DIRECT TENSION INDICATOR METHODS OF INSTALLATION | PERIODIC | AISC 360 SECTION M2.5 IBC 1704.3.3 |
| MA [.] | TERIAL VERIFICATION OF STRUCTURA | L STEEL AND COLD | -FORMED STEEL |
| Α. | FOR STRUCTURAL STEEL, IDENTIFICATION MARKINGS TO CONFORM TO AISC 360 | PERIODIC | AISC 360 SECTION M5.5 |
| 3. | FOR OTHER STEEL, IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS | PERIODIC | APPLICABLE ASTM STANDARDS |
| Э. | MANUFACTURER'S CERTIFIED TEST REPORTS | PERIODIC | |
| MA [.] | TERIAL VERIFICATION OF WELD FILLE | R MATERIALS | |
| Α. | IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS | PERIODIC | AISC 360 SECTION A3.5 & APPLICABLE AWS A DOCUMENTS |
| В. | MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED | PERIODIC | |
| INS | PECTION OF WELDING | | • |
| A. | STRUCTURAL STEEL AND COLD FORM | MED STEEL | |
| 1. 2. 3. 4. | PENETRATION GROOVE WELDS MULTIPASS FILLET WELDS SINGLE PASS FILLET WELDS > 5/16" | CONTINUOUS | AWS D1.1 IBC 1704.3.1 |
| 5. | SINGLE PASS FILLET ≤ 5/16" | PERIODIC | AWS D1.1 IBC 1704.3.1 |
| 6. | FLOOR AND ROOF DECK WELDS | PERIODIC | AWS D1.3 |
| В. | REINFORCING STEEL | | 1 |
| 2. | VERIFICATION OF WELDABILITY FOR REINFORCING STEEL OTHER THAN ASTM A706 | PERIODIC | AWS D1.4 ACI 318: SECTION 3.5.2 |
| 2. | OTHER REINFORCING STEEL | PERIODIC | 32011014 0.0.2 |
| INS | PECTION OF STEEL FRAME JOINT DET | AILS FOR COMPLIA | NCE |
| A. | DETAILS SUCH AS BRACING AND STIFFENING | | |
| В. | MEMBER LOCATIONS | | IBC 1704.3.2 |
| C. | APPLICATION OF JOINT DETAILS AT | | |

REQUIRED INSPECTION OF STEEL CONSTRUCTION

| | REQUIRED INSPECTION OF | F HELICAL PILES | |
|---------------------------|--|-------------------------|--|
| VERIFICATION & INSPECTION | | FREQUENCY OF INSPECTION | |
| A. | HELICAL PILE MATERIAL & INSTALLATION EQUIPMENT | PERIODIC | |
| B. | INSTALLATION TORQUE ACHIEVED | CONTINUOUS | |

REQUIRED INSPECTION AND ACCEPTANCE TESTING OF

| | CONCRETE CO | ONSTRUCTION | | |
|----|--|------------------------------|--|--|
| | VERIFICATION & INSPECTION | FREQUENCY OF INSPECTION | REFERENCE | |
| A. | INSPECTION OF REINFORCING STEEL & PLACEMENT | PERIODIC | ACI 318: SECTION 3.5, 7.1 - 7.7 IBC 1913.4 | |
| В. | INSPECTION OF REINFORCING STEEL WELDING | SEE STEEL CONSINSPECTION TAB | | |
| C. | INSPECTION OF BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO & DURING PLACEMENT OF CONCRETE | CONTINUOUS | ACI 318: SECTION 8.1.3, 21.2.8 IBC 1911.5, 1912.1 | |
| D. | INSPECTION OF ADHESIVE ANCHORS INSTALLED INTO HARDENED CONCRETE | CONTINUOUS | | |
| E. | INSPECTION OF MECHANICAL ANCHORS INSTALLED INTO HARDENED CONCRETE | PERIODIC | ACI 318: SECTION 3.8.6, 8.1.3, 21.2.8 IBC 1913.4 | |
| F. | VERIFYING USE OF REQUIRED DESIGN MIX | PERIODIC | | |
| G. | SAMPLE FRESH CONCRETE TO FABRICATE SPECIMENS FOR STRENGTH TESTS. PERFORM SLUMP & AIR CONTENT TESTS, & DETERMINE THE TEMPERATURE OF THE CONCRETE. | CONTINUOUS | ASTMC 172 ASTMC 31 ACI 318: SECTION 5.6, 5.8 IBC 1913.10 | |
| H. | INSPECTION OF CONCRETE & SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES | CONTINUOUS | ACI 318: SECTION 5.9, 5.10 IBC 1913.6, 1913.7, 1913.8 | |
| I. | INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE & TECHNIQUES | PERIODIC | ACI 318: SECTION 5.11-5.13 IBC 1913.9 | |
| J. | INSPECT FORM WORK FOR SHAPE, LOCATION AND DIMENSION OF THE CONCRETE MEMBER BEING FORMED | PERIODIC | ACI 318: SECTION 6.1.1 | |

REQUIRED VERIFICATION & INSPECTION OF SOILS

| VERIFICATION & INSPECTION | FREQUENCY OF INSPECTION |
|---|-------------------------|
| A. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY | PERIODIC |
| B. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL | PERIODIC |
| C. PERFORM CLASSIFICATION & TESTING OF COMPACTED & CLSM FILL MATERIALS | PERIODIC |
| D. VERIFY USE OF PROPER MATERIALS, DENSITIES & LIFT THICKNESS DURING PLACEMENT & COMPACTION OF COMPACTED FILL TEST AS REQUIRED | CONTINUOUS |
| E. PRIOR PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE & VERIFY THAT SITE HAS BEEN PREPARED PROPERLY | PERIODIC |

REQUIRED VERIFICATION OF WIND RESISTING COMPONENTS

| VERIFICATION & INSPECTION | FREQUENCY OF INSPECTION | |
|---------------------------|-------------------------|--|
| A. ROOF CLADDING | PERIODIC | |
| B. WALL CLADDING | PERIODIC | |

AISC 341 APPENDIX Q QUALITY ASSURANCE PLAN:

SEISMIC LOAD RESISTING SYSTEM

THE FOLLOWING ELEMENTS ARE PART OF THE DESIGNATED SEISMIC LOAD RESISTING SYSTEM AND ARE SUBJECT TO INSPECTION AND TESTING IN ACCORDANCE WITH THE ATTACHED SCHEDULES AND AISC 341.

- 1. QUALITY CONTROL (QC) CONTROLS AND INSPECTIONS IMPLEMENTED BY THE FABRICATOR OR ERECTOR TO ENSURE THAT THE MATERIAL PROVIDED AND WORK PERFORMED MEET THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS
- 2. QUALITY ASSURANCE (QA/SI) CONTROLS AND SPECIAL INSPECTIONS PROVIDED BY THE ADOT&PF TO ENSURE THAT THE MATERIAL PROVIDED AND WORK PERFORMED MEET THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS.
- 3. OBSERVE (0) THE INSPECTOR SHALL OBSERVE THESE FUNCTIONS ON A RANDOM, DAILY BASIS. WELDING OPERATIONS NEED NOT BE DELAYED PENDING OBSERVATIONS.
- 4. PERFORM (P) THESE INSPECTIONS SHALL BE PERFORMED PRIOR TO THE FINAL ACCEPTANCE OF THE ITEM. WHERE A TASK IS NOTED TO BE PERFORMED BY BOTH QC AND QA, IT SHALL BE PERMITTED TO COORDINATE THE INSPECTION FUNCTION
 BETWEEN QC AND QA SO THAT THE INSPECTION FUNCTIONS NEED BE PERFORMED BY ONLY ONE PARTY. WHERE QA IS TO RELY UPON INSPECTION FUNCTIONS PERFORMED BY QC, THE APPROVAL OF THE ENGINEER OF RECORD AND THE AUTHORITY HAVING JURISDICTION IS REQUIRED.
- 5. DOCUMENT (D)- THE INSPECTOR SHALL PREPARE REPORTS INDICATING THAT THE WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

INSPECTION POINTS AND FREQUENCIES INSPECTION POINTS AND FREQUENCIES OF QUALITY CONTROL (QC) AND QUALITY ASSURANCE (QA/SI) TASKS AND DOCUMENTATION FOR THE SEISMIC LOAD RESISTING

SYSTEM (SLRS) SHALL BE AS PROVIDED IN THE FOLLOWING TABLES.

AISC 341 - SEISMIC LOAD RESISTING SYSTEM HIGH STRENGTH BOLT INSPECTIONS

QC

| III | INSPECTION TASKS PRIOR TO BOLTING | | | | |
|-------|---|------|--------|---------|-------------|
| | | | DOC | TASK | DOC |
| A. | PROPER BOLTS SELECTED FOR THE JOINT DETAIL | 0 | - | 0 | - |
| В. | PROPER BOLTING PROCEDURE SELECTED FOR THE JOINT DETAIL | 0 | - | 0 | - |
| C. | CONNECTING ELEMENTS ARE FABRICATED PROPERLY, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION & HOLE PREPARATION, IF SPECIFIED, MEETS APPLICABLE REQUIREMENTS | 0 | - | 0 | - |
| D. | PRE-INSTALLATION VERIFICATION TESTING CONDUCTED FASTER ASSEMBLIES AND METHOD USED | Р | D | 0 | D |
| E. | PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS & OTHER FASTENER COMPONENTS | 0 | - | - | 0 |
| | DECTION TACKS BURING BOLTING | QC | | QA / SI | |
| IINO | PECTION TASKS DURING BOLTING | TASK | DOC | TASK | DOC |
| | | | | | |
| Α. | FASTENER ASSEMBLIES PLACED IN ALL HOLES & WASHERS (IF REQUIRED) ARE PROPERLY POSITIONED | 0 | - | 0 | - |
| В. | WASHERS (IF REQUIRED) ARE PROPERLY | 0 | - | 0 | - |
| В. | WASHERS (IF REQUIRED) ARE PROPERLY POSITIONED JOINT BROUGHT TO THE SNUG TIGHT CONDITION | | - | | - |
| В. | WASHERS (IF REQUIRED) ARE PROPERLY POSITIONED JOINT BROUGHT TO THE SNUG TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION FASTENER COMPONENT NOT TURNED BY THE | 0 | - | 0 | - |
| B. C. | WASHERS (IF REQUIRED) ARE PROPERLY POSITIONED JOINT BROUGHT TO THE SNUG TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING BOLTS ARE PRETENSIONED PROGRESSING SYSTEMATICALLY FROM MOST RIGID POINT TOWARD FREE EDGES | 0 0 | - - | 0 0 | - - - |
| B. C. | WASHERS (IF REQUIRED) ARE PROPERLY POSITIONED JOINT BROUGHT TO THE SNUG TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING BOLTS ARE PRETENSIONED PROGRESSING SYSTEMATICALLY FROM MOST RIGID POINT TOWARD | 0 0 | - DOC | 0 0 | / SI DOC |

| DRAWING | ABBREVIATIONS |
|---------|---------------|
| ASD | ALLOWABLE STR |

| ASD | ALLOWABLE STRESS DESIGN | SQ | SQUARE |
|----------|-------------------------|--------|-----------------------|
| AB | ANCHOR BOLT | STD | STANDARD |
| ADH | ADHESIVE | STL | STEEL |
| AHR | ANCHOR | SF | STEP FOOTING OR |
| BOT | ВОТТОМ | SQUARE | FOOT |
| BM | BEAM | STIFF | STIFFENER |
| BRG | BEARING | STR | STRUCTURAL |
| BLK | BLOCK | SUP | SUPPORT |
| BOF | BOTTOM OF FOUNDATION | SYM | SYMMETRICAL |
| BRKT | BRACKET | THK | THICK OR |
| CIP | CAST-IN-PLACE | | THICKNESS |
| CLR | CLEAR | THRD | |
| COL | COLUMN | T&B | TOP AND BOTTOM |
| CONC | CONCRETE | T.O. | TOP OF |
| CONST JT | CONSTRUCTION JOINT | TOC | TOP OF CONCRETE |
| CONT | CONTINUOUS | TOF | TOP OF FOUNDATION |
| CJ | CONTROL JOINT | TOS | TOP OF STEEL |
| DET | DETAIL | TOW | TOP OF WALL |
| DICA | DRILLED IN CONCRETE | TYP | TYPICAL |
| | ANCHOR | UNO | UNLESS NOTED |
| DIA | DIAMETER | | OTHERWISE |
| DIM | DIMENSION | VEF | VERTICAL EACH FACE |
| DWLS | DOWELS | VIF | VERTICAL INSIDE FACE |
| EA | EACH | | OR VERIFY IN FIELD |
| EF | EACH FACE | VOF | VERTICAL OUTSIDE FACE |
| EQ | EQUAL | W/ | WITH |
| EW | EACH WAY | | |
| | | | |

EXP BOLT EXPANSION BOLT EXP JT EXPANSION JOINT FOOT OR FEET FINISH FLR FLOOR FTG FOOTING FND FOUNDATION GALVANIZED GALV GA GAUGE GR GRADE HDDST HEADED STUD HDG HOT DIP GALVANIZE HIGH STRENGTH HS HFF HORIZONTAL EACH FACE HIF HORIZONTAL INSIDE FACE HOF HORIZONTAL OUTSIDE FACE HOR HORIZONTAL IN

JT JOINT JST JOIST KIPS (1,000 LBS) KIPS PER SQUARE INCH LLH LONG LEG HORIZONTAL LONG LEG VERTICAL LLV METAL BUILDING SYSTEM MBS MTL METAL NIC NOT IN CONTRACT OC ON CENTER

INSIDE DIAMETER

ID

OD

PAF

PL

PSI

SOG

OUTSIDE DIAMETER OPNG OPENING POWDER OR POWER ACTUATED FASTENER

PLATE PLCS PLACES. POUNDS PER SQUARE FOOT PSF POUNDS PER SQUARE INCH

RADIUS REFERENCE REINF REINFORCING SECT SECTION SELF DRILLING OR

SD STRENGTH DESIGN SHT SHEET SIM SIMILAR

SLAB ON GRADE

95% DESIGN DEVELOPMENT

MEKORYUK AIRPOR STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION**

MEKORYUK, ALASKA SNOW REMOVAL EQUIPMENT BUILDING PROJECT No. CFAPT00269 AIP No. 3-02-0178-00X-202X

| OF ALAS | |
|-----------------|---|
| PRE PS& | E |
| PROFESSIONAL EN | |

PLANS DEVELOPED BY: R&M CONSULTANTS, INC. 9101 VANGUARD DR. ANCHORAGE, ALASKA 9950 (907) 522-1707

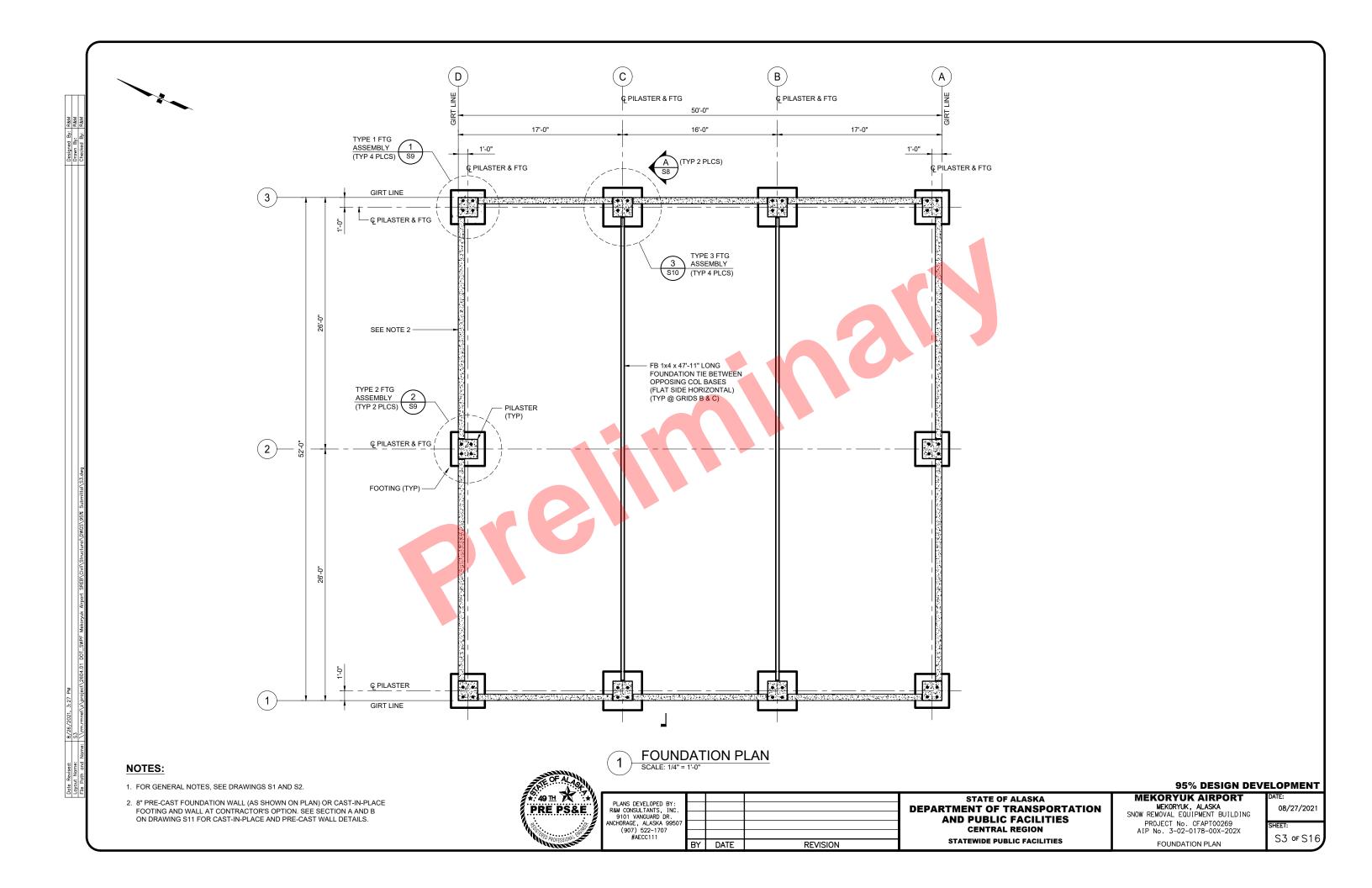
BY DATE REVISION

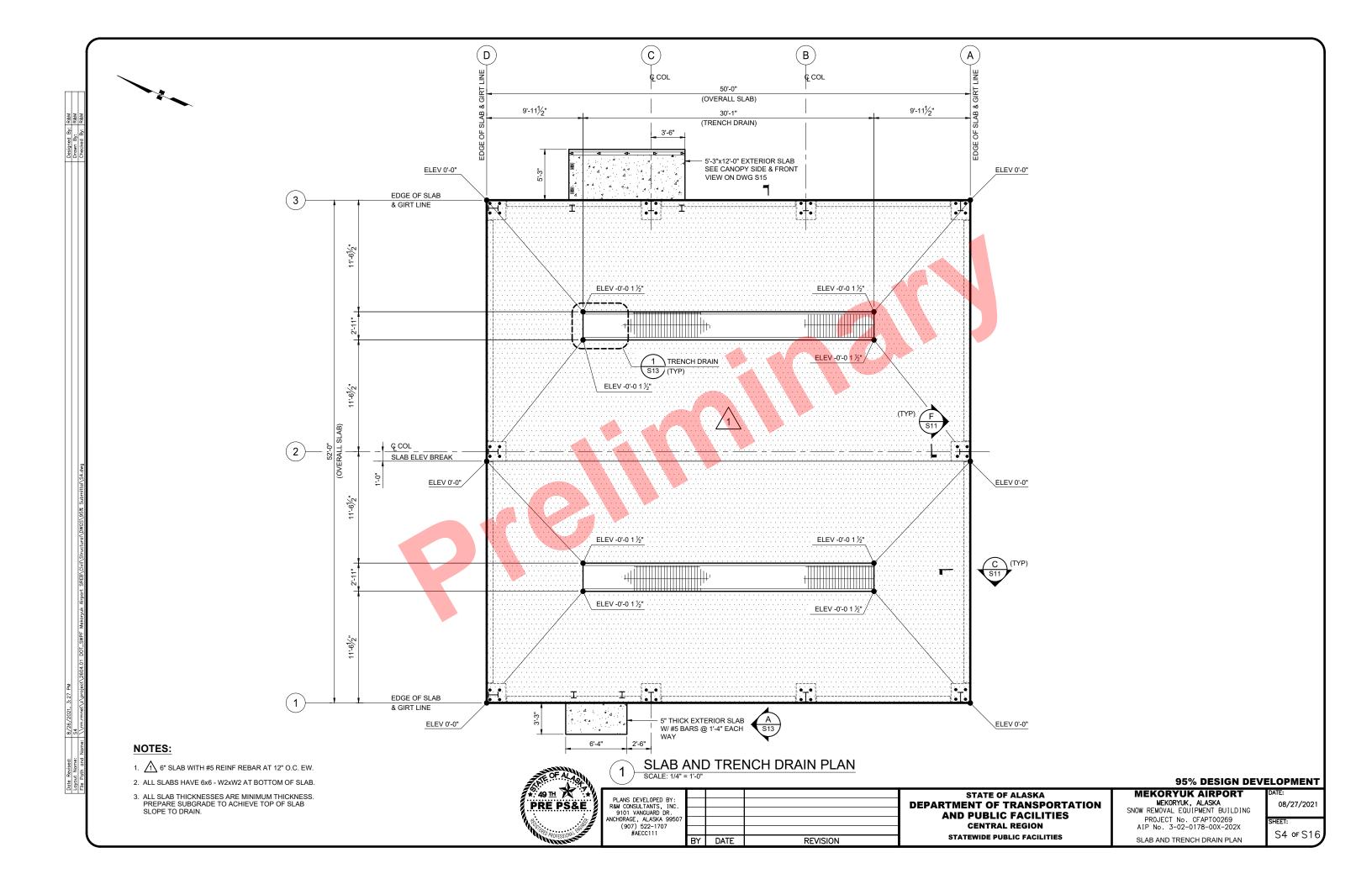
AND PUBLIC FACILITIES **CENTRAL REGION** STATEWIDE PUBLIC FACILITIES

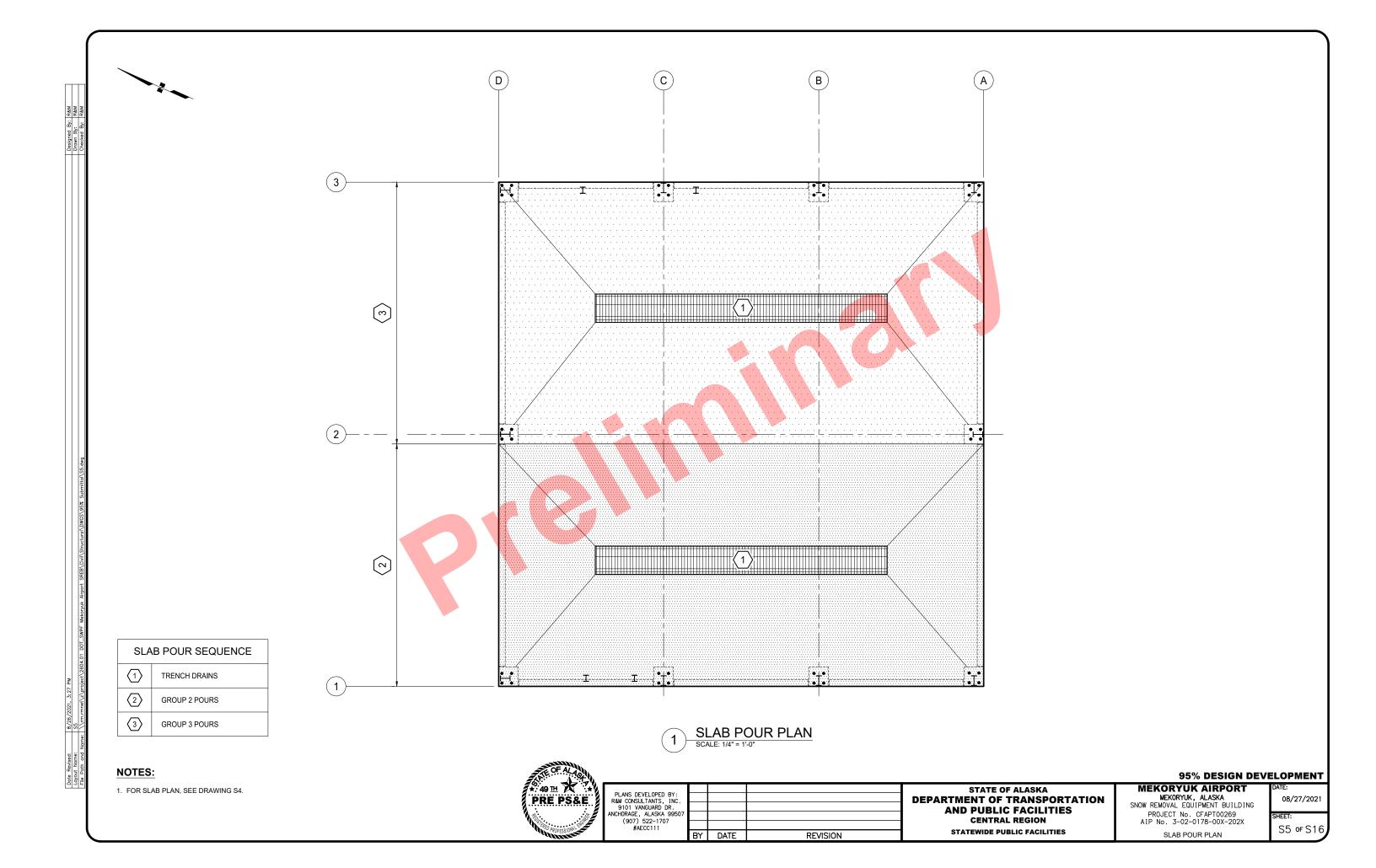
GENERAL NOTES

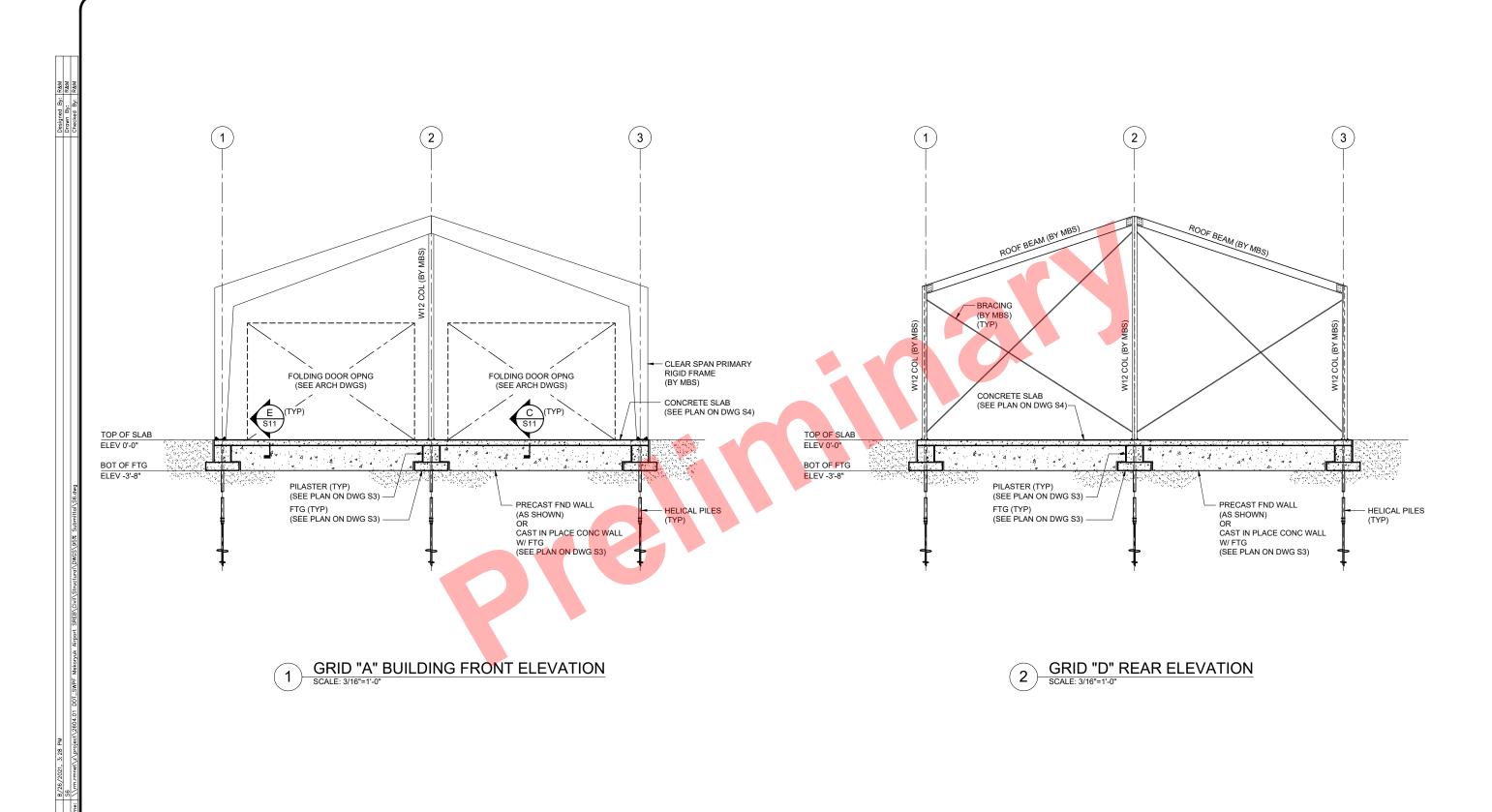
S2 of S16

08/27/2021









NOTES:

- 1. FOR GENERAL NOTES, SEE DRAWINGS S1 AND S2.
- 8" PRE-CAST FOUNDATION WALL (AS SHOWN ON PLAN) OR CAST-IN-PLACE FOOTING AND WALL AT CONTRACTOR'S OPTION. SEE SECTION A AND B ON DRAWING S11 FOR CAST-IN-PLACE AND PRE-CAST WALL DETAILS.



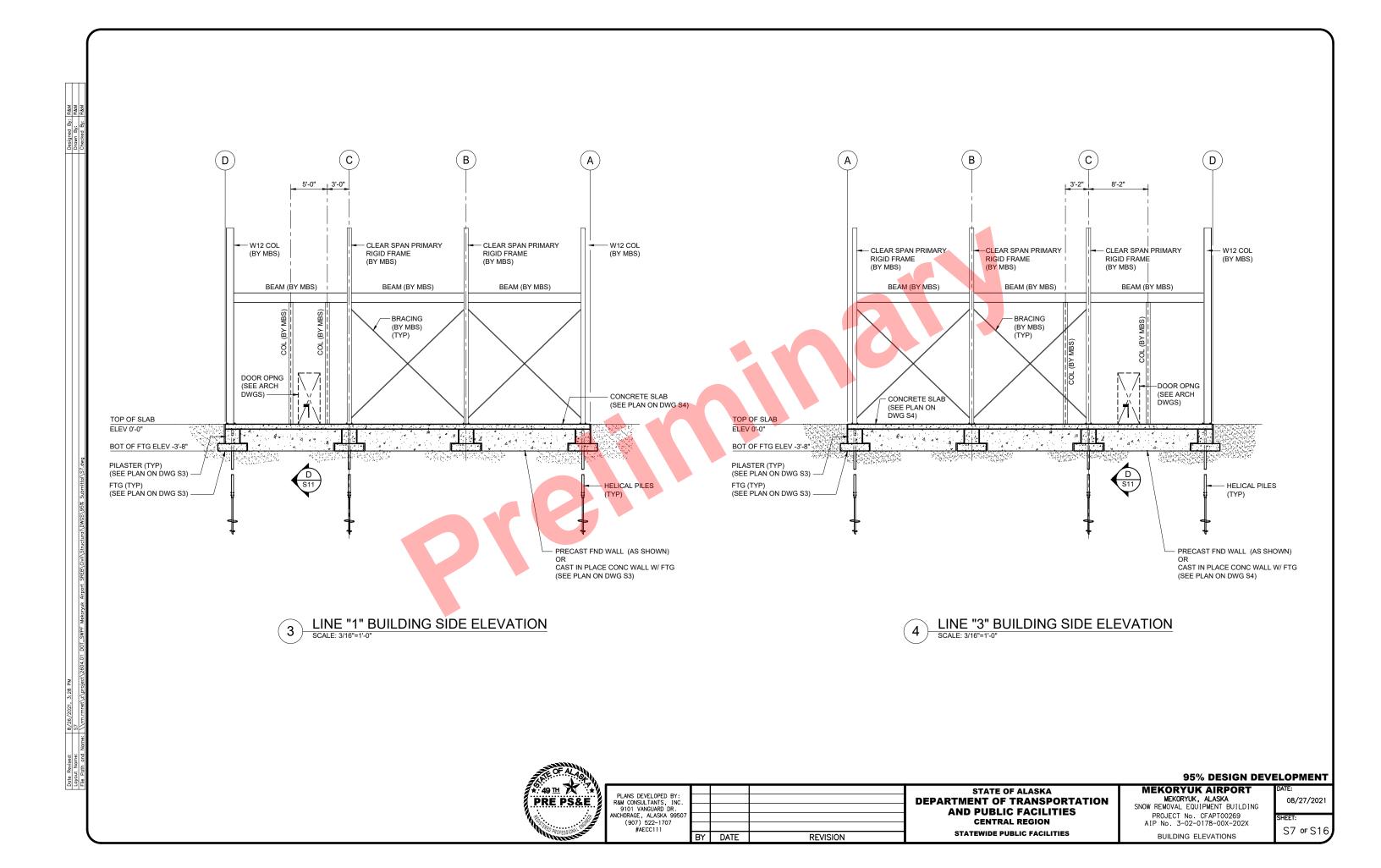
| PLANS DEVELOPED BY: &M CONSULTANTS. INC. | | | |
|---|----|------|----------|
| 9101 VANGUARD DR. | | | |
| CHORAGE, ALASKA 99507 | | | |
| (907) 522-1707 #AECC111 | | | |
| | BY | DATE | REVISION |

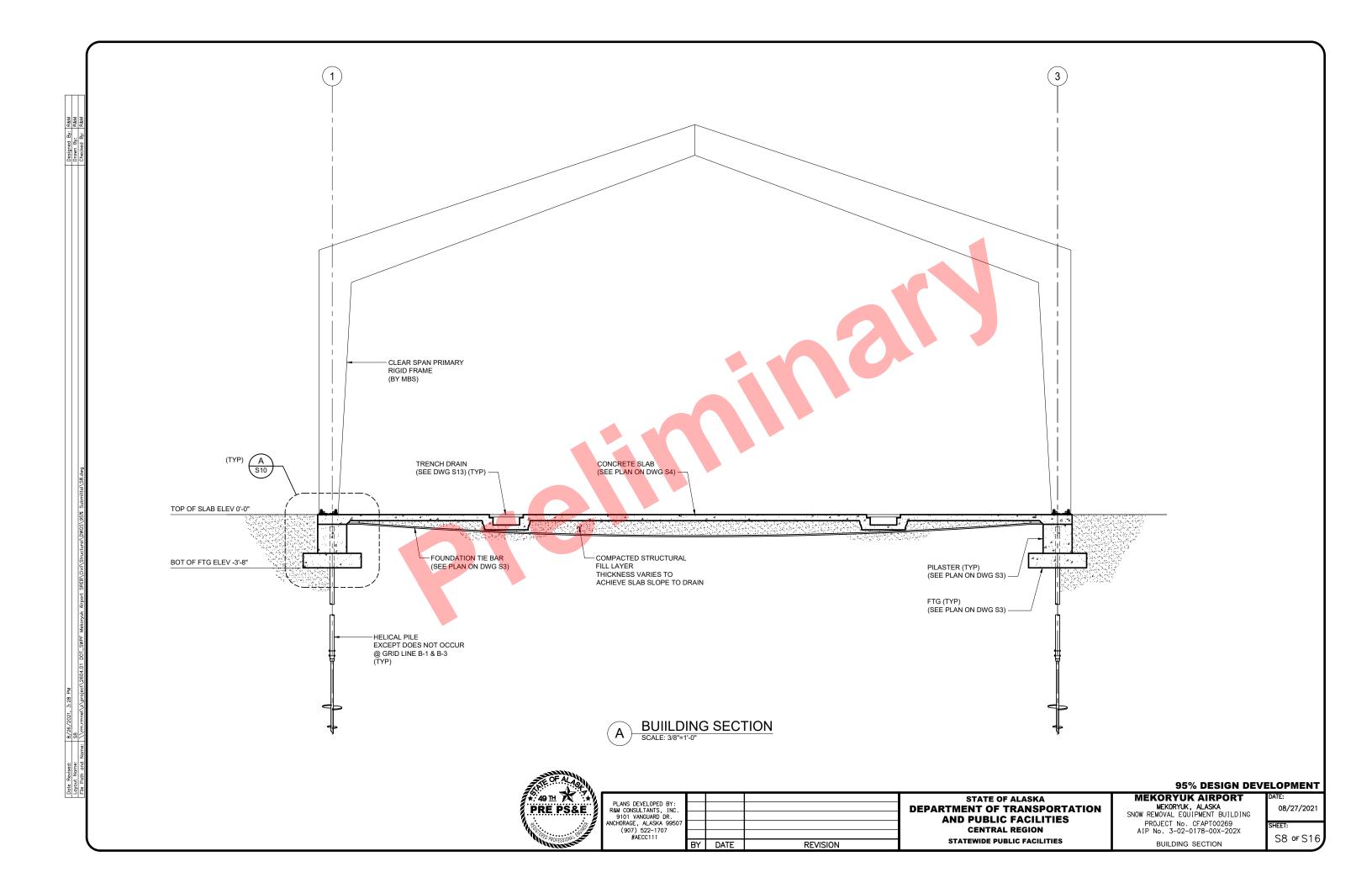
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION STATEWIDE PUBLIC FACILITIES

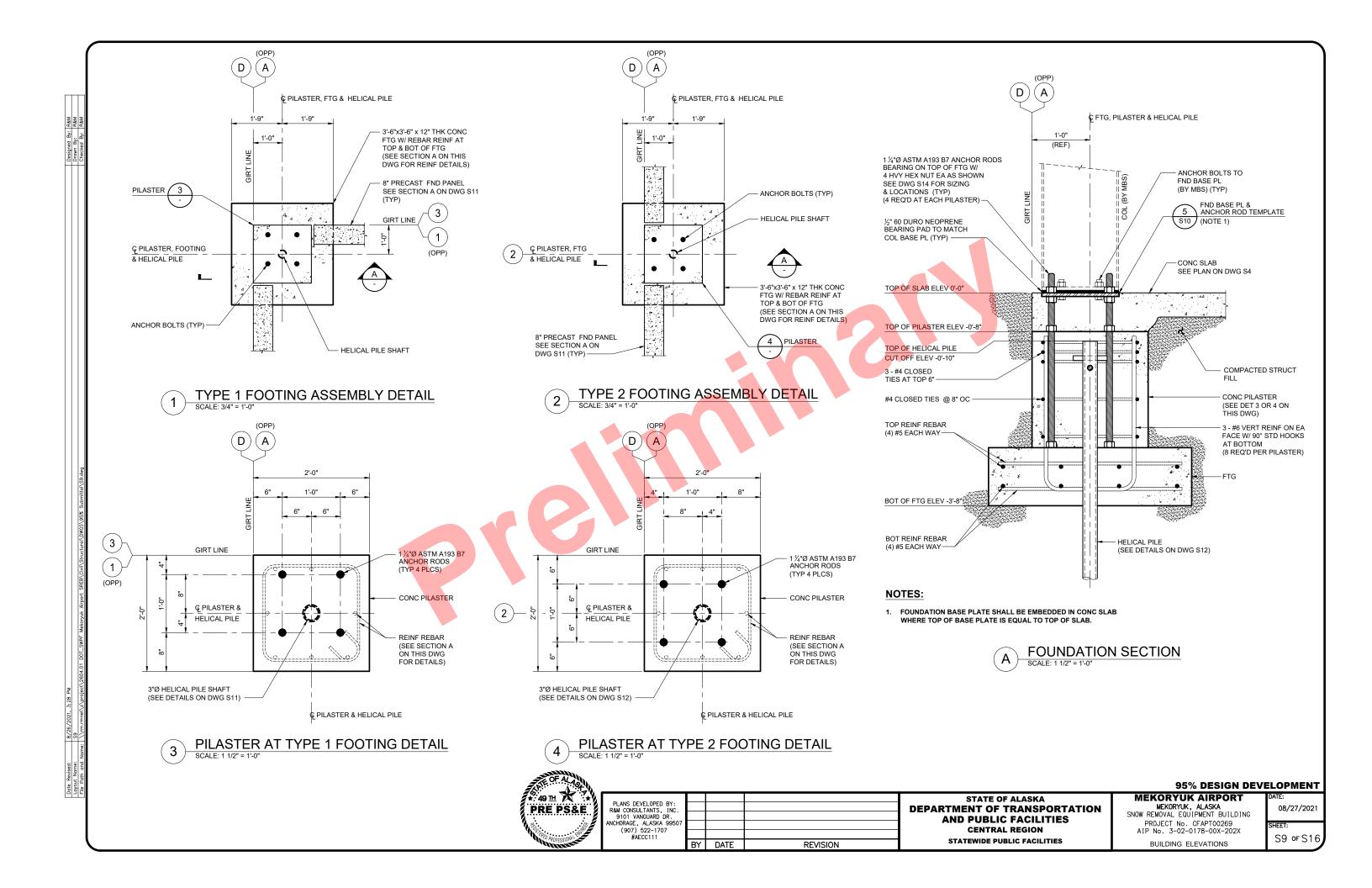
MEKORYUK AIRPORT MEKORYUK, ALASKA SNOW REMOVAL EQUIPMENT BUILDING PROJECT No. CFAPT00269 AIP No. 3-02-0178-00X-202X BUILDING ELEVATIONS

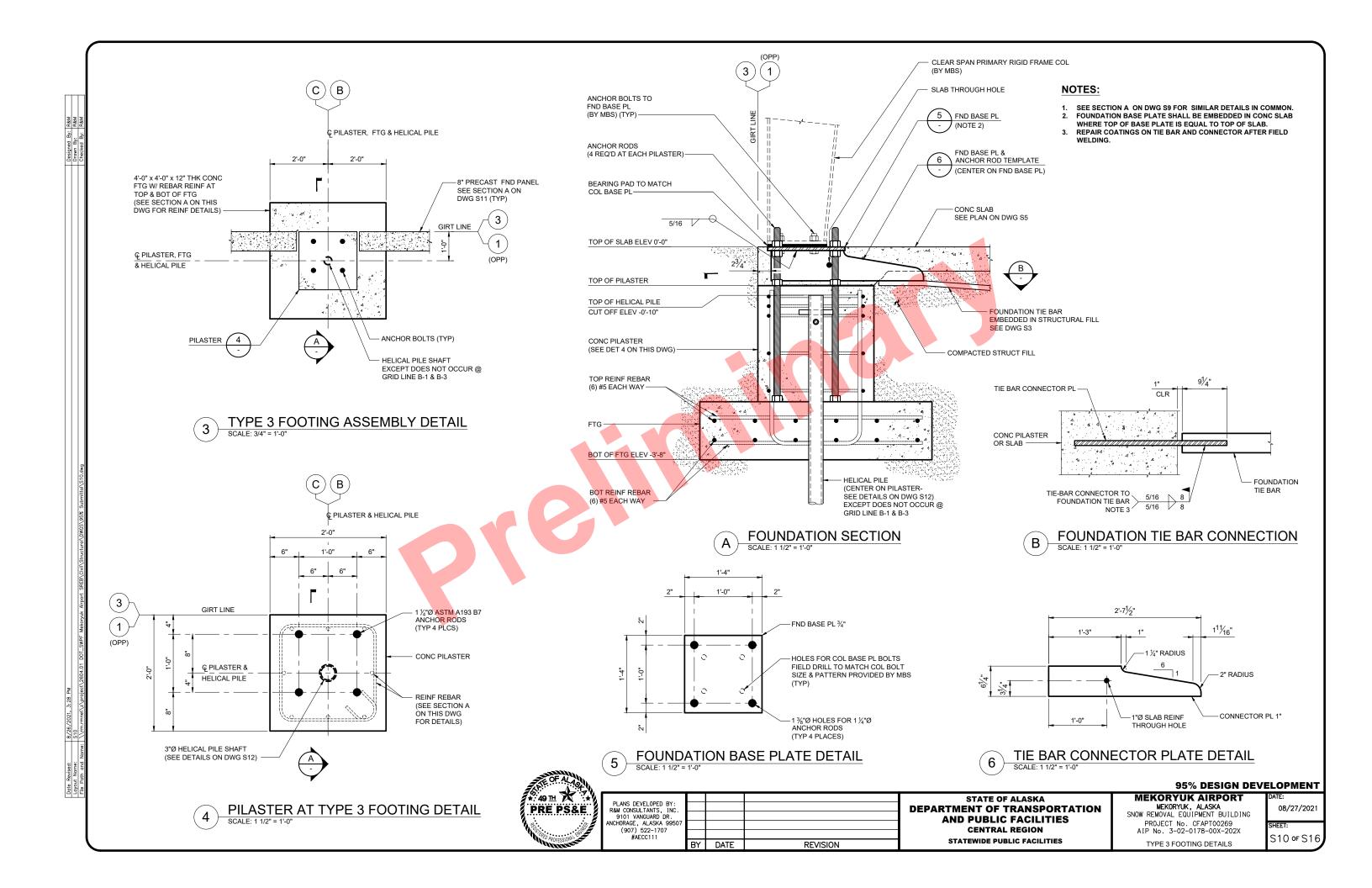
08/27/2021 SHEET: S6 OF S16

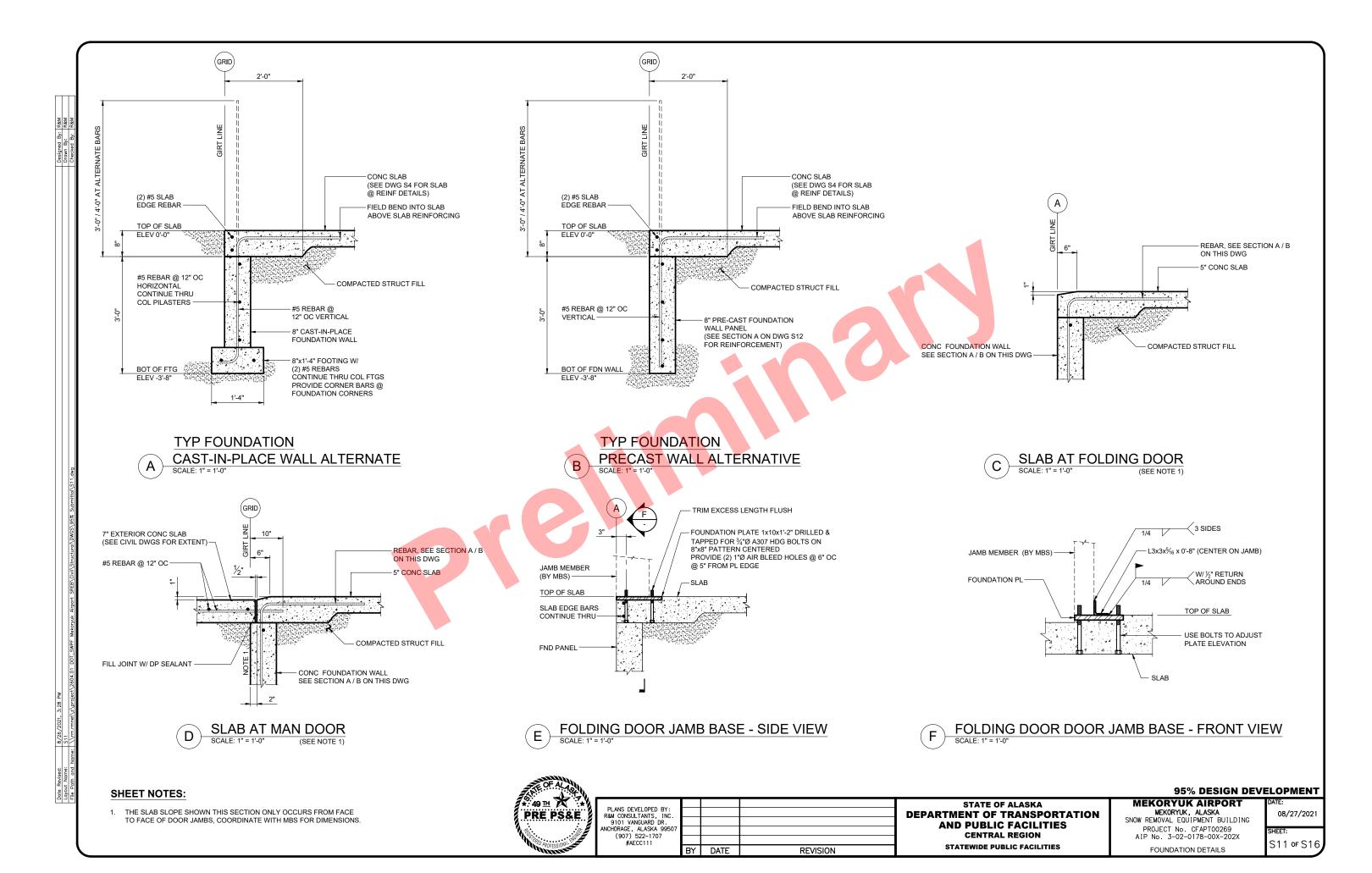
95% DESIGN DEVELOPMENT

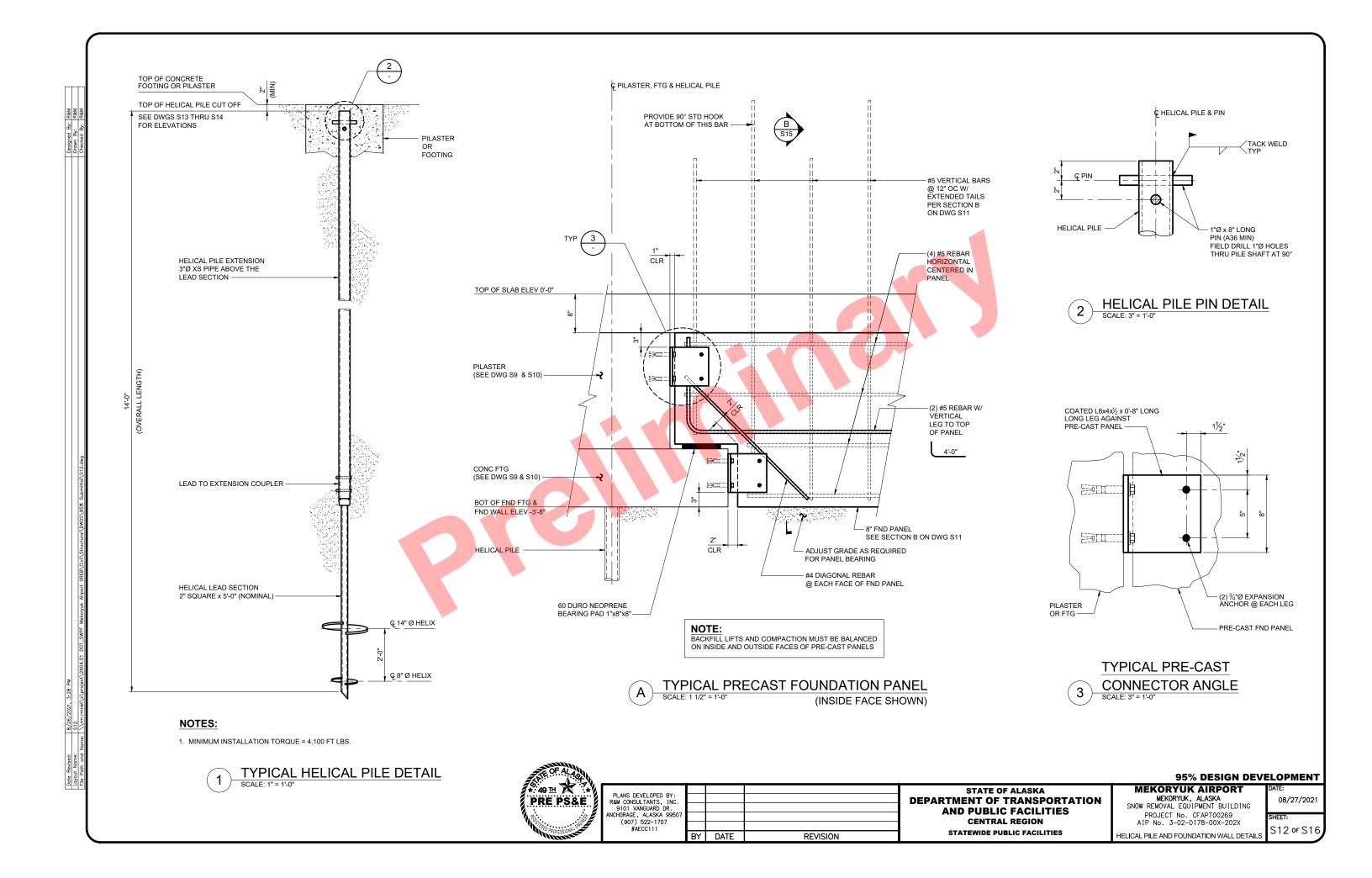


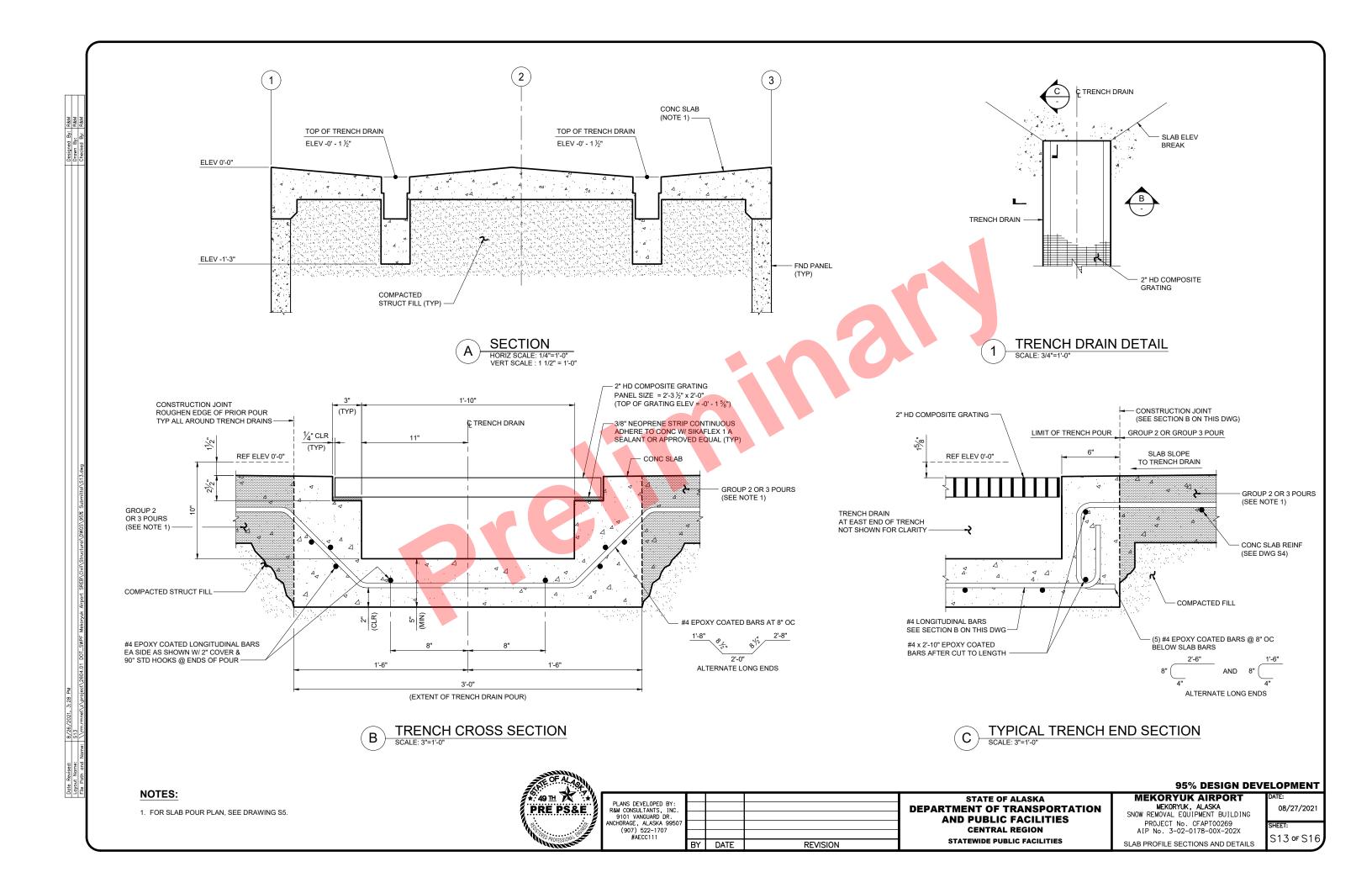


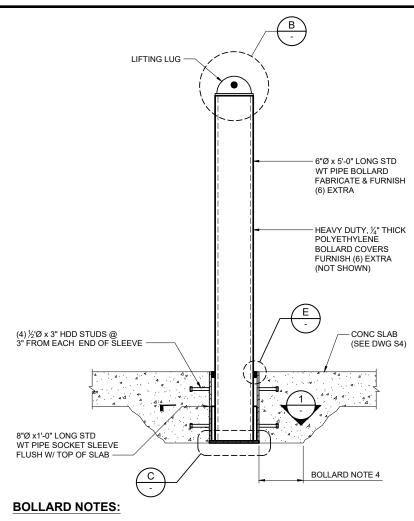






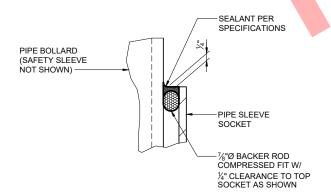




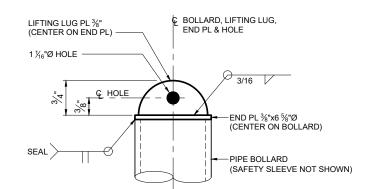


- 1. DETAIL APPLIES TO INTERIOR BOLLARD AT EQUIPMENT DOORS.
- 2. LOCATE BOLLARDS PER ARCHITECTURAL DRAWINGS.
- 3. SEE SPECIFICATION FOR COATINGS.
- 4. THICKEN SLAB TO FULLY EMBED PIPE SLEEVE IN CONCRETE WITH MINIMUM 6" RADIUS OF CONCRETE AROUND SLEEVE.

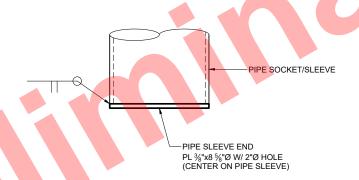




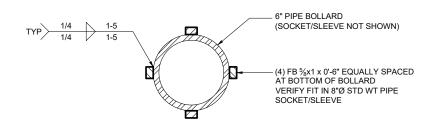












SPACER DETAIL AT BASE OF REPLACEABLE BOLLARD SCALE: 3" = 1'-0"

DATE

BY

REVISION



(907) 522-1707

STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION**

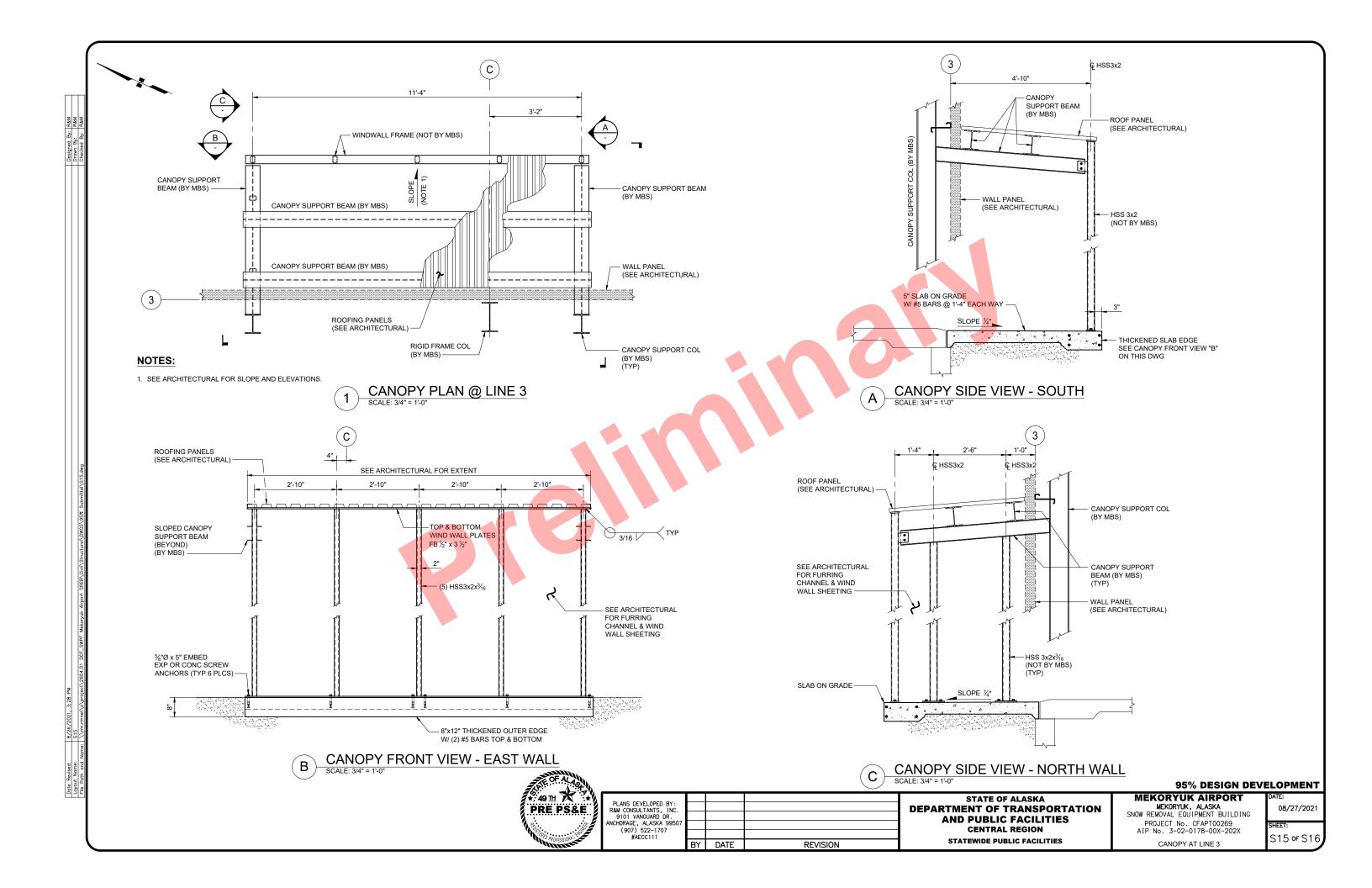
STATEWIDE PUBLIC FACILITIES

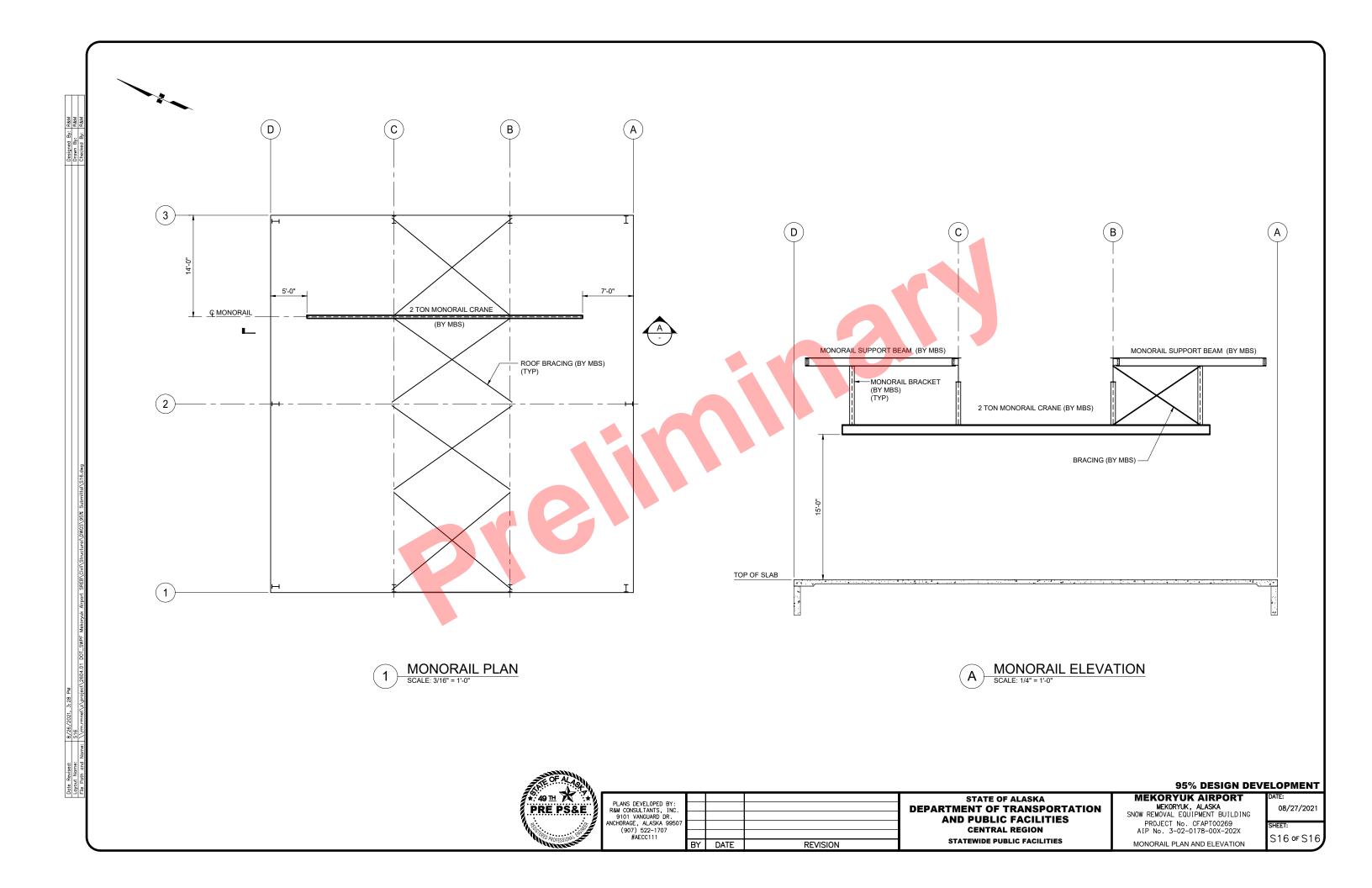
MEKORYUK AIRPOR MEKORYUK, ALASKA SNOW REMOVAL EQUIPMENT BUILDING PROJECT No. CFAPT00269 AIP No. 3-02-0178-00X-202X **BOLLARD DETAILS**

08/27/2021 S14 of S16

95% DESIGN DEVELOPMENT

PLANS DEVELOPED BY: R&M CONSULTANTS, INC. 9101 VANGUARD DR. ANCHORAGE, ALASKA 9950





| | LEGEND & ABBREVIATIONS | 5 |
|-----------------------------|---|---|
| ABBR. | EXPLANATION | SYMBOL |
| Α | AIR - COMPRESSED | — а — |
| | AIR FOIL TURNING VANES | 1 |
| AAV | AUTOMATIC AIR VENT | Ü, T |
| AFF | ABOVE FINISHED FLOOR | |
| BDD | BACKDRAFT DAMPER | |
| BD | BALANCING DAMPER | + + + |
| | BALANCING/ISOLATION VALVE | |
| | BALL VALVE | │ |
| CFM | CUBIC FEET/MINUTE | |
| CO | CLEANOUT | <u> </u> |
| CV | CHECK VALVE | <u> </u> |
| DN | DOWN | |
| (E) | EXISTING | |
| E/A | EXHAUST AIR | |
| -, | EXPANSION COMPENSATOR | |
| FCO | FLOOR CLEANOUT | 8 |
| FD | FLOOR DRAIN | D D |
| | FLEXIBLE CONNECTION | |
| | FLEXIBLE DUCT | |
| | FLOW CONTROL VALVE | |
| FOS | FUEL OIL SUPPLY | FOS— |
| FOR | FUEL OIL SUPPLY | —F0S— |
| FUR | GLOBE VALVE | FOR— |
| CDM | GALLONS PER MINUTE | ~~ |
| GPM | | |
| ID | INSIDE DIAMETER | |
| MOD | MOTOR OPERATED DAMPER 2-WAY MOTOR OPERATED VALVE | |
| | | |
| MOV N. CAS | 3-WAY MOTOR OPERATED VALVE | |
| N.C. | NATURAL GAS | <u> </u> |
| | NORMALLY CLOSED | |
| O/A OD | OUTSIDE AIR | |
| OD | OUTSIDE DIAMETER | 2.5 |
| | PIPE ANCHOR | × |
| 200 /000 | PIPE GUIDE | |
| POC/POD | POINT OF CONNECTION/DISCONNECT | 1 |
| DD) / | PRESSURE GAGE | ->+∞0 ->- |
| PRV | PRESSURE RELIEF VALVE | <u>~~</u> |
| R/A | RETURN AIR | |
| RV | RELIEF VALVE | * |
| | RETURN AIR SLOT | . === |
| | | |
| | RETURN/EXHAUST AIR REG. OR GRILLE | |
| S | RETURN/EXHAUST AIR REG. OR GRILLE SANITARY SOIL | <u> </u> |
| S S/A | RETURN/EXHAUST AIR REG. OR GRILLE SANITARY SOIL SUPPLY AIR | |
| | RETURN/EXHAUST AIR REG. OR GRILLE SANITARY SOIL SUPPLY AIR SQUARE HEAD COCK | |
| S/A | RETURN/EXHAUST AIR REG. OR GRILLE SANITARY SOIL SUPPLY AIR SQUARE HEAD COCK STRAINER WITH DRAIN VALVE | |
| S/A SD | RETURN/EXHAUST AIR REG. OR GRILLE SANITARY SOIL SUPPLY AIR SQUARE HEAD COCK STRAINER WITH DRAIN VALVE STORM DRAIN | ⊠ |
| S/A SD SL | RETURN/EXHAUST AIR REG. OR GRILLE SANITARY SOIL SUPPLY AIR SQUARE HEAD COCK STRAINER WITH DRAIN VALVE STORM DRAIN ACOUSTICALLY LINED DUCT | ⊠ ⊠ —SD— |
| S/A SD | RETURN/EXHAUST AIR REG. OR GRILLE SANITARY SOIL SUPPLY AIR SQUARE HEAD COCK STRAINER WITH DRAIN VALVE STORM DRAIN ACOUSTICALLY LINED DUCT STAINLESS STEEL | — ⊠ — ⊗ — SD— — SS— |
| S/A SD SL | RETURN/EXHAUST AIR REG. OR GRILLE SANITARY SOIL SUPPLY AIR SQUARE HEAD COCK STRAINER WITH DRAIN VALVE STORM DRAIN ACOUSTICALLY LINED DUCT STAINLESS STEEL STATIC PRESSURE SENSOR | |
| S/A SD SL | RETURN/EXHAUST AIR REG. OR GRILLE SANITARY SOIL SUPPLY AIR SQUARE HEAD COCK STRAINER WITH DRAIN VALVE STORM DRAIN ACOUSTICALLY LINED DUCT STAINLESS STEEL STATIC PRESSURE SENSOR THERMALLY INSULATED DUCT OR PIPE | — ⊠ — ⊗ — SD— — SS— |
| S/A SD SL | RETURN/EXHAUST AIR REG. OR GRILLE SANITARY SOIL SUPPLY AIR SQUARE HEAD COCK STRAINER WITH DRAIN VALVE STORM DRAIN ACOUSTICALLY LINED DUCT STAINLESS STEEL STATIC PRESSURE SENSOR | |
| S/A SD SL | RETURN/EXHAUST AIR REG. OR GRILLE SANITARY SOIL SUPPLY AIR SQUARE HEAD COCK STRAINER WITH DRAIN VALVE STORM DRAIN ACOUSTICALLY LINED DUCT STAINLESS STEEL STATIC PRESSURE SENSOR THERMALLY INSULATED DUCT OR PIPE | |
| S/A SD SL SS | RETURN/EXHAUST AIR REG. OR GRILLE SANITARY SOIL SUPPLY AIR SQUARE HEAD COCK STRAINER WITH DRAIN VALVE STORM DRAIN ACOUSTICALLY LINED DUCT STAINLESS STEEL STATIC PRESSURE SENSOR THERMALLY INSULATED DUCT OR PIPE THERMOMETER | |
| S/A SD SL SS | RETURN/EXHAUST AIR REG. OR GRILLE SANITARY SOIL SUPPLY AIR SQUARE HEAD COCK STRAINER WITH DRAIN VALVE STORM DRAIN ACOUSTICALLY LINED DUCT STAINLESS STEEL STATIC PRESSURE SENSOR THERMALLY INSULATED DUCT OR PIPE THERMOMETER THERMOSTAT | |
| S/A SD SL SS | RETURN/EXHAUST AIR REG. OR GRILLE SANITARY SOIL SUPPLY AIR SQUARE HEAD COCK STRAINER WITH DRAIN VALVE STORM DRAIN ACOUSTICALLY LINED DUCT STAINLESS STEEL STATIC PRESSURE SENSOR THERMALLY INSULATED DUCT OR PIPE THERMOMETER THERMOSTAT UNION | SD - SS - SP - SP - SP - SP - SP - SP - |
| S/A SD SL SS T'STAT | RETURN/EXHAUST AIR REG. OR GRILLE SANITARY SOIL SUPPLY AIR SQUARE HEAD COCK STRAINER WITH DRAIN VALVE STORM DRAIN ACOUSTICALLY LINED DUCT STAINLESS STEEL STATIC PRESSURE SENSOR THERMALLY INSULATED DUCT OR PIPE THERMOMETER THERMOSTAT UNION VENT THRU ROOF | |
| S/A SD SL SS T'STAT VTR WCO | RETURN/EXHAUST AIR REG. OR GRILLE SANITARY SOIL SUPPLY AIR SQUARE HEAD COCK STRAINER WITH DRAIN VALVE STORM DRAIN ACOUSTICALLY LINED DUCT STAINLESS STEEL STATIC PRESSURE SENSOR THERMALLY INSULATED DUCT OR PIPE THERMOMETER THERMOSTAT UNION VENT THRU ROOF WALL CLEANOUT | |

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

CODE SUMMARY

VENTILATION PROVIDED IN ACCORDANCE WITH IMC 402, NATURAL VENTILATION. BUILDING AREA, 2600 SF

REQUIRED OPENING AREA (4% PER IMC 402.2), 104 SF ACTUAL OPENING AREA, 560 SF (FOLDING DOORS)

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.

| | FAN SCHEDULE | | | | | | | | | | |
|--------|----------------|--------|-----------|-----------|------|-------------|------|-----------|--------------|----------------------|--|
| SYMBOL | LOCATION | CFM | S. TOT | P. EXT | RPM | O.V. FPM | | PE WHL | USE | MOTOR HP/VOLTS/PH | DESIGN BASIS PRODUCT |
| EF-1 | STORAGE | 1900 | - | 0.4 | 1666 | _ | PROP | | 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 | - | - | 360 | - | PADL | | DE- STRAT | | VES ENVIRONMENTAL MODEL IND-A364-L WITH ICFC2.5 SPEED CONTROL. TIMER: INTERMATIC |
| | | | | | | | | | | | FF312H |

| | | | | | | | | • | | | HEDU | | |
|-------|----------------|-------|-----|------|------------|-----|------------|-------------|------------|-----|------|----------------------|---|
| YMBOL | TYPE | FLUID | | /DRO | NIC MBH | GPM | ELEC KW | . OIL IN | MBH OUT | CFM | RPM | MOTOR HP/VOLTS/PH | DESIGN BASIS PRODUCT |
| JH-1, | UNIT HEATER | | - 1 | | | | | 231 | 185 | | | 1/3/115/1 | MODINE POR185, #1 DIESEL/FUEL OIL, 1.65 GPH. TIMER: INTERMATIC FF312H, |
| - | | | | | | | | | | | | | THERMOSTAT: HONEYWELL T631C1012 |

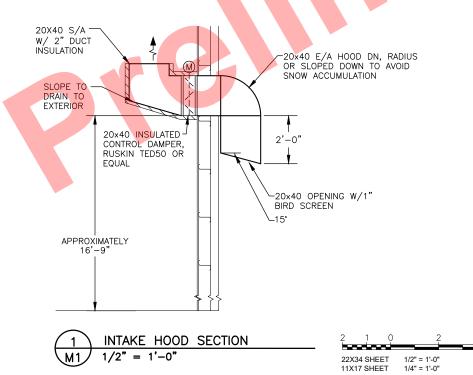
| | | | | | TANK | SCHEDULE | | | |
|--------|--------------------|----------|----------------------------|-----------|--------|--|--|--|--|
| SYMBOL | FUNCTION | MEDIUM | TOTAL VOLUME GALLONS | MATERIALS | LABEL | DESIGN BASIS PRODUCT | | | |
| FT-1 | HEATING FUEL | | | | | ANCHORAGE TANK FIREGUARD AT2MFG CYLINDRICAL, 70Dx150L | | | |
| FT-2 | FUEL DISPENSING | DIESEL | 2000 | STEEL | UL2085 | ANCHORAGE TANK FIREGUARD AT2MFG CYLINDRICAL, 70D×150L | | | |
| DT-1 | DAY TANK | FUEL OIL | 10 | STEEL | | SIMPLEX STS SERIES W/ PCB 1 CONTROLS, WALL MOUNT, SUCTION FEED TO UNIT HEATERS. 063 VENT CAP. DUPLEX REMOTI | | | |
| | | | | | | FUEL PUMPS: 1/3 HP MOTOR, 115V/60HZ/1PH. | | | |

MECHANICAL EQUIPMENT LIST

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 DRÀIN W/ HIGH MOUNT ELECTRIC CONDENSATE DRAIN EDV-2000 (115V, -PRONG CORD). HOSE REEL WHERE SHOWN: AUTO RETRACTABLE SPEEDAIRE MODEL NO. 2CUAT LOW PRESSURE, 50 FOOT, 3/8"

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

| | | | | F | PUM | P SCHEDU | LE | | | | | | | | | |
|--------|--------------------|--------|------|-------------|-----|----------------------|-----|---------------|--------------------|----------------|--------------------|---------------|---------------|-------|-------|-------|
| SYMBOL | SERVICE | FLUID | GPM | HEAD FF. | RPM | MOTOR HP/VOLTS/PH | | | DESIGN | BASIS | PRODUC | Ţ | | | | |
| PMP-1 | FUEL DISPENSING | DIESEL | 20.0 | - | - | 1/3 /115/1 | FIL | LL-R OZZLI | ITE FR7 E AND I | 10VN METER. | W/ARCTI PROVIDE | C COL WITH | D WE, FT-2 | ATHER | HOSE, | REEL, |





PLANS DEVELOPED BY: MBA CONSULTING ENGINEERS, INC. ANCHORAGE, AK 99517 (907) 274–2622 CERT OF AUTHORIZATION NO. AFCC578 BY DATE REVISION

STATE OF ALASKA AND PUBLIC FACILITIES **CENTRAL REGION**

STATEWIDE PUBLIC FACILITIES

NO SCALE

16X16 E/A WITH 1"-RIGID DUCT INSULATION

OSHA FAN-

TRANSITION -

16X16

INSULATED

36" ABOVE ROOF

UNIT HEATER STACK INSTALLATION

CONTROL

DAMPER. RUSKIN TED50 OR EQUAL

EF-1 SECTION

STACK CAP WALL SUPPORT PACKAGE ATTACH TO

STRUCTURAL FRAME

8" ID STACK AND -

THROUGH WALL

STACK SUPPORT

METALBESTOS TEE W/ CLEANOUT PLUG

VIBRATION ISOLATOR

METALBESTOS PS

TEE

SEISMIC RESTRAINT, CABLE OR

UNISTRUT CONNECTED ABOVE

STACK COLLAR

ACCESS. METALBESTOS

AS REQUIRED (TYP.) APPROXIMATELY $8'-2\frac{1}{2}"$

APPROXIMATELY

10'-71"

MEKORYUK AIRPORT MEKORYUK, ALASKA

SUPPORT FROM STRUCTURE

HORIZONTAL STACK SLOPED 1/4" PER FOOT

PROVIDE TRANSITION

ADJUSTABLE ELBOW

TYP. 2

CONTROL

AND MODEL

TO METALBESTOS IPS

VIBRATION ISOLATORS

REFER TO UNIT HEATER

-INSTALL WITH BOTTOM AT

APPROXIMATELY 10'-6"
ABOVE FINISHED FLOOR

SCHEDULE FOR MAKE

BAROMETRIC DRAFT

SNOW REMOVAL EQUIPMENT BUILDING PROJECT No. CFAPT00269 AIP No. 3-02-0178-00X-202X LEGEND, SCHEDULES, AND DETAILS

08/27/2021

M1 of M4

-16x16 E/A HOOD DN, RADIUS OR SLOPED DOWN TO AVOID

SNOW ACCUMULATION

2'-0"

16x16

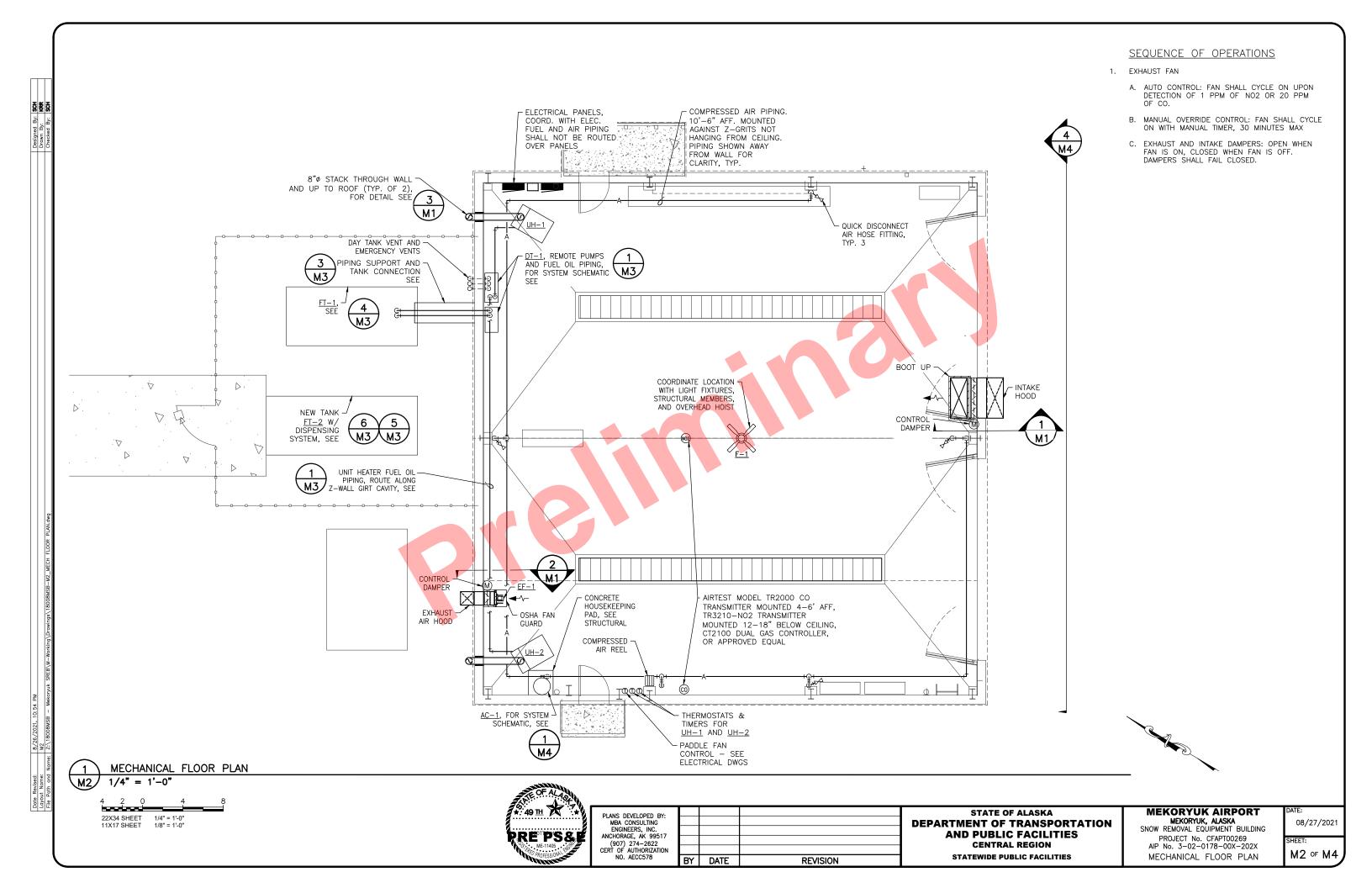
RIRD

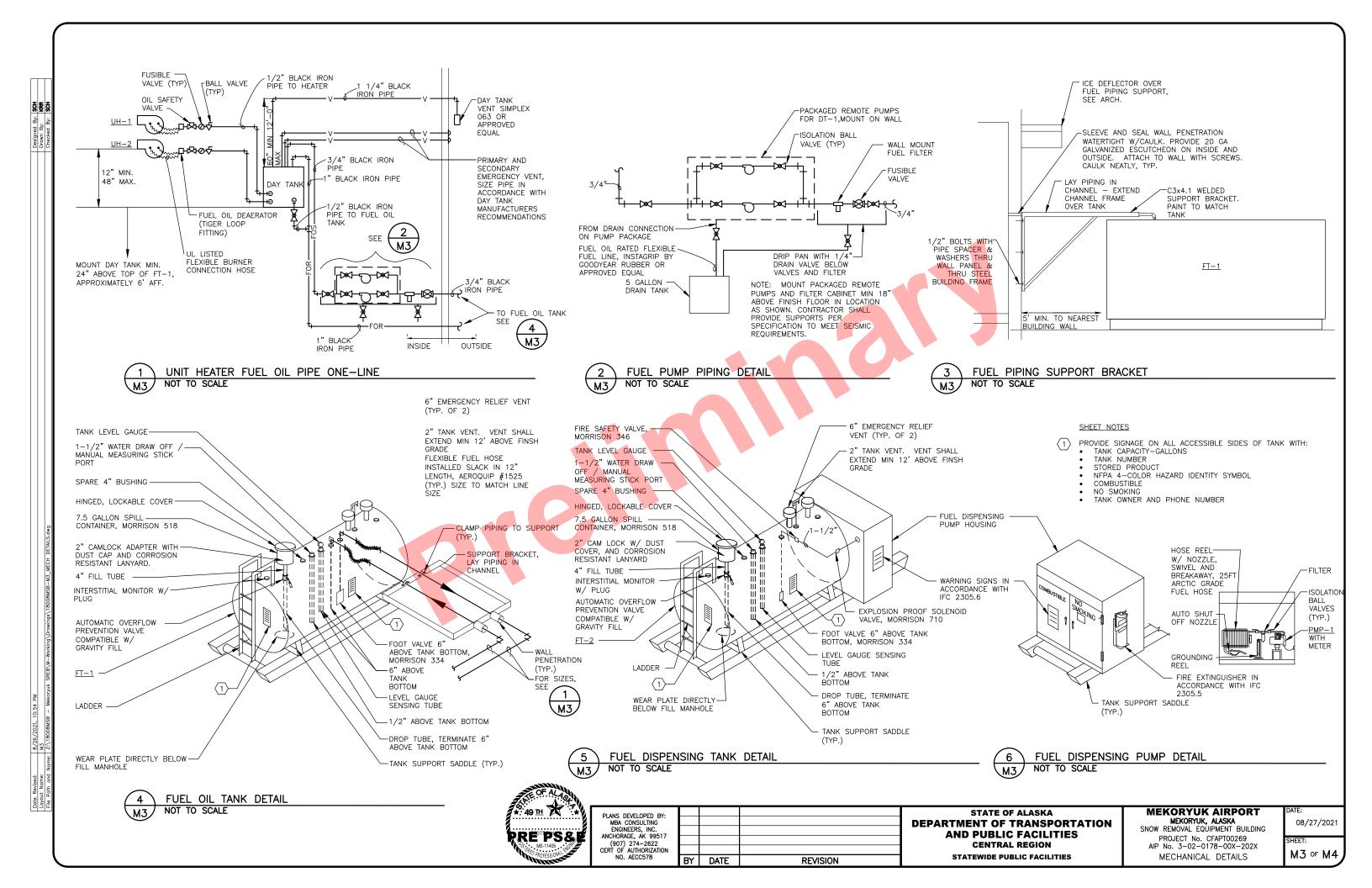
WITH 1"

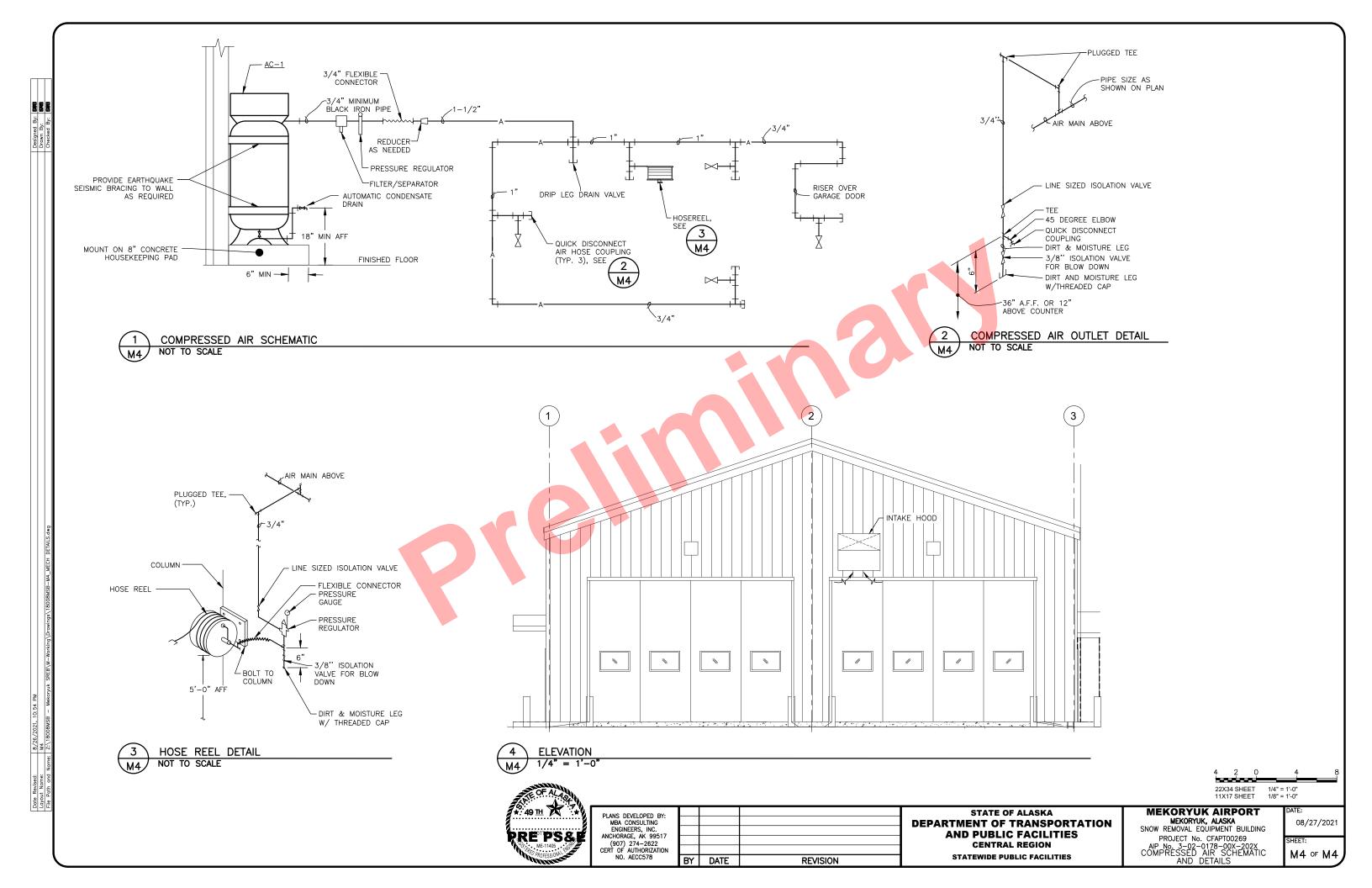
SCREEN

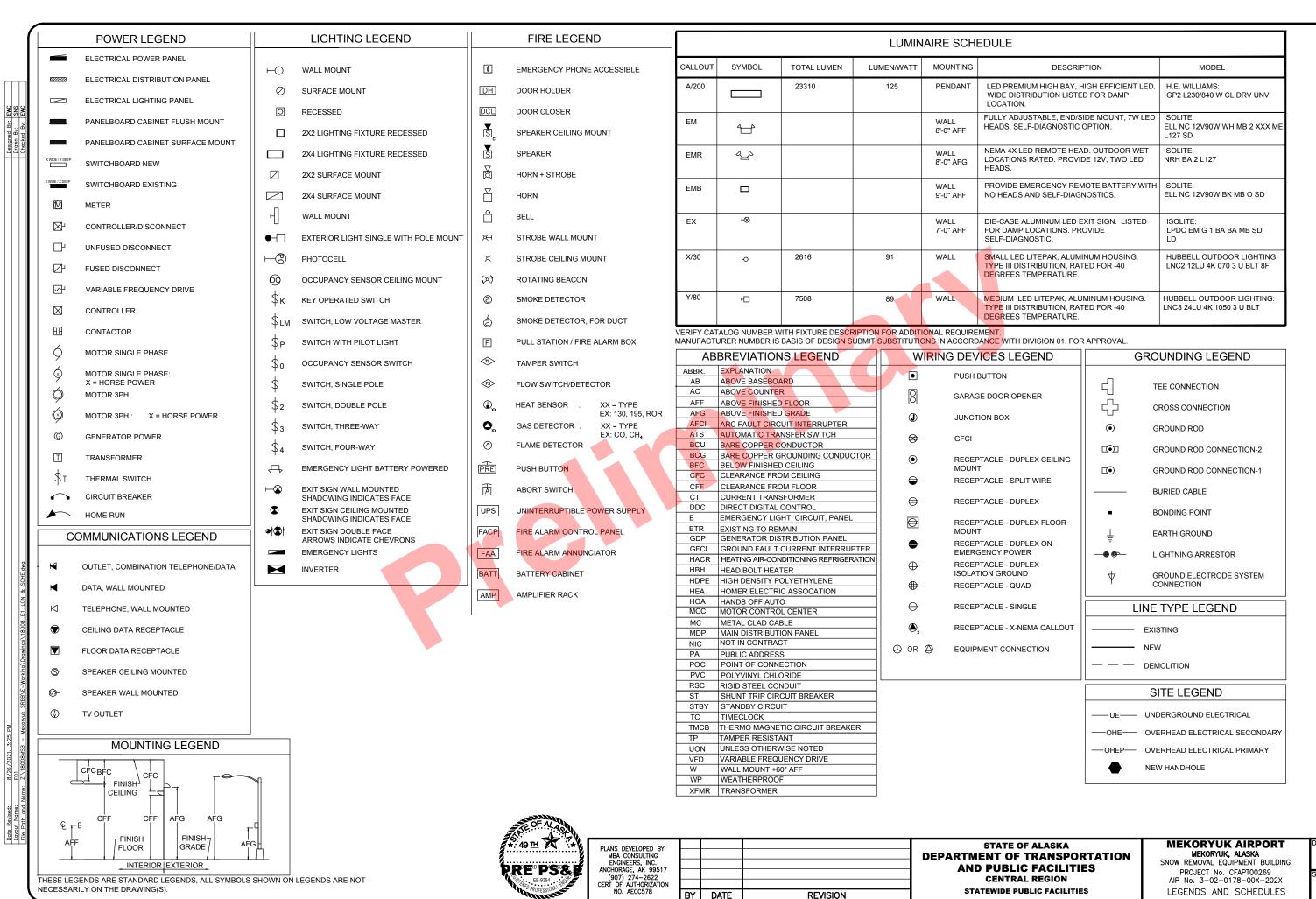


DEPARTMENT OF TRANSPORTATION









08/27/2021 SHEET: E01 of E10 PANEL: C

PROJECT: MEKORYUK

MAINS

OPTIONS

SOLID NEUTRAL

MOUNTING

| PANEL: G | MOUN | ITING | | MAINS | | | | | <u>OPTIONS</u> | |
|-------------------------------------|-------------|-------|-----|-------|-----|---------------------------------|------|--------|---|--|
| PROJECT: MEKORYUK LOCATION: SREB | SURFACE LUG | | | LUGS | | SOLID NEUTRAL GROUND BUS BAR | | | | |
| VOLTAGE: 240/120 VOLT | 1 PH | ASE | 3 V | VIRE | 100 | Α | | MLO | 10k AIC | |
| CIRCUIT DESCRIPTION | KVA | AMP | Р | CKT | CKT | AMP | Р | KVA | CIRCUIT DESCRIPTION | |
| LIGHTING - FRONT | 0.6 | 20 | 1 | 1 | 2 | 20 | 1 | 0.5 | NEMA 5-20 RECEPTACLES - WORKBENCH | |
| LIGHTING - REAR | 1.2 | 20 | 1 | 3 | 4 | 20 | 1 | 0.1 | CO AND NOX SENSORS | |
| LIGHTING - EXTERIOR | 0.8 | 20 | 1 | 5 | 6 | 20 | 1 | | SPARE | |
| UNIT HEATER #1 (1/3HP) | 0.9 | 15 | 1 | 7 | 8 | 20 | 1 | 1.2 | EXHAUST FAN EF-1 (1/2HP) | |
| UNIT HEATER #2 (1/3HP) | 0.9 | 15 | 1 | 9 | 10 | 15 | 1 | 0.9 | DAY TANK PUMP (1/3HP) | |
| FUEL PUMP AND DISPENSER (1/3HP) | 0.9 | 15 | 1 | 11 | 12 | 15 | 1 | 0.9 | DAY TANK PUMP (1/3HP) | |
| SPARE | | 20 | 1 | 13 | 14 | 20 | 1 | | SPARE | |
| SPACE | | | | 15 | 16 | | | | SPACE | |
| CONNECTED LOAD: | İ | 8.9 | KVA | 37.3 | Α | REMAR | RKS: | | | |
| DEMAND LOAD: | | 9.9 | KVA | 41.2 | Α | 1. PRC | VIDE | SEPARA | TE NEUTRAL AND EQUIPMENT GROUND BARS. | |
| | | | | | | 1 | | | REAKERS REQUIREMENT FOR FUEL DISPENSER | |
| DATE: | | | | | | | | | DLE CIRCUIT BREAKERS AS REQUIRED FOR | |
| REV: | | | | | | 1 | | | NEC 210.4(B), WHEREVER FIELD WIRING VIRE BRANCH CIRCUITS. | |

A.I.R. REQUIREMENTS

SHORT CIRCUIT AND SERVICE NOTES:

BASED ON THE FOLLOWING:

UTILITY GENERIC TRANSFORMER SIZE TRANSFORMER IMPEDANCE 1.08 % Z LENGTH OF SERVICE CONDUCTORS 100 FEET SERVICE CONDUCTOR SIZE 500 kcmil NUMBER OF PARALLEL RUNS CONDUIT TYPE Copper in Non-Metallic*

> MOTOR CONTRIBUTION 5 HP

AVAILABLE SHORT CIRCUIT AMPS SUMMARY

| LOCATION | METERBASE | PANEL C | MTS | PANEL G | EEB DISC | PANEL B |
|----------|-----------|---------|-------|---------|----------|---------|
| SCA RMS | 8,385 | 8,167 | 7,790 | 7,439 | 6,678 | 6,407 |
| @ X/R | 1.13 | 1.11 | 1.04 | 0.98 | 0.87 | 0.83 |

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 UTILIZING ONE OF THE FOLLOWING METHODS:

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

| ARC FLASH CALCULATIONS | | | | | | | |
|---------------------------------------|-----------|----------|----------|----------|----------|----------|--|
| | METERBASE | PANEL C | MTS | PANEL G | EEB DISC | PANEL B | |
| | | | | | | | |
| VOLTAGE (VAC) | 240 | 240 | 240 | 240 | 240 | 240 | |
| FAULT CURRENT (kA) | 8.3 | 8.2 | 7.8 | 7.4 | 6.7 | 6.4 | |
| WORKING DISTANCE (INCHES) | 18 | 18 | 18 | 18 | 18 | 18 | |
| | | | | | | | |
| NCIDENT ENERGY (CAL/CM ²) | 0.21 | 0.20 | 0.19 | 0.18 | 0.16 | 0.15 | |
| ARC FLASH BOUNDARY (INCHES) | 6.0 | 5.9 | 5.7 | 5.5 | 5.1 | 5.0 | |
| NSULATING GLOVES CLASS | 00 BEIGE | 00 BEIGE | 00 BEIGE | 00 BEIGE | 00 BEIGE | 00 BEIGE | |
| | | | | | | | |
| PPE LEVEL | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | | | | | | |
| CALCULATION DATE | 8/18/2021 | | | | | | |

NOTES:
ARC FLASH CALCULATIONS BASED ON IEEE 1584 2018
ARC FLASH CALCULATIONS BASED ON IEEE 1584 2018
ARC FLASH CALCULATIONS ARE BASED ON A 2 CYCLE ARCING TIME FOR UPSTREAM OVER CURRENT PROTECTION DEVICE.
ARC FLASH CALCULATIONS BASED ON DESIGN ASSUMPTIONS AS INDICATED IN THE A.I.R CALCULATIONS.
CONTRACTOR TO VERIFY.

RE"PS&E

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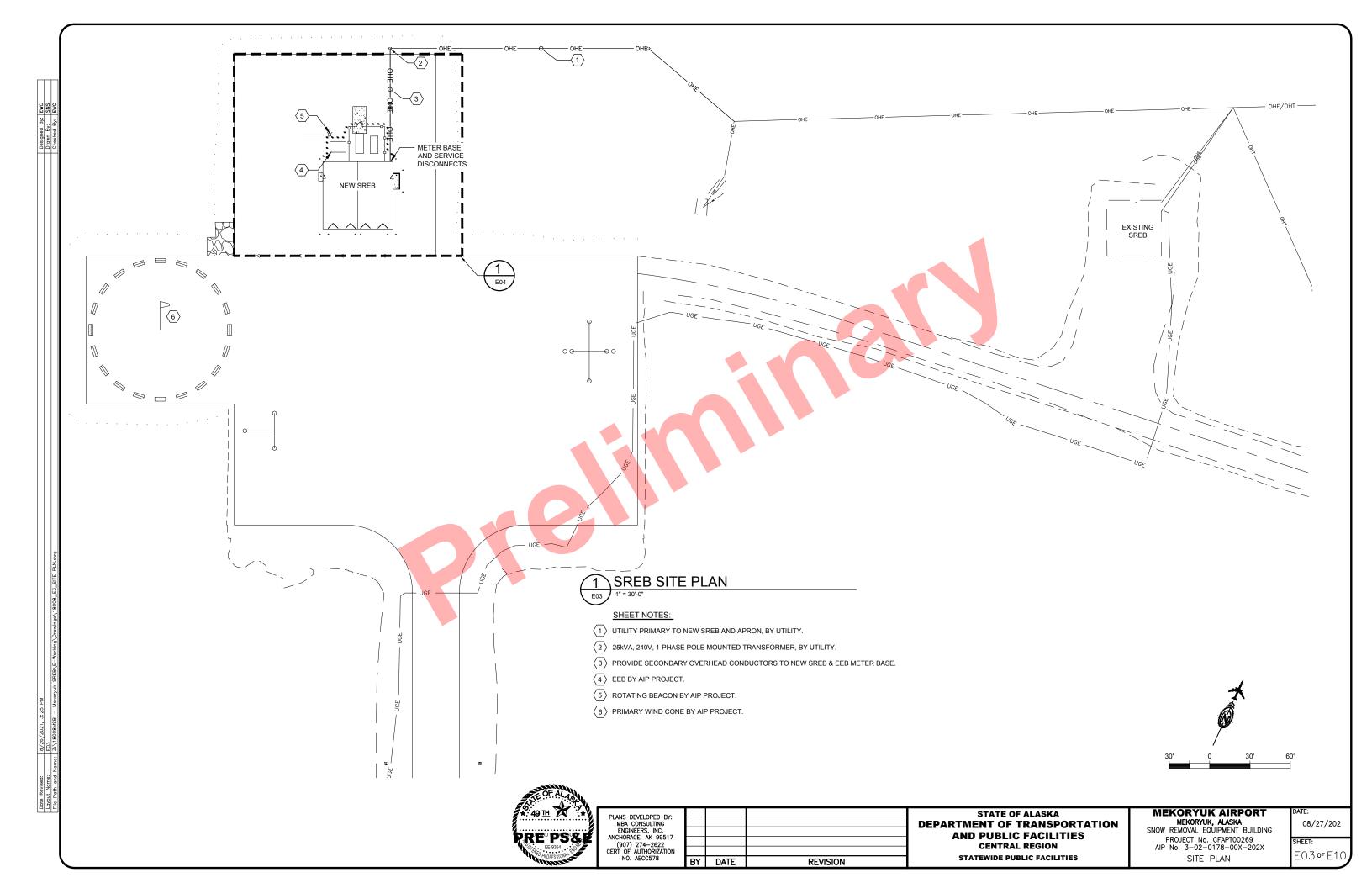
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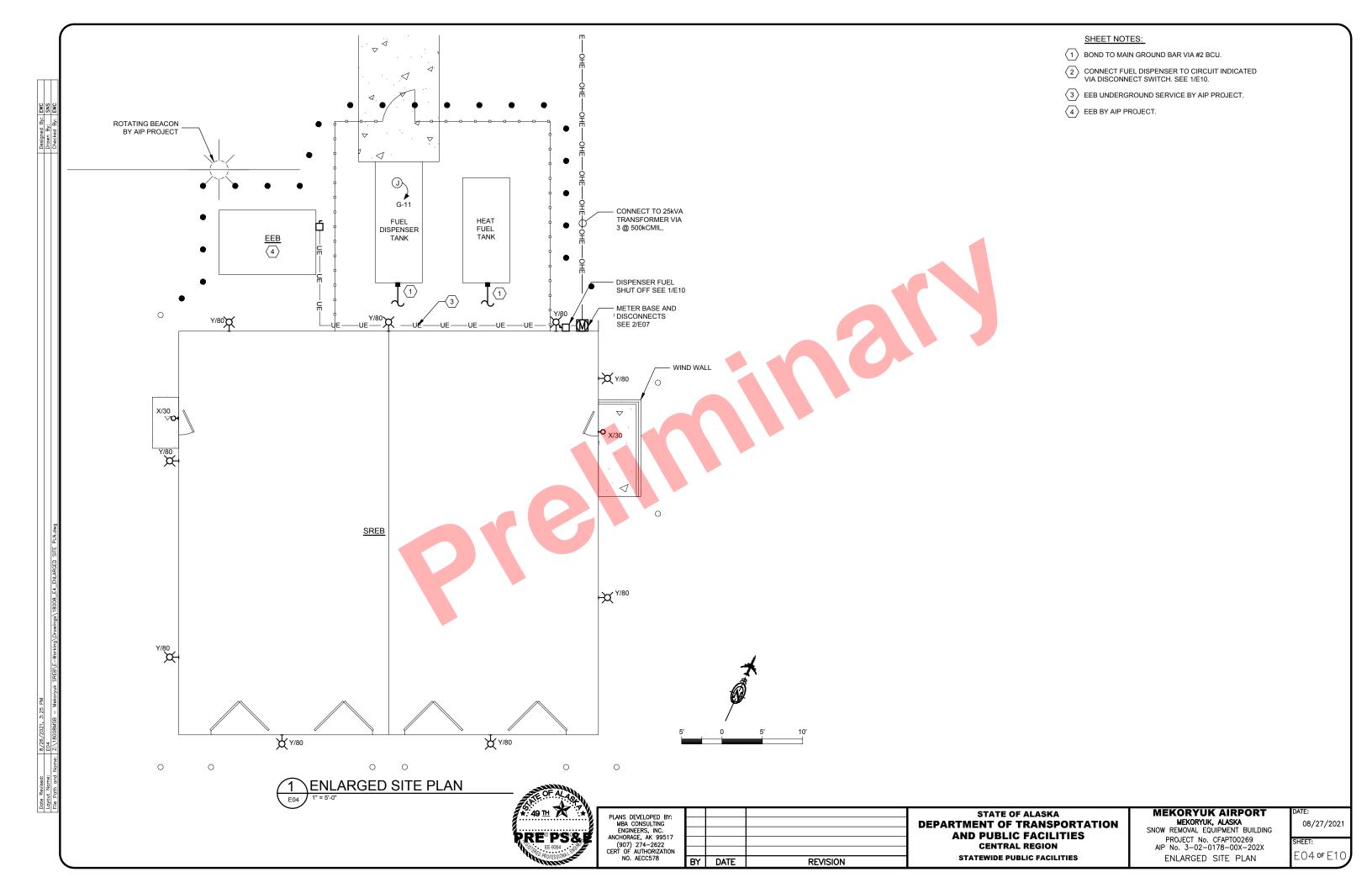
MEKORYUK AIRPORT MEKORYUK, ALASKA SNOW REMOVAL EQUIPMENT BUILDING

PROJECT No. CFAPT00269 AIP No. 3-02-0178-00X-202X PANEL SCHEDULES

08/27/2021

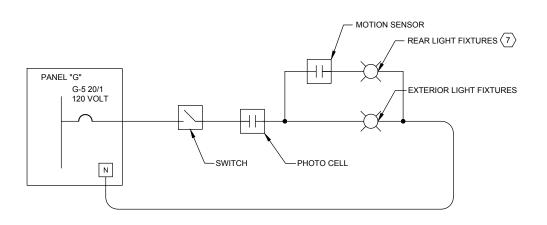
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SHEET NOTES - SHEETS E05 & E06

- 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 IN FOUNDATION FOOTING. GROUNDING ELECTRODE SYSTEM: BOND TOGETHER GROUND RODS, THE BUILDING STEEL FRAME AND THE FOOTING GROUND WITH #1/0 AWG CONDUCTORS. SEE DETAIL 4/E07 FOR MORE INFORMATION
- $\langle 5 \rangle$ 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.
- MOUNT 2 FEET BELOW ROOF STRUCTURE. LOCATE FIXTURE TO ILLUMINATE THE FUEL DISPENSING AREA. LOCATE TO AVOID CONFLICT WITH UNIT HEATER EXHAUST, AND OTHER ITEMS. PROVIDE WITH MOTION SENSOR (WATTSTOPPER EW-200-120-G OR APPROVED EQUAL). SEE DETAIL 2/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 DIFFERENTIAL MOVEMENT.
- 9. PENETRATIONS THROUGH EXTERI<mark>OR W</mark>ALL SHALL BE 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.
- SIGN: COLORS WHITE 3/4" LETTERS ON RED BACKGROUND. TEXT "FUEL PUMP EMERGENCY SHUT OFF". MOUNT SIGN 6" ABOVE FUEL PUMP SHUT OFF SWITCH.
- 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/E04 FOR LOCATION OF TANK. SEE 1/E10 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/E04 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 FUEL TANKS.
- (16) DISCONNECTS WITH THERMAL OVERLOADS INCLUDED IN DAY TANK PUMP PACKAGE
- (17) DISCONNECT WITH THERMAL OVERLOADS INCLUDED WITH EXHAUST FAN









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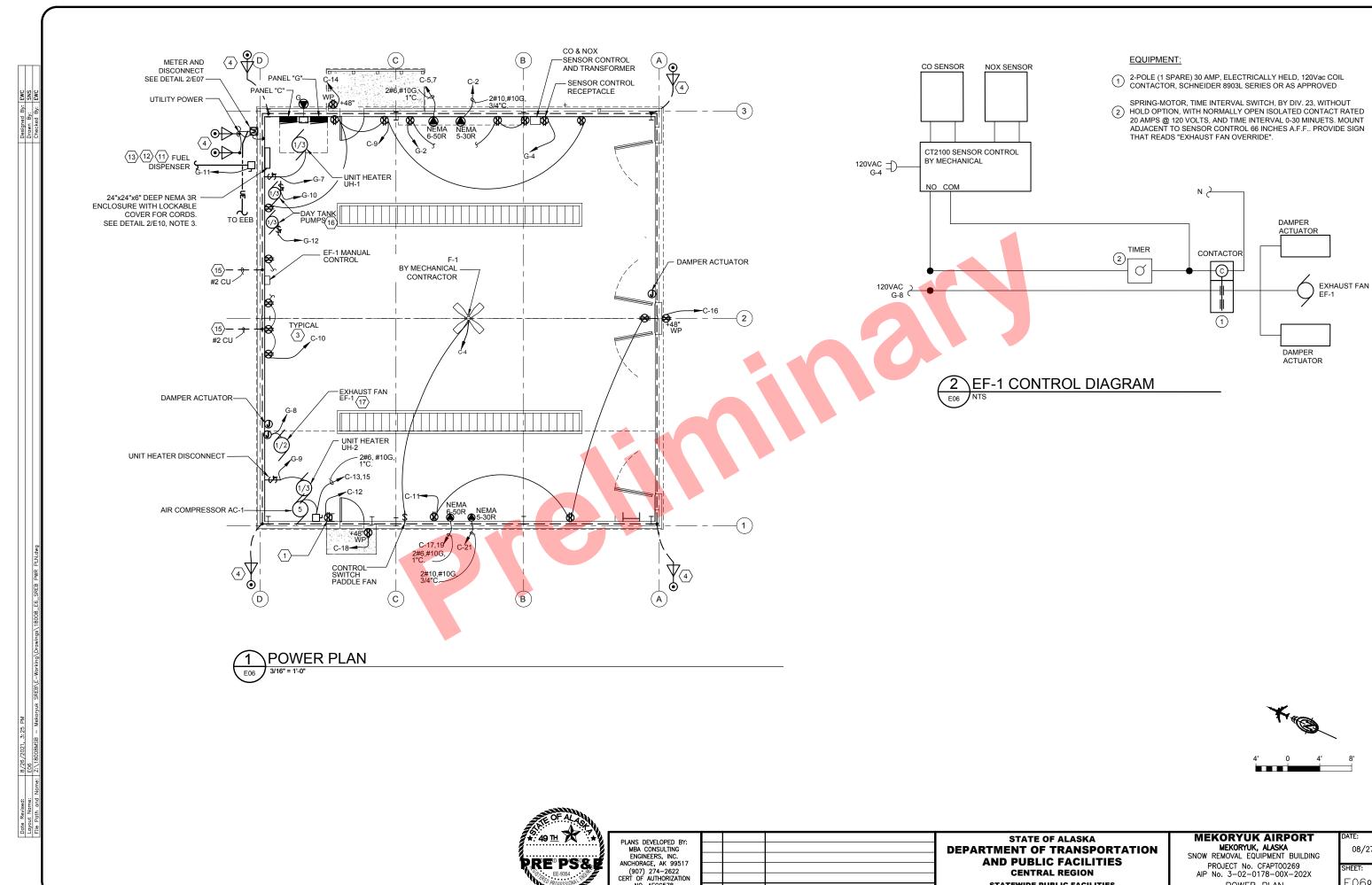
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MEKORYUK AIRPORT MEKORYUK, ALASKA

SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. CFAPT00269
AIP No. 3-02-0178-00X-202X
LIGHTING PLAN

SHEET: E050f E1

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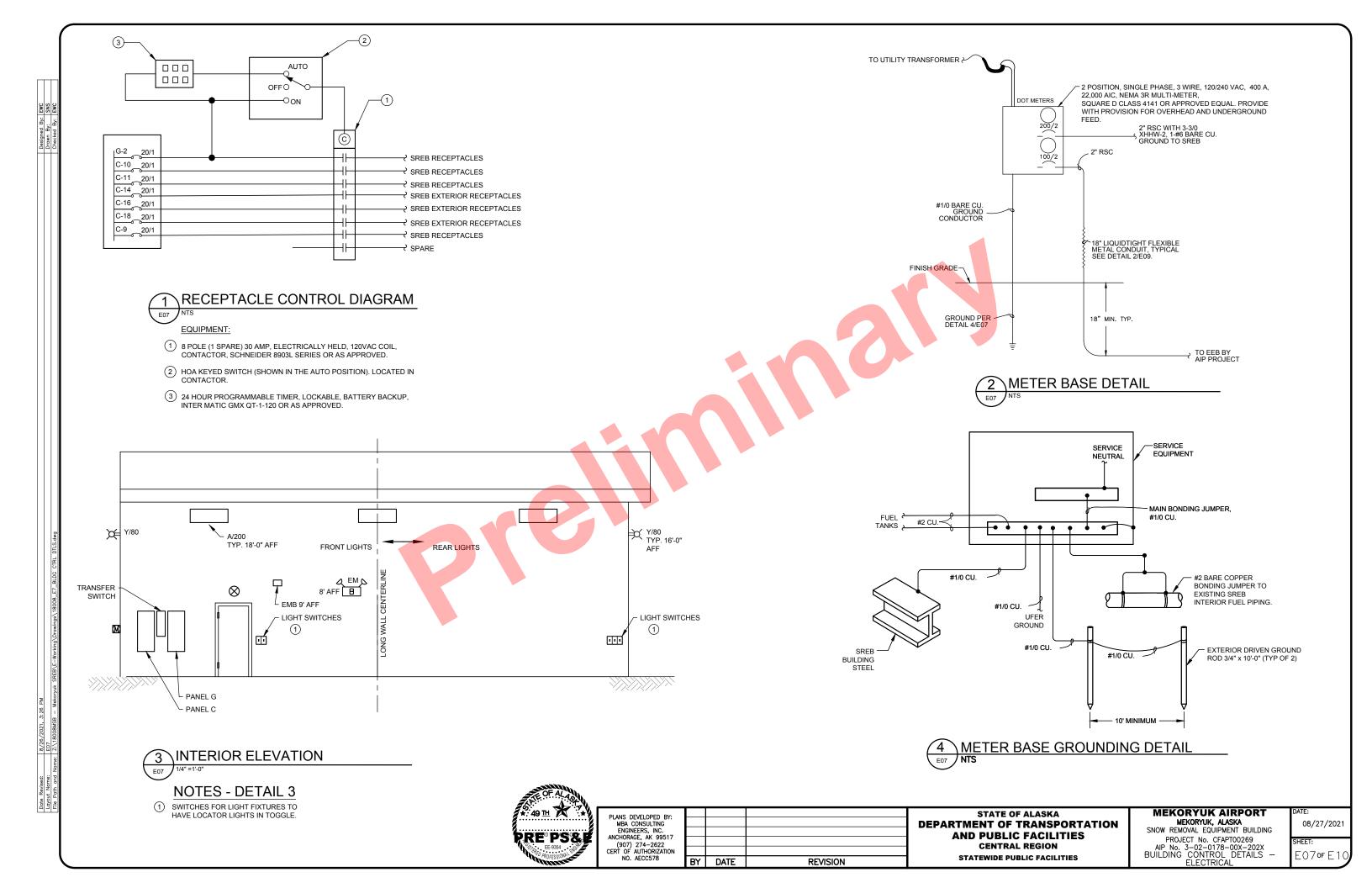
PROJECT No. CFAPT00269 AIP No. 3-02-0178-00X-202X POWER PLAN

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E060F E10



1 HEATING CONTROL WIRING DIAGRAM

NOTES - DETAIL 1

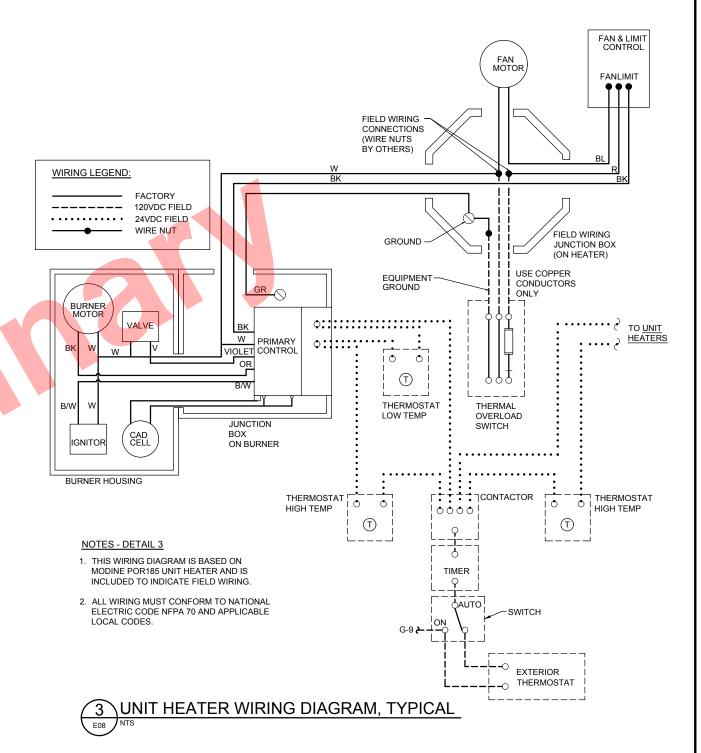
- 1 PLUG-IN RELAY WITH 120V COIL, DPDT CONTACTS, SCREW TERMINAL BASE. SQUARE D CLASS 8501 KU12V120 RELAY, NR82 BASE, NH82 HOLD DOWN CLIP. WALL MOUNT IN WEATHERPROOF ENCLOSURE.
- (2) THERMOSTAT WIRE CAN RUN EXPOSED ABOVE 10' AFF AND MUST BE STAPLED TO WAINSCOT 24 INCHES O.C.
- 3 THERMOSTAT FOR UNIT HEATER NON MERCURY TYPE. HIGH TEMP.
- 4 SPRING-MOTOR TIME INTERVAL SWITCH, SEE MECHANICAL, WITHOUT HOLD WITH NORMALLY OPEN ISOLATED CONTACT RATED 10 AMPS @ 120 VOLTS - 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) THERMOSTAT FOR UNIT HEATER NON MERCURY TYPE. LOW TEMP. SET AT 40° F.
- 8. SEQUENCE OF OPERATION:

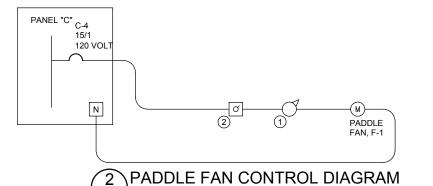
CONTACTS IN 4 ARE ENERGIZED WHEN OUTSIDE TEMPERATURE IS BELOW 50°F.

THE CONTACTS IN THE TIME SWITCH 4 CLOSE WHEN THE SWITCH IS SET TO ANY TIME GREATER THAN ZERO. RELAY CONTACTS 1 CLOSE WHEN TIME SWITCH CONTACTS CLOSE. CONNECT RELAY CONTACTS IN SERIES WITH THERMOSTAT.

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

UNIT HEATERS ARE ENERGIZED WHEN INTERIOR TEMP FALLS BELOW 40° F VIA (7).





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 WITH NORMALLY OPEN ISOLATED CONTACT RATED 10 AMPS @ 120 VOLTS - TIME INTERVAL 0-12 HOURS.



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MEKORYUK AIRPORT

MEKORYUK, ALASKA

SNOW REMOVAL EQUIPMENT BUILDING

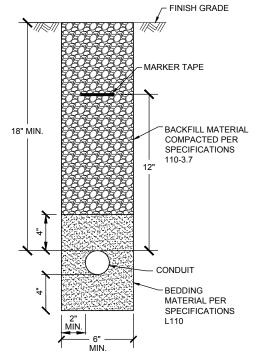
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AIP No. 3-02-0178-00X-202X

BUILDING CONTROL DETAILS
MECHANICAL

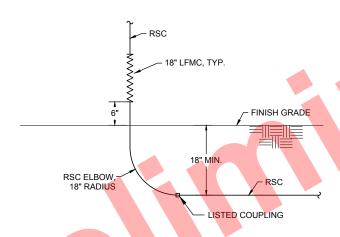
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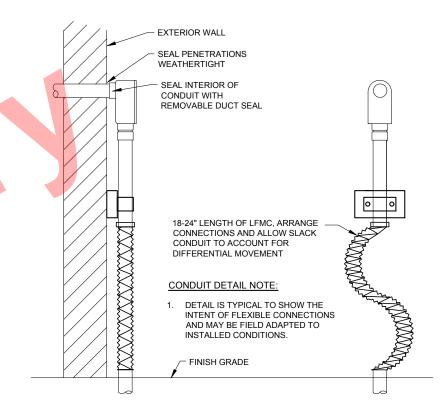


CONDUIT TRENCH DETAIL

NTS



CONDUIT ABOVE/BELOW GRADE TRANSITION



3 WALL PENETRATION DETAIL

NTS

ELEVATION

PRE PS& P

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MEKORYUK, ALASKA SNOW REMOVAL EQUIPMENT BUILDING PROJECT No. CFAPT00269 AIP No. 3-02-0178-00X-202X SITE ELEVATION DETAILS

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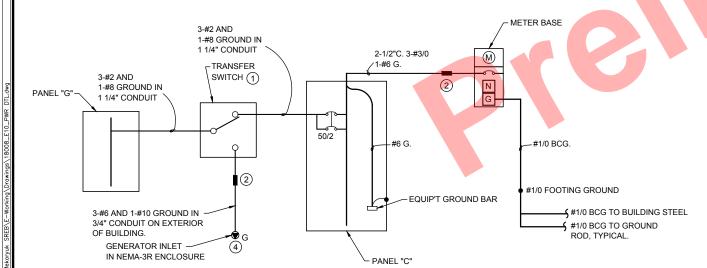
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DETAIL 1 NOTES:

- 1 EMERGENCY VEHICLE FUEL PUMP SHUTDOWN 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 CIVIL FOR LOCATION OF TANK.
- POWER FOR THE PUMP, FROM A SWITCH-RATED 15-AMP 1-POLE 120/240-VOLT CIRCUIT BREAKER IN PANEL G. RUN CIRCUIT UNDERGROUND TO FUEL DISPENSER PUMP MOUNTED ON FUEL DISPENSING TANK. SEE CIVIL FOR LOCATION OF FUEL TANK. PROVIDE SEALING FITTING 18" ABOVE GRADE AT EACH END OF UNDERGROUND CONDUIT RUN.

FUEL DISPENSER DIAGRAM

SREB ONE-LINE DIAGRAM



DETAIL 2 & 3 NOTES:

- 1) 100-AMP 250-VOLT NON-FUSED TWO-POLE DOUBLE-THROW TRANSFER SWITCH, SQUARE-D CATALOG NO. DTU223 OR APPROVED EQUAL.
- 2 SEAL CONDUIT PENETRATION ON INSIDE AND OUTSIDE BETWEEN THE INTERIOR AND EXTERIOR OF THE BUILDING WITH DUX SEAL.
- 3. PROVIDE A 20-FOOT "ARCTIC" POWER CORD 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-G TO STORE THE
- 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).

2 PANEL "G" - GENERATOR INLET ELEVATION

— GENERATOR INLET

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(1) TRANSFER SWITCH

PANEL -

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PROJECT No. CFAPT00269 AIP No. 3-02-0178-00X-202X DIAGRAMS POWER

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