

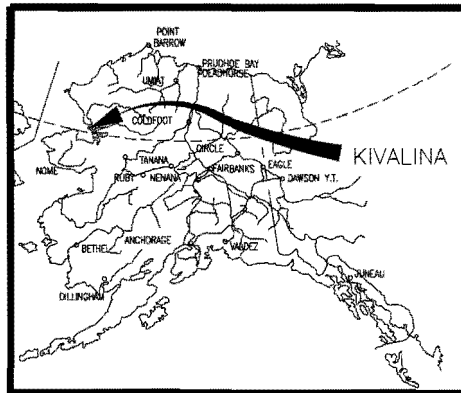
PROPOSED AIRPORT PROJECT

KIVALINA AIRPORT

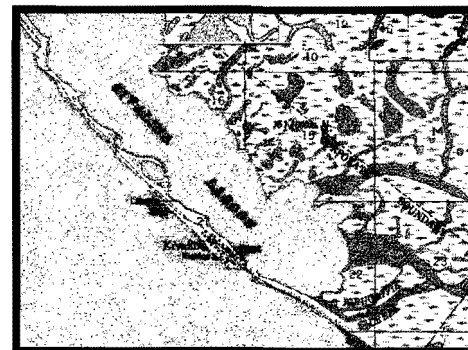
KIVALINA AIRPORT RESURFACING

A.I.P. NO. 3-02-0152-03/61040

2001 ~ AS-BUILT ~



LOCATION MAP



VICINITY MAP

NO SCALE
T27N, R26W
KATEEL RIVER MERIDIAN, ALASKA
USGS NOATAK (C-5, D-6)

SPONSORED BY THE STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION

APPROVED BY: Jan O. Neen DATE 7/30/01
ACTING PRECONSTRUCTION ENGINEER, Division of Design & Engineering Services

ACCEPTED FOR CONSTRUCTION: Ralph Swarthout DATE 7/30/01
RALPH SWARTHOUT, P.E., Regional Director, Northern Region

ESTIMATED QUANTITIES

NO.	ITEM	UNIT	QTY
P-158a	EROSION, SEDIMENT AND POLLUTION CONTROL	L.S. \$ 6,000	ALL REQ'D
P-158b	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL	C.S. \$ 0	ALL REQ'D
P-208a	CRUSHED AGGREGATE SURFACE COURSE	C.M.	7,443 2575
L-100a	AIRPORT LIGHTING	L.S. \$ 216,115	ALL REQ'D
L-104a	ELECTRICAL EQUIPMENT ENCLOSURE	L.S. \$ 24,000	ALL REQ'D
L-104b	ELECTRICAL EQUIPMENT INSTALLATION	L.S. \$ 27,000	ALL REQ'D
G-100a	MOBILIZATION AND DEMOBILIZATION	L.S. \$ 360,000	ALL REQ'D
G-130a	FIELD OFFICE	L.S. \$ 25,000	ALL REQ'D
G-131a	ENGINEERING TRANSPORTATION	L.S. \$ 14,000	ALL REQ'D
G-135a	CONSTRUCTION SURVEYING BY THE CONTRACTOR	L.S. \$ 25,000	ALL REQ'D
G-135a	MONUMENTS BY THE CONTRACTOR	L.S. \$ 1,000	ALL REQ'D

NEW ITEMS BY CHANGE ORDER

N/A

- NEW 8' LIGHTED WIND CONE ADDED UNDER EXISTING ITEM L-100a, AIRPORT LIGHTING FOR \$ 26,115

INDEX

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CONTRACTOR: KNIK CONSTRUCTION, INC.

PROJECT ENGINEER: BLAINE G. GALLEHER

CONSTRUCTION BEGIN: JULY 15, 2002

CONSTRUCTION END: AUGUST 27, 2002

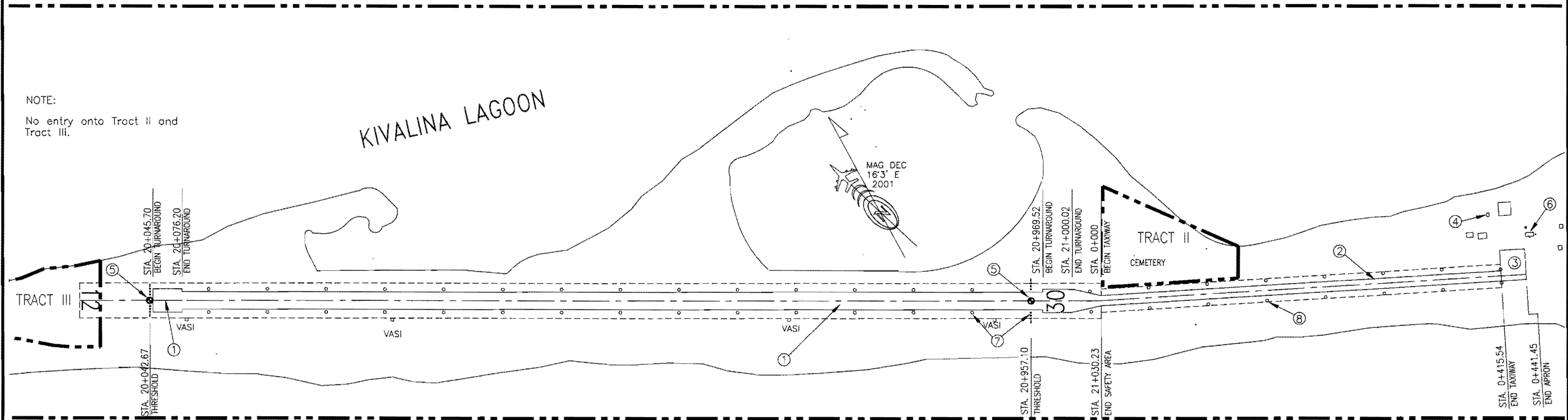
THE FOLLOWING STANDARD DRAWINGS APPLY TO THIS PROJECT:

CONVERSION FACTORS FROM SI UNITS

TO CONVERT FROM	TO	MULTIPLY BY
STATION (1000 METERS)	FEET	3280.84
KILOMETER (km)	MILE	0.6214
METER (m)	MILE	0.00062137
METER (m)	FOOT	3.28084
MILLIMETER (mm)	FOOT	0.00328084
MILLIMETER (mm)	INCH	0.03937008
SQUARE METER (m ²)	SQUARE FOOT	10.76391042
SQUARE METER (m ²)	SQUARE YARD	1.19599
HECTARE	ACRE	2.4711
CUBIC METER (m ³)	CUBIC FOOT	35.3146667
CUBIC METER (m ³)	CUBIC YARD	1.3079506
CUBIC METER (m ³)	GALLON (US LIQUID)	264.17204
CUBIC METER (m ³)	M. GAL.	0.26417204
KILOGRAM (kg)	POUND-MASS (LBM)	2.2046225
MEGAGRAM (Mg)	TON (SHORT)	1.10231
NEWTON (n)	POUND-FORCE (LBF)	0.2248089
LUX (lx)	FOOTCANDLE	0.092903
DEGREE CELSIUS (°C)	DEGREE FAHRENHEIT (°F)	TF=(1.8 x TC)+32

Blaine Galleher

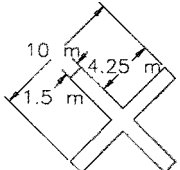
TABLE OF ESTIMATED QUANTITIES	
ITEM	QTY
LIGHT CAN EXTENSIONS	38
TAXIWAY EDGE LIGHTS	16
53 mm RSC	70 M
53 mm PVC CONDUIT	980 M
#8 AGW, COPPER, 5KV	1100 M
#6 BARE COPPER GROUND	1050 M
PRIMARY HANDHOLE	1
TYPE 1A JUNCTION BOX	1



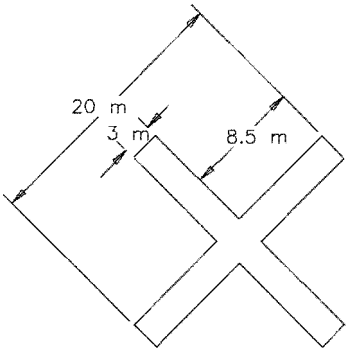
NOTE:
No entry onto Tract II and Tract III.

KIVALINA LAGOON

CHUKCHI SEA



CLOSED TAXIWAY
OR
1/2 WIDTH RUNWAY MARKER



CLOSED RUNWAY MARKER

SCOPE OF PROJECT

- ① RESURFACE THE RUNWAY AND BOTH TURNAROUNDS.
- ② RESURFACE THE CONNECTING TAXIWAY.
- ③ RESURFACE THE APRON.
- ④ INSTALL AN ELECTRICAL EQUIPMENT ENCLOSURE BUILDING.
- ⑤ INSTALL NEW MONUMENTS AT STATIONS 20+042.67 AND 20+957.1 ON CENTERLINE.
- ⑥ REMOVE ELECTRICAL EQUIPMENT FROM EXISTING ELECTRICAL EQUIPMENT ENCLOSURE BUILDING.
- ⑦ RAISE ELEVATION OF RUNWAY AND THRESHOLD LIGHTING.
- ⑧ INSTALL NEW TAXIWAY LIGHTING.

LEGEND

- PROPERTY LINE
- ▭ NEW CRUSHED AGGREGATE SURFACE COURSE
- - - - - EXISTING EMBANKMENT

NOTES:

- a. THE MARKER SHALL BE PAINTED YELLOW.
- b. MARKERS SHALL BE CONSTRUCTED OF PLYWOOD OR HEAVY FABRIC FASTENED TO GROUND
- c. MARKERS SHALL NOT MOVE OR DEFORM IN WIND OR PROP BLAST.
- d. MARKERS SHALL BE PLACED AT RUNWAY AND TAXIWAY ENDS.

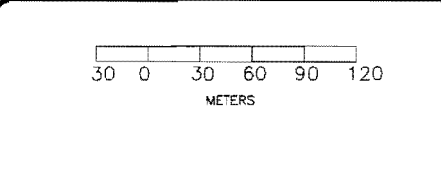
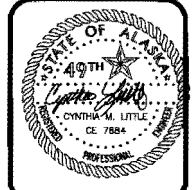
DESIGN	LMR
DRAWN	CAT
CHECKED	PDM

BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION-DESIGN AND CONSTRUCTION-AVIATION

APPROVED
Patricia D. Miller
PATRICIA D. MILLER, P.E.

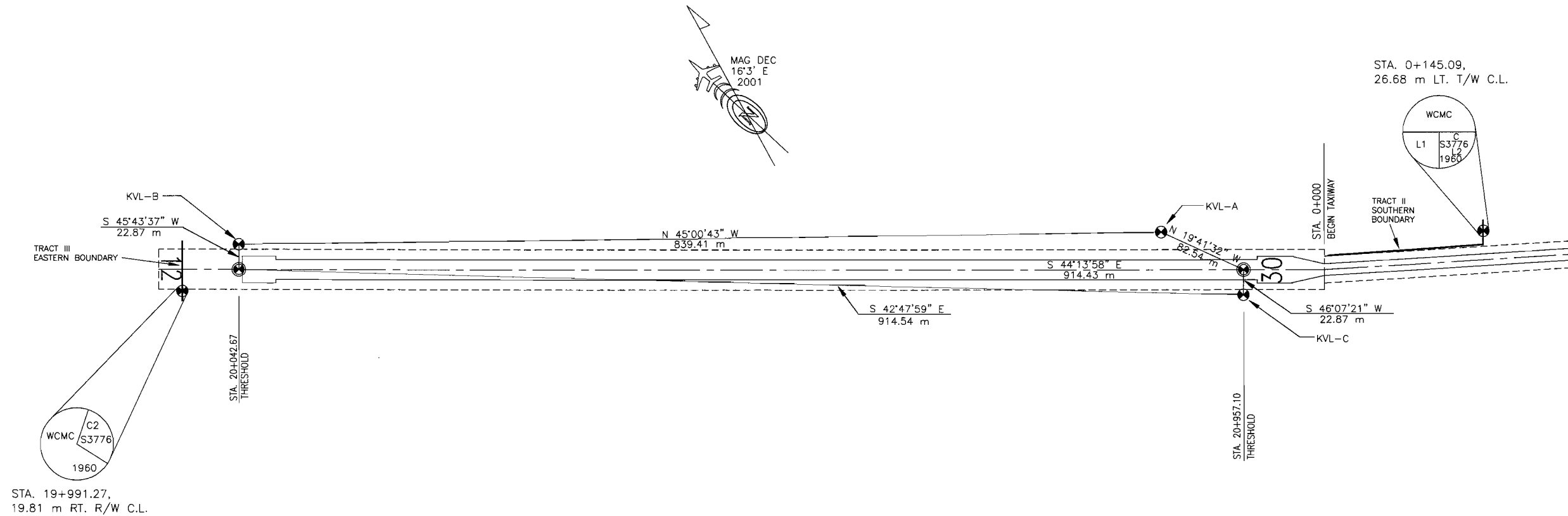
DATE 7/25/01
DESIGN GROUP CHIEF



KIVALINA AIRPORT
AIRPORT RESURFACING
AIP 3-02-0152-03/61040
PROJECT LAYOUT PLAN

SHEET
2 OF
12

AS BUILT
BLAINE G. GALLEHER



EXISTING CONTROL MONUMENTS



PROPOSED NEW THRESHHOLD MONUMENTS TO BE SET AT R/W STA. 20+042.67 AND R/W STA. 20+957.10

NOTES

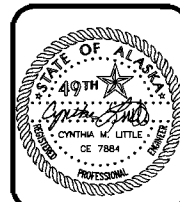
1. THIS IS A METRIC PROJECT
2. THE DESIGNATIONS KVL-A, KVL-B, AND KVL-C FOR THE EXISTING CONTROL MONUMENTS ARE LCMF, INC. DESIGNATIONS FROM A GPS SURVEY DONE IN 1998, USING NAD83 FOR THE HORIZONTAL DATUM AND NAVD88 FOR THE VERTICAL DATUM. KVL-C IS THE BASIS OF VERTICAL CONTROL, ELEVATION 3.139 METERS.

ALL DIMENSIONS ON THIS SHEET ARE IN METERS UNLESS OTHERWISE NOTED.

DESIGN	RJS		
DRAWN	RJS		
CHECKED	CML		
BY	DATE	REVISIONS	

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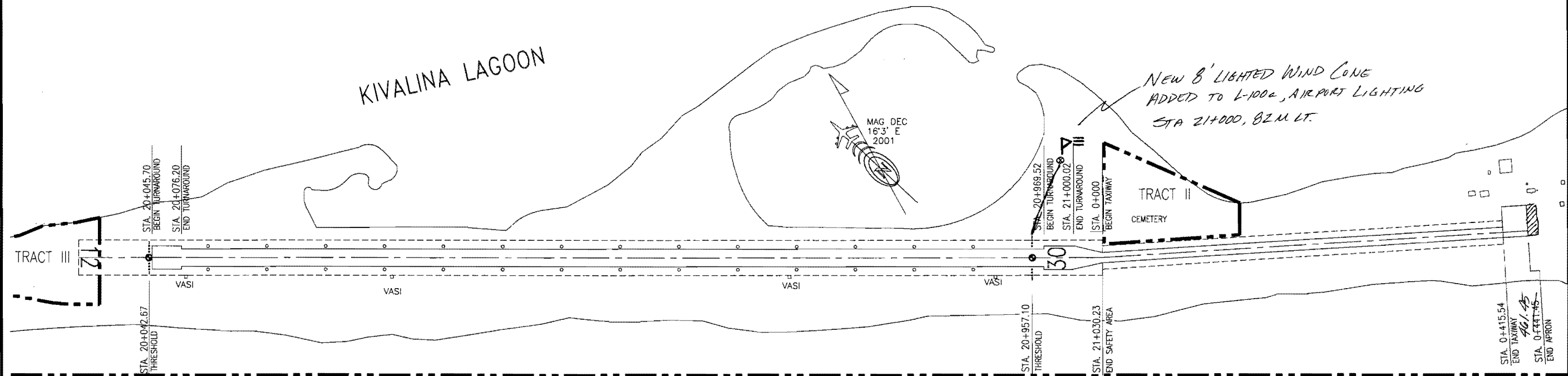
APPROVED *Patricia D. Miller* DATE *6/27/01*
 PATRICIA D. MILLER, P.E. DESIGN GROUP CHIEF



KIVLAINA AIRPORT
 AIRPORT IMPROVEMENTS
 AIP 3-02-0152-03/61040
 HORIZONTAL AND VERTICAL CONTROL

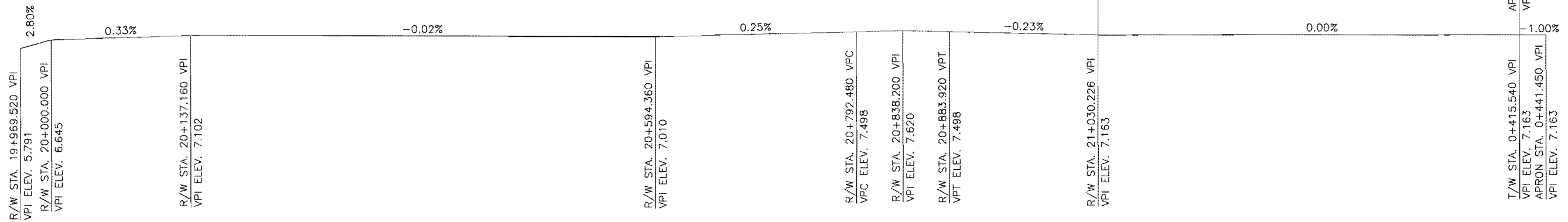
SHEET
 3 OF
 12

AS BUILT
BLAINE G. GALLEHER



NOTES

THE GRADES ARE FROM THE 1985 AS-BUILT. THEY ARE INCLUDED AS A REFERENCE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING THE CURRENT CONDITION BY A CROSS-SECTION OF EXISTING SURFACES. GRADES WILL BE ADJUSTED BY THE ENGINEER PRIOR TO PLACEMENT OF THE CRUSHED AGGREGATE SURFACE COURSE. SEE SPECIFICATIONS FOR ITEMS P-208c AND G-135c.

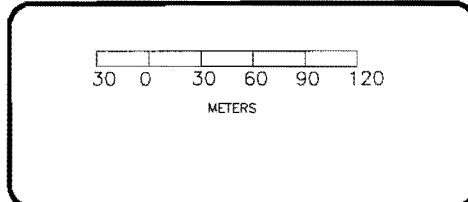
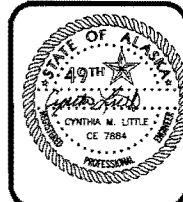


DESIGN	LMR
DRAWN	CAT
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BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION-DESIGN AND CONSTRUCTION-AVIATION

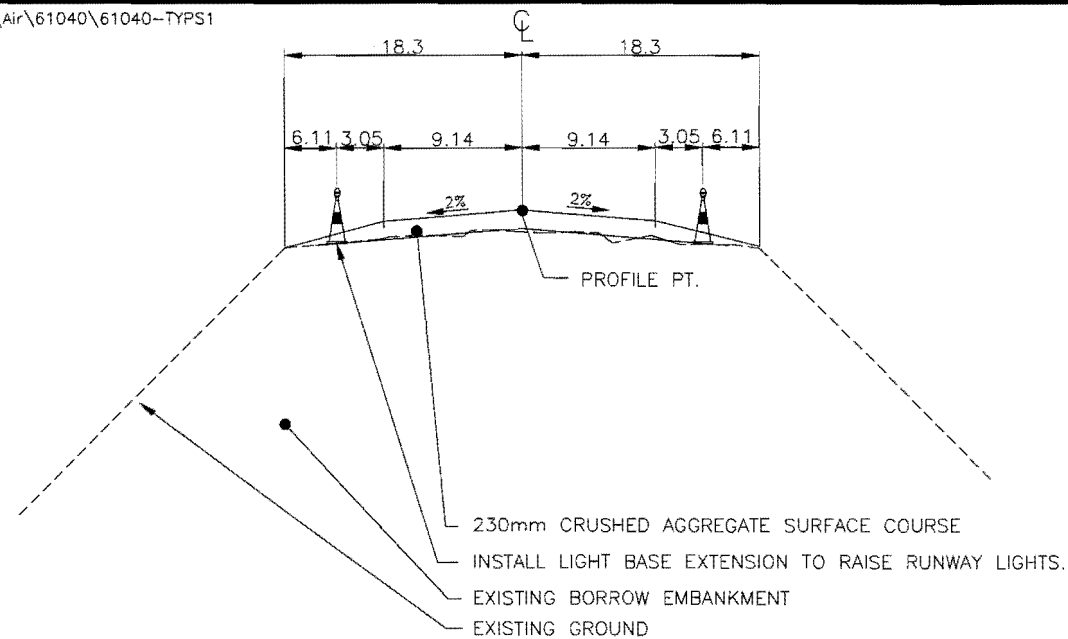
APPROVED *Patricia D. Miller* DATE 6/27/01
PATRICIA D. MILLER, P.E. DESIGN GROUP CHIEF



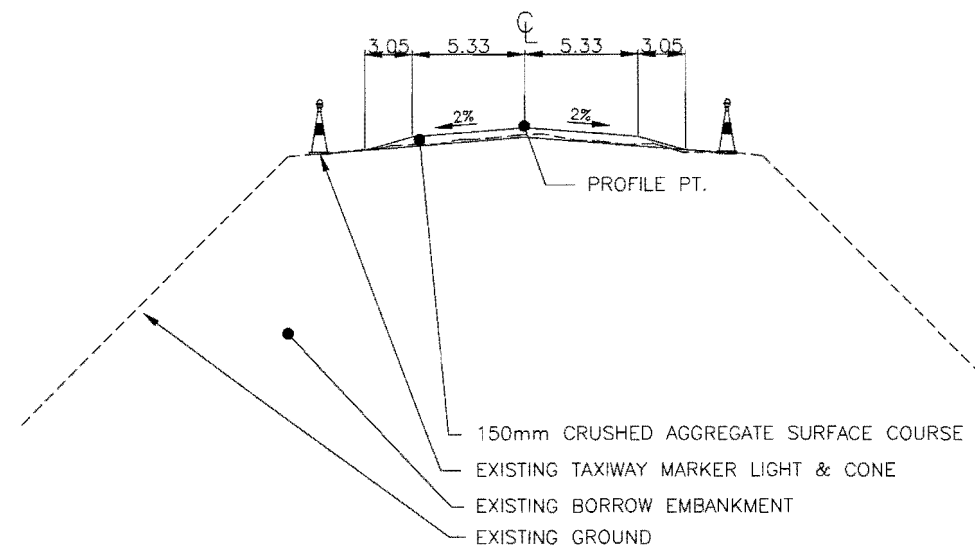
KIVALINA AIRPORT
AIRPORT RESURFACING
AIP 3-02-0152-03/61040
PLAN & PROFILE

SHEET	4
OF	12

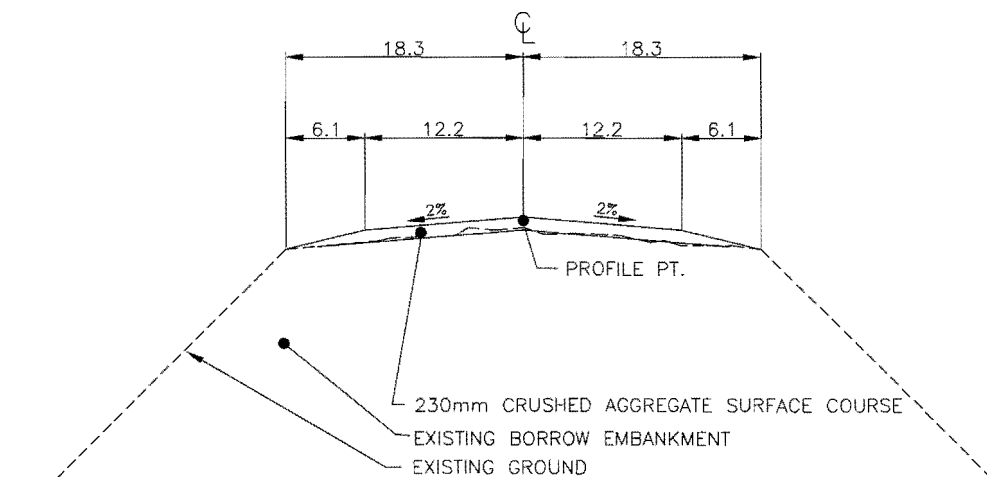
AS BUILT
BLAINE G. GALLEHER



RUNWAY TYPICAL SECTION
R/W STA. 20+076.20 TO R/W STA. 20+969.52



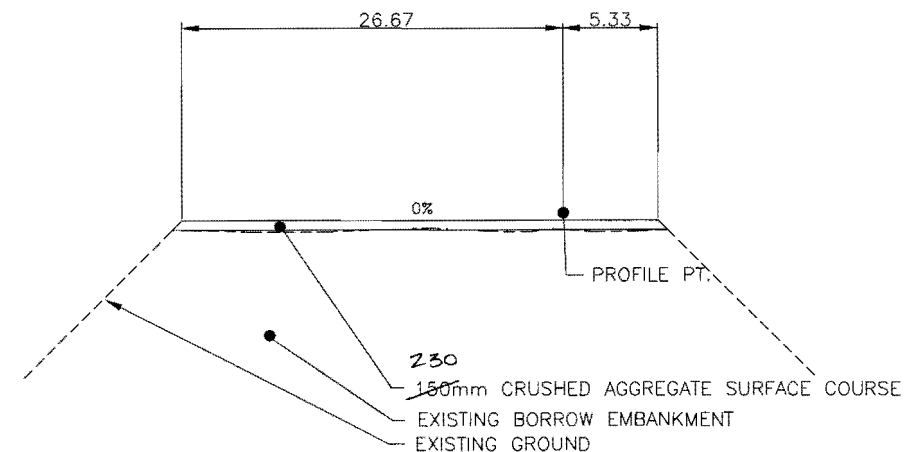
TAXIWAY TYPICAL SECTION
T/W STA. 0+000 TO T/W STA. 0+415.54



TURN AROUND TYPICAL SECTION
R/W STA. 20+045.70 TO R/W STA. 20+076.20
R/W STA. 20+969.52 TO R/W STA. 21+000.02

NOTE

TAPER CRUSHED AGGREGATE SURFACE COURSE FROM 24.4m WIDE TO 10.7m WIDE FROM STATION 21+000.02 TO 21+030.23



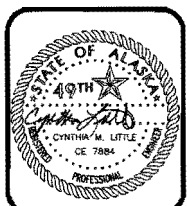
APRON TYPICAL SECTION
T/W STA. 0+415.54 TO T/W STA. 0+441.45

ALL DIMENSIONS ON THIS SHEET ARE IN METERS UNLESS OTHERWISE NOTED.

DESIGN	LMR		
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BY	DATE	REVISIONS	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION-DESIGN AND CONSTRUCTION-AVIATION

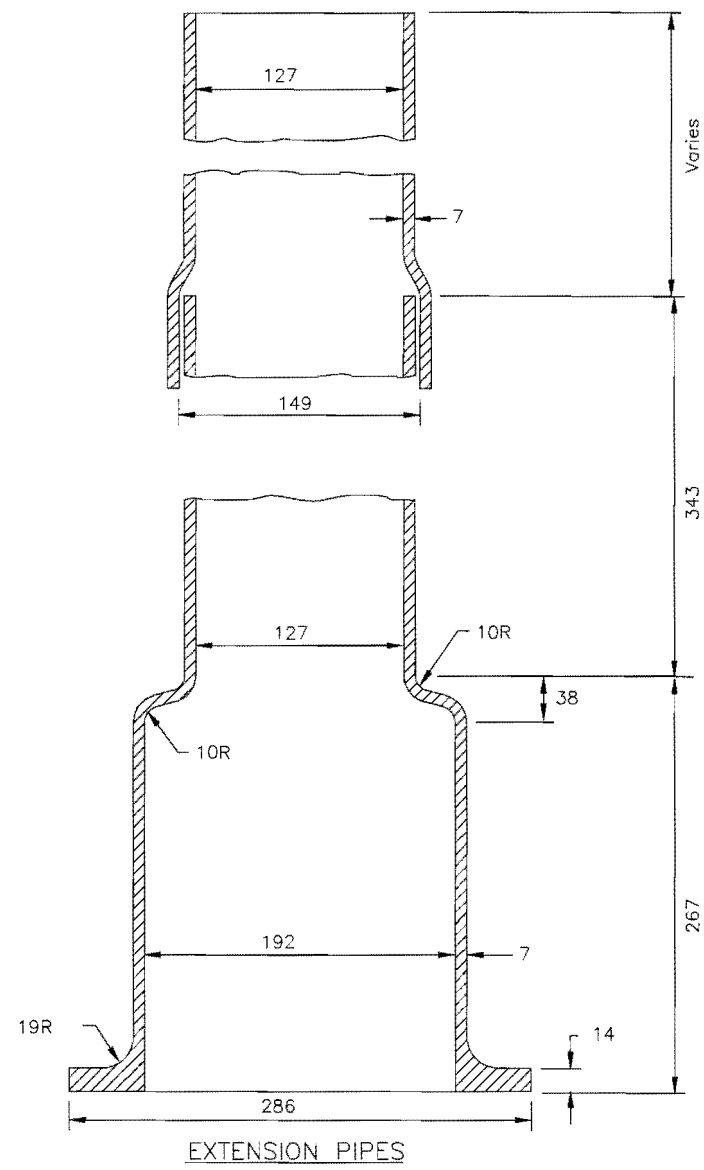
APPROVED *Patricia D. Miller* DATE *6/27/01*
PATRICIA D. MILLER, P.E. DESIGN GROUP CHIEF



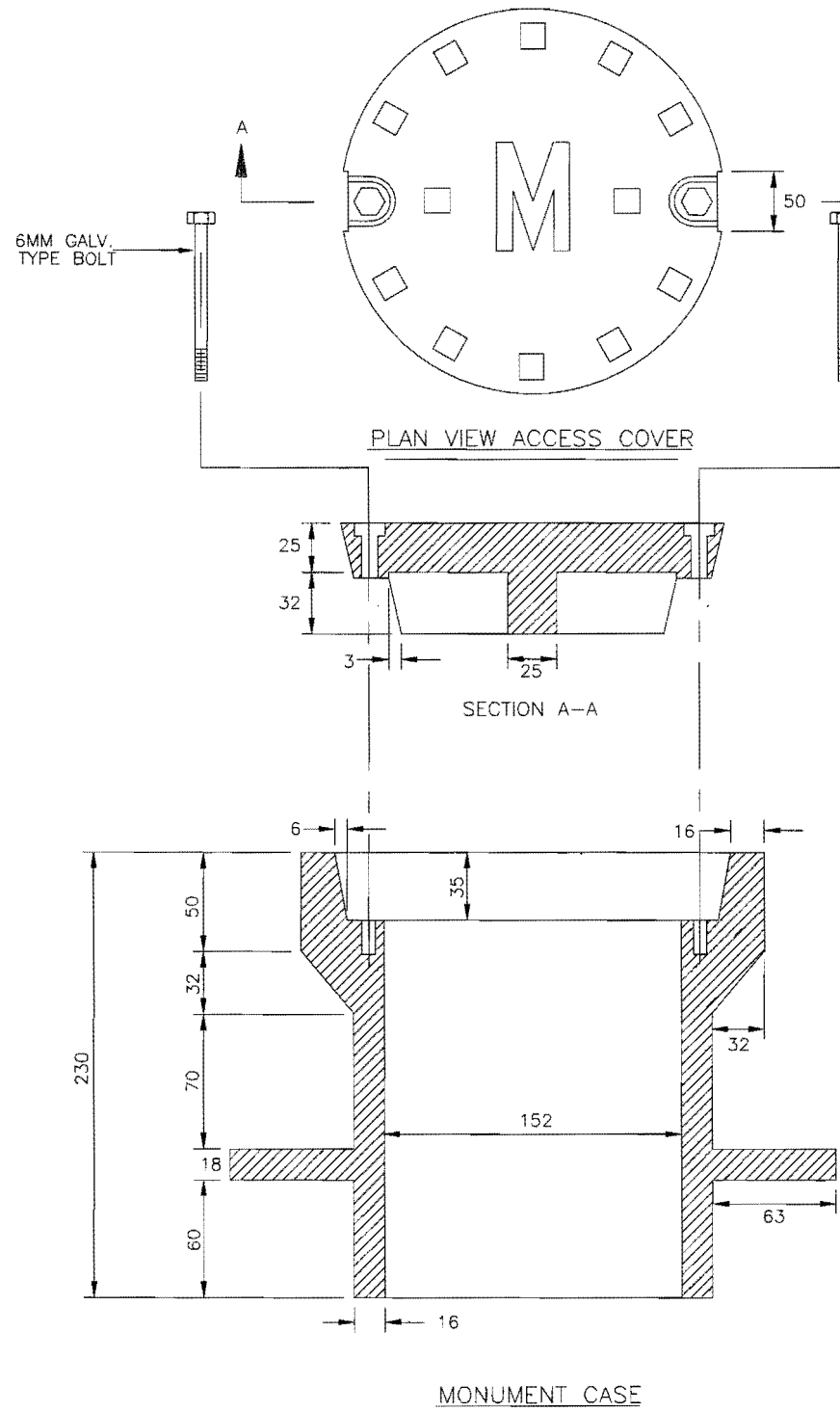
KIVALINA AIRPORT
AIRPORT RESURFACING
AIP 3-02-0152-03/61040
TYPICAL SECTIONS

SHEET
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12

AS BUILT
BLAINE G. GALLEHER



EXTENSION PIPES

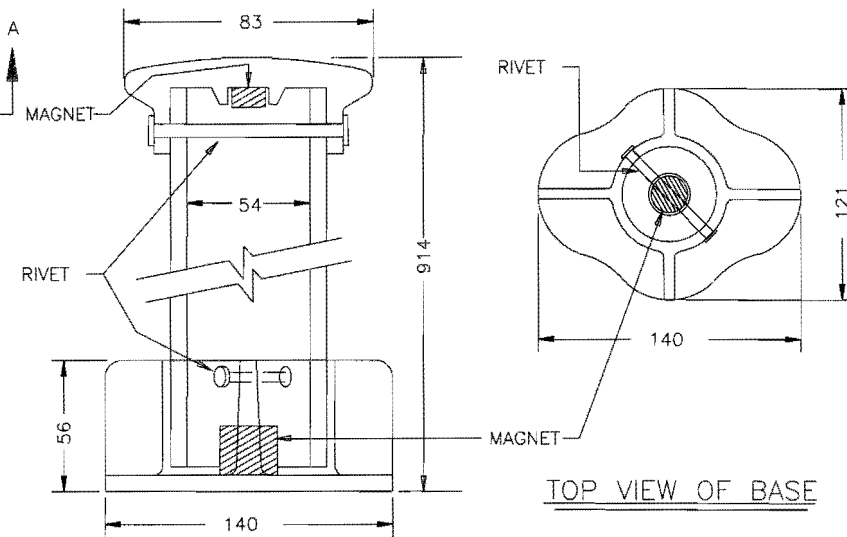


PLAN VIEW ACCESS COVER

SECTION A-A

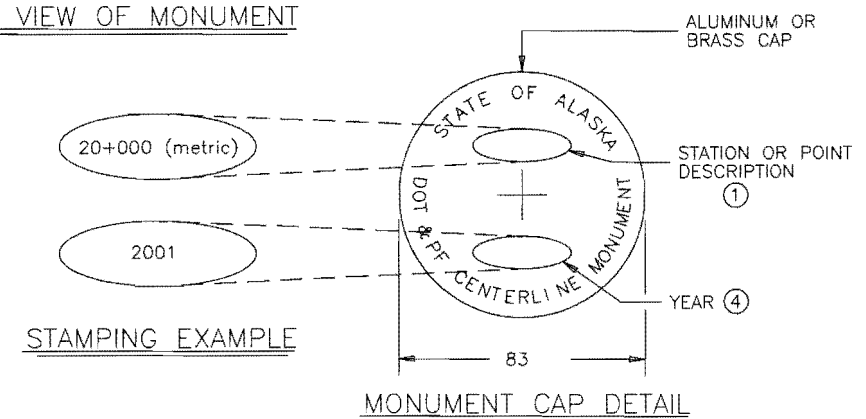
MONUMENT CASE

SURVEY MONUMENT DETAILS



SECTION VIEW OF MONUMENT

TOP VIEW OF BASE



STAMPING EXAMPLE

MONUMENT CAP DETAIL

NOTES

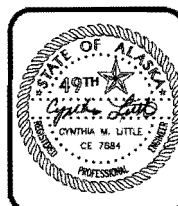
- ① ALL SURVEY MONUMENTS SHALL BE STAMPED WITH THE AS-BUILT STATION OR POINT DESCRIPTION (C.L.) IN THE AREA SHOWN ON THE DETAIL. THE ACTUAL POINT LOCATION SHALL BE STAMPED WITH A CROSS AS SHOWN. MONUMENTS SHALL BE INSTALLED AT R/W STA. 20+042.67 AND 20+957.10 ON CENTERLINE.
- ② MONUMENTS SHALL BE INSTALLED SO THAT THE CAPS ARE A MINIMUM OF 200mm BELOW TOP OF CASING.
- ③ THE CONTRACTOR SHALL PROVIDE AS-BUILT ELEVATIONS FOR THE TOP OF THE INSTALLED MONUMENT CAPS.
- ④ THE YEAR INSTALLED SHALL BE STAMPED ON ALL MONUMENTS IN THE AREA SHOWN ON THE DETAIL.
- ⑤ THE TOP OF THE CASING SHALL BE PLACED A MINIMUM OF 150mm BELOW FINISHED GRADE, EXCEPT IN PAVED RUNWAYS, WHERE THE TOP SHALL BE AT FINISHED GRADE.
- ⑥ BOLTING MONUMENT CASINGS SHALL BE USED.
- ⑦ DETAILS SHOWN ARE TO INDICATE GENERAL DESIGN ONLY. DIMENSIONS AND DESIGN MAY VARY AMONG THE MANUFACTURERS.

DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

DESIGN LMR
DRAWN CAT
CHECKED PDM

BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION-DESIGN AND CONSTRUCTION-AVIATION
APPROVED *Patricia D. Miller* DATE 8/27/01
PATRICIA D. MILLER, P.E. DESIGN GROUP CHIEF



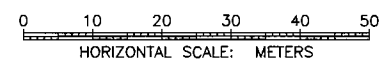
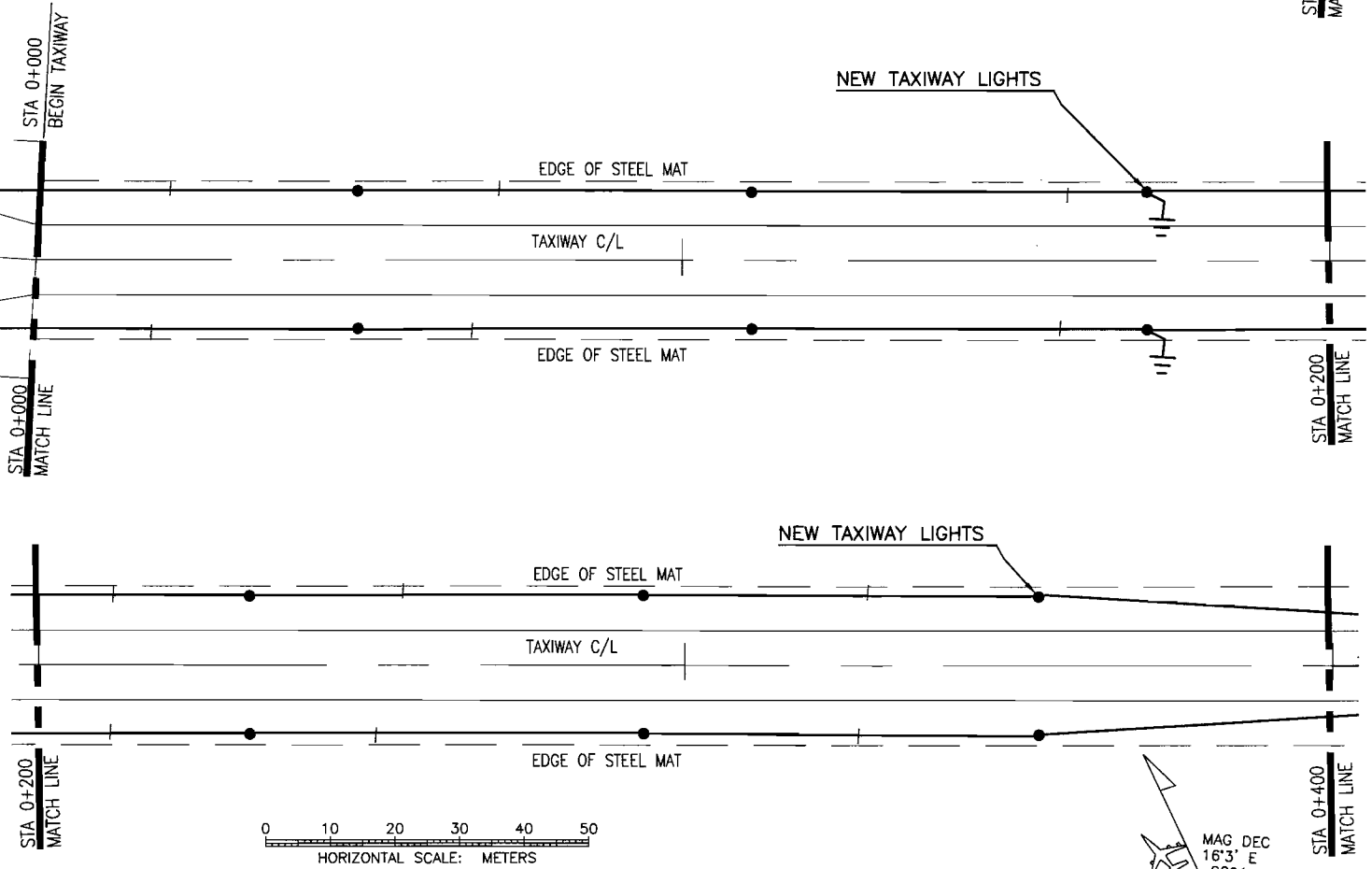
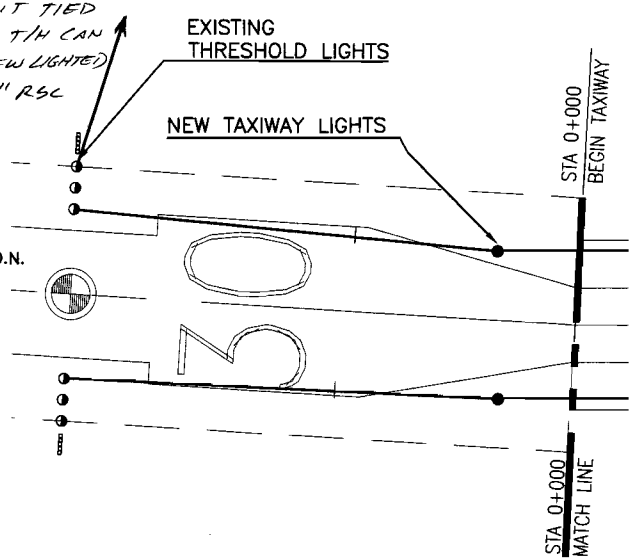
KIVALINA AIRPORT
AIRPORT RESURFACING
AIP 3-02-0152-03/61040
MONUMENT DETAILS

SHEET
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12

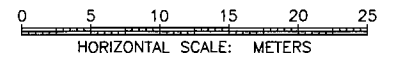
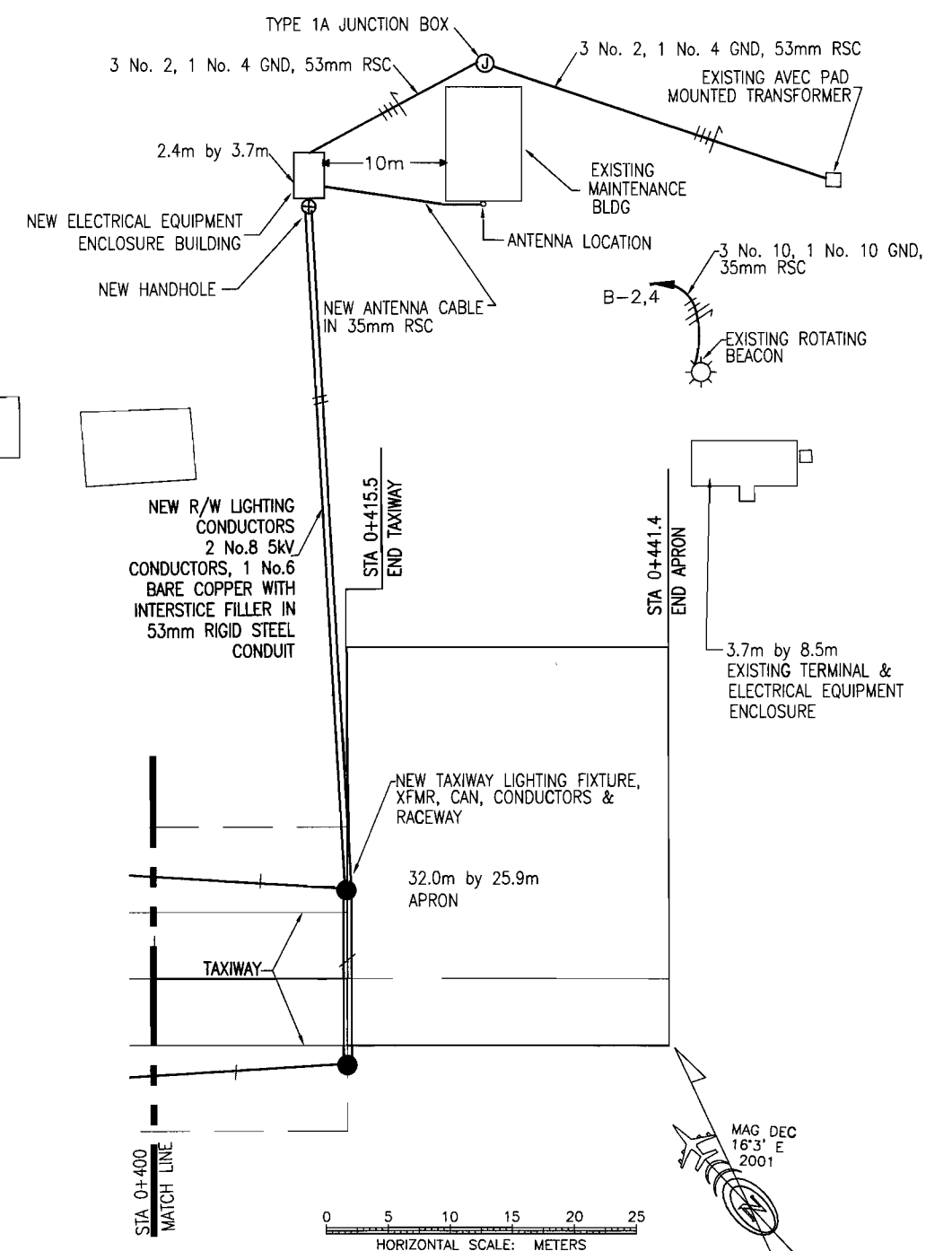
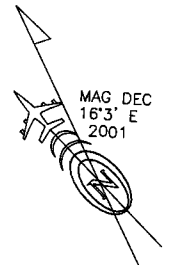
AS BUILT
BLAINE G. HALLEHER

- LEGEND**
- RUNWAY MARKER LIGHT (WHITE)
 - TAXIWAY MARKER LIGHT (BLUE)
 - ⊙ THRESHOLD MARKER LIGHT (GREEN & RED)
 - 53mm RSC, RIGID STEEL CONDUIT. || DENOTES NUMBER OF CONDUCTORS U.O.N.
 - - - 53mm NON-METALLIC CONDUIT, SCHEDULE 40. || DENOTES NUMBER OF CONDUCTORS U.O.N.
 - ⊥ GROUND RODS
 - ⊙ ROTATING BEACON
 - ⊕ HANDHOLE
- U.O.N. UNLESS OTHERWISE NOTED

2" PVC CONDUIT TIED INTO OUTBOARD T/H CAN FOR RUN TO NEW LIGHTED WIND ZONE (2" RSC OVER LAST 60')



TAXIWAY LIGHTING PLAN



APRON AND SITE PLAN

DESIGN	RBB
DRAWN	MAG
CHECKED	RBB

BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION-DESIGN AND CONSTRUCTION-AVIATION

APPROVED *Patricia D. Miller* DATE 7/27/01
PATRICIA D. MILLER, P.E. DESIGN GROUP CHIEF

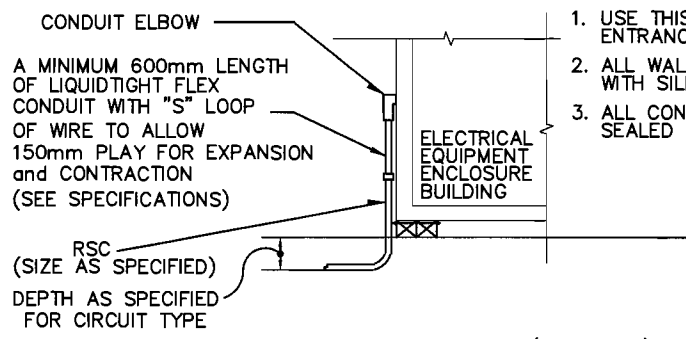


PDC INC.

KIVALINA AIRPORT
AIRPORT RESURFACING
AIP 3-02-0152-03/61040
TAXIWAY LIGHTING PLAN & APRON DETAIL

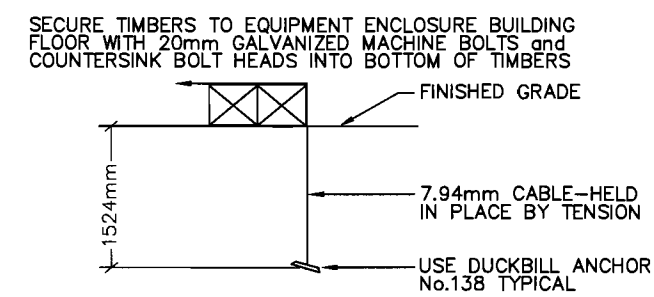
SHEET
7 OF 12

AS BUILT BLAINE G. GALLEMER



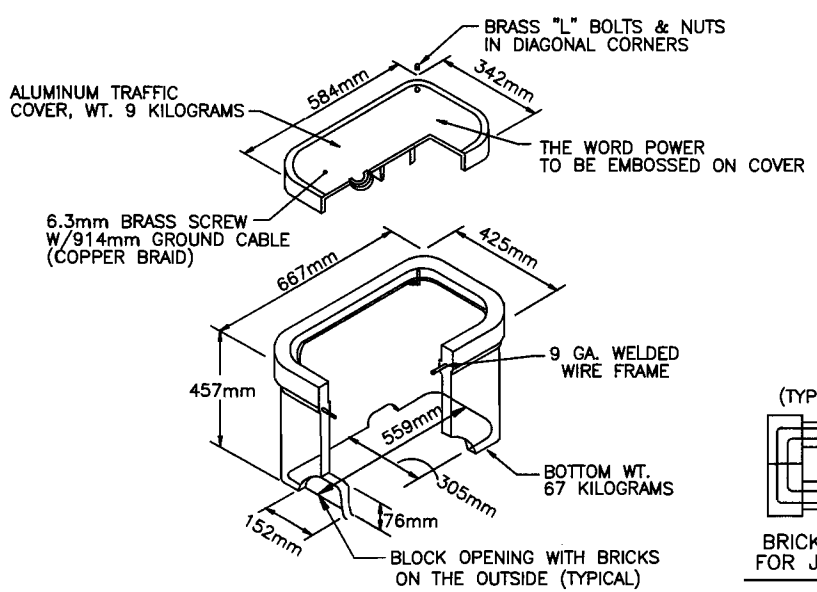
CONDUIT ENTRANCE (TYPICAL)

- DETAIL NOTES:**
1. USE THIS DETAIL FOR ALL UG CONDUIT ENTRANCES AND EXITS TO ANY BUILDING.
 2. ALL WALL PENETRATIONS SHALL BE SEALED WITH SILICONE SEALANT.
 3. ALL CONDUITS EXITING BUILDING SHALL BE SEALED INTERNALLY WITH DUCT SEAL.

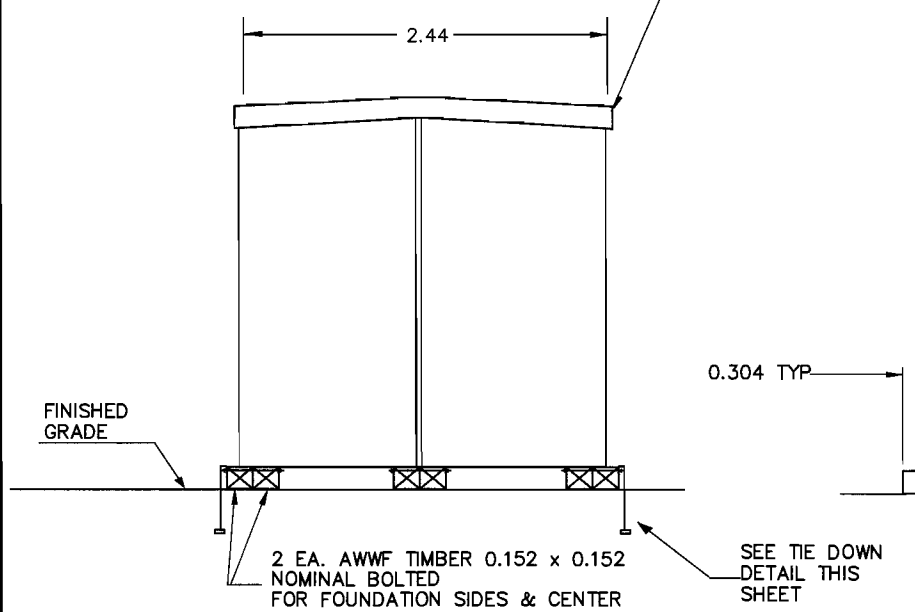
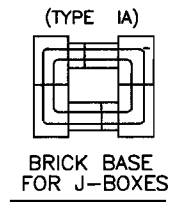


NOTE: INSTALL A TOTAL OF FOUR ANCHORS, ONE AT EACH CORNER

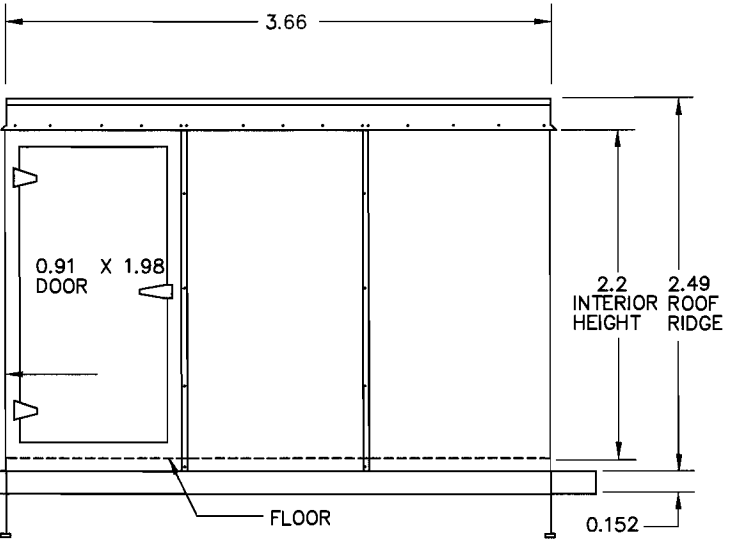
ELECTRICAL EQUIPMENT ENCLOSURE BUILDING TIE DOWN DETAIL



JUNCTION BOX TYPE 1A

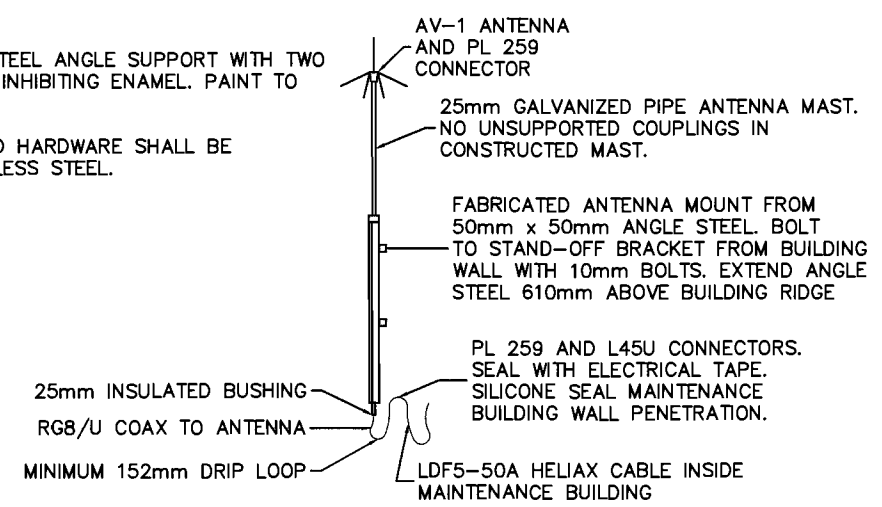


ELECTRICAL EQUIPMENT ENCLOSURE BLDG. SECTION

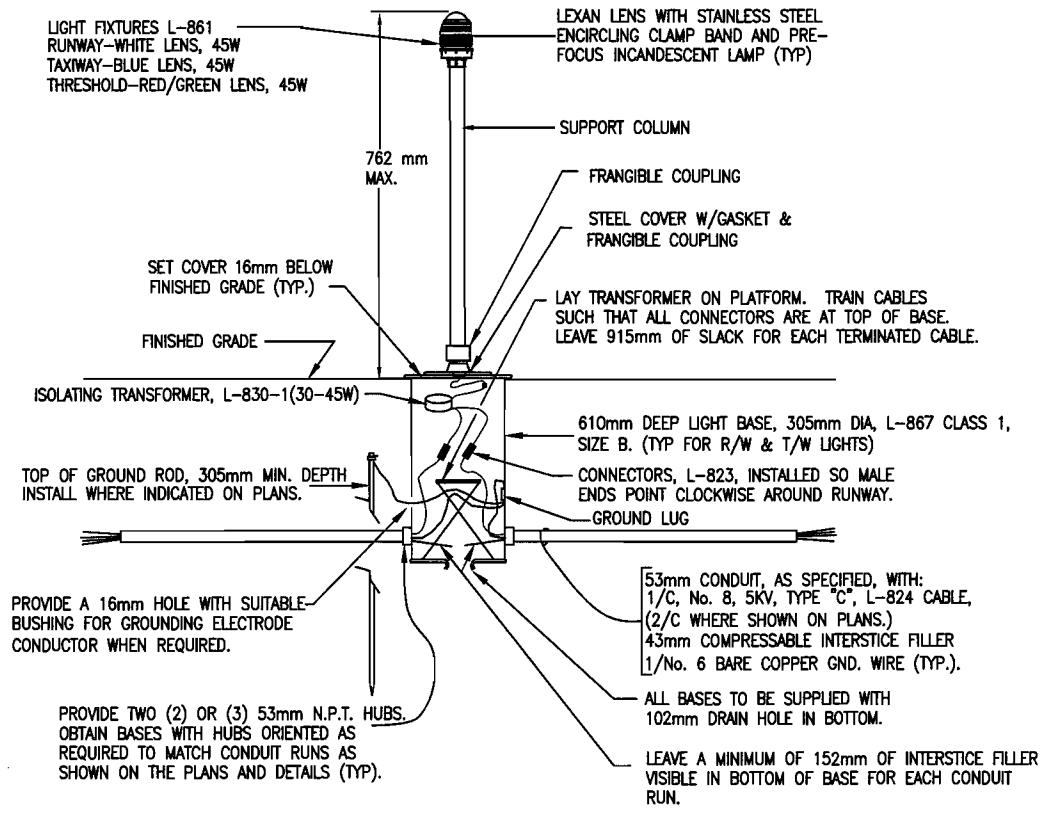


ENCLOSURE SIDE ELEVATION

- NOTES**
1. PRIME AND PAINT STEEL ANGLE SUPPORT WITH TWO COATS OF CORROSION INHIBITING ENAMEL. PAINT TO MATCH FLASHING.
 2. BOLT, SPACERS AND HARDWARE SHALL BE GALVANIZED OR STAINLESS STEEL.



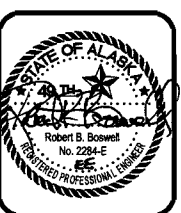
ANTENNA MOUNTING DETAIL



TAXIWAY MARKER LIGHT DETAIL

DESIGN	RBB	
DRAWN	MAG	
CHECKED	RBB	
BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION-DESIGN AND CONSTRUCTION-AVIATION
APPROVED
Patricia D. Miller
PATRICIA D. MILLER, P.E.
DATE 1/27/01
DESIGN GROUP CHIEF

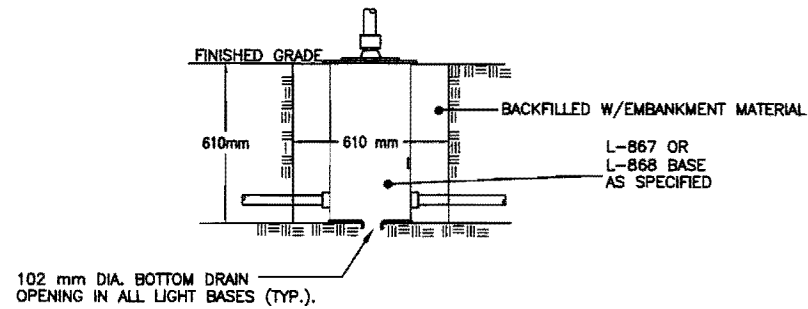


PDC INC.

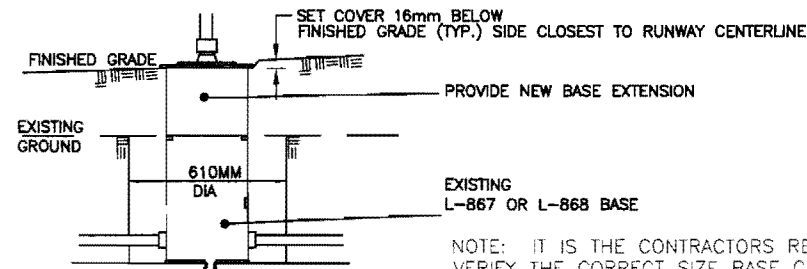
KIVALINA AIRPORT
AIRPORT RESURFACING
AIP 3-02-0152-03/61040
EQUIPMENT ENCLOSURE BUILDING & DETAILS

SHEET
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12

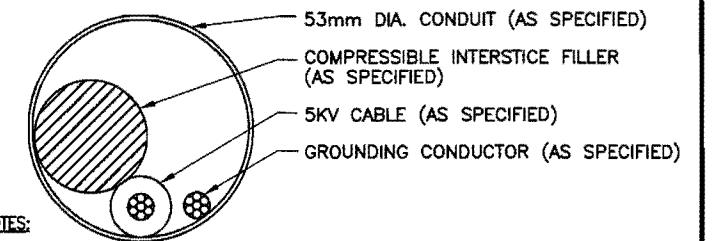
AS BUILT BLAINE G. GALLEHER



EXISTING LIGHT CAN BURIAL DETAIL



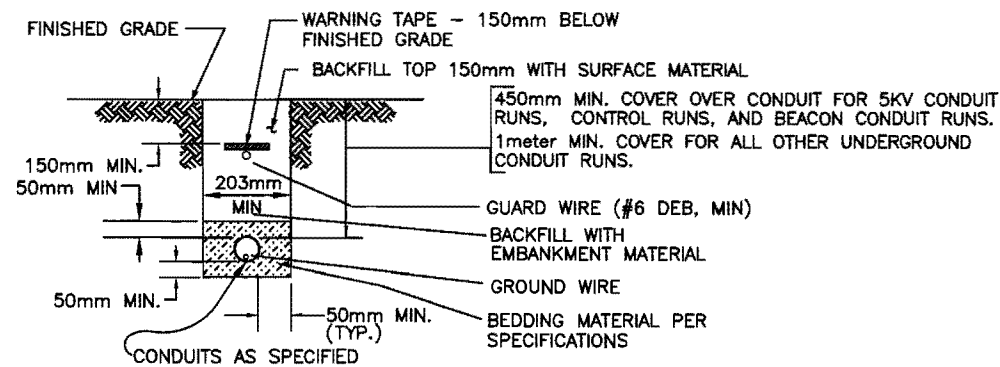
LIGHT CAN EXTENSION DETAIL



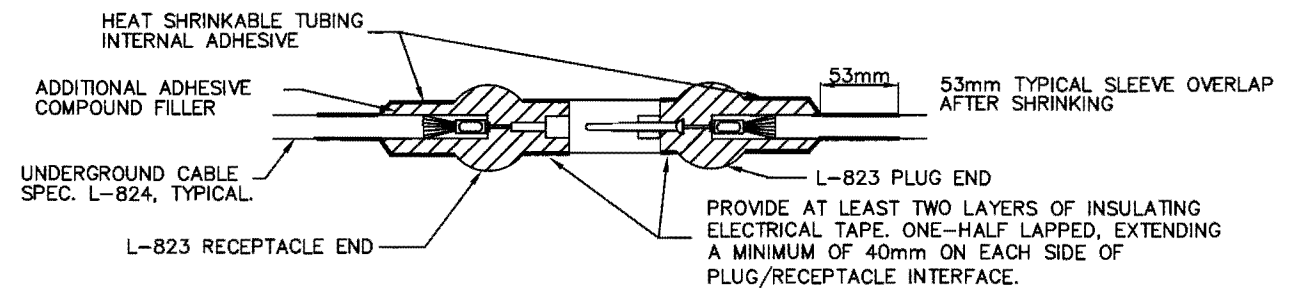
NOTES:

1. SECURE INTERSTICE FILLER TO CABLE(S) WITH ELECTRICAL TAPE 2 TO 2 1/2" BEHIND PULLING ATTACHMENT AND AT INTERVALS AS REQUIRED TO AVOID BREAKAGE OR DAMAGE.
2. OVERLAP INTERSTICE FILLER AT LEAST 6" AND TAPE SECURELY TO CABLE WHEN FILLER SPLICE IS REQUIRED.
3. ALL NEW BURIED CONDUIT RUNS SHALL CONTAIN INTERSTICE FILLER(S) AS INDICATED. ONE IS MINIMUM FOR ANY CONDUIT RUN.
4. THE REQUIRED VOLUME OF INTERSTICE FILLER IS DIRECTLY PROPORTIONAL TO THE CONDUIT VOLUME. SUBSTITUTIONS FOR LARGER CONDUITS WILL INCREASE THE NUMBER OF INTERSTICE FILLERS ACCORDINGLY.

CONDUIT INTERSTICE FILLER DETAIL



TYPICAL TRENCH DETAIL

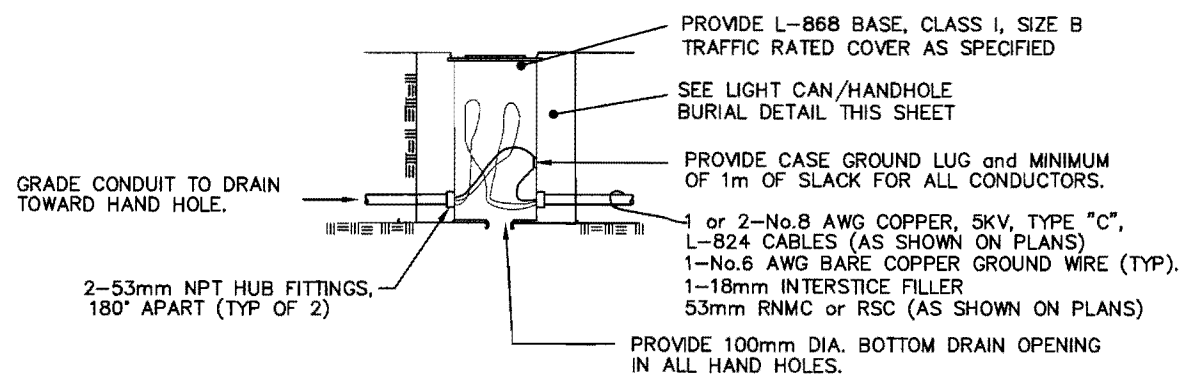


PRIMARY CABLE TERMINATION DETAILS

NOTES

1. PROVIDE L-823 PLUG AND RECEPTACLE TERMINALS AT ALL LIGHT BASES AND HAND HOLES AS REQUIRED.
2. INSIDE DIAMETER OF CONNECTOR SHALL PROPERLY MATCH THE OUTSIDE DIAMETER OF CABLE.
3. PROPERLY SEAT BOTH PLUG AND RECEPTACLE ENDS ONTO CABLE AND CHECK FOR PROPER CONNECTOR PIN POSITIONING PRIOR TO HEATING SHINKABLE TUBING.

PRIMARY CABLE TERMINATION DETAIL - TYPE B
CABLE TERMINATIONS AT EXISTING HANDHOLE

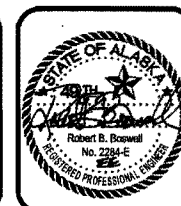


HAND HOLE DETAIL
TWO-WAY PRIMARY ALIGNED

DESIGN RBB
DRAWN MAG
CHECKED RBB

BY	DATE	REVISIONS

STATE OF ALASKA
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NORTHERN REGION-DESIGN AND CONSTRUCTION-AVIATION
APPROVED Patricia D. Miller DATE 7/23/01
PATRICIA D. MILLER, P.E. DESIGN GROUP CHIEF

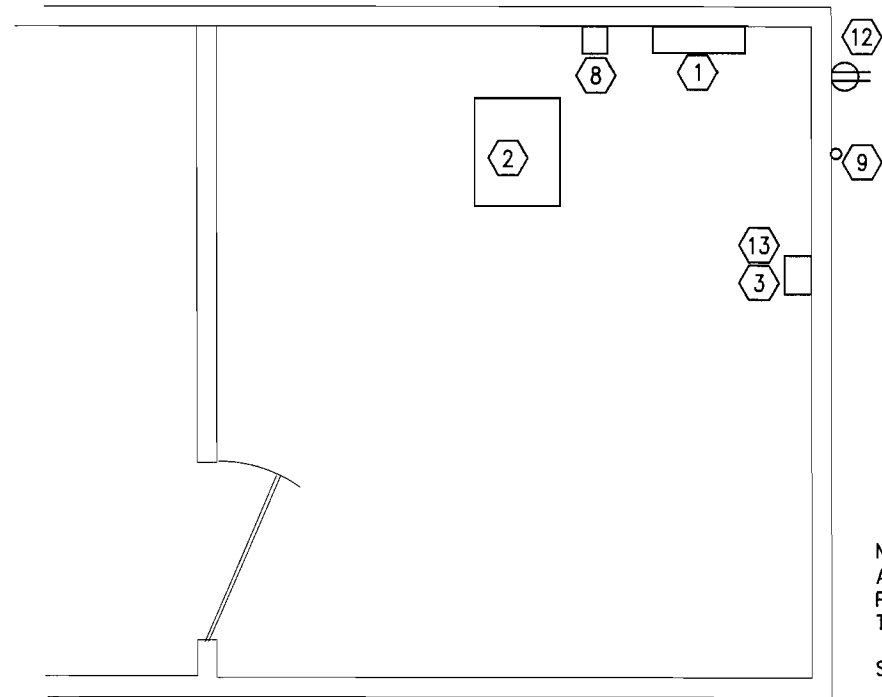


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AIP 3-02-0152-03/61040
MISC. ELECTRICAL DETAILS

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AS BUILT BLAINE G. GALLEHER

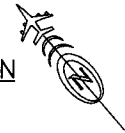


DEMOLITION EQUIPMENT LIST	
ITEM	DESCRIPTION
①	LIGHTING CONTROL PANEL, L-821
②	7-1/2 KW REGULATOR
③	RADIO CONTROLLER, L-854
⑧	PLUG CUT-OUT, NEMA 1 BOX WITH HINGED COVER
⑨	RADIO CONTROL ANTENNA
⑫	GENERATOR RECEPTACLE
⑬	100A-2P TRANSFER SWITCH

NOTE:
 ALL EQUIPMENT REMOVED UNDER THIS CONTRACT SHALL BE OFFERED TO DOT/PF FOR POSSESSION. ALL EQUIPMENT NOT CLAIMED BY THE OWNER SHALL BECOME PROPERTY OF THE CONTRACTOR AND DISPOSED OF ACCORDINGLY.

SEAL ANY PENETRATIONS WHICH RESULT FROM THE DEMOLITION

EXISTING TERMINAL BUILDING ELECTRICAL EQUIPMENT DEMOLITION PLAN

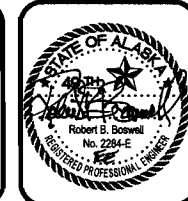


DESIGN RBB
 DRAWN MAG
 CHECKED RBB

BY	DATE	REVISIONS

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 DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
 NORTHERN REGION-DESIGN AND CONSTRUCTION-AVIATION

APPROVED *Patricia D. Miller* DATE 7/25/01
 PATRICIA D. MILLER, P.E. DESIGN GROUP CHIEF

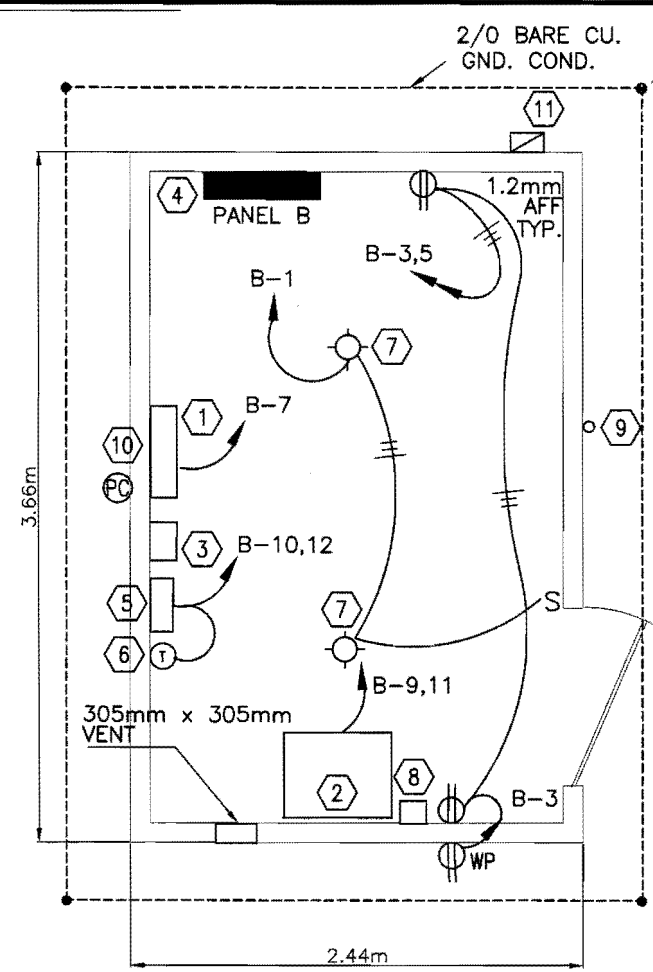


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 ELECTRICAL EQUIPMENT DEMOLITION PLAN

SHEET
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AS BUILT BLAINE G. GALLEHER



ELECTRICAL EQUIPMENT ENCLOSURE BUILDING PLAN

ELECTRICAL SYMBOLS

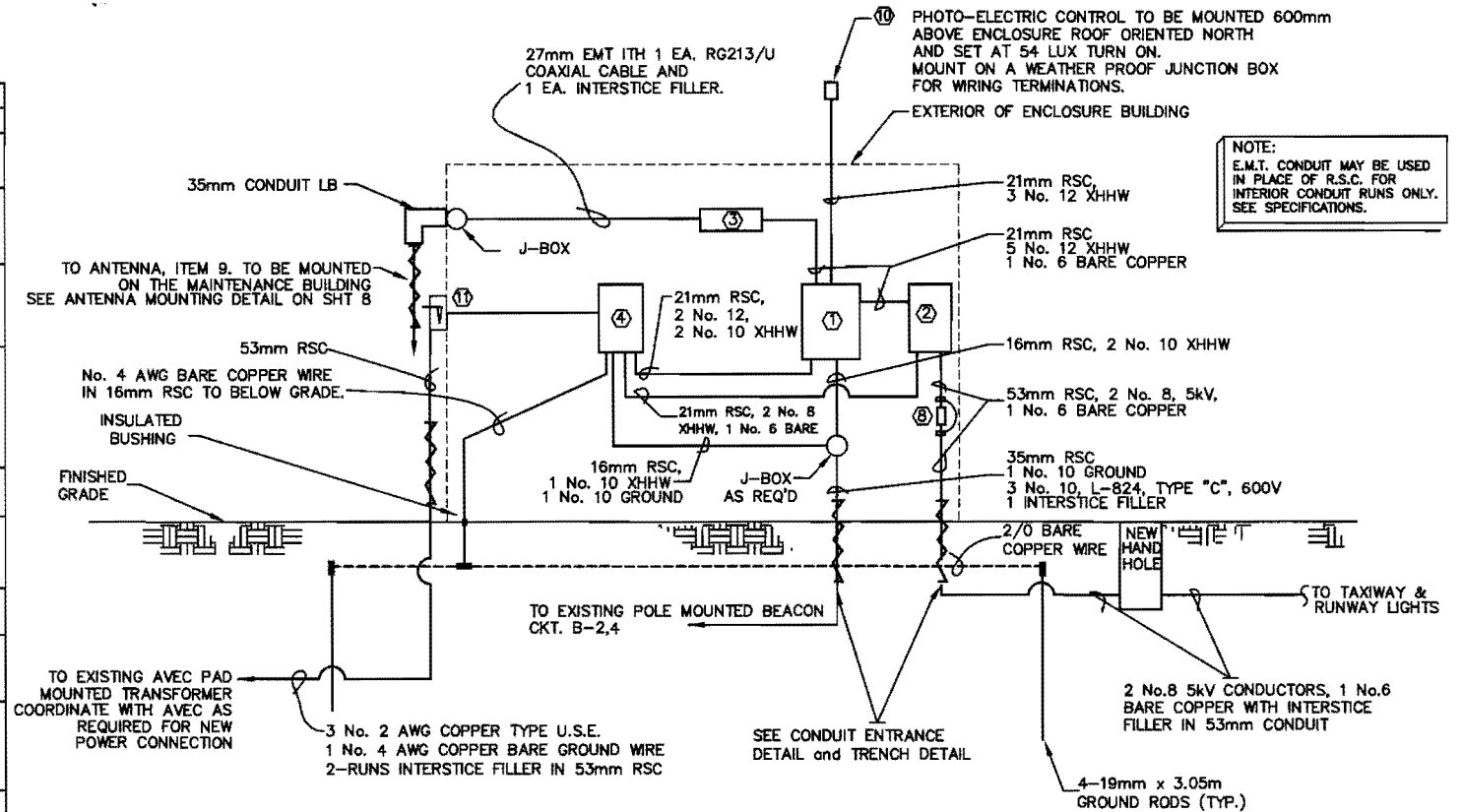
- INCANDESCENT FIXTURE
- ⊕ DUPLEX CONVENIENCE OUTLET, WP
WP = WEATHER PROOF
- BRANCH PANEL
- SURFACE WIRING W/3 CONDUCTORS,
ARROWS = HOME RUN
- S SINGLE POLE SWITCH
- ⊖ THERMOSTAT
- ⊞ DISCONNECT SWITCH
- ⌚ LIQUID TIGHT FLEX CONDUIT

PANEL SCHEDULE NOTES:

1. ALL BREAKERS 20A-SINGLE PHASE UNLESS OTHERWISE INDICATED.
2. PROVIDE 20A-SINGLE PHASE BREAKERS IN ALL PLACES MARKED SPARE.
3. PROVIDE NEW CIRCUIT BREAKERS AS REQUIRED.
4. PROVIDE A NEW PANEL SCHEDULE.
5. REMAINING SPACES BLANK, TO MAKE TOTAL NUMBER OF CIRCUITS INDICATED ON PANEL.
6. PROVIDE GFI BREAKERS WHERE INDICATED.

EQUIPMENT LIST	
ITEM	DESCRIPTION
①	LIGHTING CONTROL PANEL, L-821, MOUNT 1674mm ABOVE FINISHED FLOOR. SEE SPECIFICATIONS.
②	CONSTANT CURRENT REGULATOR, L-828, 7.5 KW, 3-STEP, HEVI-DUTY TYPE, NON-SOLID STATE, OR APPROVED EQUAL. SECURE TO FLOOR WITH THROUGH BOLTS. SEE SPECIFICATIONS.
③	RADIO CONTROLLER, L-854, CONTROL INDUSTRIES MODEL RC-175A OR APPROVED EQUAL. SEE SPECIFICATIONS. MOUNT 1674mm ABOVE FINISHED FLOOR.
④	CIRCUIT BREAKER PANEL BOARD, PANEL "B", 100A, M.L.O., SURFACE MOUNT WITH COVER, DOOR, GROUND BAR KIT AND BREAKERS. SQUARE D CAT. No. NQOD20L100CU or APPROVED EQUAL. SEE SPECIFICATIONS. MOUNT 1674mm ABOVE FINISHED FLOOR.
⑤	ELECTRIC HEATER, 240V, 2000W, WALL MOUNTED, MARKEL NO. H3422 OR EQUAL.
⑥	HEATER THERMOSTAT, LINE VOLTAGE, 4.94 DEGREES C TO 32.22 DEGREES C WITH OFF POSITION, WALL SURFACE MOUNTED ON J-BOX.
⑦	CEILING MOUNT, 100W INCANDESCENT, WITH EXTENSION BOX. SEE SPECIFICATIONS.
⑧	5-KV PLUG CUT-OUT, SEPCO No. 30196 WITH NEMA 1 HINGED DOOR ENCLOSURE, SIZED 350mm x 300mm x 200mm (H,W,D), OR APPROVED EQUAL.
⑨	RADIO CONTROL ANTENNA, ANTENNA SPECIALIST MODEL AV-1, OR APPROVED EQUAL. MOUNT ON OFFSET PIPE SUPPORT ON MAINTENANCE BUILDING AS DETAILED ON SHT 8.
⑩	PHOTOELECTRIC CONTROL, TORK No. 2101 OR APPROVED EQUAL.
⑪	COMBINATION METER-MAIN/100A-2P MAIN CIRCUIT BREAKER

PANEL B		VOLTS: 240/120		CIRCUITS: 20						
BUS AMPS: 100		1 PHASE, 3 WIRE		MOUNTING: SURFACE						
MAIN BREAKER: MLO		AIC RATING: 10,000		LOCATION: EEB BLDG						
C	LOAD	VOLT-AMPS		BRKR		VOLT-AMPS		LOAD	C	
		PH A	PH B	SIZE	CTK NO	SIZE	PH A	PH B		
1	LIGHTING	200		20/1	1	2	20/1	400	STRIP HEATER - BEACON	6
2	RECEPTACLE - EXTERIOR		180	20/1*	3	4	30/1	2225	ROTATING BEACON AND MOTOR	6
2	RECEPTACLE - INTERIOR	480		20/1	5	6	20/1	1000	SPARE	8
6	LIGHTING CONTROL PANEL		300	20/1	7	8	20/1	1000	SPARE	8
6	7.5 kW REGULATOR	4200		50/2	9	10	20/2	1000	ELECTRIC HEATER	5
6			4200	---	11	12	---	1000		5
					13	14				
					15	16				
					17	18				
					19	20				
LOAD SUMMARY		CONNECTED KVA			% DIV		NEC TOTAL		COMMENTS:	
CODE	DESCRIPTION	PH A	PH B	TOTAL					1. ** - DENOTES 5 mA GFCI CIRCUIT BREAKER	
1	LIGHTING =	0.2		0.2	125%		0.3	KVA		
2	RECEPTACLES =	0.5	0.2	0.7	10K+.5REM		0.7	KVA		
3	MOTORS =				100%			KVA		
4	LARGEST MOTOR =				125%			KVA		
5	MISC. NON-CONTINUOUS =	1.0	1.0	2.0	100%		2.0	KVA		
6	MISC. CONTINUOUS =	4.6	6.7	11.3	125%		14.2	KVA		
7	NON-COINCIDENTAL =							KVA		
8	SPARE =	1.0	1.0	2.0	100%		2.0	KVA		
TOTAL KVA		7.3	8.9	16.2			19.2	KVA		
TOTAL AMPERES		60.7	74.2	67.4			79.4	AMPS		

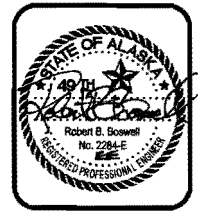


PARTIAL ONE LINE DIAGRAM (TYPICAL INSIDE BLDG WIRING NOT SHOWN) NTS

DESIGN: RBB			
DRAWN: MAG			
CHECKED: RBB			
BY	DATE	REVISIONS	

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 AIP 3-02-0152-03/61040
 ELECTRICAL EQUIPMENT ENCLOSURE BUILDING

SHEET 11 OF 12

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LIGHTING CONTROL OPERATION

1. CONTROL PANEL FEATURES

POWER SELECTOR SWITCH AND PILOT LIGHT:
THIS IS THE MAIN POWER SWITCH TO THE CONTROL PANEL. THE PILOT LIGHT INDICATES THAT THE CONTROL PANEL IS ENERGIZED.

RUNWAY LIGHTING SELECTOR SWITCH:
THIS THREE POSITION SWITCH ALLOWS SELECTION BETWEEN FULL AUTOMATIC RUNWAY LIGHTING CONTROL BY RADIO (AUTO), THE RUNWAY LIGHTS MANUALLY TURNED OFF (OFF), AND THE RUNWAY LIGHTS ON MANUALLY (ON).

MANUAL BRIGHTNESS SELECTOR SWITCH:
THIS THREE POSITION SWITCH ALLOWS MANUAL SELECTION (FROM THE CONTROL PANEL) OF THE THREE RUNWAY LIGHTING INTENSITY LEVELS (LOW, MEDIUM AND HIGH) WHEN THE RUNWAY LIGHTING SELECTOR SWITCH IS ALSO IN THE MANUAL "ON" (NON-RADIO CONTROLLED) POSITION.

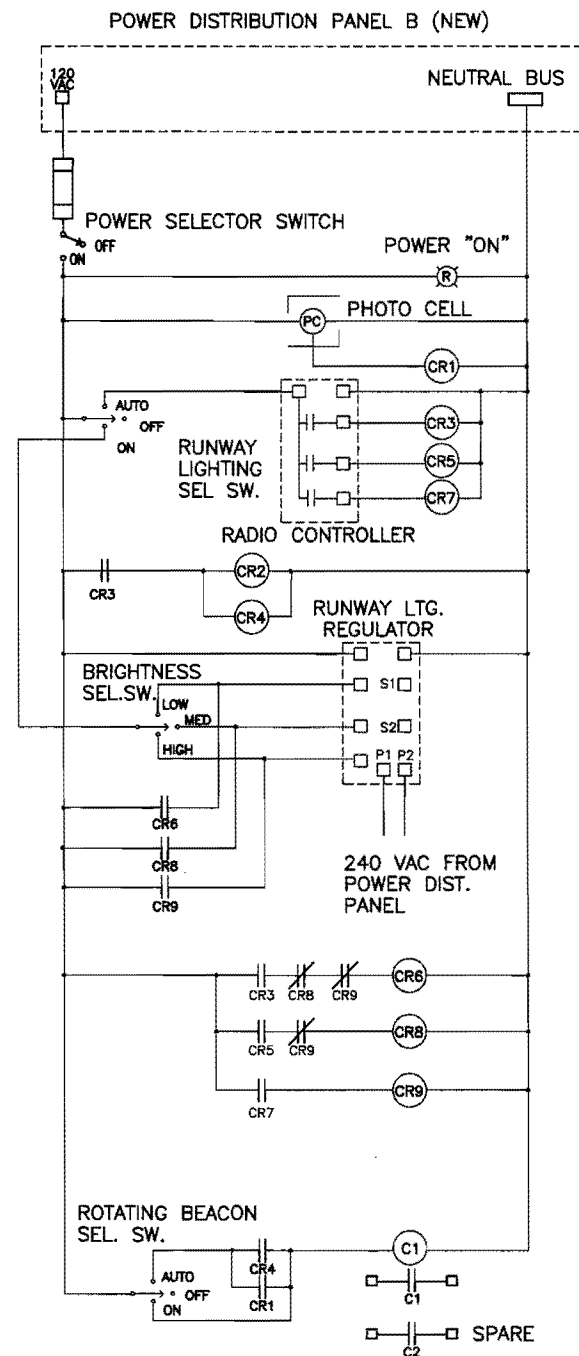
ROTATING BEACON SELECTOR SWITCH:
THIS THREE POSITION SWITCH ALLOWS THE BEACON TO BE TURNED "ON" MANUALLY (ON), TURNED "OFF" MANUALLY (OFF), AND ALLOWED TO BE TURNED ON AND OFF AUTOMATICALLY BY OPERATION OF THE PHOTOCELL.

2. EXTERNAL DEVICES:

PHOTOCELL:
THE PHOTOCELL CONTROLS TURNING THE BEACON ON AND OFF AUTOMATICALLY WHEN THE BEACON SELECTOR SWITCH IS IN THE AUTO POSITION.

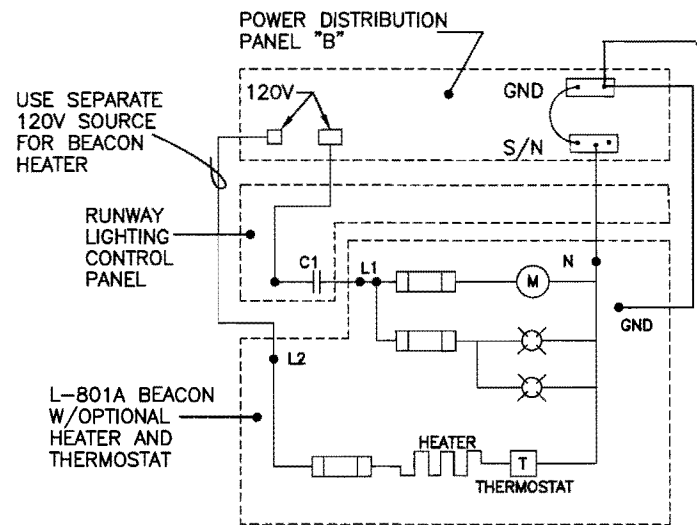
RADIO CONTROLLER:
THE RADIO CONTROL UNIT HAS THREE OUTPUTS (LOW, MEDIUM, AND HIGH) BASED UPON 3, 5, OR 7 PULSES BEING RECEIVED FROM THE PILOT ON THE LOCAL COMMON TRAFFIC ADVISORY FREQUENCY (CTAF). THE RUNWAY LIGHTING SELECTOR SWITCH MUST BE IN THE "AUTO" POSITION FOR THE RADIO CONTROL UNIT TO BE FUNCTIONAL. IN THE AUTO MODE 3, 5, OR 7 RADIO RECEIVED PULSES WILL ACTIVATE THE RUNWAY, TAXIWAY, THRESHOLD, AND LIGHTED WIND CONE LIGHTS AT THE CORRESPONDING INTENSITY. AFTER OPERATION BY RADIO CONTROL, THE RADIO CONTROL UNIT AUTOMATICALLY TURNS OFF ALL RUNWAY LIGHTS AFTER 15 MINUTES ELAPSED TIME, UNLESS, THE PILOT AGAIN INITIATES RADIO COMMAND.

RUNWAY LIGHTING REGULATOR:
THE RUNWAY LIGHTING REGULATOR PROVIDES POWER TO RUNWAY, TAXIWAY, THRESHOLD, AND LIGHTED WIND CONE. IT HAS THREE INTENSITY LEVELS (LOW, MEDIUM, AND HIGH) SET EITHER BY MANUAL SELECTOR SWITCH OR 3, 5, OR 7 PULSES RECEIVED BY RADIO ON THE LOCAL CTAF.

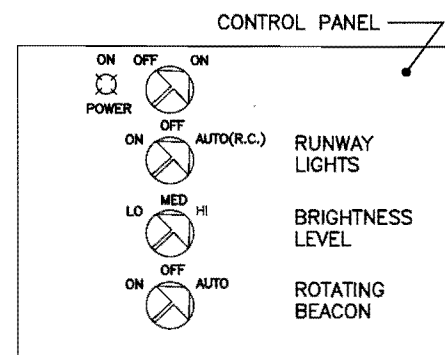


CONTROL PANEL DIAGRAM
NTS

DETAIL NOTE:
ALL CONTROL RELAYS CR1, CR2, CR3, ETC. AND/OR CONTACTORS C1, C2, C3, ETC. SHALL BE SIZED BY THE SUPPLIER AND/OR CONTRACTOR TO MEET ALL NECESSARY LOAD REQUIREMENTS.

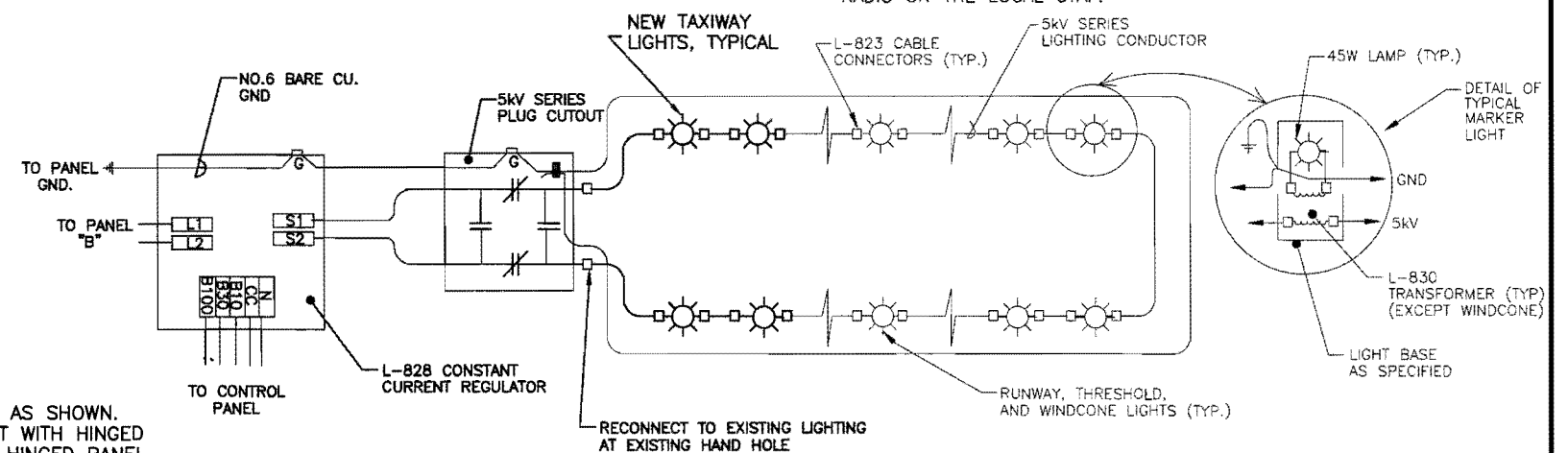


ROTATING BEACON WIRING DETAIL
NTS



CONTROL PANEL DETAIL
NTS (SEE NOTES BELOW)

DETAIL NOTES:
1. MOUNT CONTROL DEVICES ON CABINET FACE AS SHOWN.
2. CONTROL SHALL BE NEMA 12 STEEL CABINET WITH HINGED DOOR AND NEOPRENE GASKET, WITH INNER HINGED PANEL.

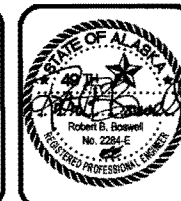


RUNWAY LIGHTING ONE LINE DIAGRAM

DESIGN	RBB		
DRAWN	MAG		
CHECKED	RBB		
BY	DATE	REVISIONS	

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APPROVED: *Patricia D. Miller* DATE: 7/25/01
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LIGHTING CONTROLS DIAGRAM

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