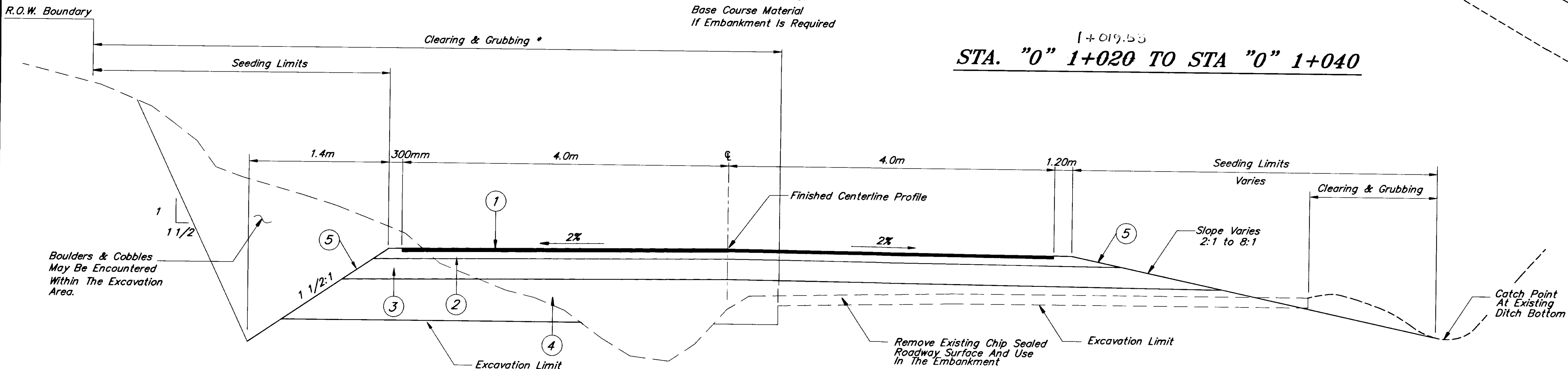
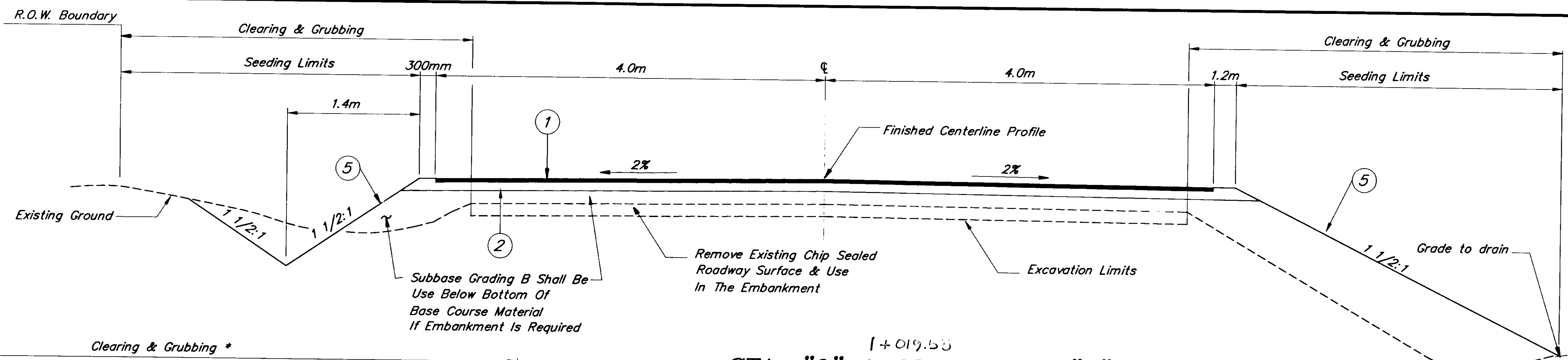




**Legend**

- ① 75mm Asphalt Concrete Pavement
- ② 150mm Crushed Aggregate Base Course
- ③ 300mm Subbase, Grading "B"
- ④ 450mm Borrow, Type "A"
- ⑤ 75mm Topsoil



\* Trees Up To 700mm in Diameter Will Be Encountered Within This Area.

**CLEARING & GRUBBING**

**Sta. "M" 2+120 to Sta. "M" 2+320**  
 (See Sheet 5 for Limits)

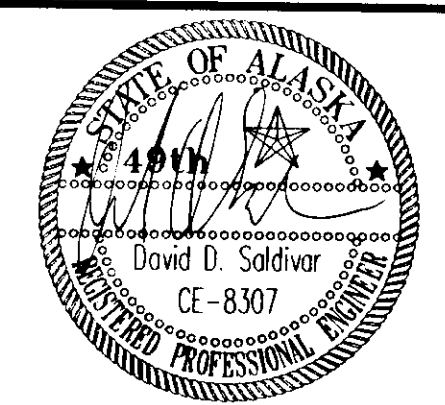
NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

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BY:	DATE:	DESCRIPTION OF CHANGE:
RECORD OF REVISIONS		

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 SOUTHEAST REGION

JUNEAU  
 Montana Creek Road and  
 Skaters Cabin Road Intersection Improvements  
 HRO-STP-0964(2) ~ PROJECT No. 67756  
**TYPICAL SECTIONS**

DESIGNED BY:	D. Saldivar	PROJECT NO.	67756
DRAWN BY:	K. Klemmetson	DATE:	1999
CHECKED BY:	C. Morrow	SHEET	2 OF 13



**BID ITEMS**

PAY ITEM	UNIT	QUANTITY
120(1) DBE Adjustment	Contingent Sum	All Required
121(1) Intersection Reconstruction	Lump Sum	All Required

**BASIS OF ESTIMATE**

ITEM	ESTIMATING FACTOR
Borrow, Type A	2.20 Megagram/Cubic Meter
Aggregate Base Course	2.32 Megagram/Cubic Meter
Asphalt Concrete Pavement, Type 11, Class B PG 58-28 Asphalt Cement	2.48 kg/m <sup>2</sup> per mm 6% of Asphalt Concrete Pavement

**TEMPORARY DITCH BLOCK**

STATION	OFFSET (m)		REMARKS
	LT.	RT.	
"0" 1+079	13.7		
"0" 1+070	9.4		

**ESTIMATE OF QUANTITIES**

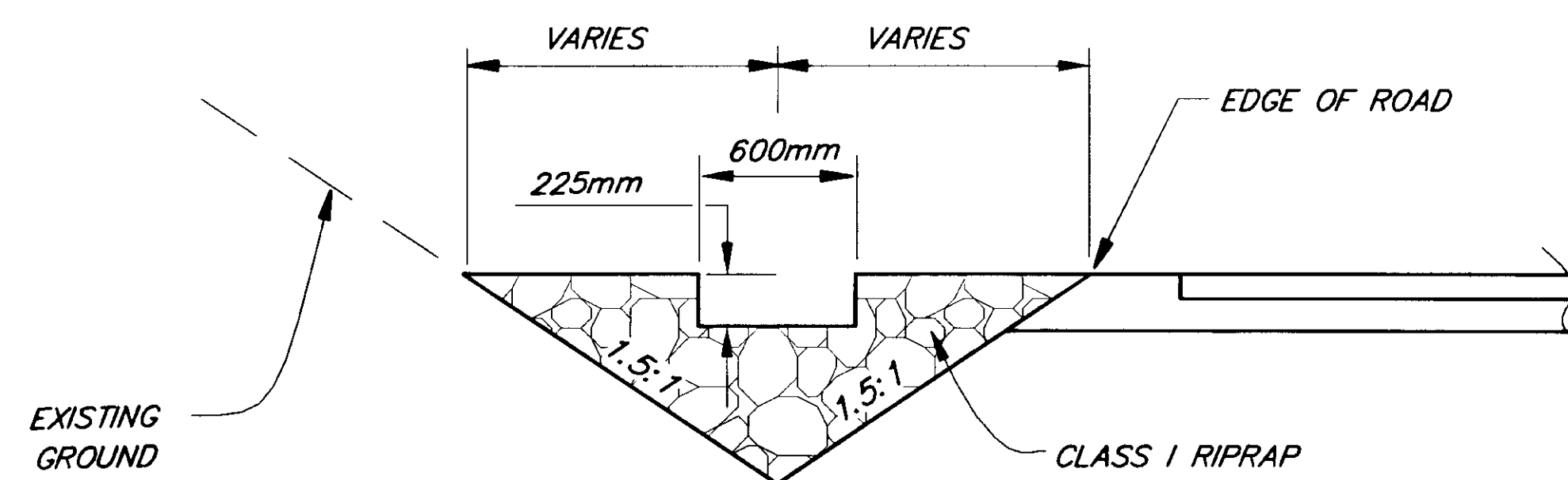
SPECIFICATION NO.	WORK ITEM	APPROX. QUANTITY
201	Clearing & Grubbing	1600 Square Meters
202	Removal of Structures and Obstructions	All Required
203	Unclassified Excavation	350 Cubic Meter
203	Borrow, Type A	600 Megagram
301	Aggregate Base Course	230 megagram
304	Subbase, Grading B	500 megagram
401	Asphalt Concrete Pavement, Type II, Class B	110 megagram
401	PG 58-28 Asphalt Cement	6 megagram
603	600mm Corrugate Polyethylene Pipe	23.8 meter
615	Standard Signs	6.33 square meter
615	Delineators, Flexible	15 each
618	Seeding	2100 square meter
620	Topsoil (75mm depth)	2100 square meter
640	Mobilization & Demobilization	All Required
641	Erosion & Pollution Control	All Required
642	Construction Surveying	All Required
643	Traffic Control / Maintenance	All Required
660	Highway Lighting System Complete	All Required
670	Methyl Methacrylate Pavement Markings	All Required

**DRAINAGE PIPE SUMMARY**

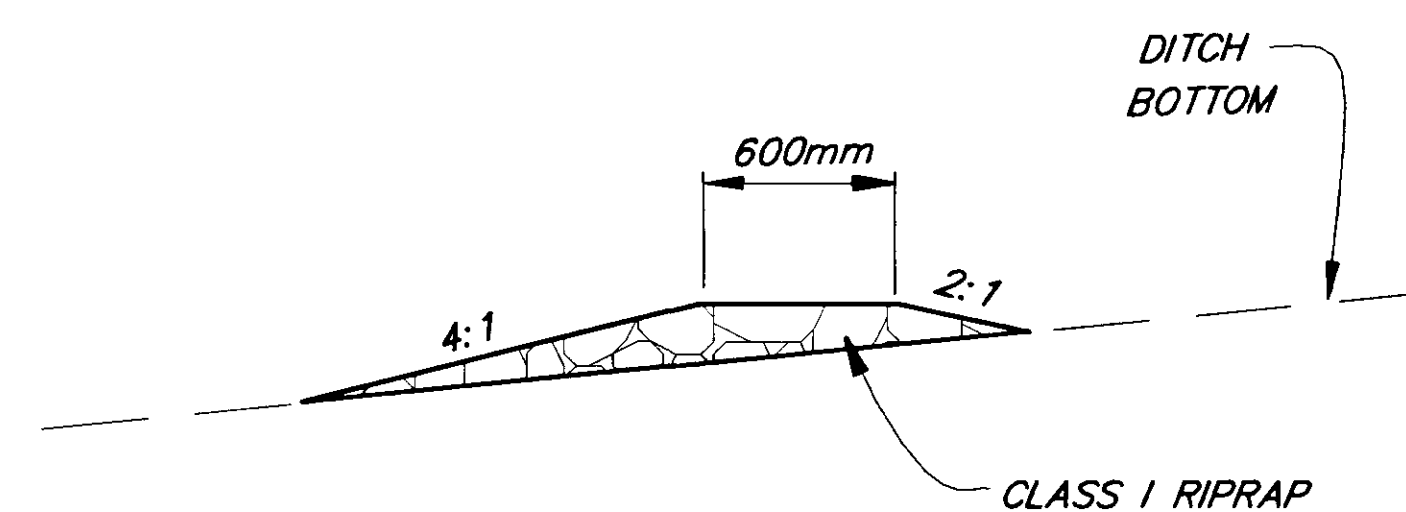
PIPE NO.	TYPE	DIA. mm	LENGTH meter	FROM	INVERT	TO	INVERT	REMARKS
P-1	CPP	600	23.8	"0" 1+074.90, 8.28 LT.	22.20	"0" 1+068.48, 14.44m RT.	20.85	600mm PIPE
P-2	CPP	450	12.16	"0" 1+068.78, 6.48 LT.		"0" 1+068.78, 6.00 RT.		
P-3	CPP	450	12.16	"0" 1+048.00, 6.00 LT.		"0" 1+048.00, 6.00 RT.		
P-4	CPP	450	12.16	"0" 2+260.00, 6.8 LT.		"0" 2+260.00, 6.8 RT.		ELECTROLOBS MID, DITCH PIPE

**REMOVAL OF STRUCTURES AND OBSTRUCTIONS**

FROM		TO		REMARKS
STATION	OFFSET	STATION	OFFSET	
"0" 1+020	0	"0" 1+093.4	31.1 Rt.	Remove Approx. 740m <sup>2</sup> of Asphalt Chipseal Roadway
"0" 1+068.8	14.43m Rt.	"0" 1+073.30	4.45m Rt.	Remove Approx. 11.50m of 600mm Culvert
"0" 1+090.9	23.38 Rt.			Remove Existing Sign



**SECTION**



**PROFILE**

**TEMPORARY DITCH BLOCK DETAIL**

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

RECORD OF REVISIONS		
BY:	DATE:	DESCRIPTION OF CHANGE:

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
SOUTHEAST REGION

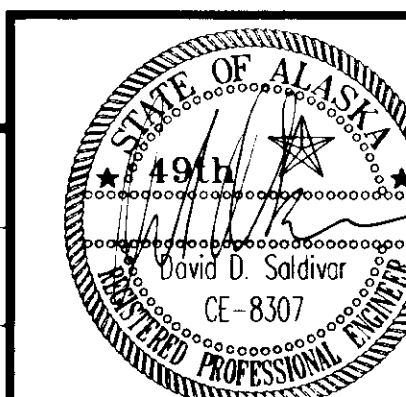
JUNEAU

Montana Creek Road and  
Skaters Cabin Road Intersection Improvements  
HRO-STP-0964(2) ~ PROJECT No. 67756  
**ESTIMATE OF QUANTITIES**

ALASKA

DESIGNED BY: D. Saldivar  
DRAWN BY: K. Klemmetson  
CHECKED BY: C. Morrow

PROJECT NO. 67756  
DATE: 1999  
SHEET 3 OF 13



**BEGIN REALIGNMENT**  
SAWCUT & MATCH  
STA. "0" 1+020

**BEGIN PROJECT**  
STA. "0" 1+000  
N 9865.4565  
E 15,212.2513

**END REALIGNMENT**  
SAWCUT & MATCH  
STA. "0" 1+086.39

STA. "0" 1+088.96  
STA. "M" 2+235.91  
N 9794.5388  
E 15,258.9838

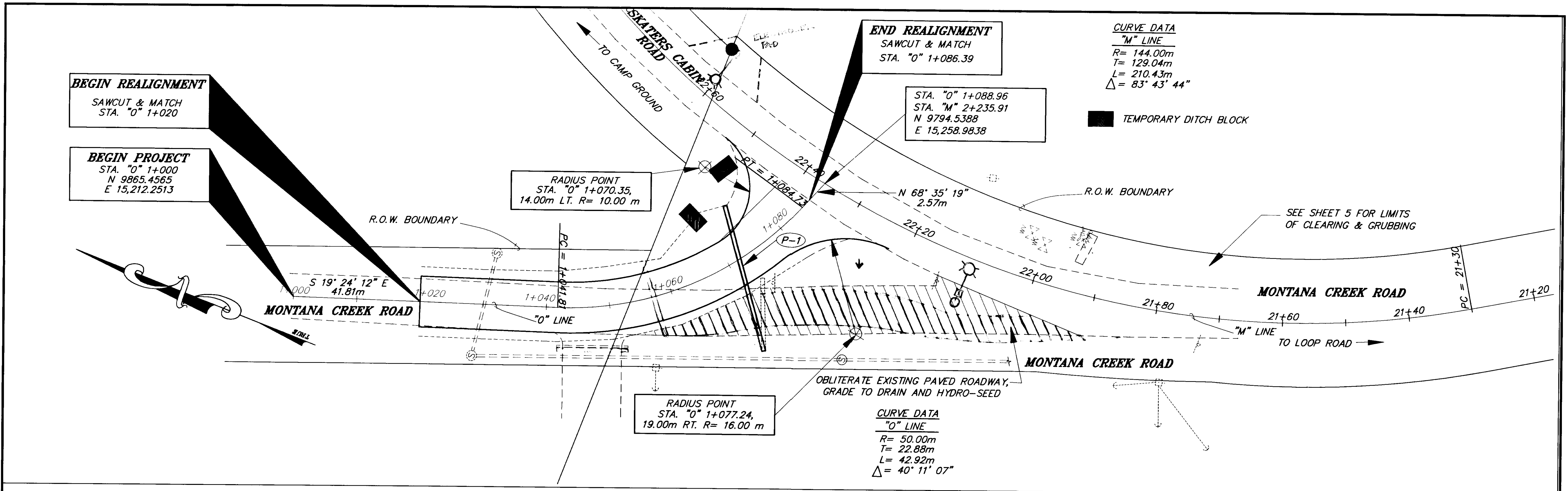
**CURVE DATA**  
"M" LINE  
R= 144.00m  
T= 129.04m  
L= 210.43m  
Δ= 83° 43' 44"

TEMPORARY DITCH BLOCK

**RADIUS POINT**  
STA. "0" 1+070.35,  
14.00m LT. R= 10.00 m

**RADIUS POINT**  
STA. "0" 1+077.24,  
19.00m RT. R= 16.00 m

**CURVE DATA**  
"O" LINE  
R= 50.00m  
T= 22.88m  
L= 42.92m  
Δ= 40° 11' 07"



**BASIS OF CONTROL**

**HORIZONTAL CONTROL**

THE ORIGINAL BASIS OF BEARING FOR THIS PROJECT WAS THE BEARING OF S 61° 48' 30" E BETWEEN THE BACK LOOP ROAD CENTERLINE MONUMENTS PC 277+35.9 TO POT 284+53.62. (POINTS SR-2 & SR-1)

THE PROJECT BASIS OF BEARING IS THE BEARING OF N 35° 54' 38" E FROM DOT&PF CONTROL POINT SR-8, A 2"ALUMINUM CAP ON REBAR, AND DOT&PF CONTROL POINT SR-7, A PK NAIL SET IN THE NORTH EDGE OF SKATERS CABIN ROAD.

THE BASIS OF COORDINATES IS THE DOT&PF CONTROL POINT SR-8, WITH LOCAL COORDINATES OF N 32063.471', E 49982.579'.

**VERTICAL CONTROL**

THE BASIS OF VERTICAL CONTROL IS THE TBM "SKATER" WITH AN ACCEPTED ELEVATION OF 72.15' MLLW. SKATER IS A SPIKE IN THE FIRST POWER POLE ON THE LEFT OF MONTANA CREEK ROAD, NORTH OF THE INTERSECTION.

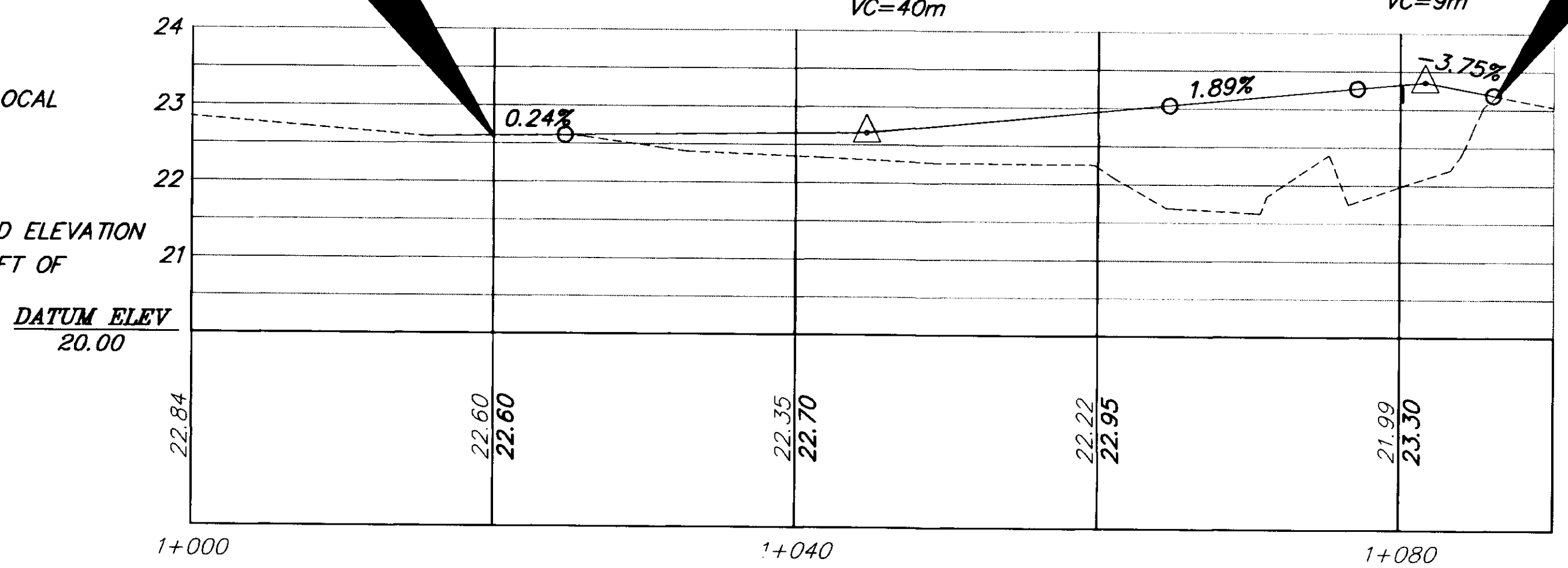
SR-7 N32472.157', E 50278.534'  
SKATER N32178.688' E 49944.456'

**BEGIN REALIGNMENT**  
SAWCUT & MATCH  
STA. "0" 1+020  
ELEV. 22.60

PVI STA = 1+044.71  
PVI ELEV = 22.66  
A.D. = 1.64  
K = 24.34  
VC=40m

PVI STA = 1+081.64  
PVI ELEV = 23.36  
A.D. = -5.64  
K = 1.60  
VC=9m

**END REALIGNMENT**  
SAWCUT & MATCH  
STA. "0" 1+086.39  
ELEV. 23.18



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BY:	DATE:	DESCRIPTION OF CHANGE:

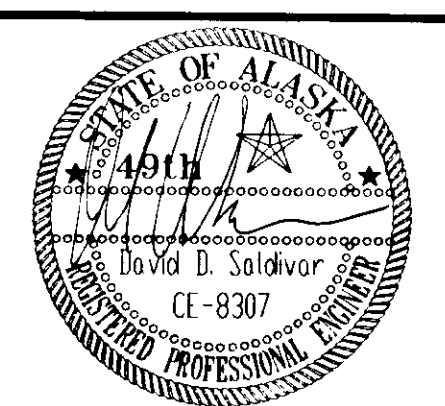
**RECORD OF REVISIONS**

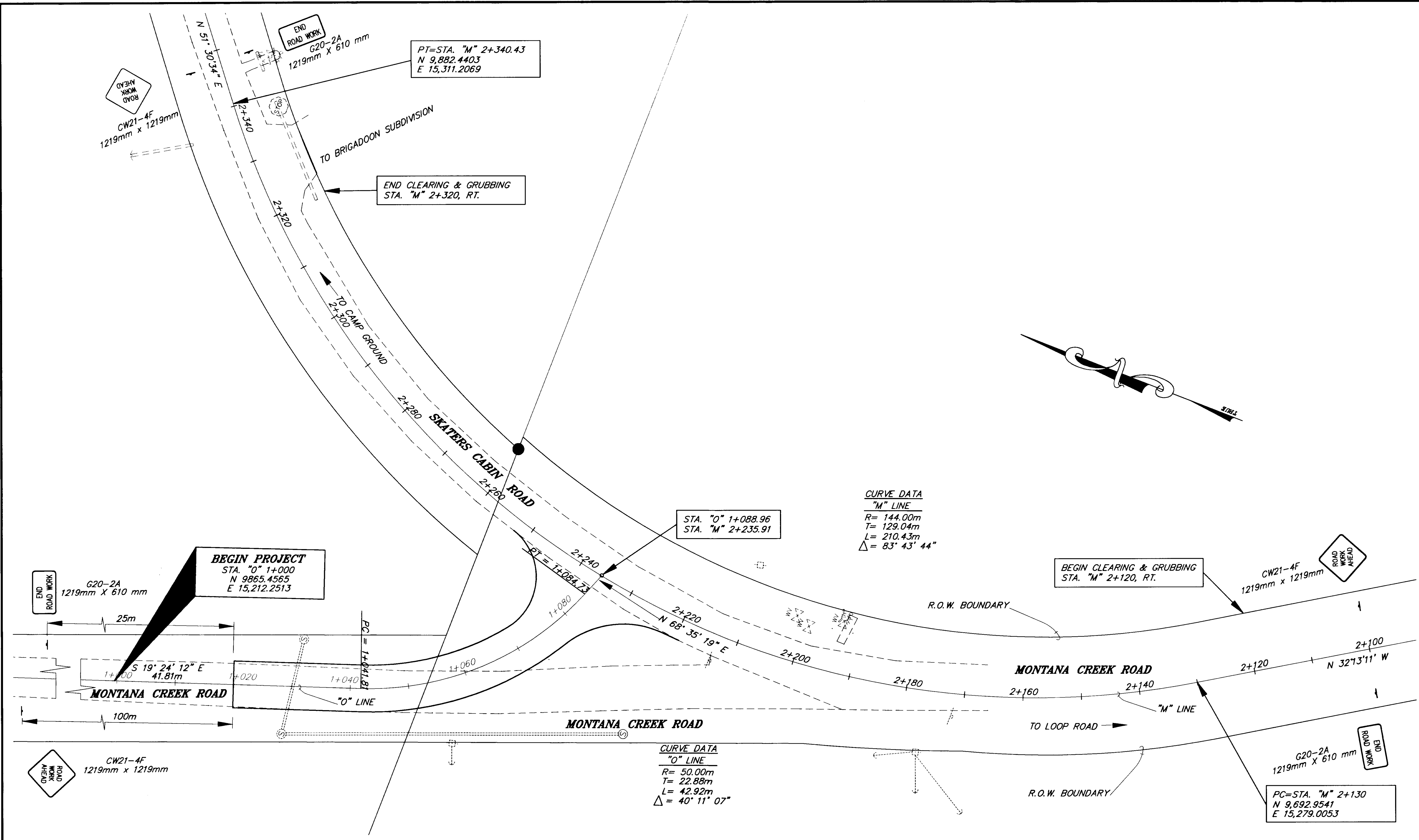
STATE OF ALASKA  
**DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES**  
SOUTHEAST REGION

JUNEAU ALASKA  
**Montana Creek Road and Skaters Cabin Road Intersection Improvements**  
HRO-STP-0964 (2) ~ PROJECT No. 67756  
**PLAN AND PROFILE**

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

DESIGNED BY:	D. Saldivar	PROJECT NO.	67756
DRAWN BY:	K. KLEMMETSON	DATE:	1999
CHECKED BY:	R. PURVES	SHEET	4 OF 13





**CURVE DATA**  
 "M" LINE  
 R= 144.00m  
 T= 129.04m  
 L= 210.43m  
 $\Delta = 83^\circ 43' 44''$

**CURVE DATA**  
 "O" LINE  
 R= 50.00m  
 T= 22.88m  
 L= 42.92m  
 $\Delta = 40^\circ 11' 07''$

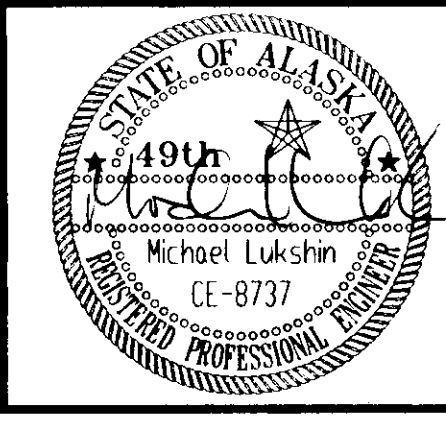
NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

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RECORD OF REVISIONS		

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 SOUTHEAST REGION

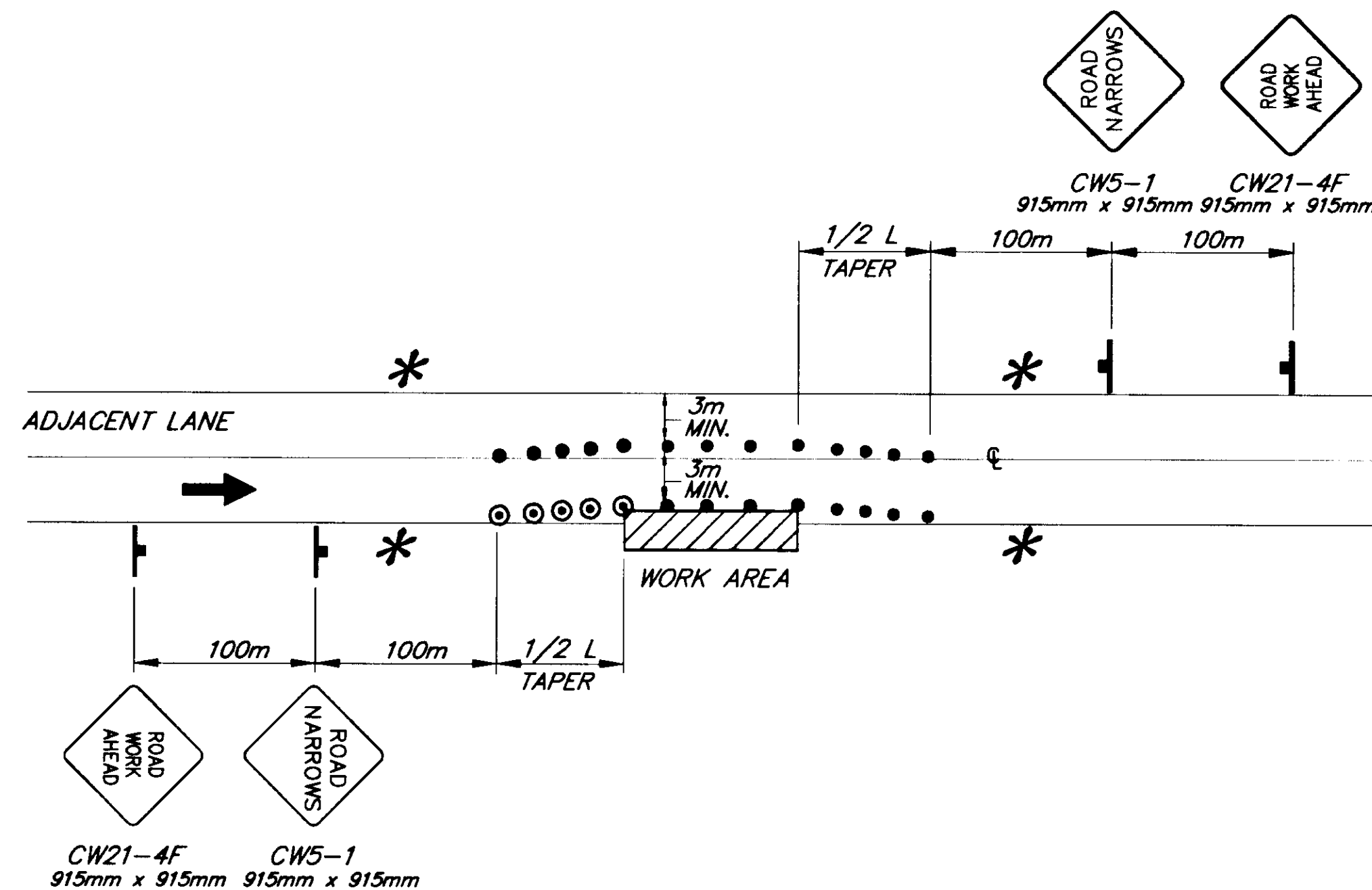
JUNEAU ALASKA  
 Montana Creek Road and  
 Skaters Cabin Road Intersection Improvements  
 HRO-STP-0964 (2) ~ PROJECT No. 67756  
 PERMANENT CONSTRUCTION SIGNING &  
 CLEARING AND GRUBBING LIMITS

DESIGNED BY:	M. LUKSHIN	PROJECT NO.	67756
DRAWN BY:	K. KLEMMETSON	DATE:	1999
CHECKED BY:	R. PURVES	SHEET	5 OF 13



## TRAFFIC CONTROL NOTES

1. A MINIMUM OF ONE LANE SHALL BE MAINTAINED AT ALL TIMES, THROUGH ALL WORK AREAS.
2. TWO LANES SHALL BE MAINTAINED AT ALL TIMES IN NON-WORK AREAS AND DURING NON-WORKING HOURS.
3. TEMPORARY DRIVING LANES SHALL HAVE A MINIMUM WIDTH OF 3m.
4. CONSTRUCTION SIGNS SHALL BE IN PLACE ONLY WHEN THE CONDITIONS THEY WARN ABOUT EXIST.
5. THE CONTRACTOR SHALL DELINEATE PEDESTRIAN AND BICYCLE ACCESS WITH TRAFFIC CONES AS REQUIRED DURING CONSTRUCTION ACTIVITIES, CONE SPACING SHALL BE 3m MAXIMUM.
6. THE CONTRACTOR SHALL PROVIDE VEHICULAR ACCESS THRU WORK ZONES AS REQUIRED BY THE ENGINEER.
7. FLOOD LIGHTS SHALL BE PROVIDED FOR FLAGGER STATIONS DURING NIGHT OPERATIONS.
8. CHANNELIZATION DEVICES IF USED AT NIGHT SHALL BE LIT IN ACCORDANCE WITH THE ALASKA TRAFFIC MANUAL.
9. IT IS THE INTENT OF THIS TRAFFIC CONTROL PLAN (TCP) TO ILLUSTRATE SOME, NOT ALL, OF THE TRAFFIC CONTROL SETUPS WHICH WILL BE REQUIRED ON THIS PROJECT. PLANS FOR CONFIGURATIONS NOT COVERED BY THE TCP SHALL BE CREATED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL. WHERE APPROPRIATE, THEY SHALL INCORPORATE APPLICABLE PORTIONS OF DETAILS ON THESE SHEETS.



### ROADWAY ENCROACHMENT

NOTE: IF ONLY ONE LANE IS AFFECTED BY ROAD WORK (THAT IS, THE CONES ALONG THE WORK AREA ARE NO CLOSER THAN 3m TO CENTERLINE) THE SIGNS AND CENTERLINE CONES FOR THE OPPOSING LANE MAY BE DELETED.

#### LEGEND

- ..... SIGN
- ..... CONE
- ..... DRUM
- ..... TYPE III BARRICADE
- ..... FLAGGING STATION
- ..... HI-LEVEL WARNING DEVICE

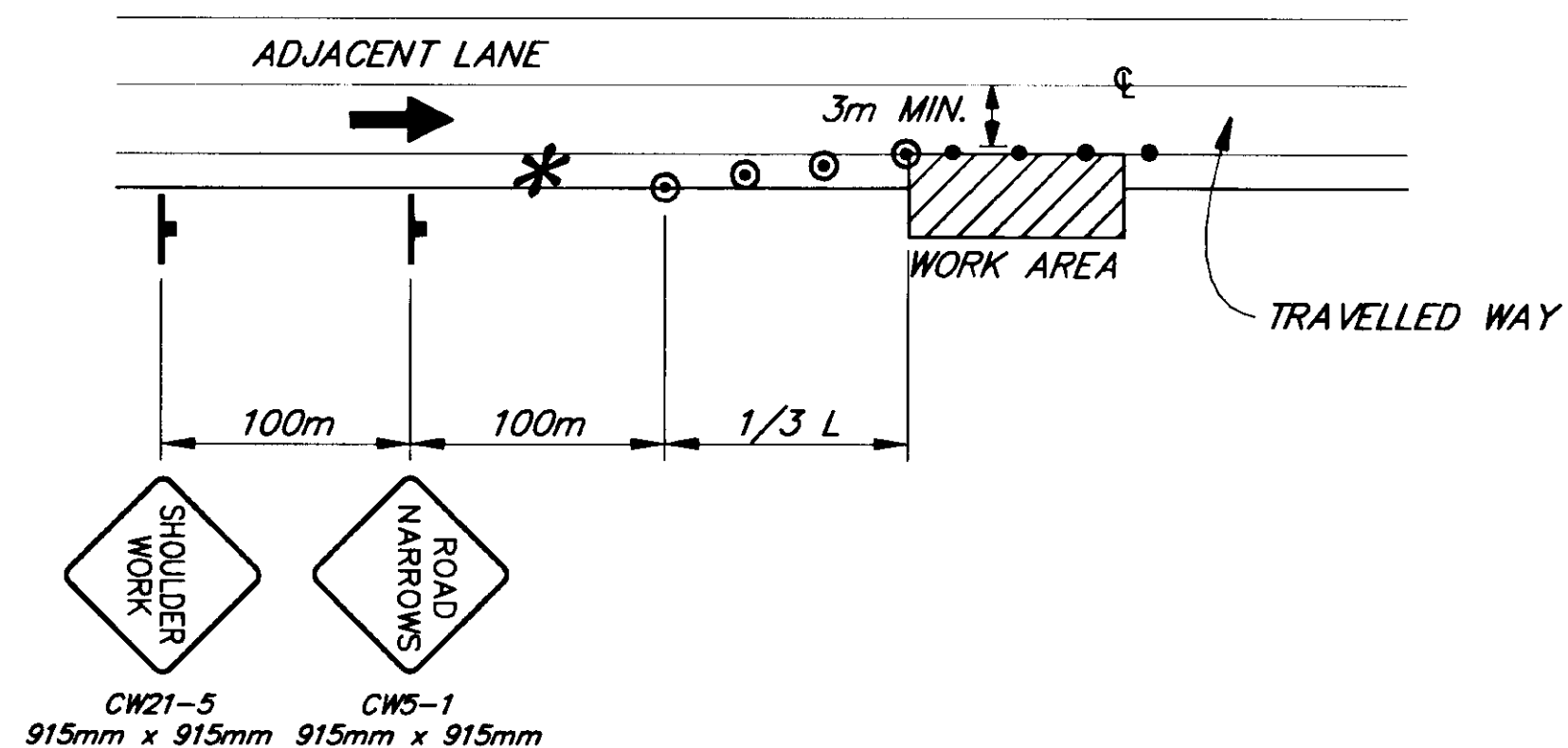
\* NO PARKING WITHIN 60m OF CONES

$$L = W \times T$$

WHERE:  
 L= LENGTH OF TAPER  
 W= WIDTH OF OFFSET  
 T= TAPER FACTOR

#### TCP TABLE SETUP

SPEED (KILOMETERS PER HOUR)	SPEED (MILES PER HOUR)	BUFFER/LENGTH (m)	CONE/DRUM SPACING (m)	TAPER FACTOR (T)
25	16	9	5	4:1
30	19	11	6	6:1
35	22	14	7	8:1
40	25	17	8	10:1
45	28	21	9	13:1
50	31	26	10	16:1
55	34	35	11	19:1
60	37	43	12	23:1
65	40	52	13	27:1
70	43	62	14	32:1
75	47	75	15	47:1
80	50	85	16	50:1
85	53	98	17	53:1
90	56	110	18	56:1



### SHOULDER WORK

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

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RECORD OF REVISIONS		

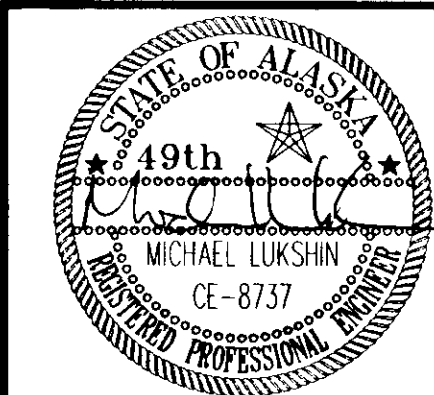
STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 SOUTHEAST REGION

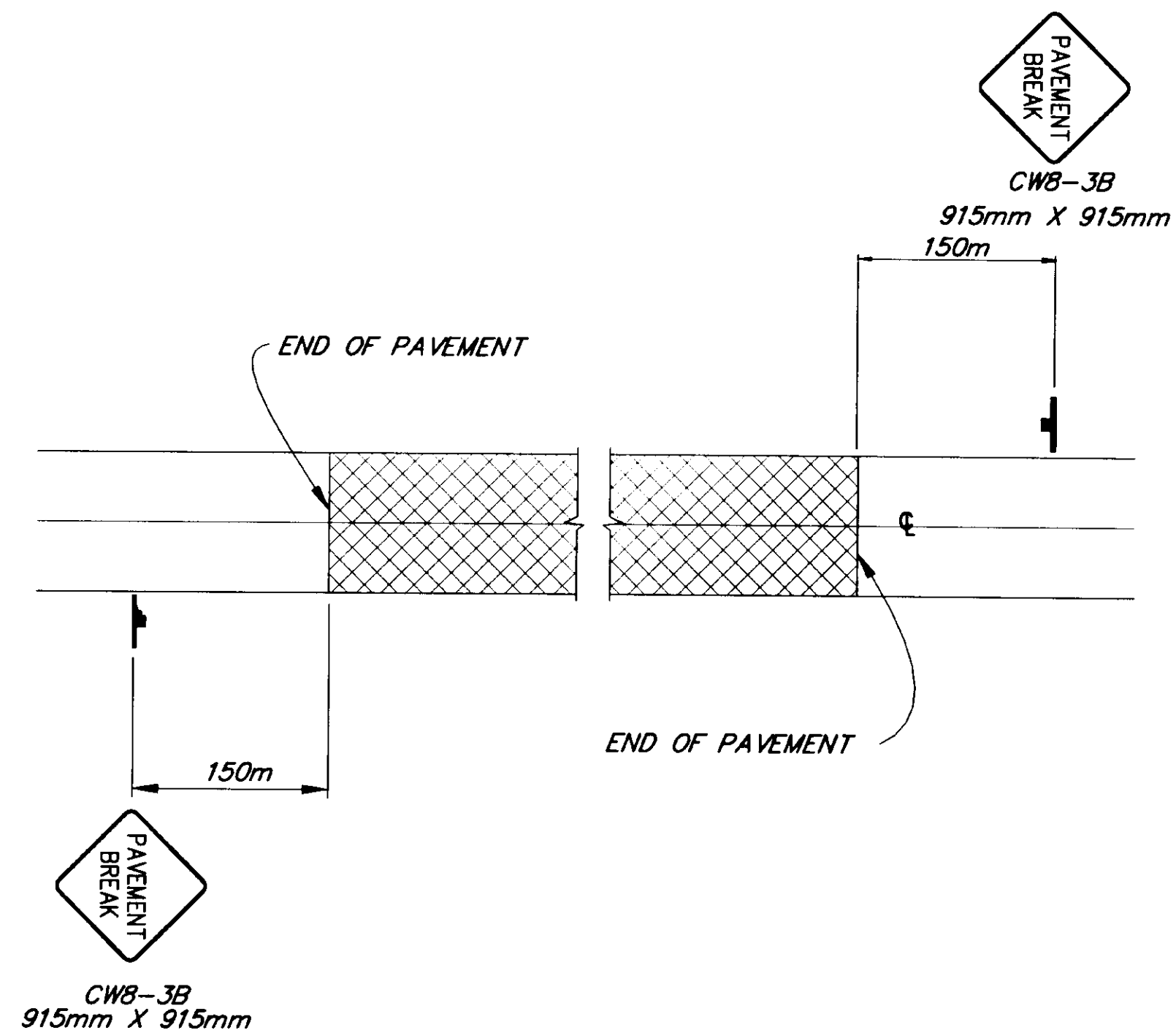
JUNEAU

Montana Creek Road/  
 Skaters Cabin Road Intersection  
 FED. NO. HRO-STP-0964 (2) ~ PROJECT NO. 67756  
**TRAFFIC CONTROL PLAN**

ALASKA

DESIGNED BY:	M. LUKSHIN	PROJECT NO.	67756
DRAWN BY:	K. KLEMMETSON	DATE:	1999
CHECKED BY:	R. PURVES	SHEET	6 OF 13





**SIGNING FOR UNPAVED AREA**

**LEGEND**

- ..... SIGN
- ..... CONE
- ..... DRUM
- ..... TYPE III BARRICADE
- ..... FLAGGING STATION
- ..... HI-LEVEL WARNING DEVICE

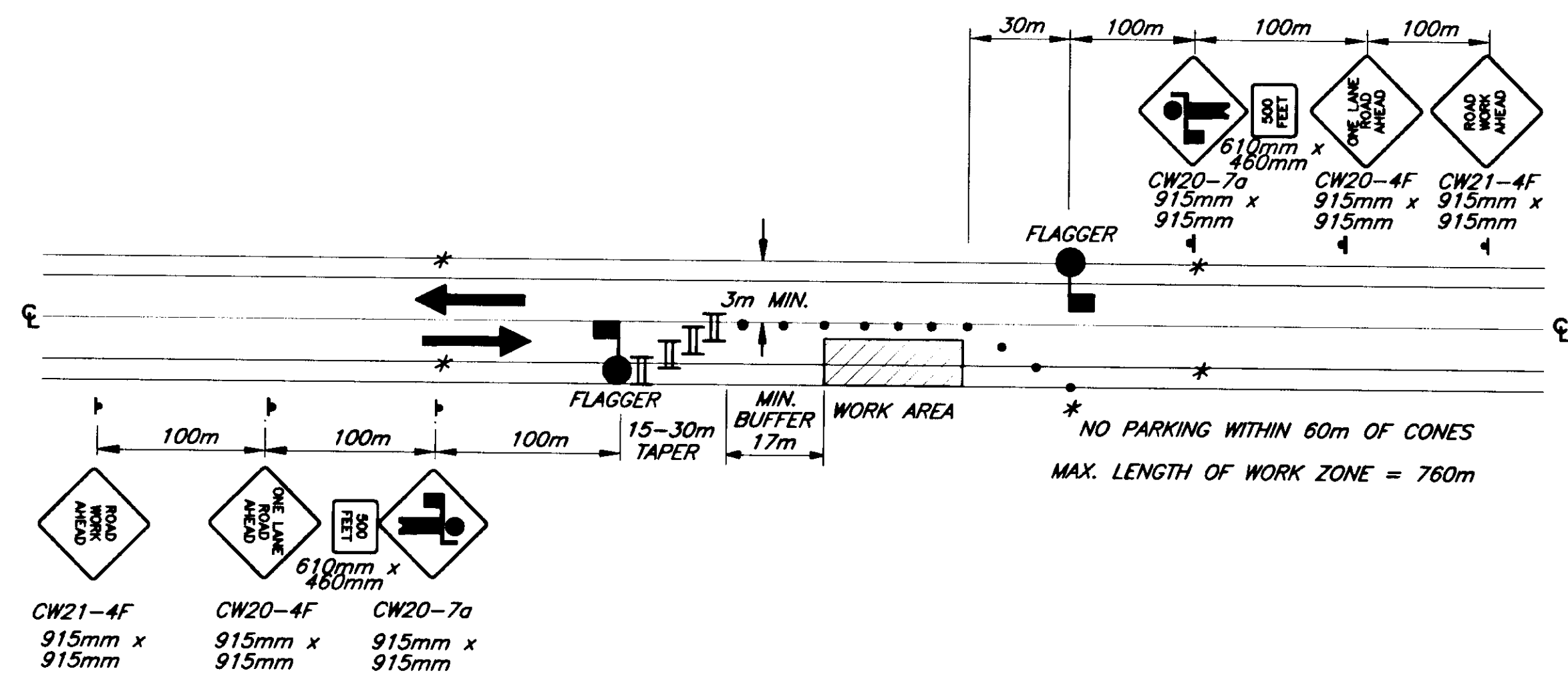
\* NO PARKING WITHIN 60m OF CONES

$L = W \times T$

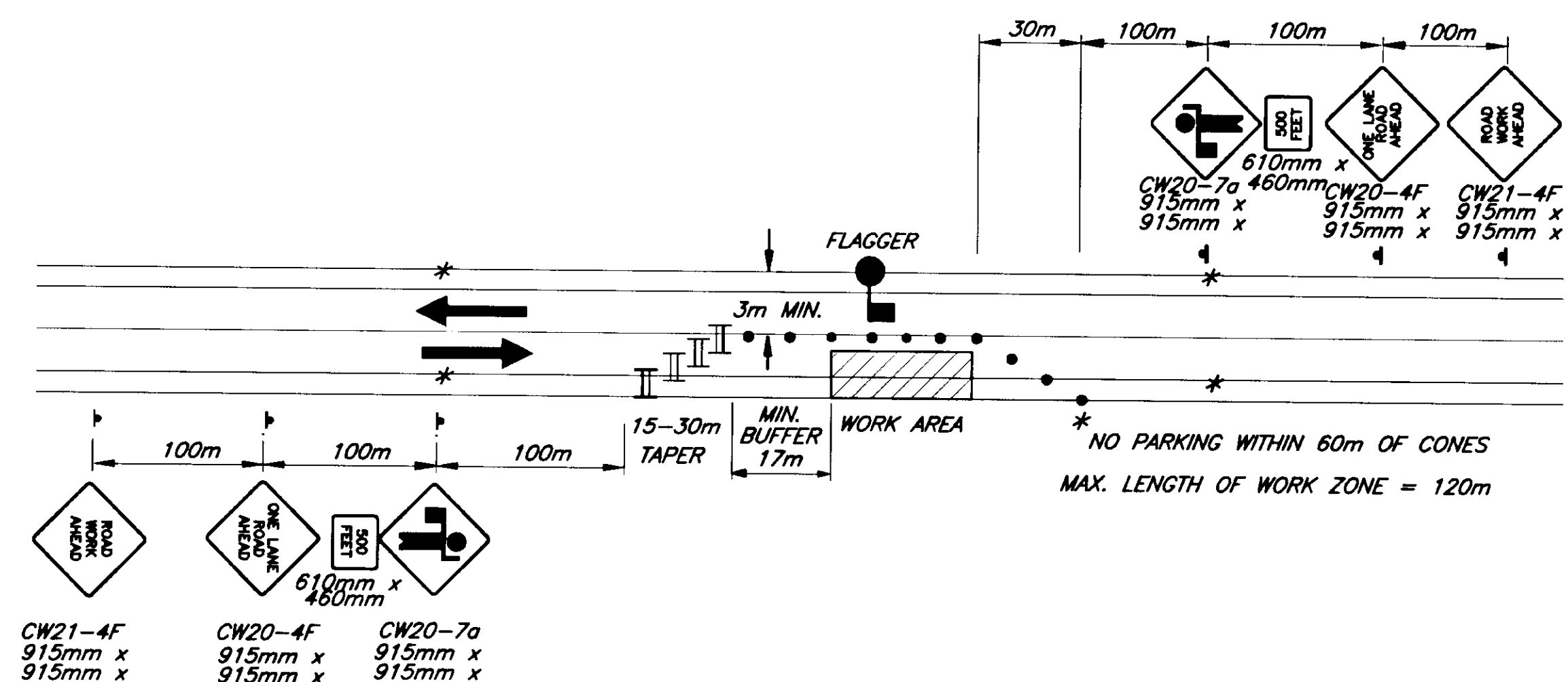
WHERE:  
 L= LENGTH OF TAPER  
 W= WIDTH OF OFFSET  
 T= TAPER FACTOR

**TCP TABLE SETUP**

SPEED (KILOMETERS PER HOUR)	SPEED (MILES PER HOUR)	BUFFER/LENGTH (m)	CONE/DRUM SPACING (m)	TAPER FACTOR (T)
25	16	9	5	4:1
30	19	11	6	6:1
35	22	14	7	8:1
40	25	17	8	10:1
45	28	21	9	13:1
50	31	26	10	16:1
55	34	35	11	19:1
60	37	43	12	23:1
65	40	52	13	27:1
70	43	62	14	32:1
75	47	75	15	47:1
80	50	85	16	50:1
85	53	98	17	53:1
90	56	110	18	56:1



**TWO LANE ROAD - SINGLE LANE CLOSURE  
DOUBLE FLAGGER**



**TWO LANE ROAD - SINGLE LANE CLOSURE  
SINGLE FLAGGER**

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

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PLOT: FULL (1000=1) or HALF (1000=2)

BY: DATE: DESCRIPTION OF CHANGE:

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 SOUTHEAST REGION

JUNEAU

Montana Creek Road and  
 Skaters Cabin Road Intersection Improvements  
 HRO-STP-0964 (2) ~ PROJECT No. 67756

ALASKA

DESIGNED BY:

M. LUKSHIN

PROJECT NO.

67756

DRAWN BY:

K. KLEMMETSON

DATE:

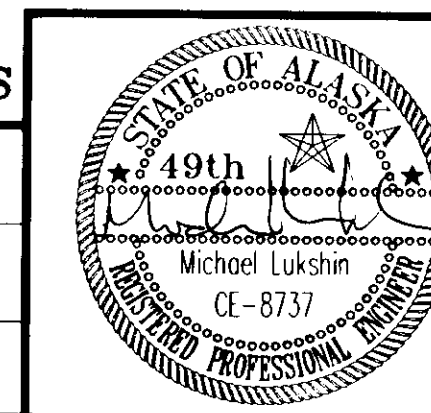
1999

CHECKED BY:

R. PURVES

SHEET 7 OF 13

RECORD OF REVISIONS



**J-BOX SUMMARY**

NO.	STATION	OFFSET	TYPE	REMARKS
1	"M" 2+260	6m RT.	1 A	
2	"M" 2+210	6m RT.	1 A	
3	"M" 2+210	6m LT.	1 A	

**ELECTROLIER SUMMARY**

NO.	STATION	OFFSET	MASTARM	REMARKS
①	"M" 2+260	8.23m RT.	4.57m	
②	"M" 2+210	8.23m LT.	4.57m	

**FLEXIBLE DELINEATORS**

STATION	OFFSET		TYPE	REMARKS
	LT.	RT.		
"O" 1+020		X	B	PLACE 1m FROM EDGE OF PAVEMENT
"O" 1+040		X	B	PLACE 1m FROM EDGE OF PAVEMENT
"O" 1+060		X	B	PLACE 1m FROM EDGE OF PAVEMENT
"O" 1+075		X	B	PLACE 1m FROM EDGE OF PAVEMENT
"M" 2+140	X		B	PLACE 1m FROM EDGE OF PAVEMENT
"M" 2+160	X		B	PLACE 1m FROM EDGE OF PAVEMENT
"M" 2+180	X		B	PLACE 1m FROM EDGE OF PAVEMENT
"M" 2+200	X		B	PLACE 1m FROM EDGE OF PAVEMENT
"M" 2+220	X		B	PLACE 1m FROM EDGE OF PAVEMENT
"M" 2+260	X		B	PLACE 1m FROM EDGE OF PAVEMENT
"M" 2+280	X		B	PLACE 1m FROM EDGE OF PAVEMENT
"M" 2+300	X		B	PLACE 1m FROM EDGE OF PAVEMENT
"M" 2+330	X		B	PLACE 1m FROM EDGE OF PAVEMENT
"M" 2+350	X		B	PLACE 1m FROM EDGE OF PAVEMENT

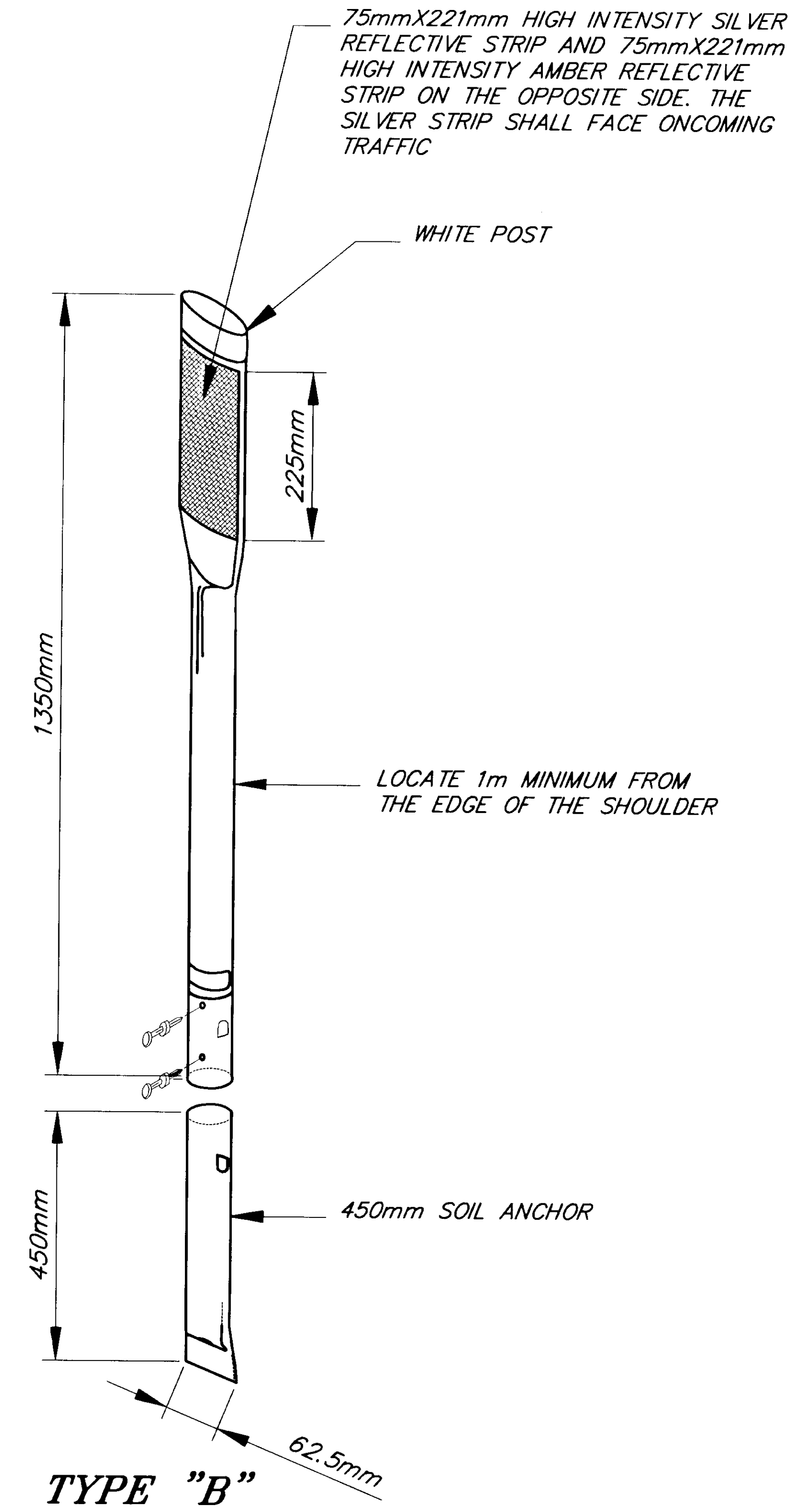
**SIGN SUMMARY**

NO.	STATION	OFFSET	ASDS CODE NO.	LEGEND	FACING TRAFFIC	SIZE mm	AREA M <sup>2</sup>	POST SIZE	NO. OF POSTS	REMARKS
1	"M" 2+316,	5.9m LT.	W8-6	TRUCK CROSSING	SB	915x915	0.84	50mm	1-PT.	
3	"O" 1+033	6m RT.	W3-1	STOP AHEAD	EB	915x915	0.84	50mm	1-PT.	
4	"O" 1+080	7m RT.	R1-1	STOP	EB	750x750	0.56	50mm	1-PT.	
5	"M" 2+184	8m RT.	SPECIAL SIGN	← GUN RANGE COMMUNITY GARDEN	NB	450x2090	0.94	50mm	2-PT.	
6	"M" 2+148.5	9m RT.	W8-6	TRUCK CROSSING	NB	750x750	0.56	50mm	1-PT.	
7	"M" 2+097	6.4m LT.	R2-1	SPEED LIMIT 35	SB	600x750	0.45	50mm	1-PT.	
8	"M" 2+097	7.8m RT.	R2-1	SPEED LIMIT 30	NB	600x750	0.45	50mm	1-PT.	
9	"M" 2+220	8m RT.	D1-2	↑ Skaters Cabin ← Montana Creek	NB	600x2480	1.48	50mm	2-PT.	150mm SERIES "EMOD" LETTERS
10	"O" 1+033	6m RT.	SUPPLEMENTAL	STOP AHEAD	EB	450x600	0.27	-	-	MOUNT BELOW 3

**SIGNING NOTES**

- THE POST TYPES INDICATED IN THIS SUMMARY ARE ABBREVIATED:  
 P.T. = PERFORATED STEEL TUBE  
 T. = SQUARE STEEL TUBE  
 P. = ROUND STEEL PIPE  
 W. = "W" SHAPE BEAM  
 TS = SQUARE STEEL TUBING
- INSTALL CONCRETE EMBEDMENT FOR THE PERFORATED STEEL TUBE POST FOUNDATIONS AS SHOWN ON STANDARD DRAWING S-30.00[M]. FOUNDATIONS FOR P AND TS POSTS SHALL BE IN CONFORMANCE WITH STANDARD DRAWING S-34.00[M].
- SIGN LOCATIONS ARE APPROXIMATE ONLY AND ARE SUBJECT TO MINOR REVISION BY THE ENGINEER.
- THE MINIMUM ALLOWABLE SPACE BETWEEN POSTS IN MULTIPLE POST INSTALLATIONS IS 1.8 METERS.
- TORQUE SLIP BASE BOLTS WITHIN THE FOLLOWING RANGES:  

BOLT DIAMETER	TORQUE RANGE/N.m
13 mm	11 TO 16
16 mm	26 TO 39
19 mm	42 TO 62
25 mm	52 TO 83
- ALL SIGNS SHALL BE CLASS "T" AS DESIGNATED BY THE ALASKA SIGN DESIGN SPECIFICATIONS, UNLESS NOTED OTHERWISE. SIGN MOUNTING HEIGHT IS 2.1 m AS SHOWN ON STANDARD DRAWING S-05.00[M].
- SPECIAL SIGNS SHALL BE FABRICATED IN CONFORMANCE WITH THE ALASKA SIGN DESIGN SPECIFICATIONS.
- PRIOR TO INSTALLING POSTS, THE CONTRACTOR SHALL LOCATE AND PROTECT ALL EXISTING AND NEW UNDERGROUND UTILITIES, INCLUDING BUT NOT LIMITED TO PIPELINES, INTERCONNECT CABLES, SIGNAL SYSTEMS, LIGHTING SYSTEMS, STORM AND SANITARY SEWERS, WATER SYSTEMS AND AND TELEPHONE AND ELECTRICAL CABLES. ALL EXISTING UTILITIES ARE NOT NECESSARILY SHOWN ON THE PLANS.



**FLEXIBLE DELINEATOR**

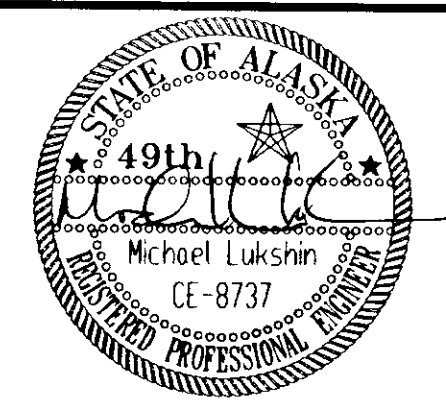
NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

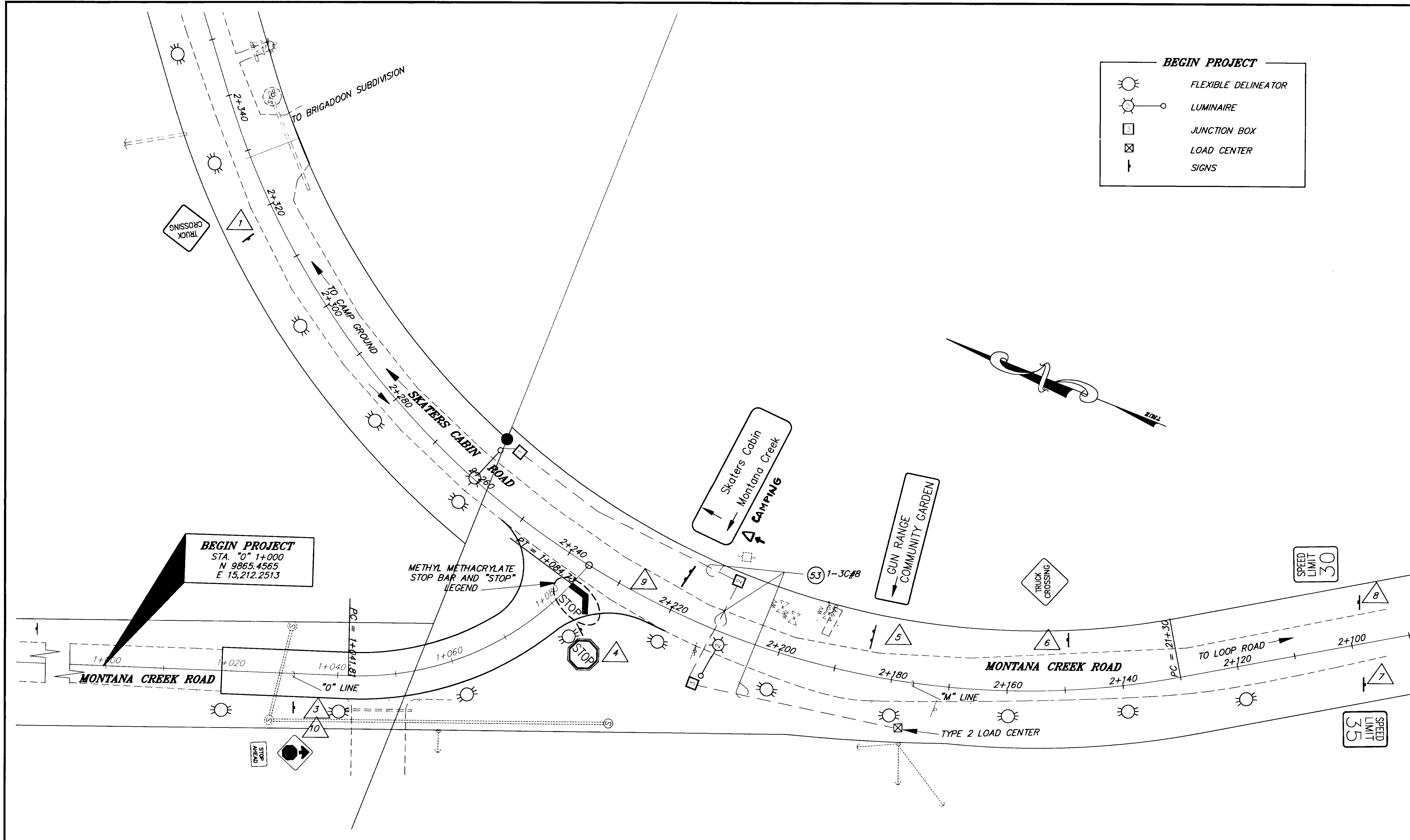
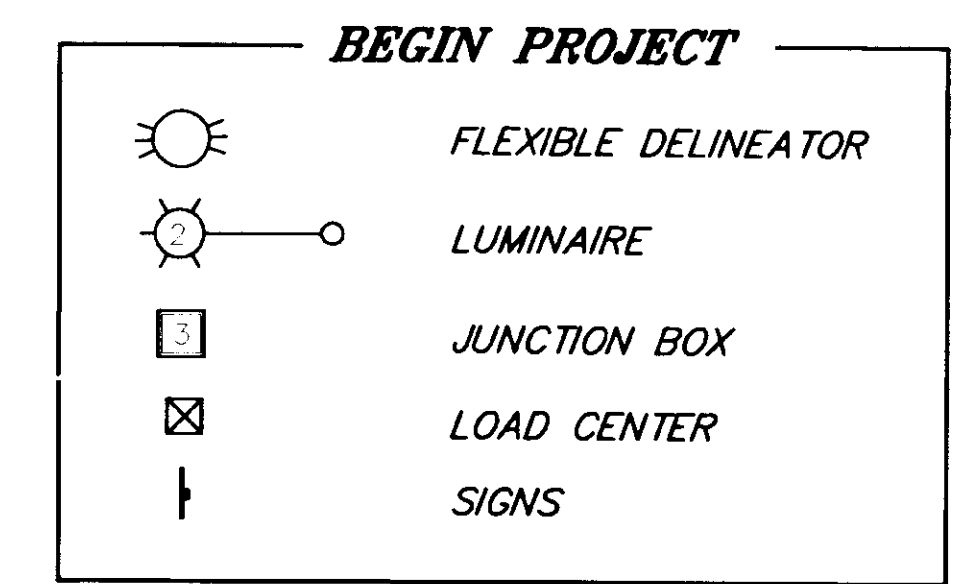
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RECORD OF REVISIONS		

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 SOUTHEAST REGION

JUNEAU  
 Montana Creek Road and  
 Skaters Cabin Road Intersection Improvements  
 HRO-STP-0964 (2) ~ PROJECT No. 67756  
**SIGNING SUMMARY**

DESIGNED BY:	M. LUKSHIN	PROJECT NO.	67756
DRAWN BY:	K. KLEMMETSON	DATE:	1999
CHECKED BY:	R. PURVES	SHEET	8 OF 13





**BEGIN PROJECT**  
 STA. "0" 1+000  
 N 9865.4565  
 E 15,212.2513

METHYL METHACRYLATE  
 STOP BAR AND "STOP"  
 LEGEND

MONTANA CREEK ROAD

Skaters Cabin  
 Montana Creek  
 CAMPING

GUN RANGE  
 COMMUNITY GARDEN

TYPE 2 LOAD CENTER

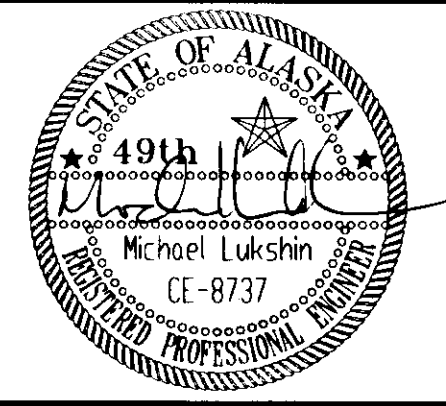
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STATE OF ALASKA  
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JUNEAU ALASKA  
 Montana Creek Road and  
 Skaters Cabin Road Intersection Improvements  
 HRO-STP-0964 (2) ~ PROJECT No. 67756  
**SIGNING, STRIPING & LIGHTING**

DESIGNED BY:	M. LUKSHIN	PROJECT NO.	67756
DRAWN BY:	K. KLEMMETSON	DATE:	1999
CHECKED BY:	R. PURVES	SHEET	9 OF 13

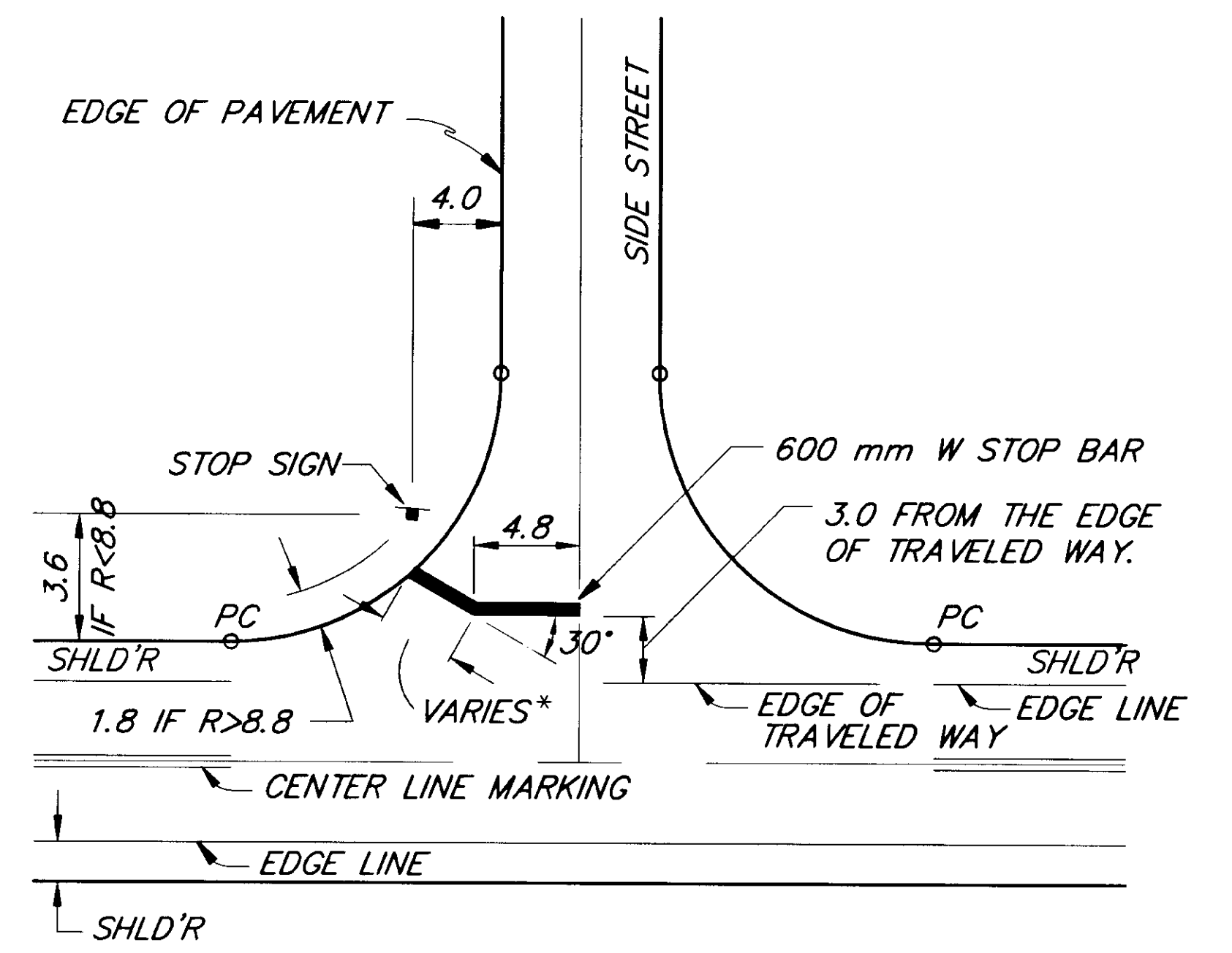
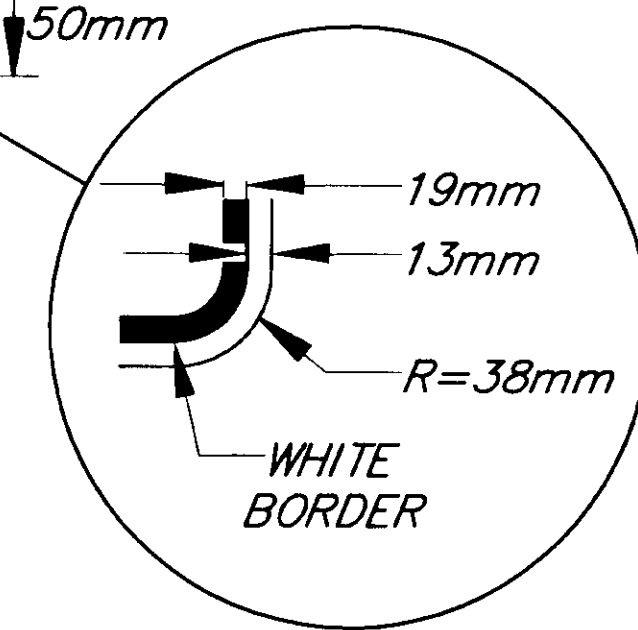




**SIGN NOTES:**

1. SIGNS SHALL HAVE BROWN BACKGROUND WITH WHITE LEGEND. LETTERING SHALL BE AS SHOWN ON THE PLAN.
2. SIGNS SHALL CONFORM TO THE ALASKA SIGN DESIGN SPECIFICATIONS (ASDS). LETTERING SHALL BE 100mm HIGH AND SERIES D.

**SPECIAL SIGN "A"**



**STOP BAR AND STOP SIGN  
INSTALLATION DETAIL**

(WITHOUT PATHWAY)  
OMIT ANGLE IF IS LESS THAN 2.4 m.

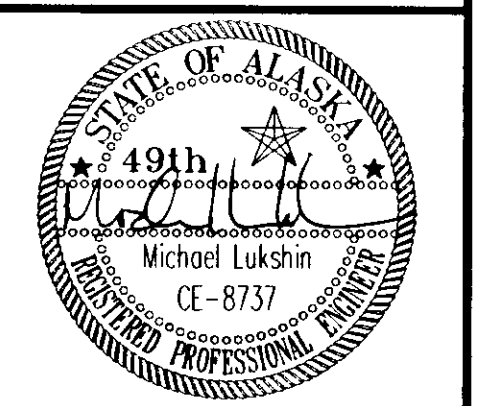
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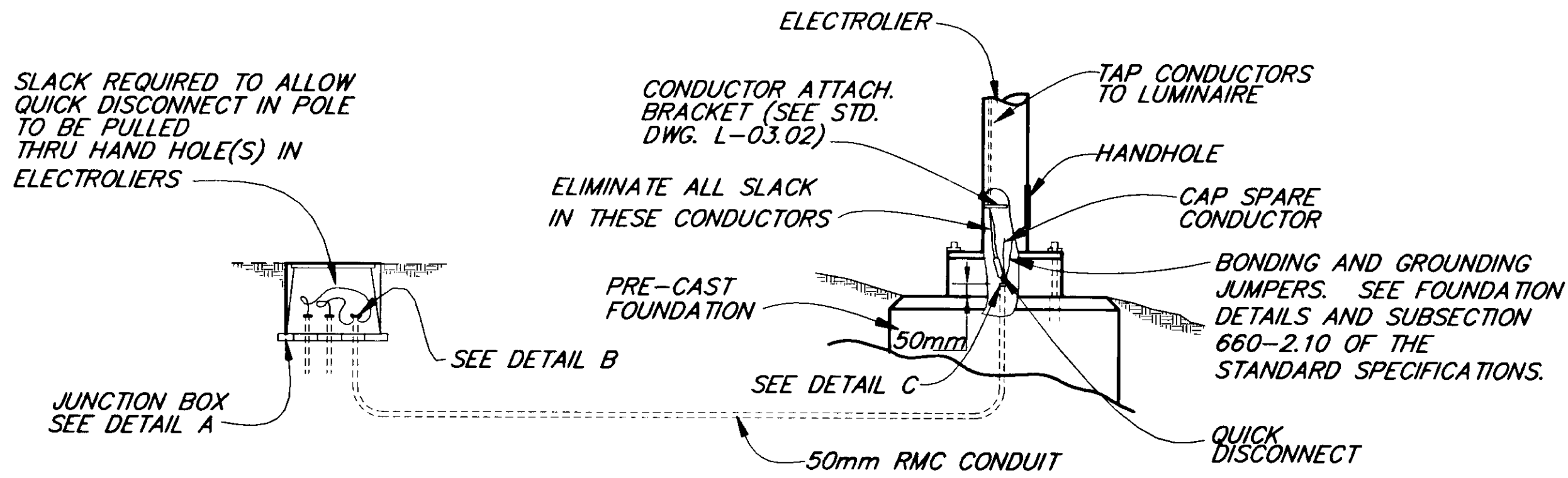
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STATE OF ALASKA  
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SOUTHEAST REGION

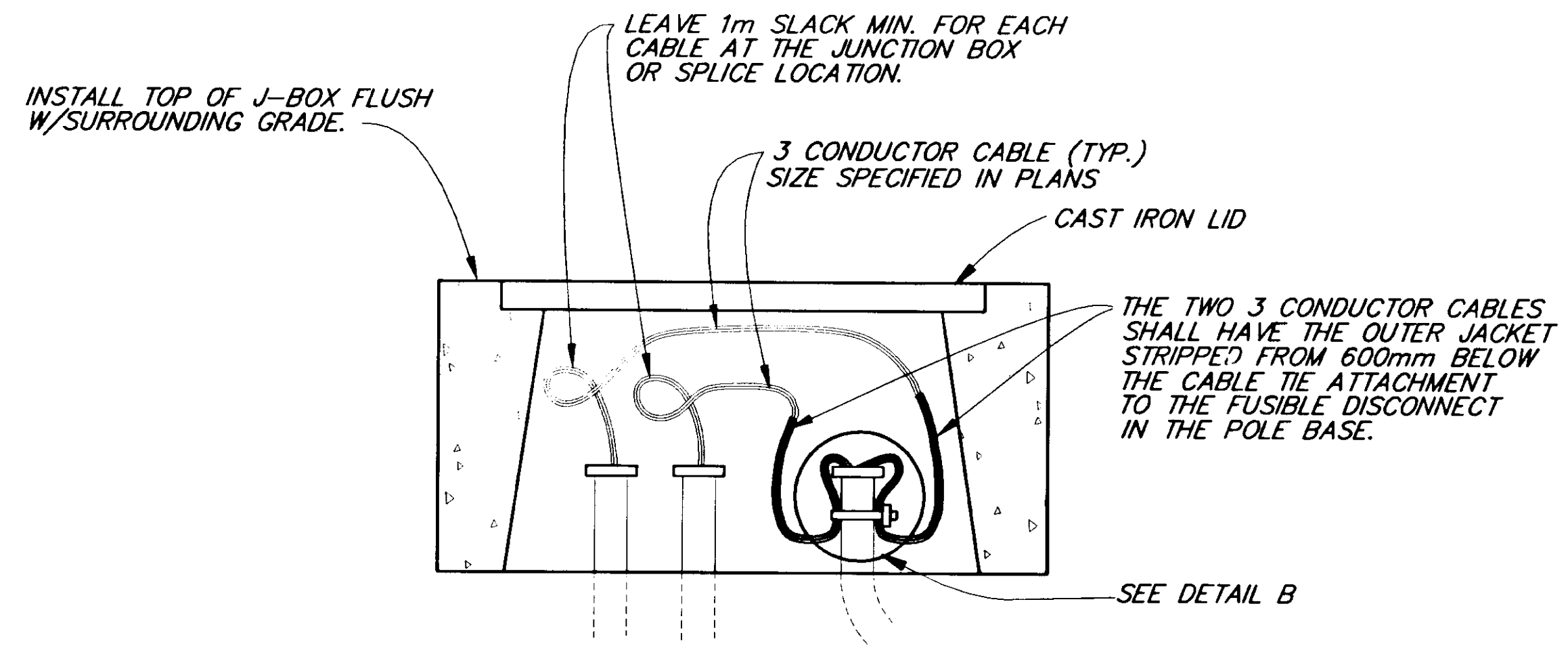
JUNEAU ALASKA  
Montana Creek Road and  
Skaters Cabin Road Intersection Improvements  
HRO-STP-0964 (2) ~ PROJECT No. 67756  
**SPECIAL SIGN DETAIL**

DESIGNED BY:	M. LUKSHIN	PROJECT NO.	67756
DRAWN BY:	K. KLEMMETSON	DATE:	1999
CHECKED BY:	R. PURVES	SHEET	10 OF 13

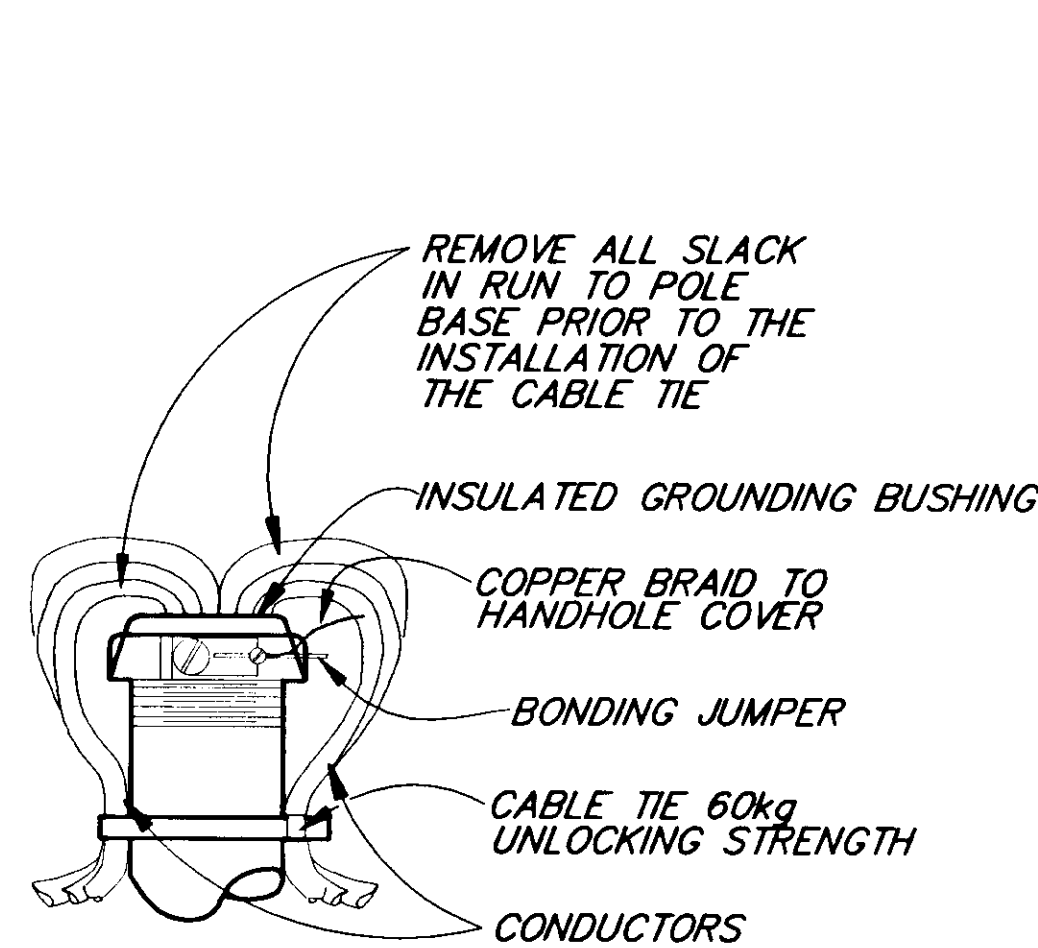




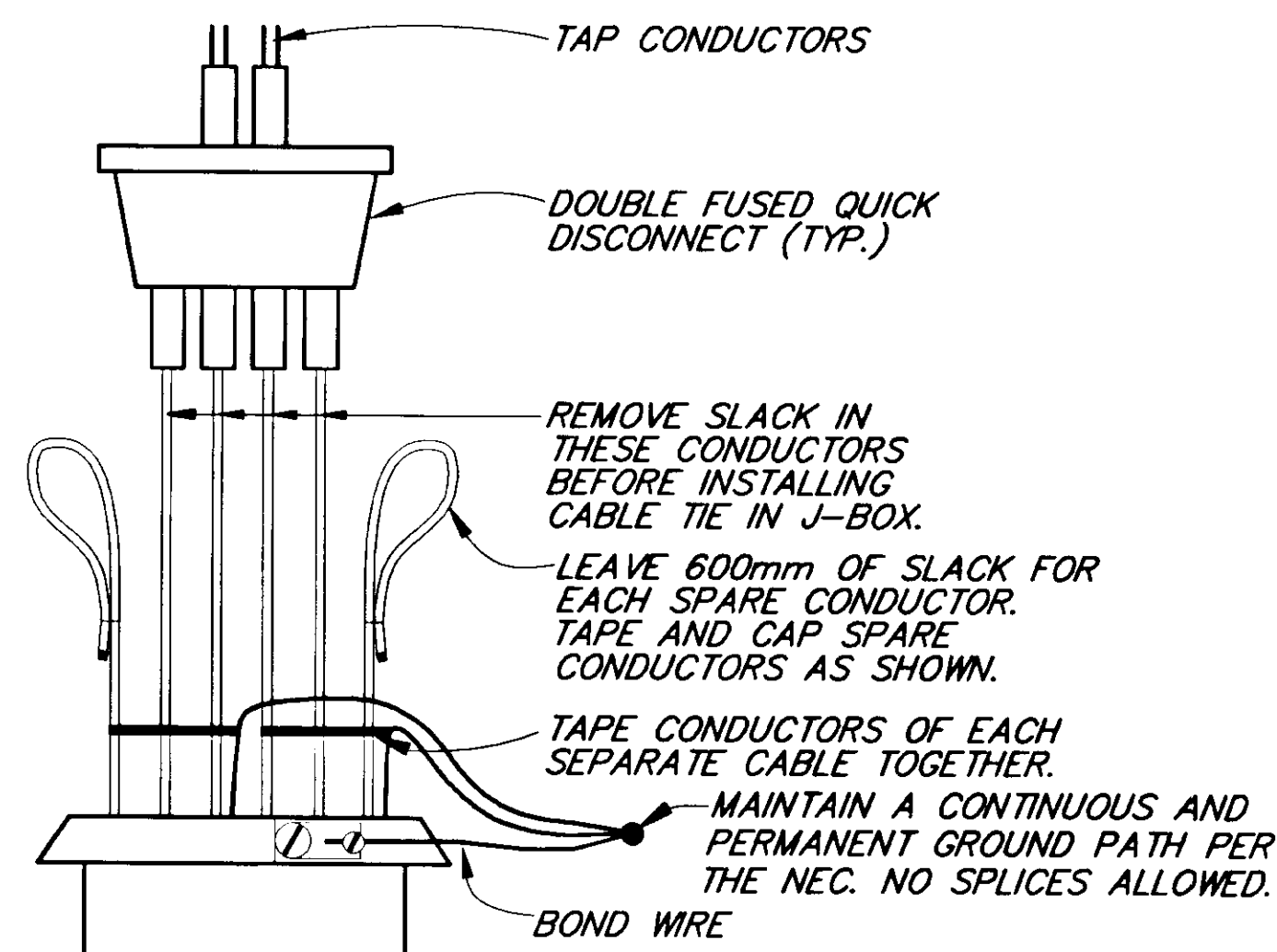
**LIGHTING SYSTEM POLE AND  
J-BOX WIRING DETAILS**  
(BREAKAWAY COUPLINGS)



**DETAIL A**



**DETAIL B**  
( IN J-BOX )



**DETAIL C**  
( IN POLE BASE )

SUMMARY OF LOAD CENTER: 1				
LOAD CENTER TYPE 2				
LOAD CENTER:		LOCATION DATA:		
POWER SOURCE:		"M" 2+178, 9m LEFT		
PHOTOELECTRIC CONTROL:		POWER POLE NEAR "M" 2+178, 11m LEFT		
		INSTALL ON TOP OF LOAD CENTER		
SERVICE VOLTAGE:	1 PHASE,	3 WIRE,	120/240 VOLTS,	60 HZ.
			15 m LEFT	
INTERRUPTING CAPACITY OF CIRCUIT BREAKERS - SERIES RATED.		10,000 AIC		
PROVIDE METER SOCKET?	YES	SERVICE AMPS	125	
MAIN BREAKER A:	120/240 VOLT,	2 POLE,	100 AMPHERES	
CONTRACTOR:	600 VOLT,	12 POLE,	30 AMPHERES	
LOAD PANEL A SUMMARY				
CIRCUIT NUMBER	DESCRIPTION	KVA LOAD	BREAKER	
			AMPS	POLES
AA1	PHOTO ELECTRIC CONTROL	0.10	15	2.0
AA2	ELECTROLIERS 1 - 2	1.20	15	2.0
AA3	SPARE		20	2.0
AA4	SPARE		20	2.0
AA5	SPACE			
AA6	SPACE			
TOTAL DEMAND LOAD		1.30		

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

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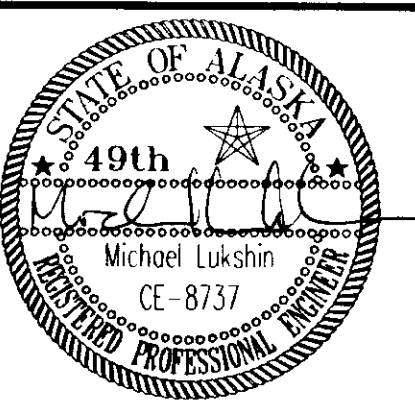
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
SOUTHEAST REGION

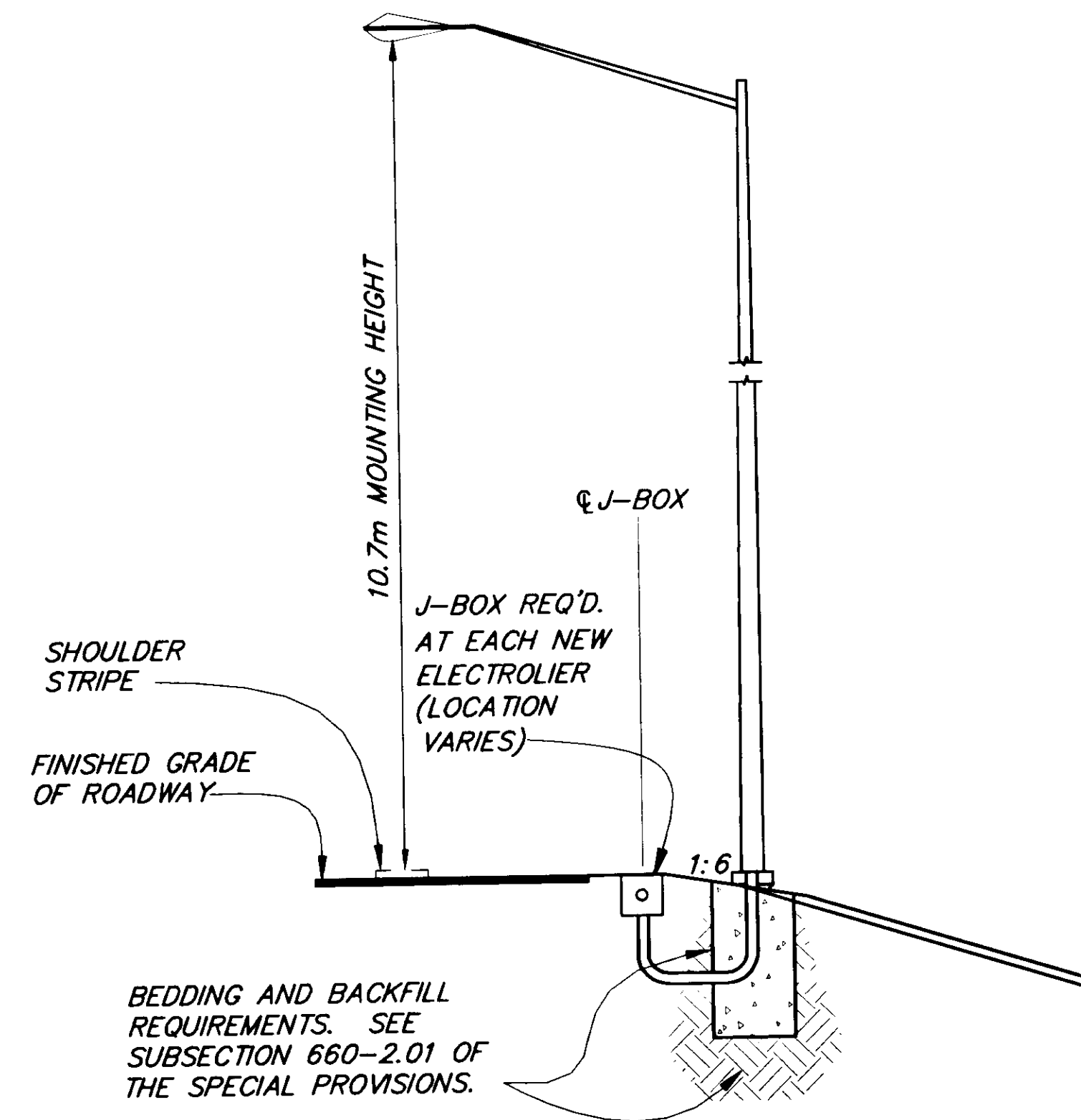
JUNEAU

Montana Creek Road and  
Skaters Cabin Road Intersection Improvements  
HRO-STP-0964(2) ~ PROJECT No. 67756  
**ILLUMINATION DETAILS**

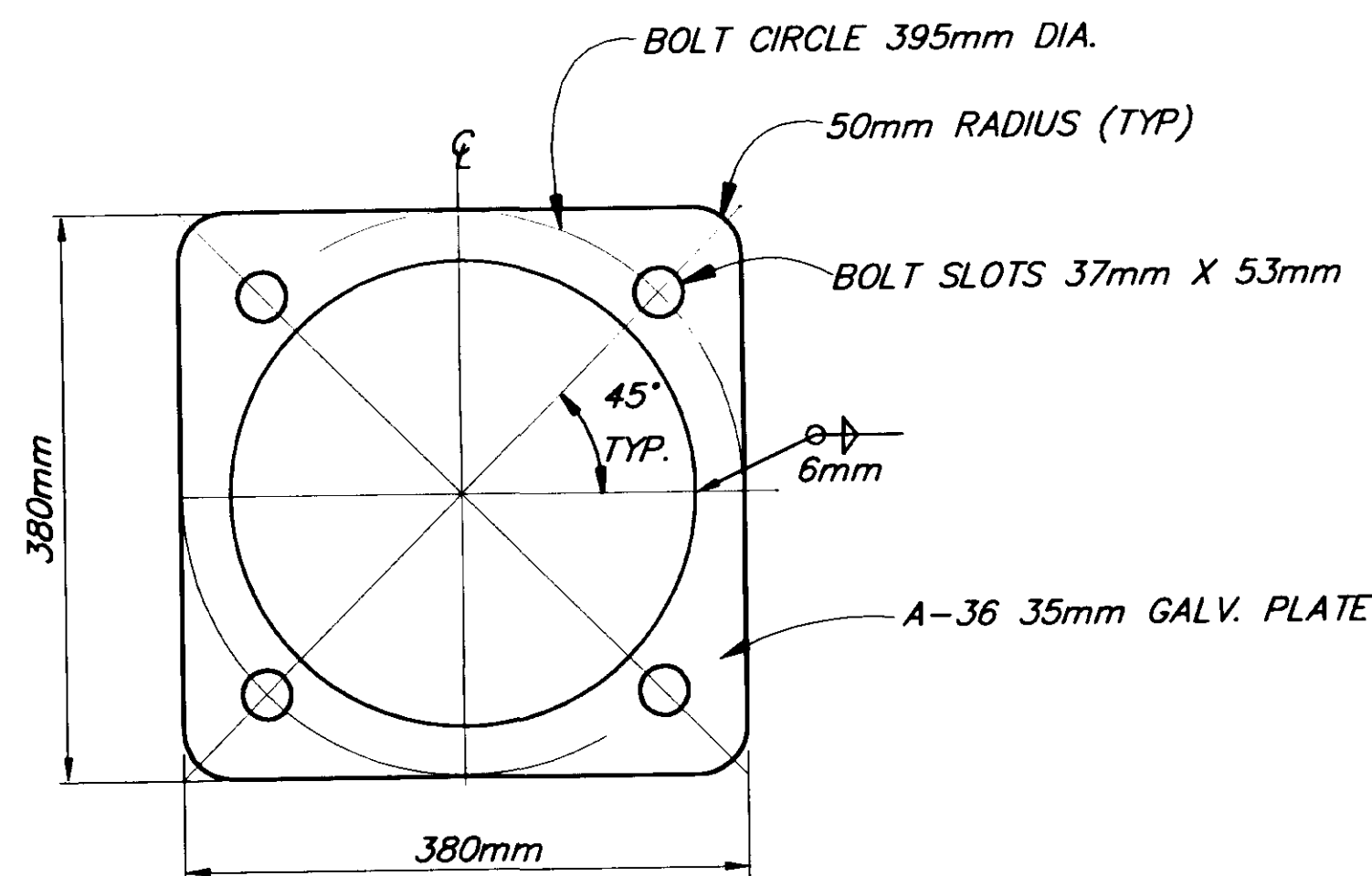
ALASKA

DESIGNED BY:	M. Lukshin	PROJECT NO.	67756
DRAWN BY:	K. Klemmetson	DATE:	1999
CHECKED BY:	C. Morrow	SHEET	11 OF 13





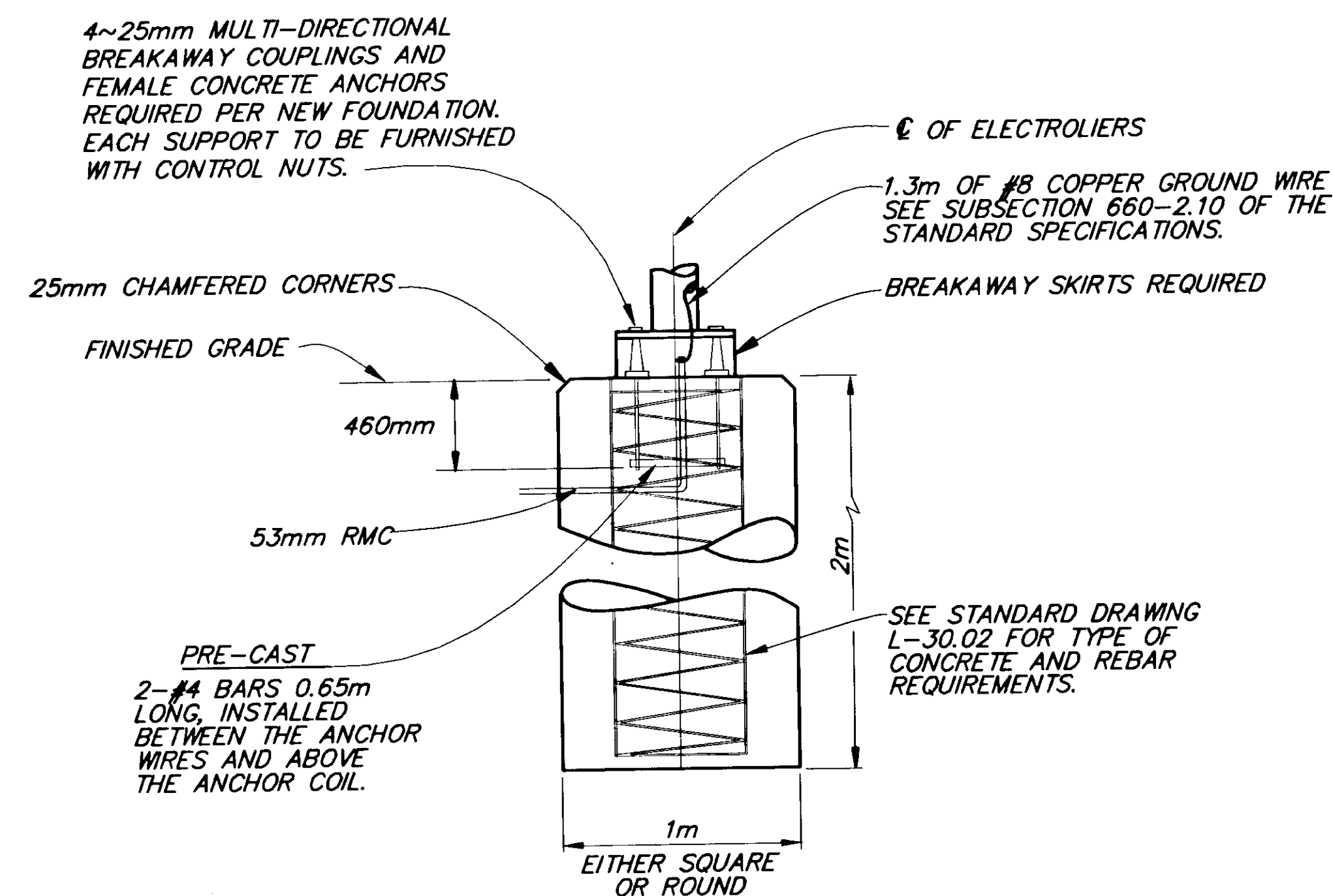
**TYPICAL SECTION FOR ELECTROLIER**



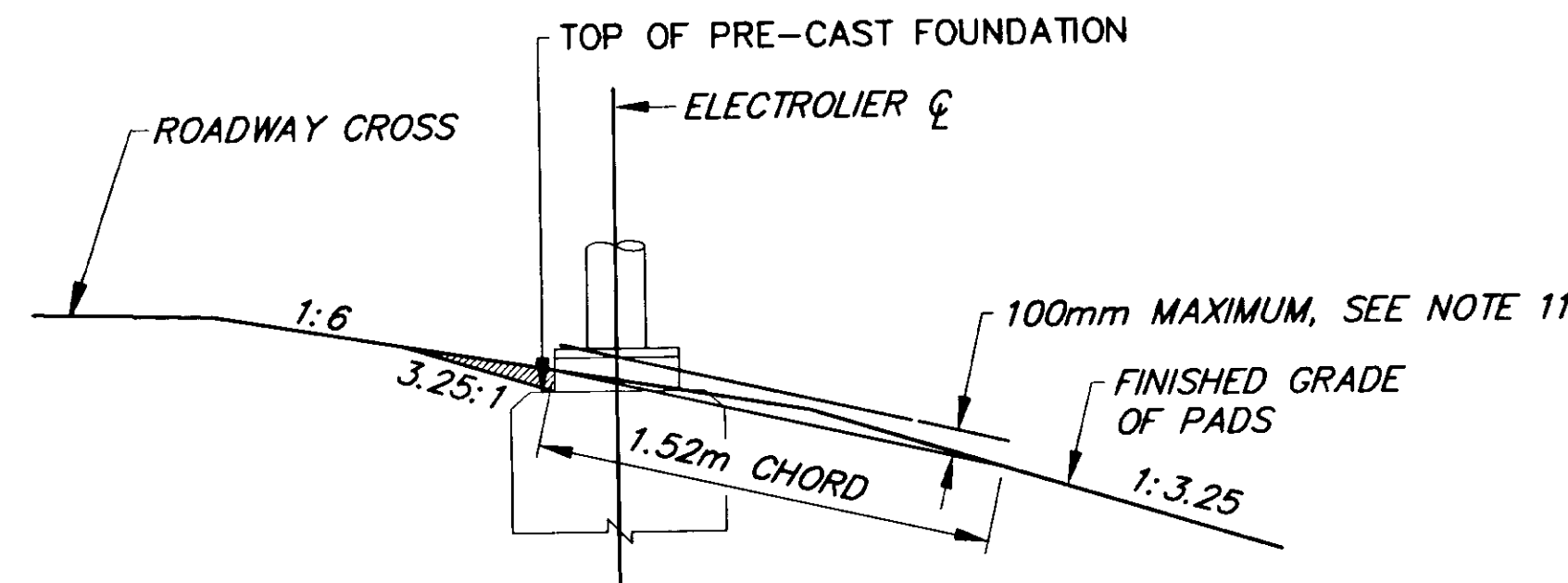
**ANCHOR BASE DETAIL**

**ILLUMINATION GENERAL NOTES**

1. ALL WIRING SHALL BE ENCASED IN 53mm DIA. RIGID METAL CONDUIT.
2. EACH ELECTROLIER SHALL HAVE A J-BOX INSTALLED ADJACENT TO THE FOUNDATION AS SHOWN IN THE POLE AND J-BOX WIRING DETAIL.
3. ALL JUNCTION BOXES SHALL BE TYPE I-A, EXCEPT AT LOAD CENTERS, SEE STANDARD DRAWING L-23.01.
4. A BARE STRANDED GROUND CONDUCTOR SHALL BE INSTALLED THROUGH ALL CONDUITS. THE GROUND CONDUCTOR SHALL BE ATTACHED TO ALL CONDUIT END BUSHINGS AND POLES.
5. NEW ELECTROLIER FOUNDATIONS MAY BE PRE-CAST. PRE-CAST FOUNDATIONS SHALL BE TRANSPORTED USING A DEVICE THAT SPREADS THE LOAD EVENLY BETWEEN THE ANCHOR BOLTS.
6. INSTALL THE PHOTOELECTRIC CELL ON TOP OF THE NEAREST ELECTROLIER POLE.
7. ILLUMINATION CIRCUIT WIRES SHALL BE NO. 8 AWG. 3-CONDUCTOR CABLE AS SPECIFIED IN STANDARD SPECIFICATION 660-2.08.
8. LUMINAIRES SHALL BE 240 VOLT, 250 WATT, HIGH PRESSURE SODIUM, MEDIUM DISTRIBUTION, CUT-OFF, IES TYPE III AND SHALL BE HAVE MAGNETIC REGULATOR BALLASTS, AND HPS LAMPS WITH A 24,000 HOUR RATED LIFE.
9. INSTALL 2 SPARE 3 INCH RIGID METAL CONDUITS FROM THE LOAD CENTER TO THE FIRST JUNCTION BOX.
10. NON-BREAKAWAY PORTIONS OF FOUNDATIONS SHALL NOT PROTRUDE MORE THAN FOUR INCHES ABOVE ANY 60 INCH CHORD STARTING AND ENDING ON THE FINISHED GRADE OF THE ELECTROLIER PADS.
11. LUMINAIRE MASTARMS SHALL BE 4.6m LONG UNLESS NOTED ELSEWHERE.



**FOUNDATION WITH BREAKAWAY COUPLINGS**



**FOUNDATION INSTALLATION DETAIL**

INDICATES EMBANKMENT MATERIAL TO BE REMOVED FROM AROUND BREAKAWAY SKIRTS

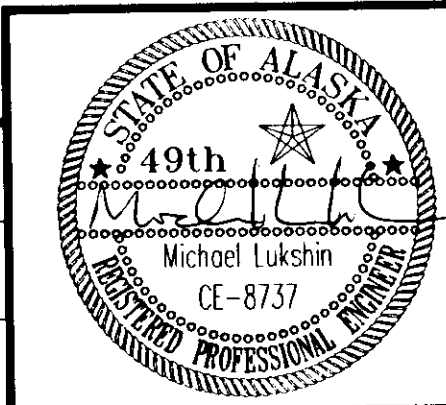
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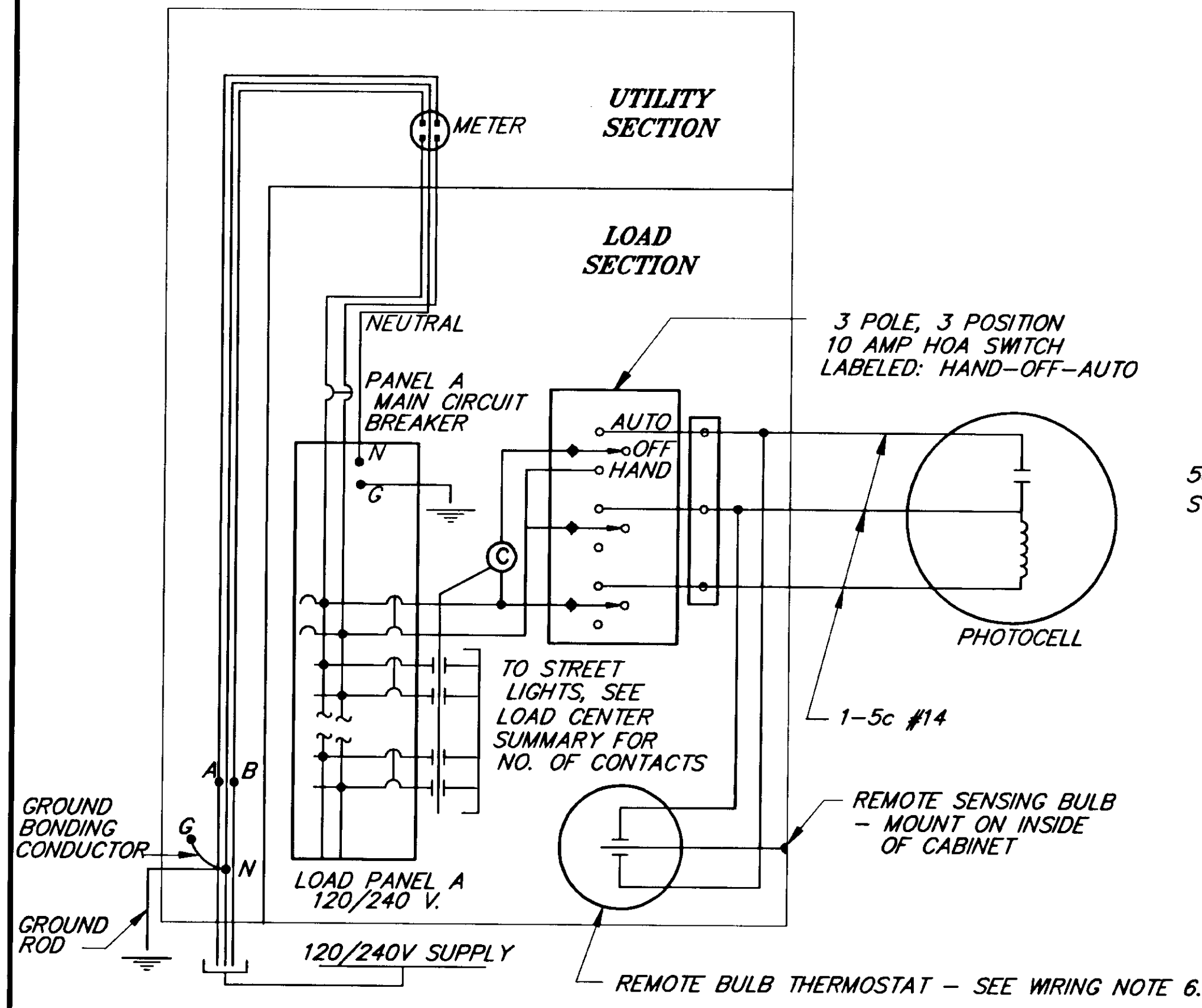
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STATE OF ALASKA  
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JUNEAU  
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**ILLUMINATION DETAILS**

DESIGNED BY:	M. LUKSHIN	PROJECT NO.	67756
DRAWN BY:	K. KLEMMETSON	DATE:	1999
CHECKED BY:	R. PURVES	SHEET	12 OF 13



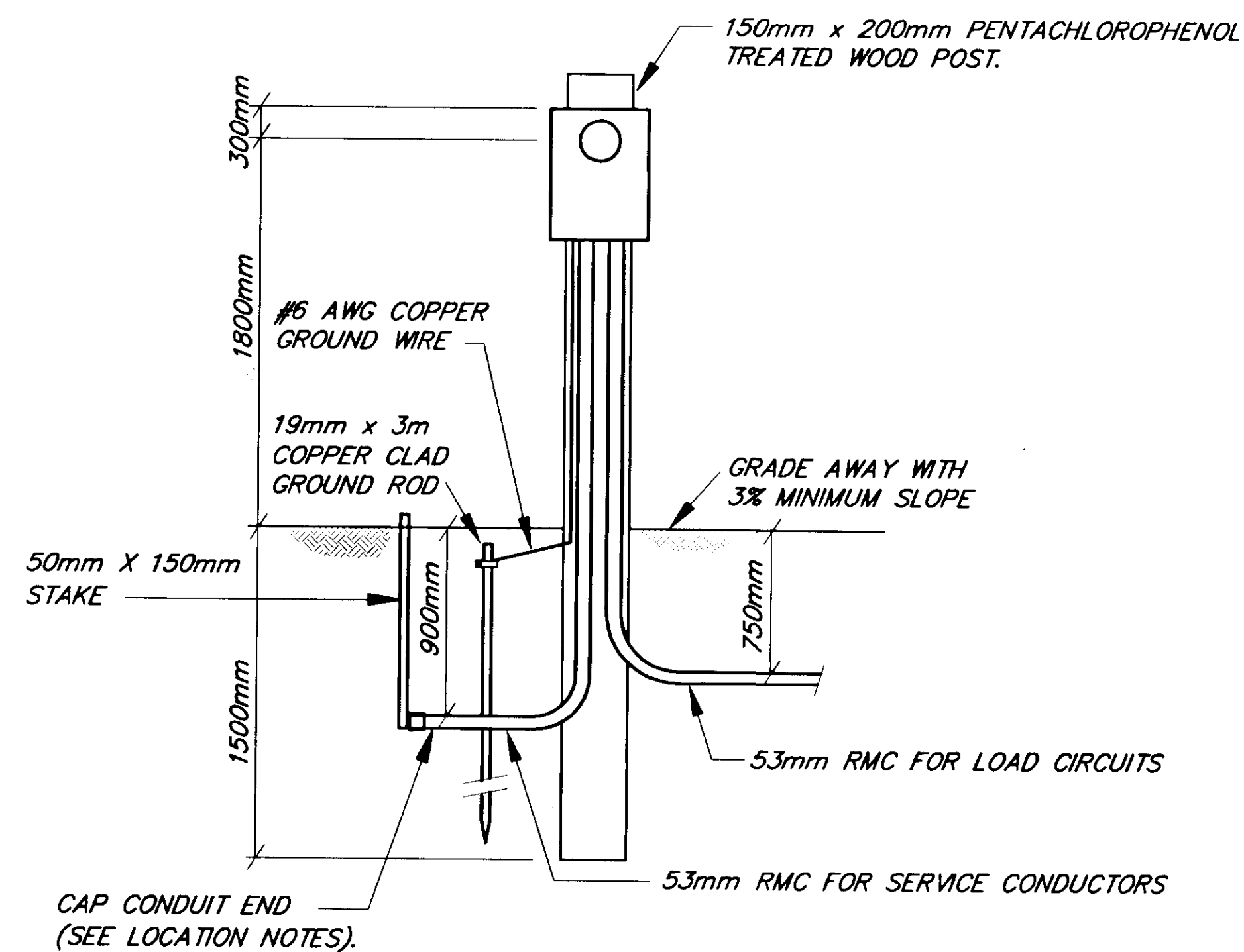


**LOAD CENTER ONE LINE DIAGRAM AND SELECTOR SWITCH WIRING**

TYPE 2 & 3 LOAD CENTERS - USED FOR LIGHTING WITH PHOTOELECTRIC AND THERMOSTATIC CONTROLS

**WIRING NOTES:**

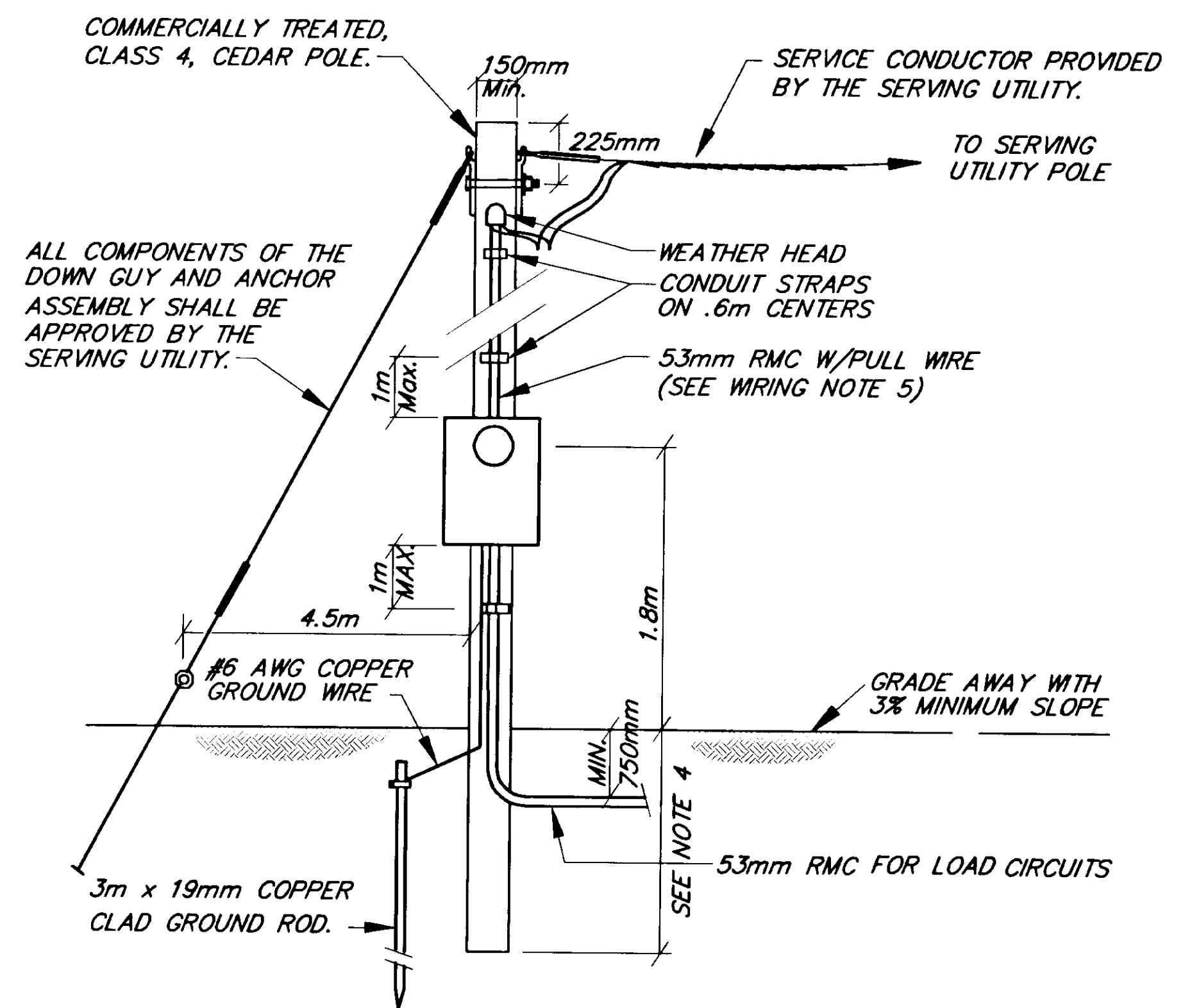
1. THE TYPE 2 AND 3 LOAD CENTERS ARE INTENDED FOR USE WITH 120/240 VOLT SERVICES ONLY, WHEN ALL LOAD CABLES WILL FIT INTO ONE TWO INCH CONDUIT.
2. PROVIDE LOAD PANELS SIZED FOR THE NUMBER OF DOUBLE POLE CIRCUIT BREAKERS SHOWN IN THE LOAD CENTER SUMMARIES, ALLOWING SPACE FOR TWO SPARE DOUBLE POLE BREAKERS.
3. INSTALL TWO SPARE DOUBLE POLE 20 AMPERE BREAKERS IN ALL LOAD PANELS.
4. THE VOLTAGE OF THE CONTROL CIRCUIT AND CONTACT COIL IS 240 VOLT.
5. PROVIDE A REMOTE BULB THERMOSTAT WHEN METAL HALIDE LAMPS ARE INCLUDED IN THE LIGHTING CIRCUITS. THE CONTACTS SHALL CLOSE AT -9C WHEN THE TEMPERATURE IS FALLING, AND OPEN AT -23C WHEN THE TEMPERATURE IS RISING. PROVIDE A THERMOSTAT RATED FOR OPERATION FROM -34C TO +32 C.
6. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE LOAD CENTER COMPLIES WITH ALL LOCAL UTILITY ASSOCIATION REQUIREMENTS.



**TYPE 2 LOAD CENTER**

**TYPE 2 & 3 LOAD CENTER NOTES:**

1. SIZE THE TYPE 2 AND 3 LOAD CENTER CABINETS TO HOLD THE EQUIPMENT SHOWN IN THE WIRING DIAGRAM AND DETAILED IN EACH LOAD CENTER SUMMARY, ALLOWING SPACE FOR WIRING PER THE NATIONAL ELECTRICAL CODE. INSTALLING A METER BASE AND MAIN BREAKER IN A SEPARATE ENCLOSURE IS ALLOWABLE. HOWEVER IN THIS CASE, FURNISH A BREAKER PANEL WITH A MAIN BREAKER.
2. WIRE ALL TYPE 2 AND 3 LOAD CENTERS PER THE WIRING DIAGRAM INDICATED ON THIS DETAIL SHEET.
3. INSTALL POLES OF SUFFICIENT LENGTH TO PROVIDE THE FOLLOWING MINIMUM GROUND TO SERVICE CONDUCTOR CLEARANCE:
  - A. 6.4 METERS, IF THE SERVICE CONDUCTORS ARE LOCATED ABOVE ROADWAYS OR PARKING AREAS.
  - B. 8.5 METERS, IF THE SERVICE CONDUCTORS ARE LOCATED WITHIN 6.1 METERS OF A RAILROAD TRACK.
  - C. 5.5 METERS IN ALL OTHER CIRCUMSTANCES.
4. SET THE BUTT END OF TYPE 3 LOAD CENTER POLES TO THE FOLLOWING MINIMUM DEPTH:
  - A. 10 PERCENT OF ITS LENGTH PLUS 0.6 METER, OR 1.5 METER, WHICHEVER IS GREATER, IF IT IS INSTALLED IN EARTH OTHER THAN SOLID ROCK OR MUSKEG.
  - B. 10 PERCENT OF ITS LENGTH, OR 1.2 METERS, WHICHEVER IS GREATER, IF IT IS INSTALLED IN SOLID ROCK.
  - C. CONSIDER MUSKEG TO BE AIR, AND SET THE BUTT ENDS TO THE DEPTH GIVEN IN A OR B, WHICHEVER APPLIES, IN THE UNDERLYING EARTH OR ROCK. WHENEVER MORE THAN 0.6 METERS OF EARTH OVERLAYS ROCK, OR THE DIAMETER OF THE DRILLED HOLE IN ROCK EXCEEDS TWICE THE DIAMETER OF THE POLE AT THE GROUND LINE, CONSIDER THE INSTALLATION AS EARTH.
5. ATTACH ALL CONDUITS TO THE POSTS AND POLES USING TWO HOLE RIGID METAL CONDUIT STRAPS LOCATED PER THE NATIONAL ELECTRIC CODE.
6. ATTACH ALL GROUND CONDUCTORS TO THE POSTS AND POLES USING CABLE STAPLES LOCATED ON 0.3 METER CENTERS.



**TYPE 3 LOAD CENTER**

**LOCATION NOTES:**

1. INSTALL A 53 mm MINIMUM SIZE RIGID METAL CONDUIT WITH PULLROPE TO WITHIN 0.6 METER OF THE POWER SOURCE AT A MINIMUM DEPTH OF 1.0 METER. INSTALL A CAP ON AND MARK THE BURIED END OF THE CONDUIT WITH A 50mm BY 150 mm STAKE.

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LOAD CENTER DETAILS

DESIGNED BY:	M. Lukshin	PROJECT NO.	67756
DRAWN BY:	K. Klemmetson	DATE:	1999
CHECKED BY:	C. Morrow	SHEET	13 OF 13

