

## **ATTACHMENT 1**

### **AIRPORT LAYOUT PLANS AND AS-BUILTS**



U. S. Department  
of Transportation

Alaskan Region

222 W. 7th Avenue #14  
Anchorage, Alaska .  
99513-7587

**Federal Aviation  
Administration**

July 13, 2004

Mr. Stephen M. Ryan, Design Section Chief  
State of Alaska, DOT & PF  
P.O. Box 196960  
Anchorage, Alaska 99519-6960

Nondalton Airport  
Airport Layout Plan Approval  
Airspace Case 03AAL-023NRA

We have completed our review of the Nondalton Airport Layout Plan (ALP), and find it acceptable from a planning standpoint.

No Modifications to Standards are approved with this ALP approval.

The approval indicated by my signature is given subject to the condition that the proposed airport development that requires environmental processing shall not be undertaken without prior written environmental approval by the FAA.

This approval considers only the safety, utility, and efficiency of the airport. We encourage you to work with appropriate agencies to encourage adoption of height and zoning restrictions.

This approval does not represent a commitment to provide financial assistance to implement the proposed plan. FAA assistance in any development or its approval for any development will be determined at the time of request, based on the existing regulations, project justification, and eligibility at the time of the request.

When airport construction, alteration, or deactivation is undertaken, such action requires FAA notification and review in accordance with the provisions of Part 77 and Part 157 of the Federal Aviation Regulations. In addition, all airport construction must be completed in accordance with FAA Advisory circulars current at the time of construction.

Please attach this letter to the enclosed ALP and retain it in your files for future use.

If you have any questions, please contact Mr. John Lovett at 271-5446.

Sincerely,

Debbie Roth, Deputy Division Manager  
Airports Division

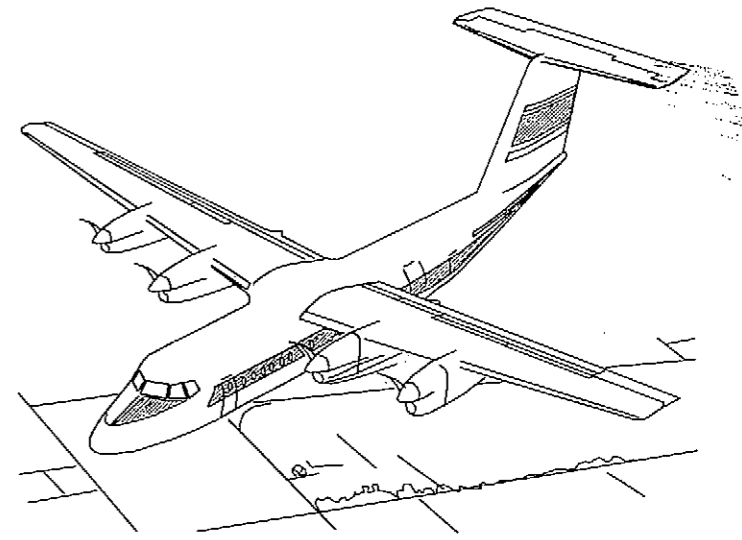
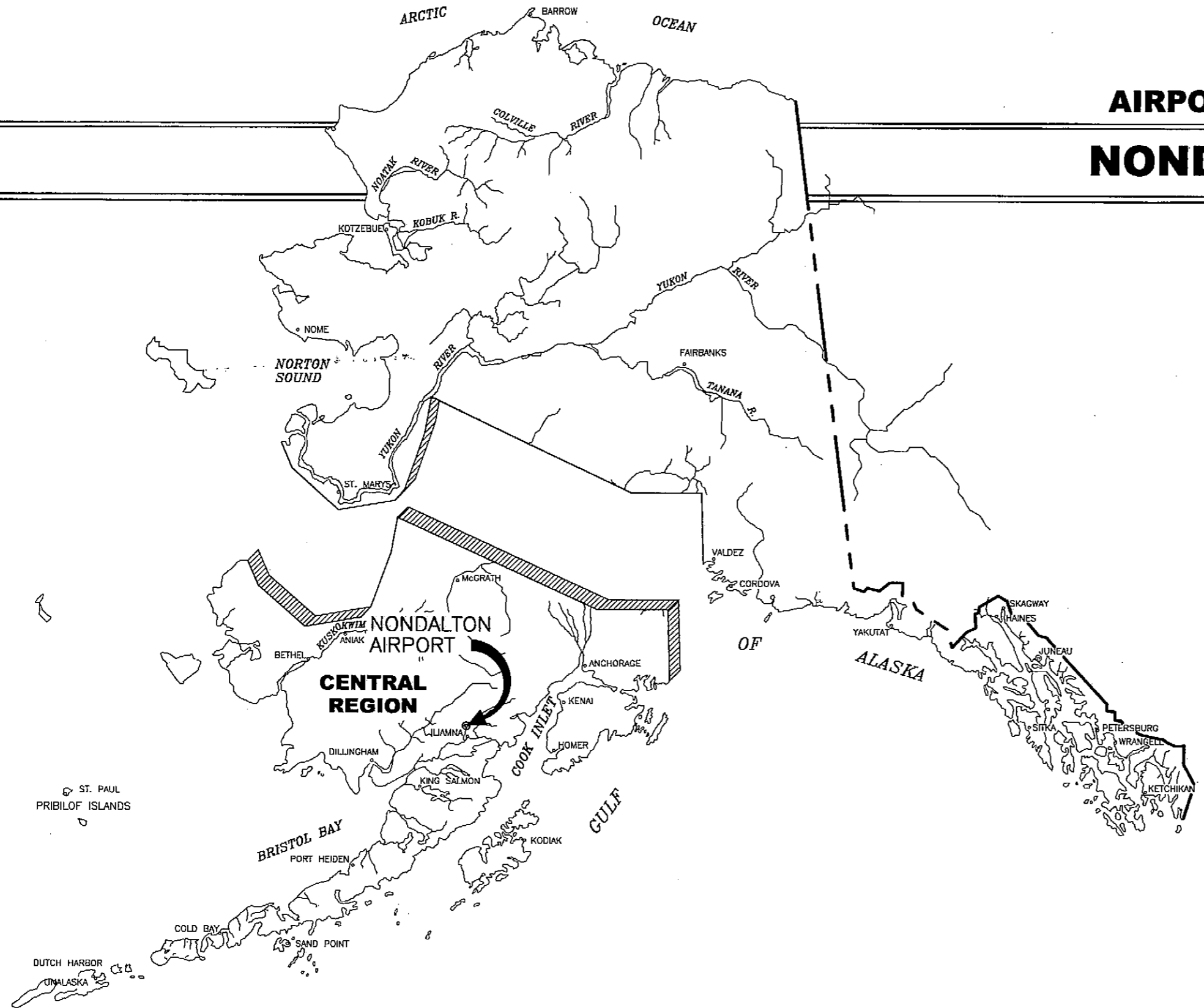
Attachment  
Nondalton ALP  
cc: AAL-530, ANC FPO/AVN-170G

# AIRPORT LAYOUT PLAN FOR NONDALTON AIRPORT

2004

## DRAWING INDEX

- 1 - COVER SHEET AND INDEX
- 2 - VICINITY MAP AND DATA TABLES
- 3 - EXISTING LAYOUT PLAN
- 4 - RUNWAY 02-20 PLAN AND PROFILE
- 5 - RUNWAY 12-30 PLAN AND PROFILE
- 6 - R/W 02-20 INNER PORTION OF THE APPROACH SURFACES
- 7 - R/W 12-30 INNER PORTION OF THE APPROACH SURFACES
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- 9 - PROPERTY PLAN
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- 11 - NARRATIVE REPORT



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

**CONCUR** *Steven R. Horn* **DATE** 7/2/04  
**STEVEN R. HORN, P.E.** **CONSTRUCTION & OPERATIONS DIRECTOR**

**APPROVED** *Robert A. Campbell* **DATE** 7/2/04  
**ROBERT A. CAMPBELL, P.E.** **REGIONAL PRECONSTRUCTION ENGINEER**

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL  
 SUBJECT TO ALP APPROVAL LETTER DATED 7/13/04

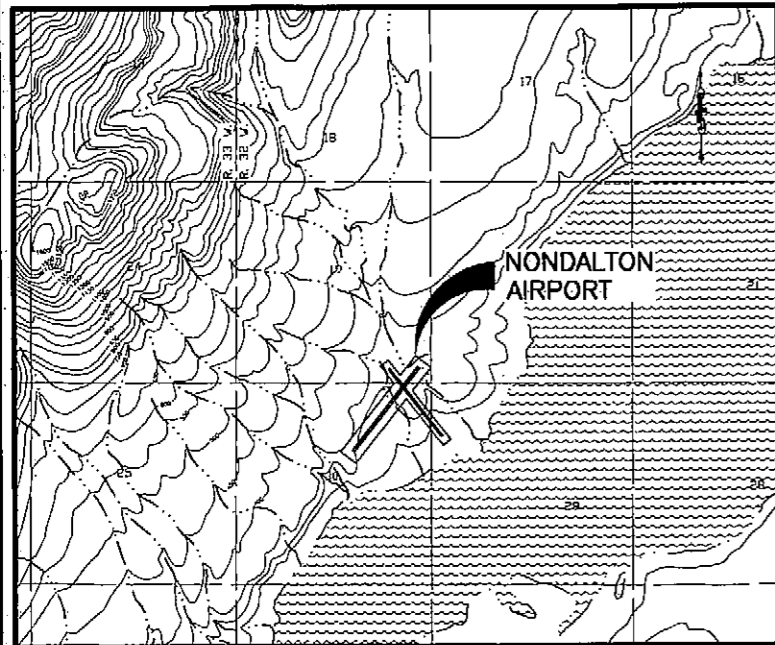
By: *Robert A. Campbell* DATE: 7/15/04

FAA, AIRPORTS DIVISION  
 ALASKAN REGION, AAL-801

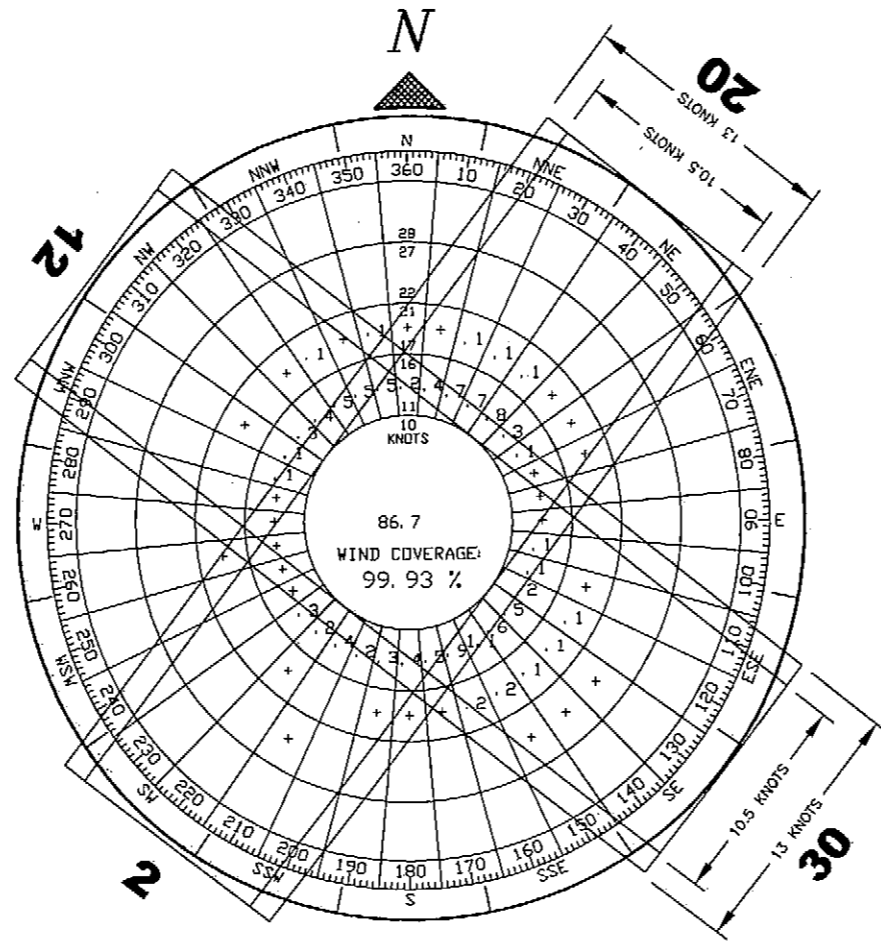
F.A.A. AIRSPACE REVIEW NUMBER:  
 03-AAL-23NRA

**NONDALTON AIRPORT  
AIRPORT LAYOUT PLAN**

**SHEET 1 OF 11**



**VICINITY MAP**  
 T 2 S, R 32 W, SEC. 19 & 30  
 SEWARD MERIDIAN  
 U.S.G.S. ILIAMNA (D-5), ALASKA



**WIND DATA**

WIND COVERAGE:	SPEED	R/W 2/20	R/W 12/30	TOTAL
	10.5 KNOTS	93.5%	94.53%	99.52%
	13 KNOTS	96.44%	96.98%	99.93%

SOURCE: HATTENBURG DILLEY & LINNELL ENGINEERING CONSULTANTS  
 STATION: NONDALTON, ALASKA  
 PERIOD: 05/2002 - 05/2003

**MODIFICATIONS TO STANDARDS**

ITEM	EXISTING	STANDARD	FUTURE
RUNWAY 12 APPROACH	9.3:1	20:1	RESTRICTED USE

**BASIC DATA TABLE**

**RUNWAY DATA**

ITEM	2 / 20		
	EXISTING	FUTURE	FUTURE
AIRPORT APPROACH CATEGORY	A	A	A
AIRPORT DESIGN GROUP	II	II	I
APPROACH SURFACES	20:1	20:1	20:1
INSTRUMENT RUNWAY	VISUAL	NPI	VISUAL
PAVEMENT STRENGTH	N/A	N/A	N/A
RUNWAY TYPE	UTILITY	UTILITY	UTILITY
% WIND COVERAGE	10.5 KNOTS 93.5%	93.5%	94.53%
	13 KNOTS 96.44%	96.44%	96.98%
RUNWAY DIMENSION	75'x2800'	75'x2800'	60'x2240'
RUNWAY SAFETY AREA DIMENSION	150'x3400'	150'x3400'	120'x2720'
GEODEIC POSITIONS (N.A.D. 83)			
THRESHOLD - 2	(LCMF) LAT. *59°58'37.91" N (LCMF) LONG. *154°50'37.84" W	*59°58'37.91" N *154°50'37.84" W	
THRESHOLD - 20	(LCMF) LAT. *59°58'59.75" N (LCMF) LONG. *154°50'04.22" W	*59°58'59.75" N *154°50'04.22" W	
THRESHOLD - 12			LAT. 59°58'59.29" N LONG. 154°50'19.43" W
THRESHOLD - 30			LAT. 59°58'42.02" N LONG. 154°49'52.02" W
RUNWAY TOUCHDOWN ELEVATION	301.4' / 310.3'	301.4' / 310.3'	271.2' / 316'
RUNWAY LIGHTING	M.I.	M.I.	M.I.
RUNWAY PROTECTION ZONE DIMENSIONS	INNER	250'	250'
	OUTER	450'	450'
	LENGTH	1000'	1000'
RUNWAY MARKING	NONE	NONE	NONE
RUNWAY OBJECT FREE AREA DIMENSION	500'x3400'	500'x3400'	400'x2720'
RUNWAY OBSTACLE FREE ZONE DIMENSION	250'x3200'	250'x3200'	250'x2640'
VISIBILITY MINIMUM	VISUAL	1 S.M.	VISUAL
RUNWAY NAVIGATION AIDS	NONE	PAPI	NONE
RUNWAY SURFACE	GRAVEL	GRAVEL	GRAVEL
EFFECTIVE GRADE	0.31%	0.31%	2.0%

**AIRPORT DATA**

ITEM	EXISTING	FUTURE
ICAO IDENTIFIER	NONE	NONE
NATIONAL AIRPORT IDENTIFIER	NNL	NNL
AIRPORT ELEVATION (M.S.L.)	310.5	316
AIRPORT REFERENCE POINT (A.R.P.)	(LCMF) LAT. *59°58'48.83" N (LCMF) LONG. *154°50'21.03" W	**59°58'49.64" N **154°50'14.23" W
MEAN MAX. TEMPERATURE, HOTTEST MONTH (JULY)	55.6°F	55.6°F
TERMINAL NAVIGATION AIDS	NONE	NONE
AIRPORT NAVIGATION AIDS	ROT. BEACON	ROT. BEACON
TAXIWAY LIGHTING & MARKING	M.I.	M.I.
RAMP LIGHTING	NONE	NONE
MAGNETIC DECLINATION, YEAR	18°53'E, 2003	

\* THE COORDINATE VALUES SHOWN AS (LCMF) ARE TAKEN FROM THE NONDALTON AIRPORT FAA GPS SURVEY, PERFORMED ON JULY 14, 1998 BY LCMF INCORPORATED. LCMF TIED ONE EXISTING AIRPORT MONUMENT AT CENTERLINE STA. 8+00 AND SET THE OTHER CONTROL POINTS DURING THIS SURVEY. SINCE ONLY ONE EXISTING SURVEY POINT WAS TIED, THIS SURVEY CANNOT BE TIED INTO PREVIOUS AIRPORT CONTROL SURVEYS.

\*\*THE COORDINATE VALUES ARE APPROXIMATE CALCULATED VALUES BASED ON THE LCMF SURVEY REFERENCED ABOVE.

**LEGEND**

ITEM	EXISTING	FUTURE
PROPERTY LINE	---	---
BUILDING RESTRICTION LINE	---	---
TREES	~ ~ ~	~ ~ ~
AIRPORT REFERENCE POINT (A.R.P.)	⊙	⊙
WIND CONE AND SEGMENTED CIRCLE	⊙	⊙
CONTOURS	100	100
ROADWAYS	---	---
BUILDINGS	■	■
ROTATING BEACON	⊙	⊙
SHORELINE	~ ~ ~	~ ~ ~
FENCE	-x-x-	-x-x-
THRESHOLD	⊙	⊙
PAPI	••••	••••

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 DATE: 1=1 veploc

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL  
 SUBJECT TO ALP APPROVAL LETTER DATED 7/13/04

By: *[Signature]* DATE: 7/15/04  
 FAA, AIRPORTS DIVISION  
 ALASKAN REGION, AAL-601

FAA AIRSPACE REVIEW NUMBER: 03-AAL-23NRA

BY	DATE	REVISIONS

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

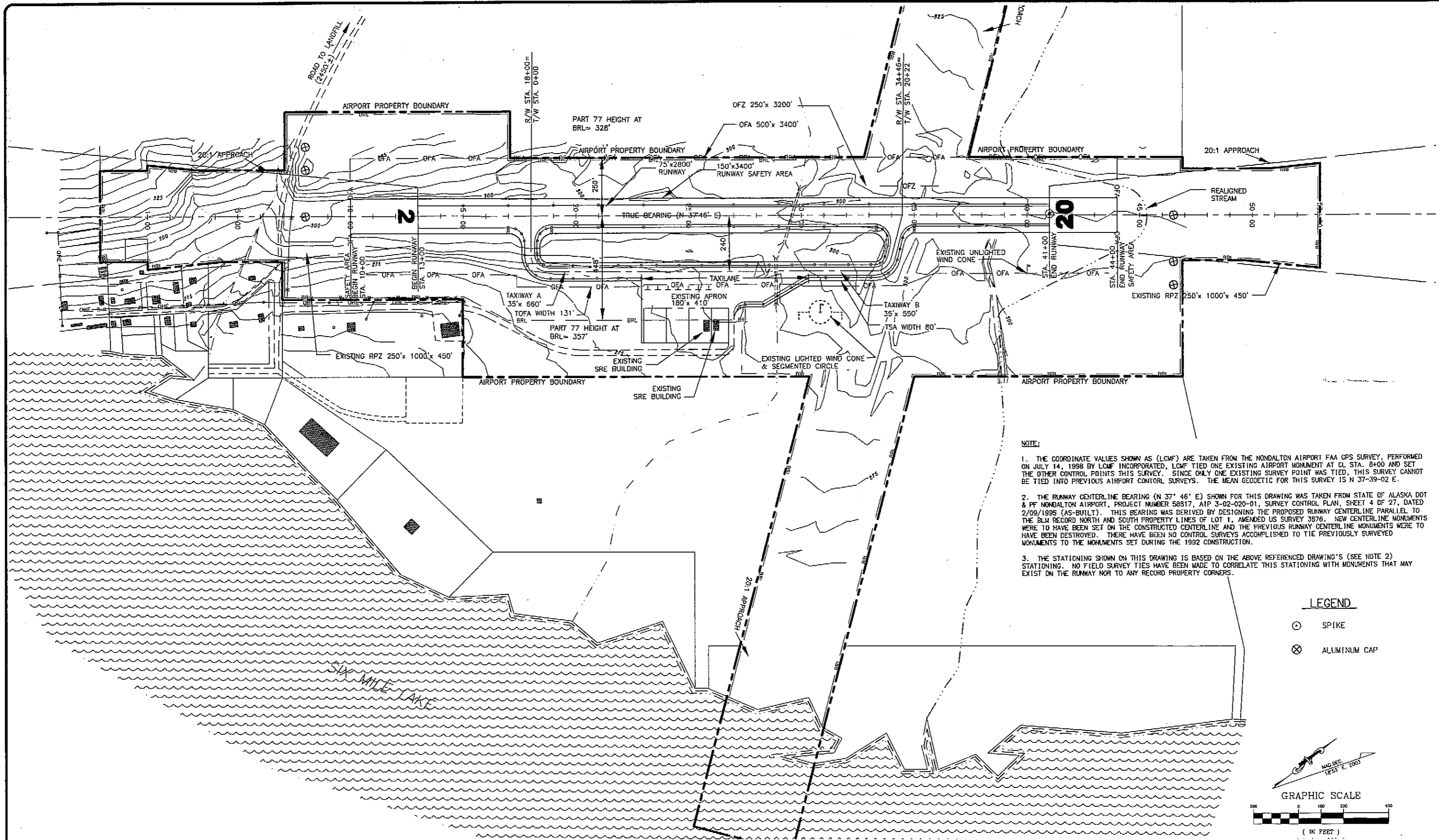
APPROVED: *[Signature]* DESIGN SECTION CHIEF  
 STEPHEN M. RYAN, P.E.

APPROVED: *[Signature]* PROJECT MANAGER  
 HARVEY M. DOUTHETT, P.E.

DATE 03/02/04  
 DESIGN JMR  
 DRAWN MGT  
 CHECKED TJS

**NONDALTON AIRPORT**  
 NONDALTON, ALASKA

AIRPORT LAYOUT PLAN  
 VICINITY MAP AND DATA TABLES

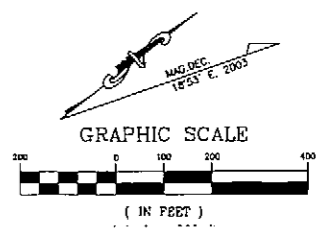


**NOTE:**

1. THE COORDINATE VALUES SHOWN AS (LCMF) ARE TAKEN FROM THE NONDALTON AIRPORT FAA GPS SURVEY, PERFORMED ON JULY 14, 1998 BY LCMF INCORPORATED, LCMF TIED ONE EXISTING AIRPORT MONUMENT AT CL STA. 8+00 AND SET THE OTHER CONTROL POINTS THIS SURVEY. SINCE ONLY ONE EXISTING SURVEY POINT WAS TIED, THIS SURVEY CANNOT BE TIED INTO PREVIOUS AIRPORT CONTROL SURVEYS. THE MEAN GEODETIC FOR THIS SURVEY IS N 37-39-02 E.
2. THE RUNWAY CENTERLINE BEARING (N 37° 46' E) SHOWN FOR THIS DRAWING WAS TAKEN FROM STATE OF ALASKA DOT & PF NONDALTON AIRPORT, PROJECT NUMBER 58517, AIP 3-02-020-01, SURVEY CONTROL PLAN, SHEET 4 OF 27, DATED 2/09/1995 (AS-BUILT). THIS BEARING WAS DERIVED BY DESIGNING THE PROPOSED RUNWAY CENTERLINE PARALLEL TO THE BLM RECORD NORTH AND SOUTH PROPERTY LINES OF LOT 1, AMENDED US SURVEY 3876. NEW CENTERLINE MONUMENTS WERE TO HAVE BEEN SET ON THE CONSTRUCTED CENTERLINE AND THE PREVIOUS RUNWAY CENTERLINE MONUMENTS WERE TO HAVE BEEN DESTROYED. THERE HAVE BEEN NO CONTROL SURVEYS ACCOMPLISHED TO TIE PREVIOUSLY SURVEYED MONUMENTS TO THE MONUMENTS SET DURING THE 1992 CONSTRUCTION.
3. THE STATIONING SHOWN ON THIS DRAWING IS BASED ON THE ABOVE REFERENCED DRAWING'S (SEE NOTE 2) STATIONING. NO FIELD SURVEY TIES HAVE BEEN MADE TO CORRELATE THIS STATIONING WITH MONUMENTS THAT MAY EXIST ON THE RUNWAY NOR TO ANY RECORD PROPERTY CORNERS.

**LEGEND**

- ⊙ SPIKE
- ⊗ ALUMINUM CAP



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DATE: 1=1 v=plan

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL  
SUBJECT TO ALP APPROVAL LETTER DATED 7/13/04  
BY: *[Signature]* DATE: 7/15/04  
FAA, AIRPORTS DIVISION  
ALASKAN REGION, AAL-601  
FAA AIRSPACE REVIEW NUMBER: 03-AAL-23NRA

BY	DATE	REVISIONS

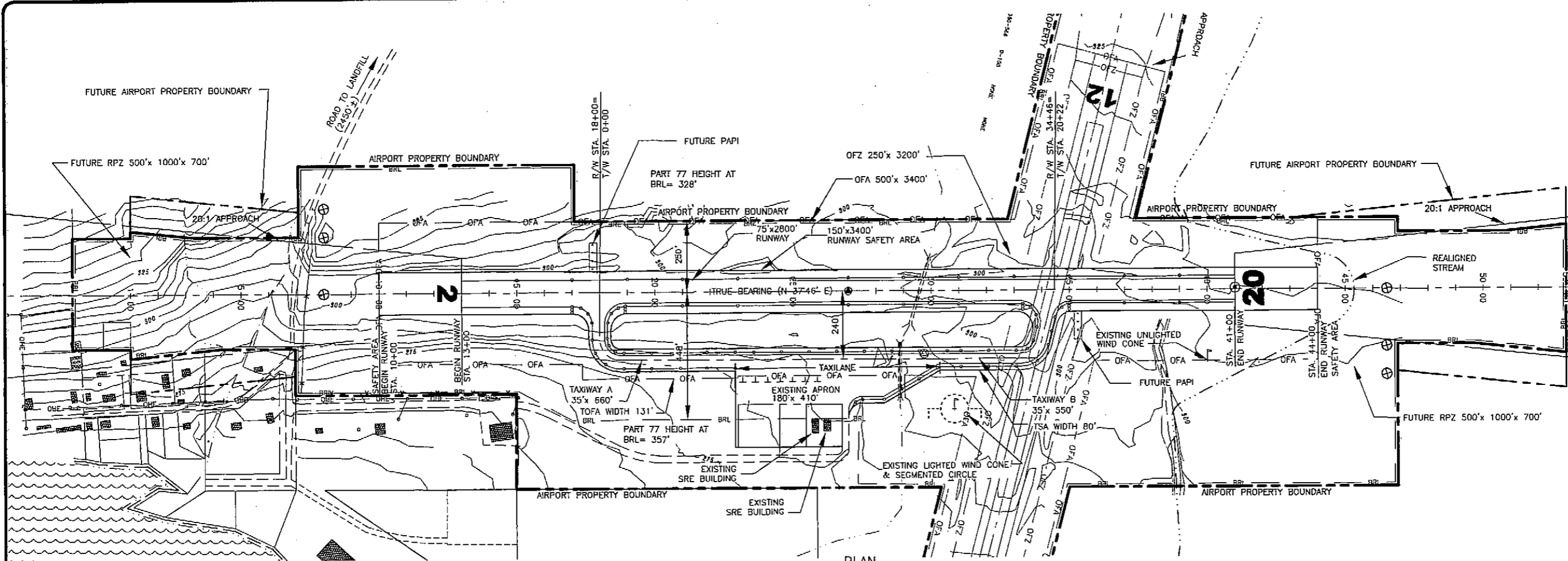
STATE OF ALASKA  
**DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES**  
CENTRAL REGION

APPROVED: *[Signature]* DESIGN SECTION CHIEF  
STEPHEN M. RYAN, P.E.  
APPROVED: *[Signature]* PROJECT MANAGER  
HARVEY M. DOUTHETT, P.E.

DATE 03/02/04  
DESIGN JMR  
DRAWN MGT  
CHECKED TJS

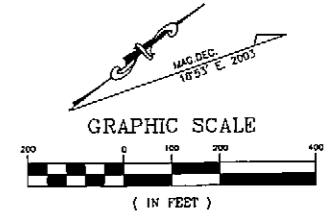
**NONDALTON AIRPORT**  
NONDALTON, ALASKA  
AIRPORT LAYOUT PLAN  
EXISTING LAYOUT PLAN

SHEET  
3  
OF  
11

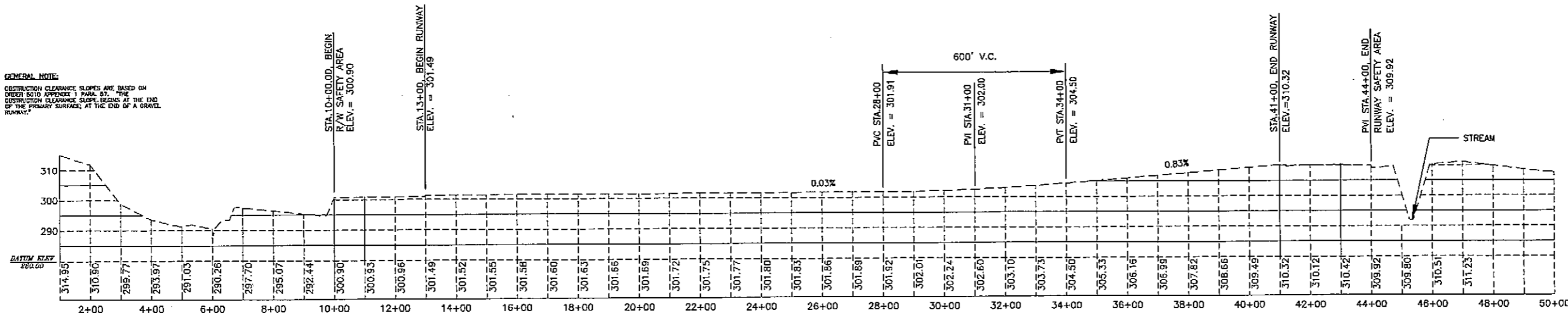


PLAN  
HORZ: 1" = 200'

NOTE: NO OFZ OBJECT PENETRATIONS.



GENERAL NOTE:  
OBSTRUCTION CLEARANCE SLOPES ARE BASED ON  
ORDER 5010 APPENDIX 1, PAR. 67. THE  
OBSTRUCTION CLEARANCE SLOPE BEGINS AT THE END  
OF THE PRIMARY SURFACE, AT THE END OF A GRAVEL  
RUNWAY.

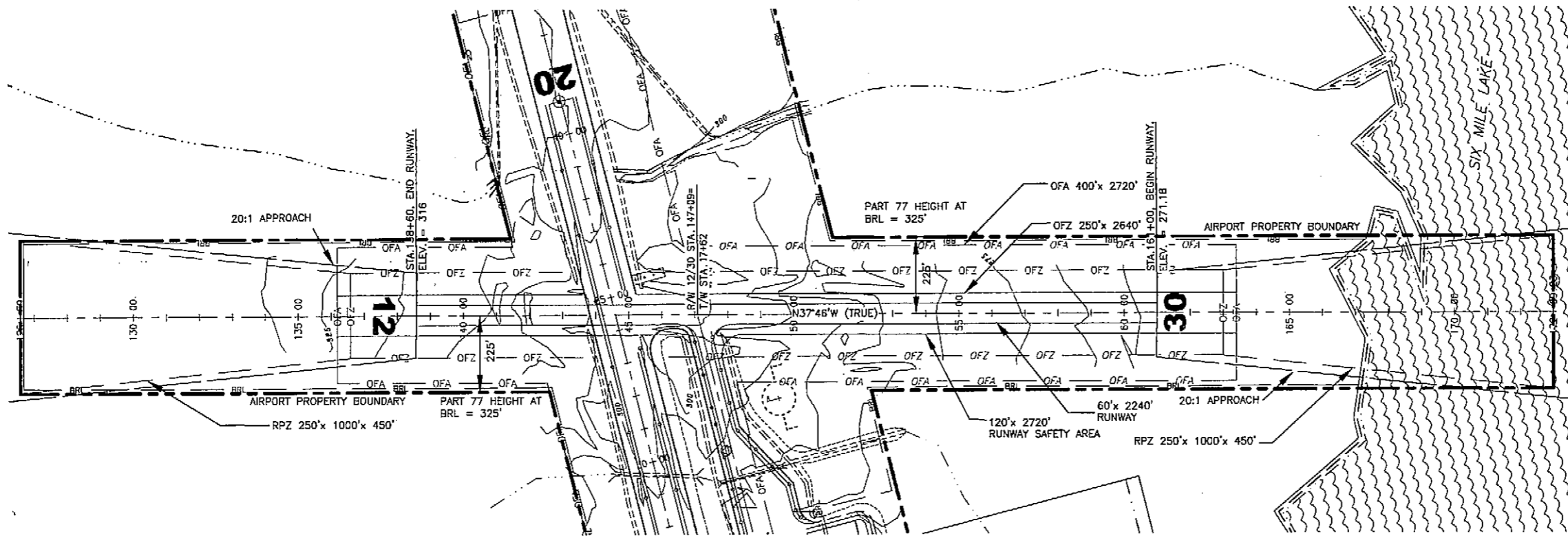


PROFILE  
HORZ: 1" = 200'  
VERT: 1" = 10'

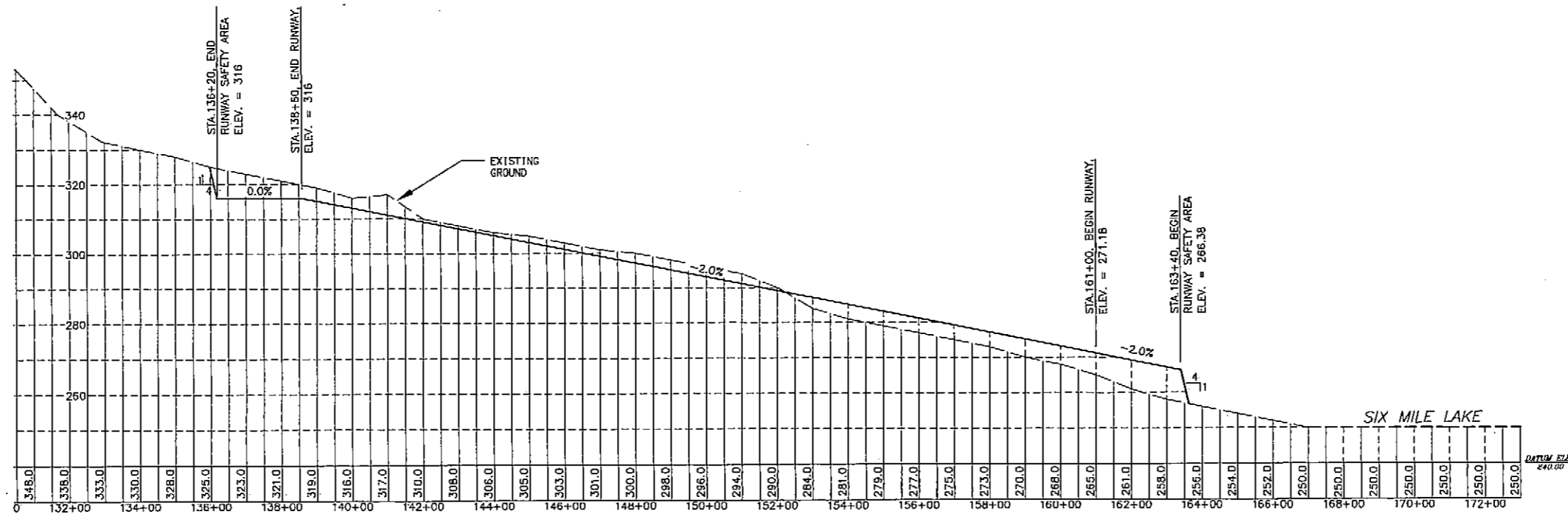
- LEGEND
- ⊙ SPIKE
  - ⊗ ALUMINUM CAP

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NOTE: NO OFZ OBJECT PENETRATIONS.



LEGEND

○ SPIKE

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AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL  
SUBJECT TO ALP APPROVAL LETTER DATED 7/12/04

By: [Signature] DATE: 7/15/04  
FAA, AIRPORTS DIVISION  
ALASKAN REGION, AAL-801

FAA AIRSPACE REVIEW NUMBER: 03-AAL-23NRA

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
CENTRAL REGION

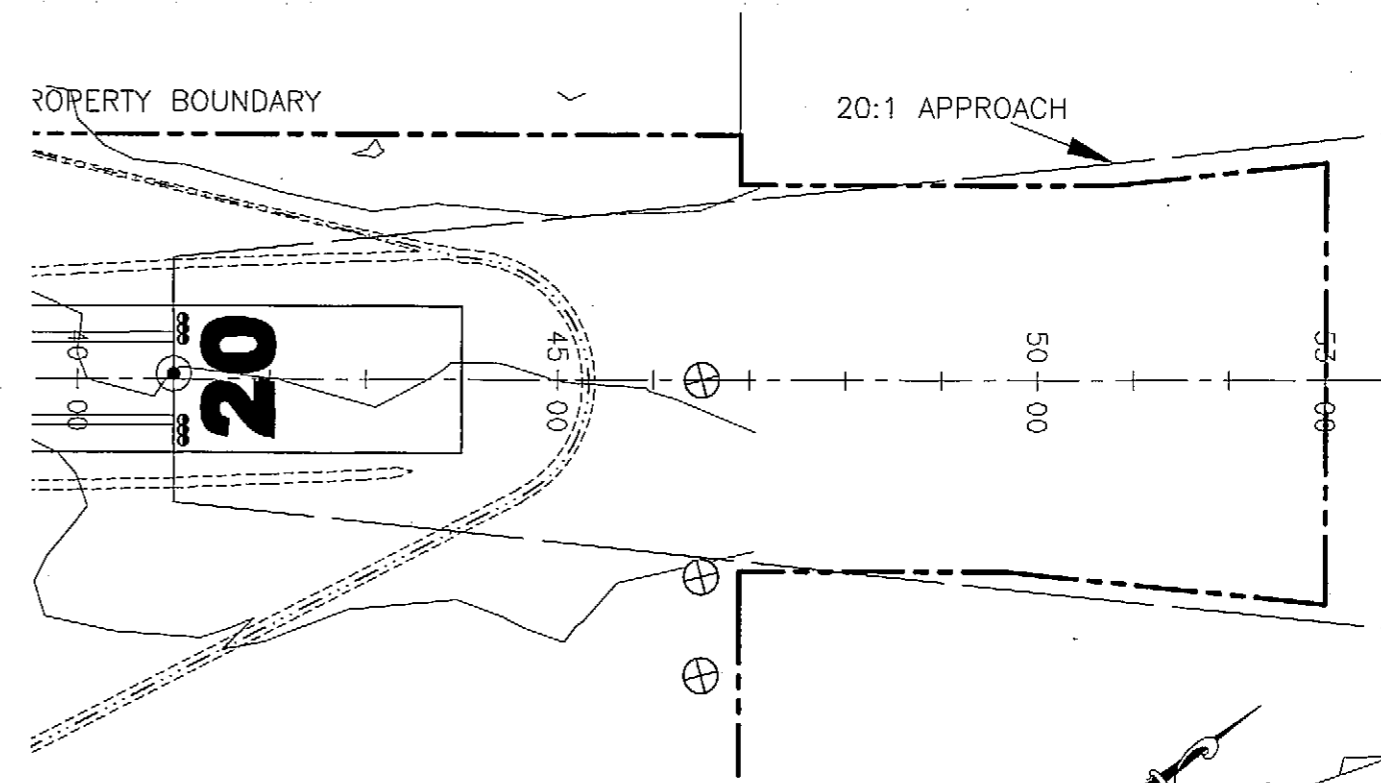
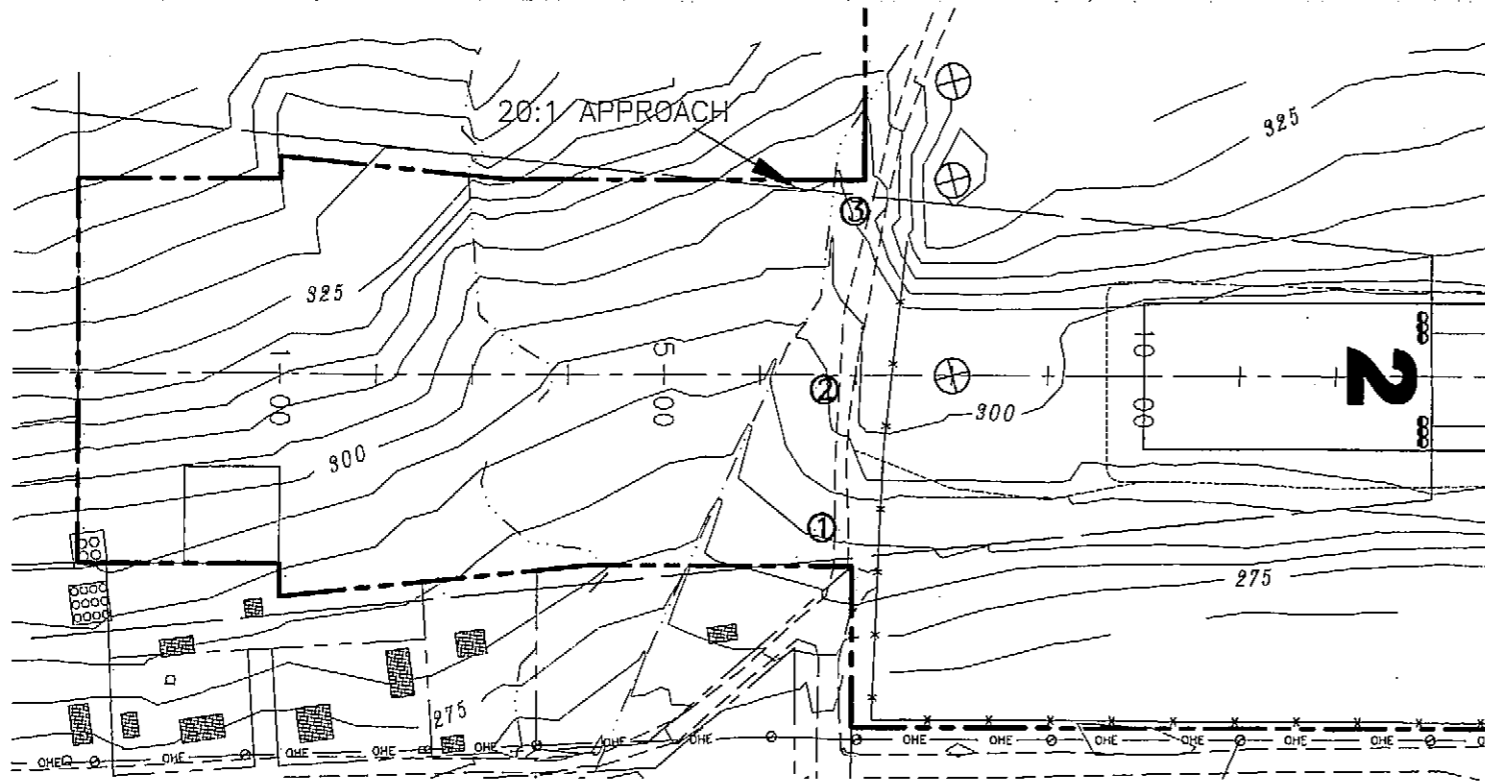
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APPROVED: [Signature] PROJECT MANAGER  
HARVEY M. DOUTHETT, P.E.

DATE 03/02/04  
DESIGN JMR  
DRAWN MGT  
CHECKED TJS

**NONDALTON AIRPORT**

NONDALTON, ALASKA  
AIRPORT LAYOUT PLAN  
RUNWAY 12-30  
PLAN AND PROFILE

SHEET  
5  
OF  
11

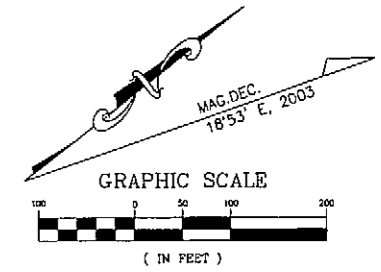


F.A.R. PART 77 IMAGINARY SURFACE OBSTRUCTION TABLE (INNER PORTION)

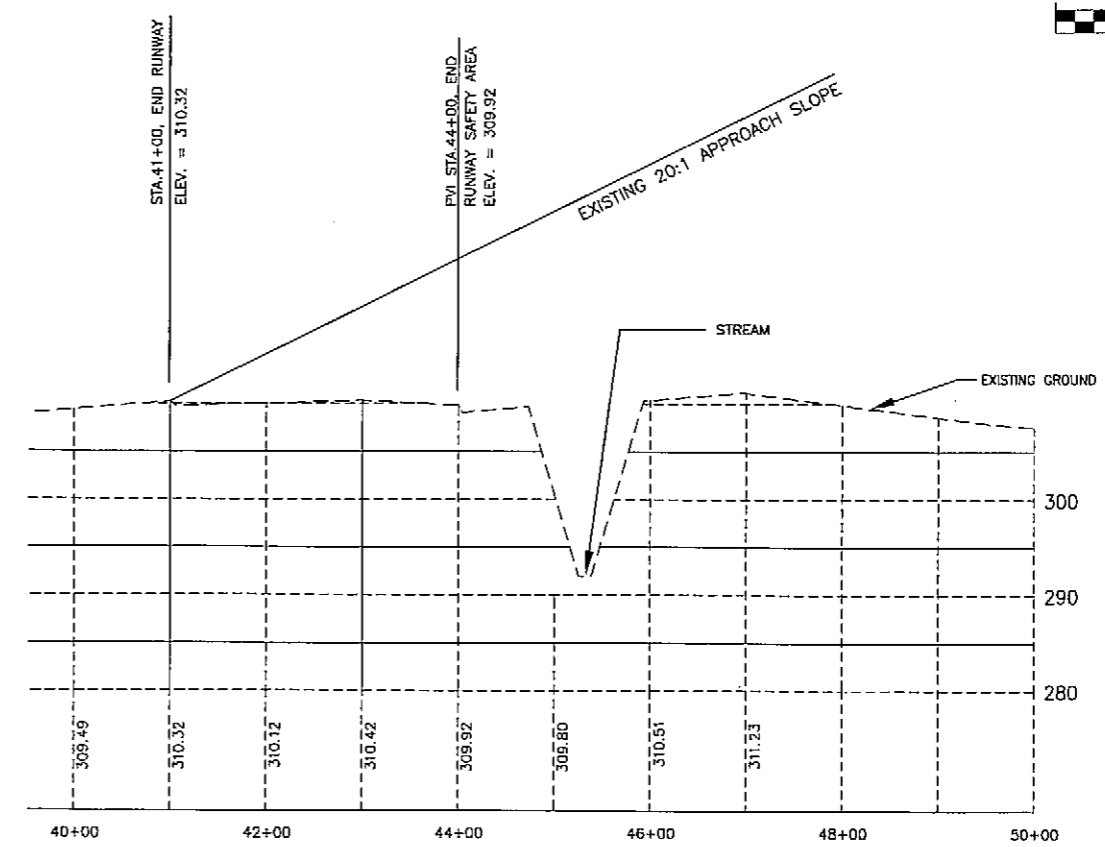
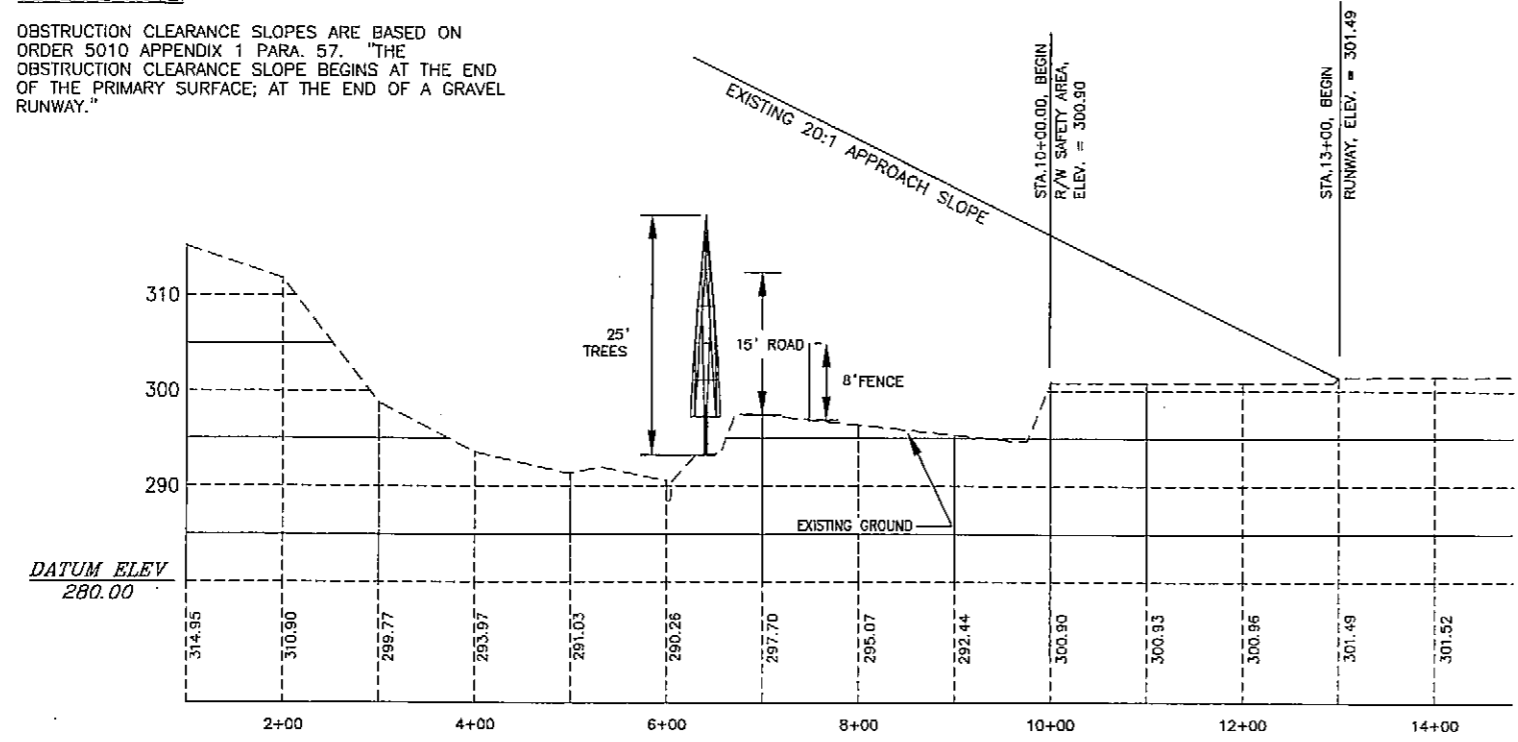
OBSTRUCTION ID	DESCRIPTION	OBSTRUCTION DIST/OFFSET	OBSTRUCTION ELEVATION	SURFACE PENETRATED	SURFACE ELEVATION	AMOUNT OF PENETRATION	DISPOSITION	STAGE TO BE CORRECTED
1	ROAD	615/155	282	N/A	332	0	N/A	N/A
2	ROAD	632/0	298	N/A	333	0	N/A	N/A
3	ROAD	575/168	310	N/A	330	0	N/A	N/A

**GENERAL NOTE:**  
 OBSTRUCTION CLEARANCE SLOPES ARE BASED ON ORDER 5010 APPENDIX 1 PARA. 57. "THE OBSTRUCTION CLEARANCE SLOPE BEGINS AT THE END OF THE PRIMARY SURFACE; AT THE END OF A GRAVEL RUNWAY."

- NOTES:**
1. NO THRESHOLD SITING SURFACE OBJECT PENETRATIONS.
  2. OBSTRUCTION CLEARANCE SLOPE IS 34:1 FOR R/W 02 AND IS >50:1 FOR R/W 20.

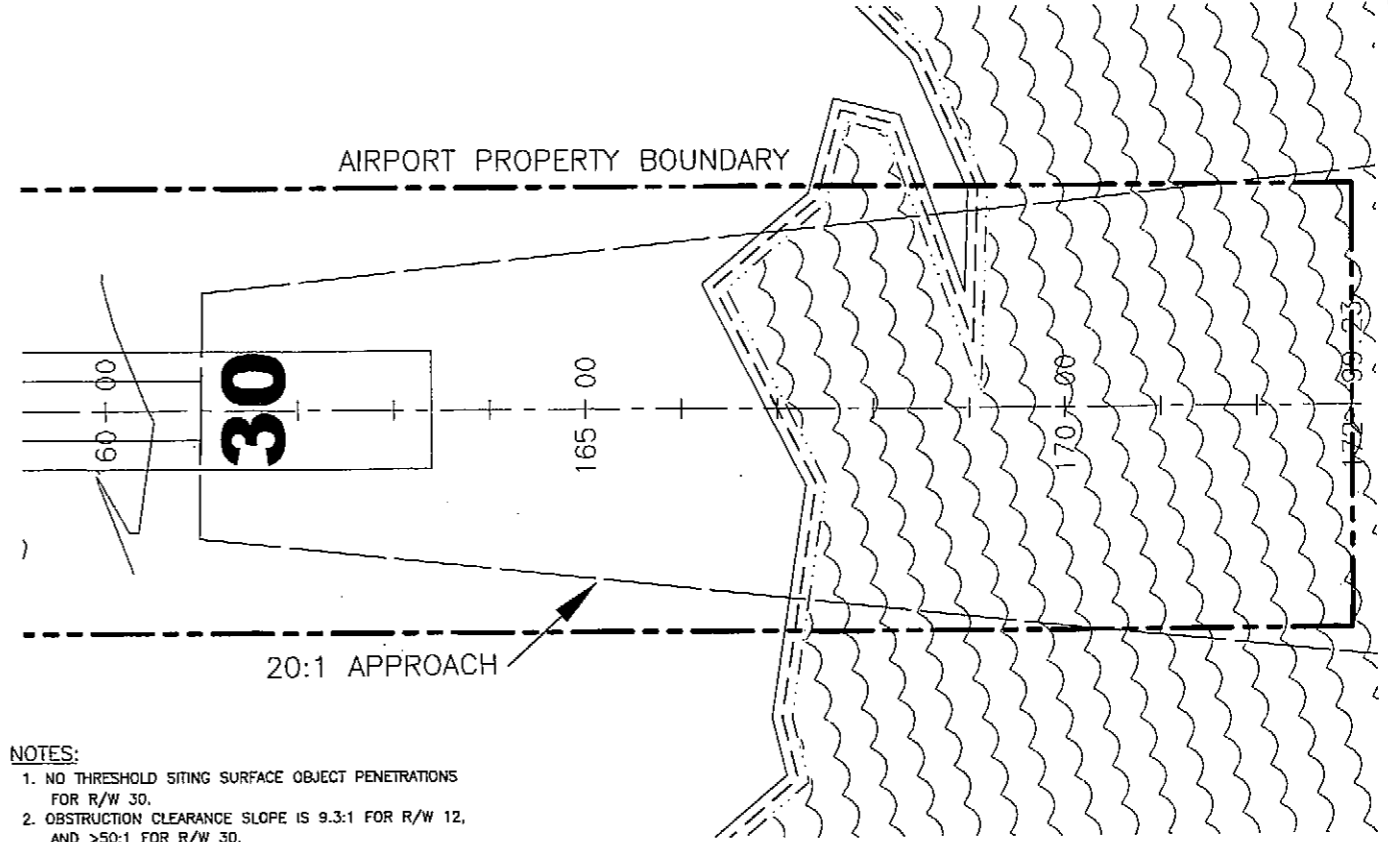
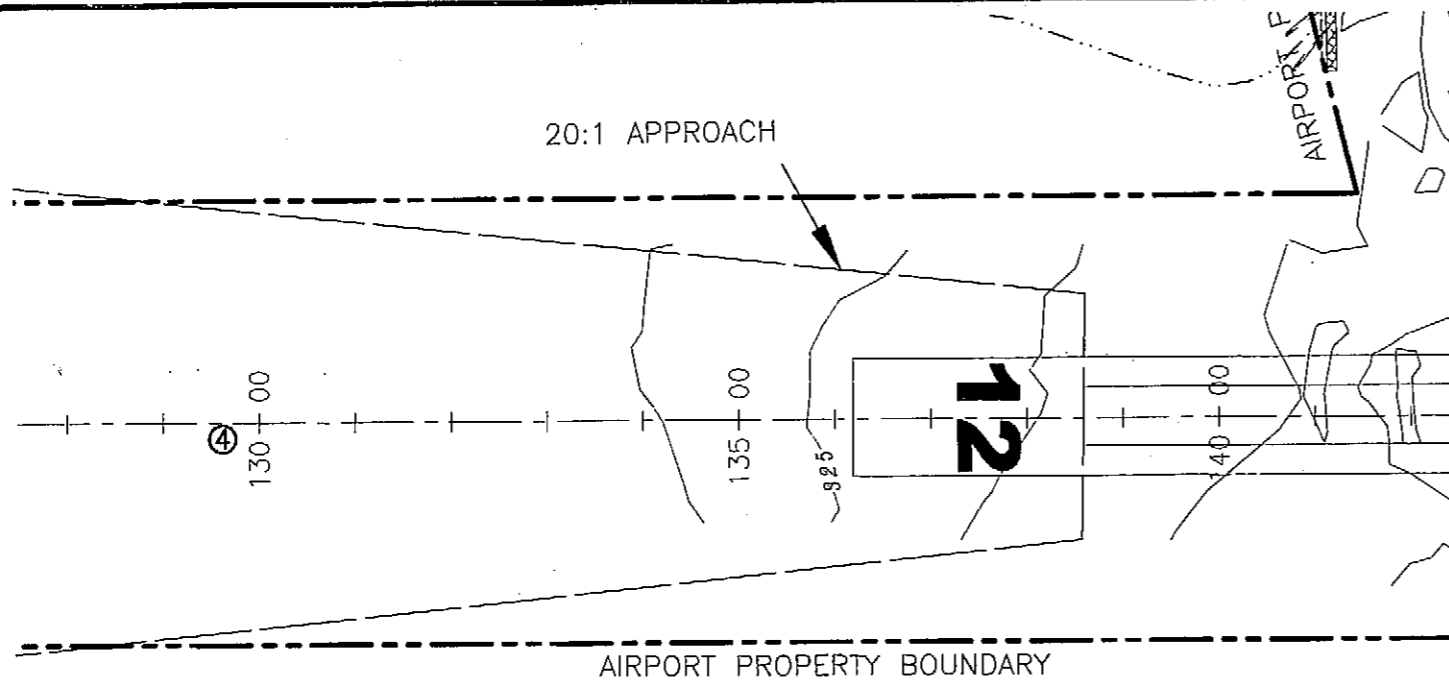


- LEGEND**
- ⊙ SPIKE
  - ⊗ ALUMINUM CAP



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FILE: DATE: 1=1 vsp1n	AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL SUBJECT TO ALP APPROVAL LETTER DATED <u>7/13/04</u> BY: <u>[Signature]</u> DATE: <u>7/15/04</u> FAA, AIRPORTS DIVISION ALASKAN REGION, AAL-801	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION	DATE <u>06/23/04</u> DESIGN <u>JMR</u> DRAWN <u>MGT</u> CHECKED <u>TJS</u>	<b>NONDALTON AIRPORT</b> NONDALTON, ALASKA AIRPORT LAYOUT PLAN R/W 2-20 INNER PORTION OF THE APPROACH SURFACES	SHEET <b>6</b> OF <b>11</b>
	FAA AIRSPACE REVIEW NUMBER: 03-AAL-23NRA	BY _____ DATE _____ REVISIONS _____	APPROVED: <u>[Signature]</u> STEPHEN M. RYAN, P.E. DESIGN SECTION CHIEF APPROVED: <u>[Signature]</u> HARVEY M. DOUTHETT, P.E. PROJECT MANAGER		



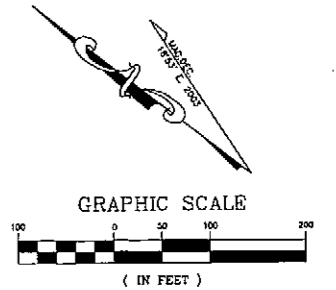
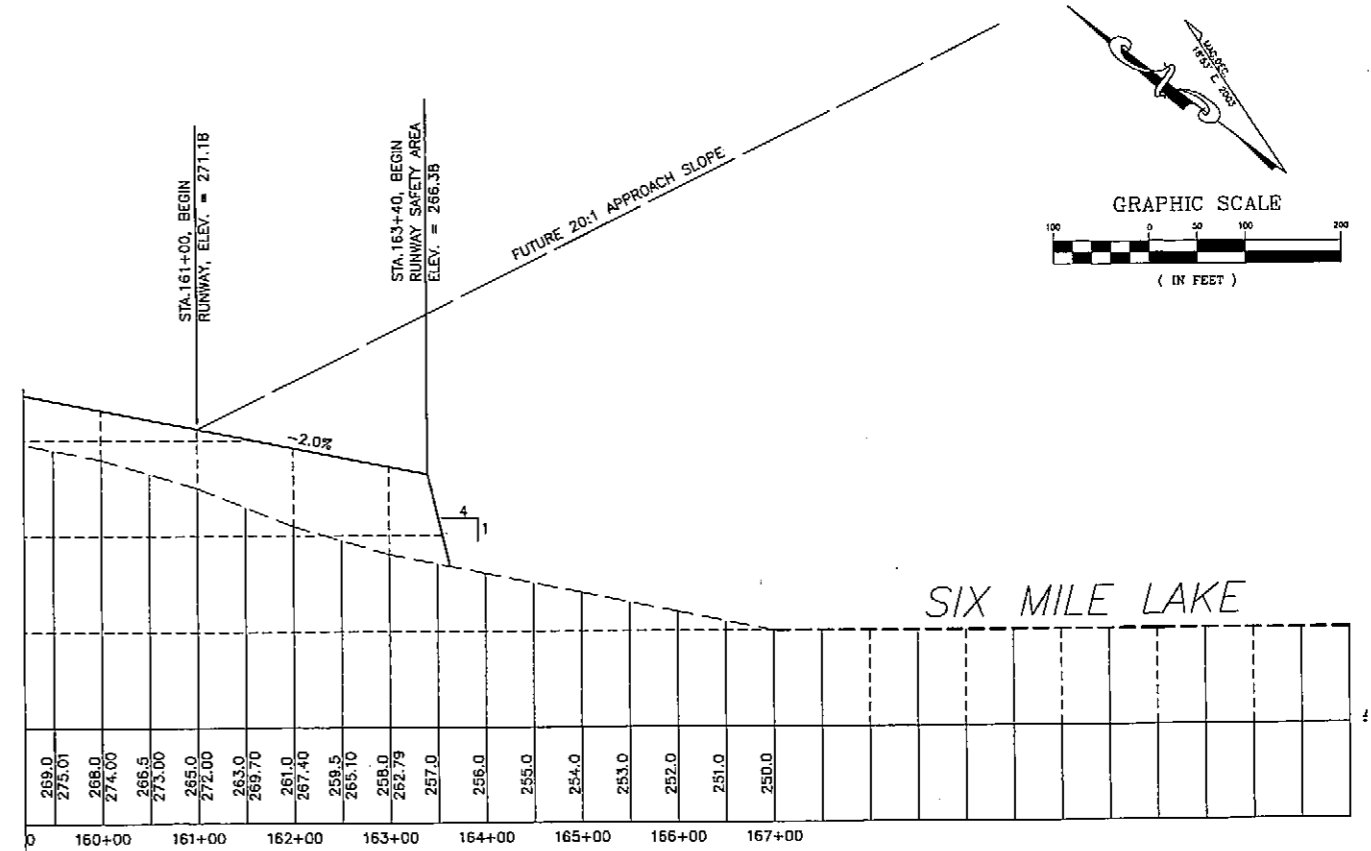
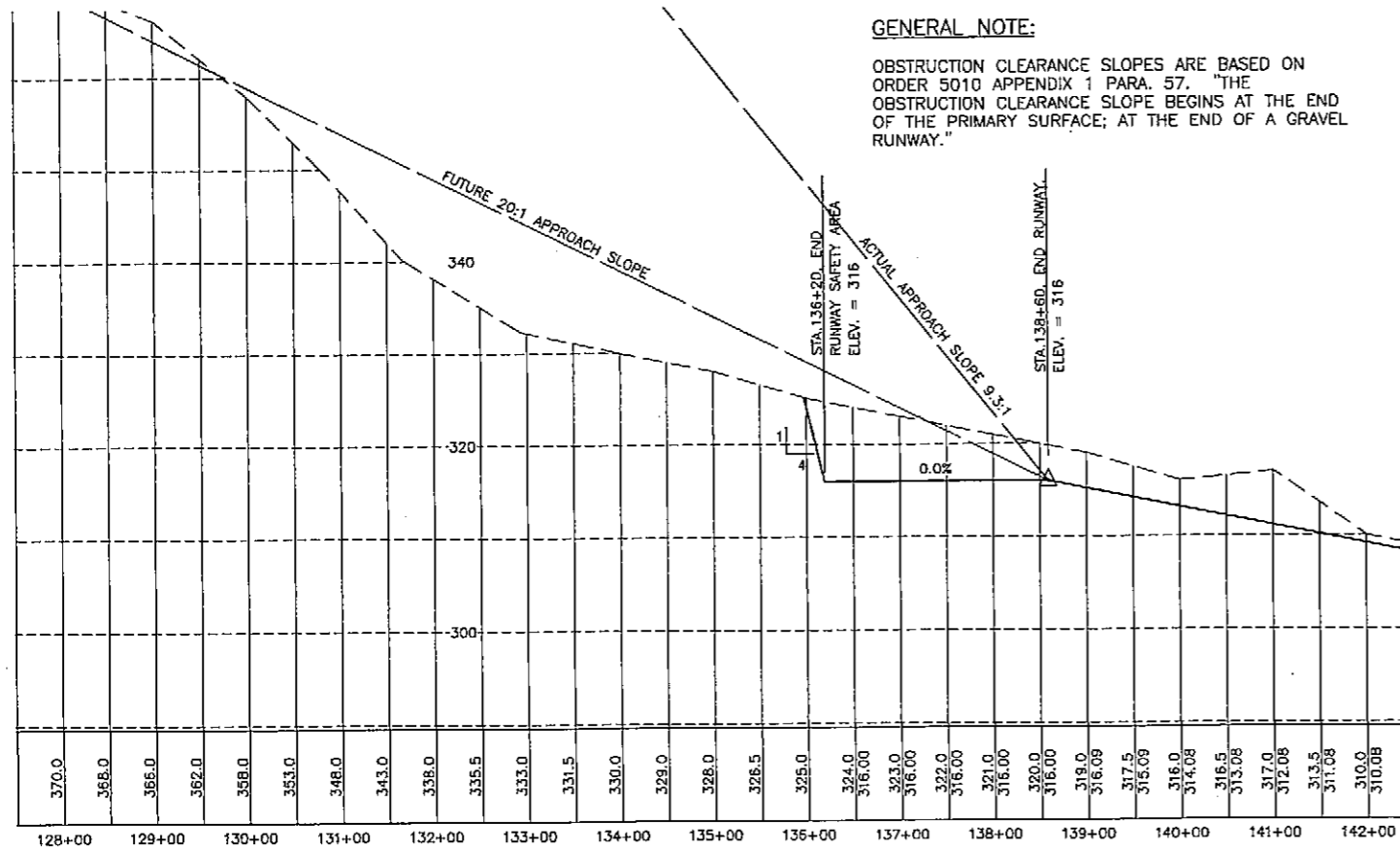
F.A.R. PART 77 IMAGINARY SURFACE OBSTRUCTION TABLE (INNER PORTION)

OBSTRUCTION ID	DESCRIPTION	OBSTRUCTION DIST/OFFSET	OBSTRUCTION ELEVATION	SURFACE PENETRATED	SURFACE ELEVATION	AMOUNT OF PENETRATION	DISPOSITION	STAGE TO BE CORRECTED
4	TERRAIN	900/0	360-566	APPROACH	360-566	0-100	NONE	NONE

- NOTES:
- NO THRESHOLD SITING SURFACE OBJECT PENETRATIONS FOR R/W 30.
  - OBSTRUCTION CLEARANCE SLOPE IS 9.3:1 FOR R/W 12, AND >50:1 FOR R/W 30.

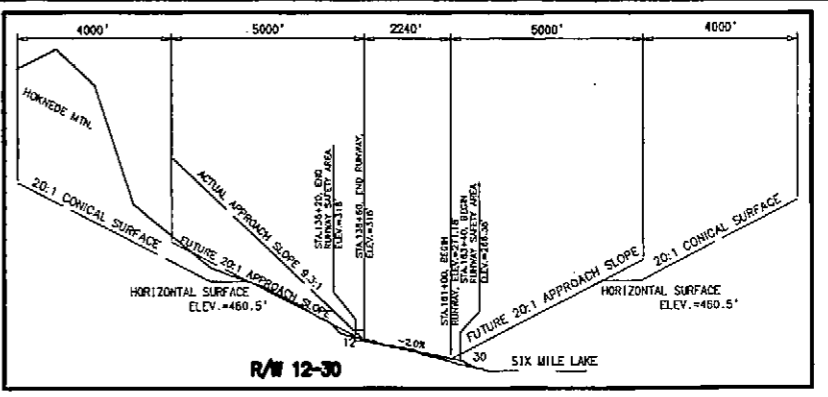
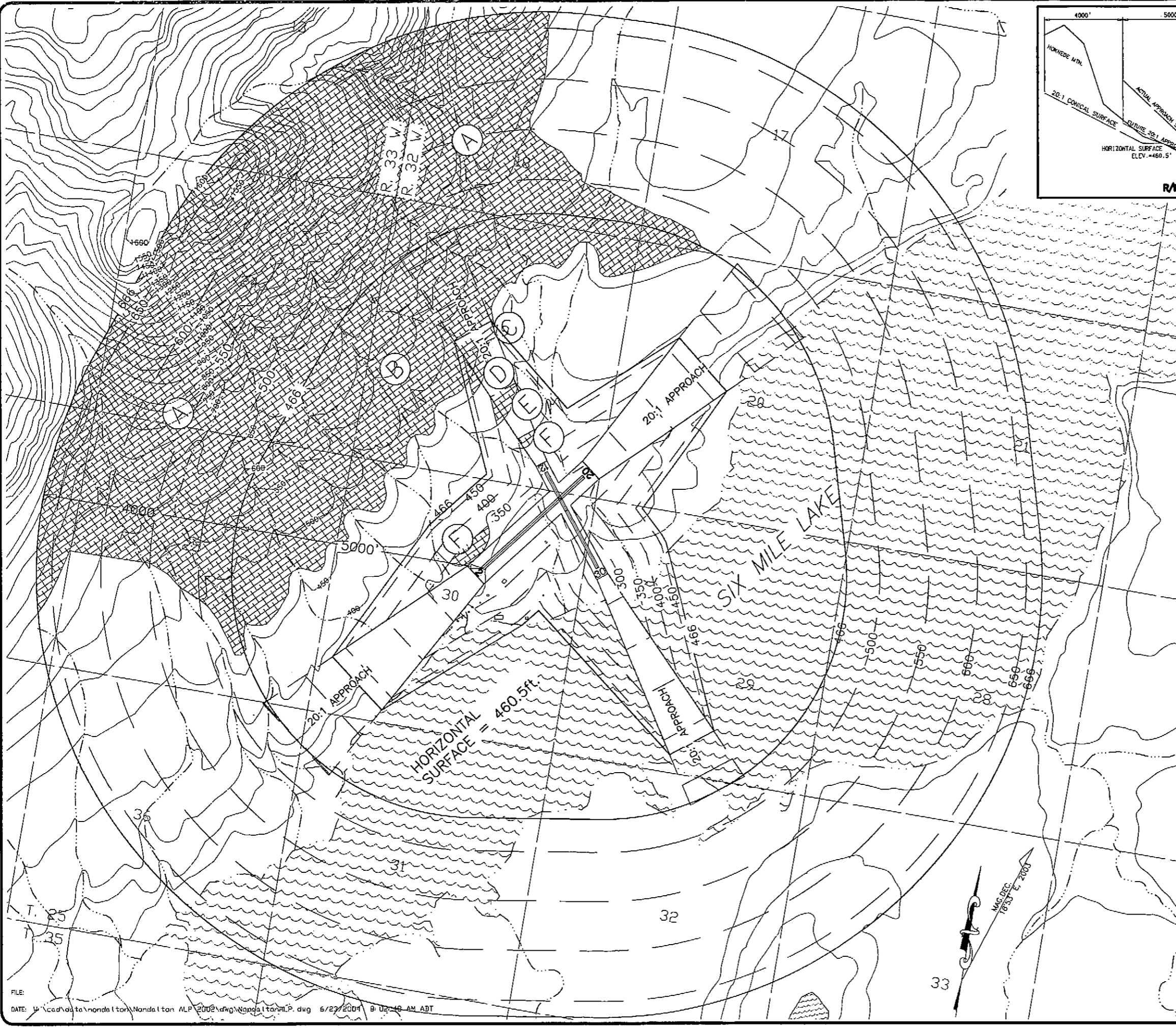
GENERAL NOTE:

OBSTRUCTION CLEARANCE SLOPES ARE BASED ON ORDER 5010 APPENDIX 1 PARA. 57. "THE OBSTRUCTION CLEARANCE SLOPE BEGINS AT THE END OF THE PRIMARY SURFACE; AT THE END OF A GRAVEL RUNWAY."



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FILE: DATE: 1=1 v=plan	AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL SUBJECT TO ALP APPROVAL LETTER DATED <u>7/13/04</u> By: <u>[Signature]</u> DATE: <u>7/15/04</u> FAA, AIRPORTS DIVISION ALASKAN REGION, AAL-801	STATE OF ALASKA <b>DEPARTMENT OF TRANSPORTATION          AND PUBLIC FACILITIES</b> CENTRAL REGION APPROVED: <u>[Signature]</u> STEPHEN M. RYAN, P.E. APPROVED: <u>[Signature]</u> HARVEY M. DOUTHETT, P.E.	DATE: <u>06/23/04</u> DESIGN: JMR DRAWN: MGT CHECKED: TJS DESIGN SECTION CHIEF PROJECT MANAGER	<b>NONDALTON AIRPORT</b> NONDALTON, ALASKA AIRPORT LAYOUT PLAN R/W 12-30 INNER PORTION OF THE APPROACH SURFACES	SHEET 7 OF 11
	FAA AIRSPACE REVIEW NUMBER: 03-AAL-23NRA	BY: DATE: REVISIONS:			



**FAR PART 77 IMAGINARY SURFACE OBSTRUCTION TABLE**

Obstruction ID	Description	Obstruction Elevation	Surface Penetrated	Part 77 Surface Elevation	Max. Amount of Penetration	Disposition	Stage
A	Terrain	1650'	Conical	666'	984'	N/A	Existing
B	Terrain	555'	Horizontal	456'	184.5'	N/A	Existing
C	Terrain	470'	Transitional	450'-466'	20'	N/A	Existing
D	Terrain	461'	Transitional	400'-450'	20'	N/A	Existing
E	Terrain	410'	Transitional	350'-400'	10'	N/A	Existing
F	Terrain	360'	Transitional	300'-350'	40'	N/A	Existing

**NOTES:**

1. USGS QUADRANGLE MAPS ILLIANA D-5 AND LAKE CLARK A-5 WERE USED FOR THE BASE MAP.
2. OBSTRUCTION ELEVATIONS ARE ESTIMATED FROM USGS MAPPING.
3. ULTIMATE AIRPORT ELEVATION IS 315'.
4. PER APPENDIX 2, SECTION E OF PARAGRAPH 5, NO THRESHOLD SITING SURFACE OBJECT PENETRATIONS.

F.A.A. AIRSPACE REVIEW NUMBER:  
03-AAL-23NRA

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL  
SUBJECT TO ALP APPROVAL LETTER DATED 7/12/04

By: *[Signature]* DATE: 7/12/04

F.A.A. AIRPORTS DIVISION  
ALASKAN REGION, AAL-601

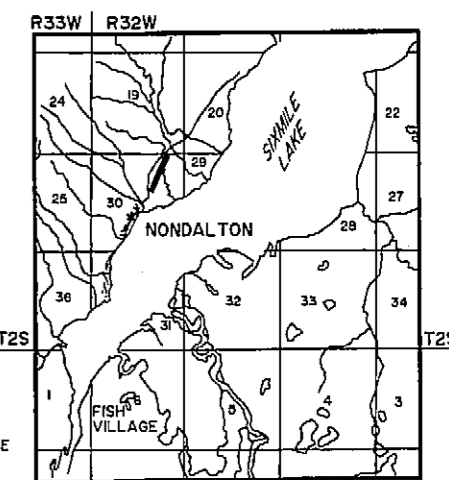
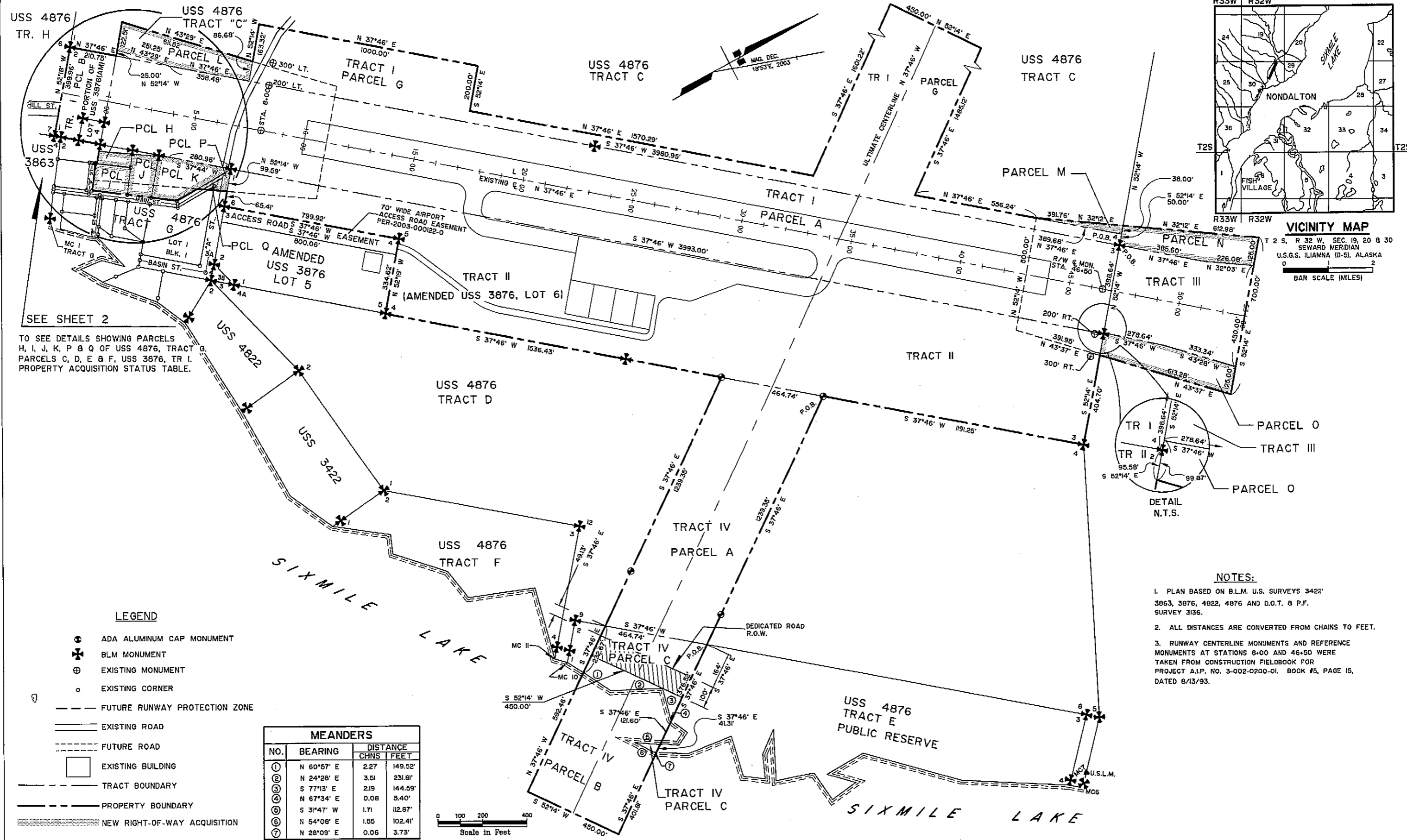
**NONDALTON AIRPORT**  
NONDALTON, ALASKA  
AIRPORT LAYOUT PLAN  
AIRPORT AIRSPACE

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
CENTRAL REGION

APPROVED: *[Signature]* DESIGN SECTION CHIEF  
STEPHEN M. RYAN, P.E. 6/29/04  
APPROVED: *[Signature]* PROJECT MANAGER  
TARVEY M. COURRY, P.E. AEC

DATE: 06/23/04  
DESIGN: JMR  
DRAWN: MGT  
CHECKED: TJS  
BY: DATE

SHEET 8 OF 11

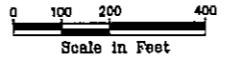


SEE SHEET 2  
 TO SEE DETAILS SHOWING PARCELS H, I, J, K, P & Q OF USS 4876, TRACT G, PARCELS C, D, E & F, USS 3876, TR I. PROPERTY ACQUISITION STATUS TABLE.

**LEGEND**

- ⊕ ADA ALUMINUM CAP MONUMENT
- ⊕ BLM MONUMENT
- ⊕ EXISTING MONUMENT
- EXISTING CORNER
- FUTURE RUNWAY PROTECTION ZONE
- EXISTING ROAD
- - - FUTURE ROAD
- EXISTING BUILDING
- - - TRACT BOUNDARY
- PROPERTY BOUNDARY
- ▨ NEW RIGHT-OF-WAY ACQUISITION

MEANDERS			
NO.	BEARING	DISTANCE	
		CHNS	FEET
①	N 60°57' E	2.27	149.52'
②	N 24°28' E	3.51	231.81'
③	S 77°13' E	2.19	144.59'
④	N 67°34' E	0.08	5.40'
⑤	S 31°47' W	1.71	112.87'
⑥	N 54°08' E	1.55	102.41'
⑦	N 28°09' E	0.06	3.73'



**NOTES:**

1. PLAN BASED ON B.L.M. U.S. SURVEYS 3422', 3863, 3876, 4822, 4876 AND D.O.T. & P.F. SURVEY 3136.
2. ALL DISTANCES ARE CONVERTED FROM CHAINS TO FEET.
3. RUNWAY CENTERLINE MONUMENTS AND REFERENCE MONUMENTS AT STATIONS 8+00 AND 46+50 WERE TAKEN FROM CONSTRUCTION FIELDBOOK FOR PROJECT A.I.P. NO. 3-002-0200-01. BOOK #5, PAGE 15, DATED 8/13/93.

Date Plotted: 6/20/04  
 Plot Title and Layout: F:\NNDALTON\CONDAPPROVAL\PROPERTYPLAN

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL  
 SUBJECT TO AIP APPROVAL LETTER DATED 7/13/04  
 By: *[Signature]* DATE: 7/15/04  
 FAA AIRPORTS DIVISION  
 ALASKAN REGION, AAL-601  
 F.A.A. AIRSPACE REVIEW NUMBER: 03-AAL-23NRA

BY	DATE	REVISIONS

STATE OF ALASKA  
**DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES**  
 CENTRAL REGION  
 APPROVED: *[Signature]*  
 STEPHEN M. RYAN, P.E. DESIGN SECTION CHIEF  
 APPROVED: *[Signature]*  
 HARVEY M. DOUTHETT, P.E. PROJECT MANAGER  
 DATE: 6/21/04

DATE 06-14-04  
 DESIGN  
 DRAWN GE  
 CHECKED TJS

**NONDALTON AIRPORT**  
 PROPERTY PLAN

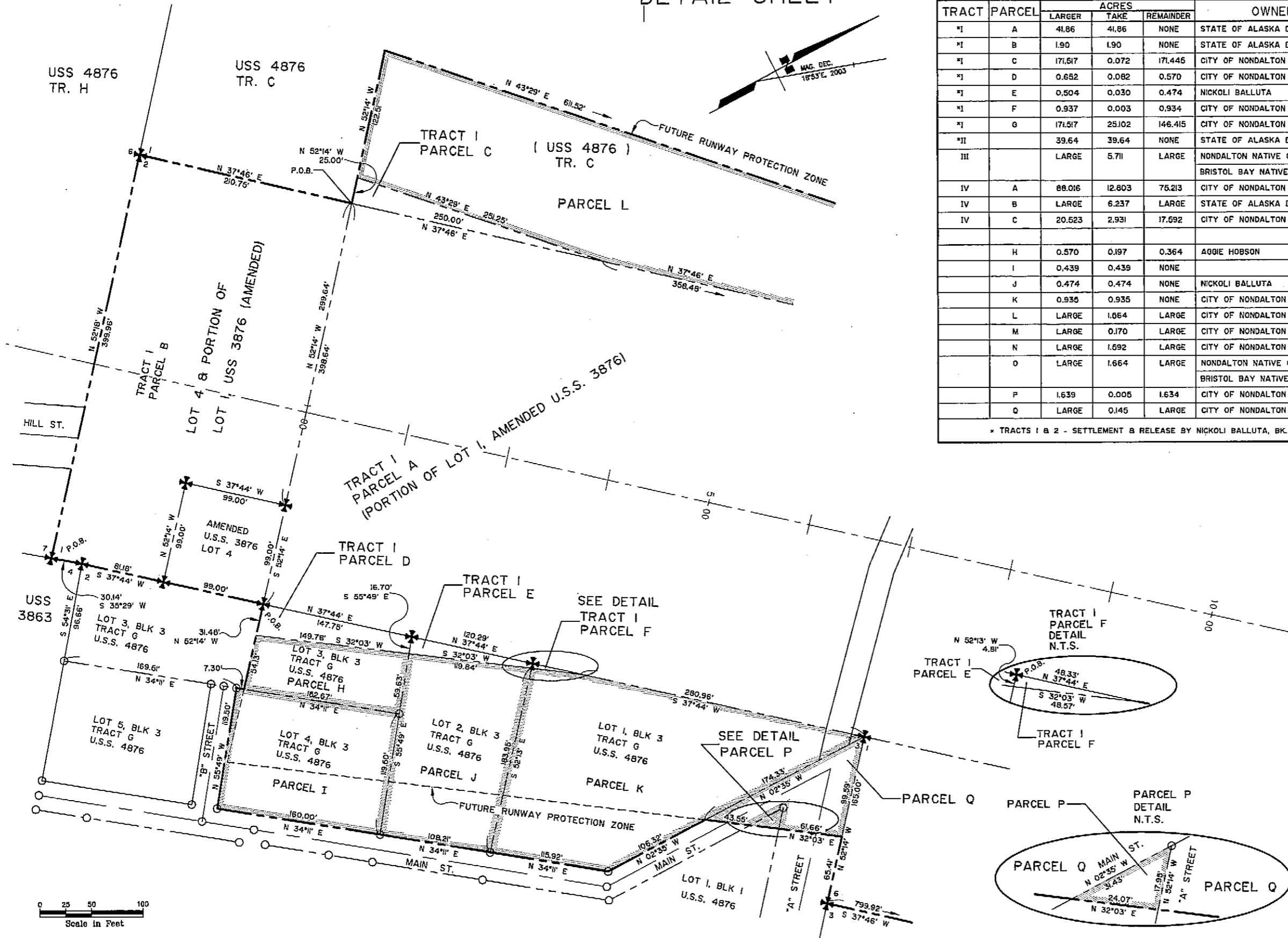
SHEET  
 9  
 OF  
 11

# DETAIL SHEET

## PROPERTY ACQUISITION STATUS

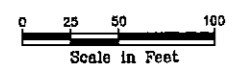
TRACT	PARCEL	ACRES			OWNERSHIP	INTEREST	DATE ACQUIRED
		LARGER TAKE	TAKE	REMAINDER			
*I	A	41.86	41.86	NONE	STATE OF ALASKA D.O.T. & P.F.	SEC. 516 PATENT ACQUIRED FROM USA	7/14/86
*I	B	1.90	1.90	NONE	STATE OF ALASKA D.O.T. & P.F.	SEC. 516 PATENT ACQUIRED FROM USA	7/14/86
*I	C	171.517	0.072	171.445	CITY OF NONDALTON	FEE SIMPLE	4/10/92
*I	D	0.692	0.082	0.570	CITY OF NONDALTON	FEE SIMPLE	4/10/92
*I	E	0.504	0.030	0.474	NICKOLI BALLUTA	FEE SIMPLE BK 29, PG 364	7/24/2000
*I	F	0.937	0.003	0.934	CITY OF NONDALTON	FEE SIMPLE	4/10/92
*I	G	171.517	25.102	146.415	CITY OF NONDALTON	FEE SIMPLE	4/10/92
*II		39.64	39.64	NONE	STATE OF ALASKA D.O.T. & P.F.	SEC. 516 PATENT ACQUIRED FROM USA	7/14/86
III		LARGE	5.711	LARGE	NONDALTON NATIVE CORP. (SURFACE)	FEE SIMPLE	4/27/92
					BRISTOL BAY NATIVE CORP. (SUBSURFACE)	FEE SIMPLE	4/24/92
IV	A	88.016	12.803	75.213	CITY OF NONDALTON	FEE SIMPLE	4/10/92
IV	B	LARGE	6.237	LARGE	STATE OF ALASKA D.N.R.	A & H EASEMENT BK 20, PG 818	9/14/92
IV	C	20.523	2.931	17.692	CITY OF NONDALTON	FEE SIMPLE	4/10/92
	H	0.570	0.197	0.364	AGGIE HOBSON	FEE SIMPLE	TBA
	I	0.439	0.439	NONE		FEE SIMPLE	TBA
	J	0.474	0.474	NONE	NICKOLI BALLUTA	FEE SIMPLE	TBA
	K	0.935	0.935	NONE	CITY OF NONDALTON	FEE SIMPLE	TBA
	L	LARGE	1.654	LARGE	CITY OF NONDALTON	FEE SIMPLE	TBA
	M	LARGE	0.170	LARGE	CITY OF NONDALTON	FEE SIMPLE	TBA
	N	LARGE	1.692	LARGE	CITY OF NONDALTON	FEE SIMPLE	TBA
	O	LARGE	1.664	LARGE	NONDALTON NATIVE CORP. (SURFACE)	FEE SIMPLE	TBA
					BRISTOL BAY NATIVE CORP. (SUBSURFACE)	FEE SIMPLE	TBA
	P	1.639	0.005	1.634	CITY OF NONDALTON	FEE SIMPLE	TBA
	Q	LARGE	0.145	LARGE	CITY OF NONDALTON	A & H EASEMENT	TBA

\* TRACTS I & 2 - SETTLEMENT & RELEASE BY NICKOLI BALLUTA, BK. 29, PG. 364 ( 7-24-2000 )



### LEGEND

- ⊙ ADA ALUMINUM CAP MONUMENT
- ⊕ BLM MONUMENT
- ⊕ EXISTING MONUMENT
- ⊙ EXISTING CORNER
- FUTURE RUNWAY PROTECTION ZONE
- == EXISTING ROAD
- - - FUTURE ROAD
- EXISTING BUILDING
- - - PROPERTY BOUNDARY
- - - TRACT BOUNDARY
- ==== NEW RIGHT-OF-WAY ACQUISITION



Date Plotted: 05/20/04  
 Plot Ratio and Layout: 1"=1, layout=  
 File: F:\NONDALTON\INDIVIDUAL\COMPOSIPT\PROPERTY PLAN

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL  
 SUBJECT TO ALP APPROVAL LETTER DATED 7/13/04  
 By: *[Signature]* DATE: 7/15/04  
 FAA, AIRPORTS DIVISION  
 ALASKAN REGION, AAL-801  
 F.A.A. AIRSPACE REVIEW NUMBER: 03-AAL-23NRA

BY	DATE	REVISIONS

STATE OF ALASKA  
**DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES**  
 CENTRAL REGION  
 APPROVED: *[Signature]*  
 STEPHEN M. RYAN, P.E. DESIGN SECTION CHIEF  
 APPROVED: *[Signature]*  
 HARVEY M. DOUTHIT, P.E. PROJECT MANAGER  
 DATE: 6/24/04

DATE: 06-14-04  
 DESIGN: *[Signature]*  
 DRAWN: GE  
 CHECKED: TJS

**NONDALTON AIRPORT**  
 PROPERTY PLAN  
 USS 3876, TRACT I, PARCELS C, D, E, & F DETAILS  
 USS 4876, TRACT G, PARCELS H, I, J, K, P & Q DETAILS

SHEET  
 10  
 OF  
 11

**NONDALTON  
NARRATIVE REPORT**

**A. Purpose**

This narrative report is included with the Airport Layout Plan (ALP) for Nondalton in accordance with Federal Aviation Administration (FAA) Airport Design Advisory Circular (AC) 150/5300-13, Change 7, Appendix 7. The rationale for improvements to the Nondalton is outlined in this narrative report.

**B. Introduction**

This Airport Layout Plan supercedes the Nondalton ALP approved by the FAA on September 23, 1992.

Nondalton is located on the west shore of Six Mile Lake, between Lake Clark and Iliamna Lake, 190 miles southwest of Anchorage. It lies at approximately 59d 58m N Latitude, 154d 51m W Longitude. (Sec. 30, T002S, R032W, Seward Meridian.) Nondalton is located in the Iliamna Recording District. The area encompasses 8.4 sq. miles of land and .4 sq. miles of water. Nondalton lies in the transitional climatic zone.

The 2001 U.S. census documents a population of 221 persons at Nondalton.

**Population History:**

1940	82
1950	103
1960	205
1970	184
1980	173
1990	176
2000	221

Nondalton is a Tancina Indian name first recorded in 1909 by the U.S. Geological Survey. The village was originally located on the north shore of Six Mile Lake, but in 1940, wood depletion in the surrounding area and growing mud flats caused the village to move to its present location on the west shore. The post office, established in 1938, relocated with the villagers. Nondalton formed an incorporated city government in 1971. A federally recognized tribe is located in the community: Nondalton Tribal Council. 90% of the population are Alaska Native or part Native. It is a Tancina Indian (Athabascan and Iliamna) village with a fishing and subsistence lifestyle. Fishing in Bristol Bay is an important source of income in Nondalton. Fourteen residents hold commercial fishing permits. Gold and copper are mined in the area. One source of summer employment is firefighting. Nondalton is primarily accessible by air and water.

**C. Airport Usage and Forecasts**

The Alaska Aviation System Plan (AASP) has designated this airport as a Community Class Airport, which is defined as the primary access to a small rural community of at least 25 permanent year-round residents without reliable alternate year round access.

Since there is no tower at the Nondalton Airport, estimates of aircraft are based on the fleet of current users and current schedules and the Airport Master Record (FAA Form 5010). The FAA Form 5010 reports the following data for annual operations:

Air Taxi	500
GA Local	100
GA Itinerant	600
Military	0
Total	1200

The FAA reports 2,450 enplanements at Nondalton for 2001.

A survey conducted by the current operators report the following data for annual operations:

Air Taxi	480
Charters	1510

The current operators report 3,792 enplanements at Nondalton for 2001.

See Table 1 for operators and aircraft using the Nondalton Airport.

Currently, Lake & Penn Air operate a daily flight to Nondalton seven days a week and Iliamna Air Taxi operates a flight to Nondalton three days a week. The remaining operators use the Nondalton airport by charter only. Penn Air, Mulchitna Air, Lake & Penn Air, Iliamna Air Taxi, and Lake Clark Air Service all deliver freight to Nondalton. Iliamna Air Taxi delivers all the mail to Nondalton. Birchwood Air, Lake & Penn Air, Lake Clark Air and Iliamna Air Taxi all assist with medical flights. There are four single engine aircraft based at Nondalton. Era Aviation, Northern Air Cargo, Evergreen International do not currently conduct any operations at the Nondalton airport nor do any of these operators plan to in the future.

See Table 2, for the forecast of future operations according to the survey conducted by the current operators. The projected future aircraft operations are based on current conditions for 5, 10, and 20 years into the future. These estimates are based on population forecasts, forecasts of current activity levels along with phone surveys of the carriers. The growth used for the Nondalton Airport is estimated at 2% a year (1.02<sup>n</sup> where n equals the number of years). These parameters were considered to be a better predictor of the future activity than combining traditional forecasting parameters of the future operations with the future aircraft.

**D. Staged Development**

**Near-Term Development (0-5 years)**

There is no near-term development plan for Nondalton Airport.

**Mid-Term Development (6-10 years)**

There is no mid-term development plan for Nondalton Airport.

**Long-Term Development (11-20 years)**

Long-term development will consist of constructing a 2,240-foot crosswind runway. Constructing a crosswind runway is estimated to cost \$2,300,000 in 2002 dollars.

**E. Design Rationale**

**1. Airport Reference Code (ARC)**

The existing Airport Reference Code is A-II. There are a category A-I, B-I, and A-II aircraft operating on a regular basis at this facility.

The most demanding aircraft to use the airport on a regular basis is the Piper Navajo. The Piper Navajo, a design group B-I aircraft has an approach speed of 100 knots, a wingspan of 40.7 feet, and a maximum take off weight of 6200 lbs. There is no future plan to change the current critical aircraft. The annual operation for the Piper Navajo into Nondalton is 625.

**2. Wind Coverage**

A wind coverage analysis was performed with wind data obtained from Hattenburg Dille & Linnell Engineering Consultants for the Nondalton Airport. The existing runway 2/20 provides 93.5% and 96.44% coverage at 10.5 and 13 knots, respectively. FAA recommends that a crosswind runway be considered if the wind coverage is below 95%. Crosswind runway 12/30 combined with runway 2/20 provides 99.52% and 99.93% coverage at 10.5 and 13 knots respectively. Wind data is in excess of 95%, but with correspondence with the FAA, Nondalton maintenance and operations manager and pilots we will provide a crosswind runway at the Nondalton Airport.

**3. Runway and Taxiway**

**R/W 2-20**

The existing runway length is 2,800 feet. The runway length for the Nondalton Airport was computed using FAA's Airport Design for Microcomputers program. For small aircraft with less than 10 passenger seats, the program recommends a length of 2,830 feet for 95% coverage. This runway has been developed to handle A-II aircraft. Future development of this runway will accommodate Non-Precision Instrument approaches.

**R/W 12-30**

Long-term development calls for the construction of a crosswind runway. The length of this runway (2,240 feet) is based on the requirements of AC 150/5325-4. Where it states; a crosswind runway should have a length of at least 80% of the primary runway length.

The existing taxiways are designed to accommodate Group II aircraft.

Runway 12 has obstructions in the 20:1 approach surface. The obstructions are from the terrain of Hoknede Mountain. The approach slope is 9.3:1 and runway 12 has a restricted use associated with it.

**4. Apron**

The existing Apron is 180 feet by 410 feet and is set back 260 feet from the runway. The existing apron meets the recommended standards. Currently the apron contains two snow removal equipment building with a rotating beacon and seven aircraft tie downs. The existing lease lot area of 300 x 100 feet has no current leaseholders. The future lease lots will consist of one private 96 x 100 feet lot and one commercial 150 x 100 feet lot.

**5. Local Roads**

Currently the Department of Transportation has a road construction project scheduled to begin in the 2008 construction season. The project consists of constructing a road that will connect the communities of Iliamna and Nondalton. The Iliamna airport is a B-II category airport with a main runway length of 4,800 feet and a crosswind runway length of 5,085 feet. Both runways were paved in 2003. Following suit of near by communities, a majority of the freight for Nondalton will be flown into Iliamna and trucked over to Nondalton once the road is completed.

**6. Property Status**

The existing Nondalton Airport is operated by DOT & PFA and is located on approximately 136 acres of land. A property plan has been included as part of this ALP.

**F. Community Involvement**

The Department of Transportation has received on February 12, 2004 a resolution (#03-13) by the city of nondalton in support of the Airport Layout Plan.

**G. Appendix 2 Obstructions**

Appendix 2 section e of paragraph 5 of the Airport Design AC is for approach end of runways expected to support instrument straight-in night operations. It states that no object should penetrate a surface that starts 200 feet out from the threshold and at the elevation of the runway centerline at the threshold and slopes upward from the starting point at a slope of 20(horizontal) to 1(vertical). There are no threshold silling surface object penetrations for runway 2-20.

**H. Hazards to Navigation**

The existing sewage lagoon in Nondalton is approximately 4,900 feet away from the south end of the runway. The existing solid waste disposal site is located approximately 2,450 feet northwest of the runway. Both of these sites are less than the recommended 5,000 feet. Correspondence with the Alaska Native Tribal Health Consortium shows the future solid waste disposal site will be relocated approximately 3 miles away from the runway and the future sewage lagoon will be relocated approximately 5,100 feet away from the runway in 2-3 years.

**I. Modifications to Standards**

The proposed development is intended to fully conform to FAA standards.

**J. Encroachments in Part 77 Surfaces**

The terrain obstructions located on the northwest side of the airport penetrate the conical, horizontal and transitional surfaces to a maximum height of 984 feet. The obstructions will not be removed.

**K. Future Land Development**

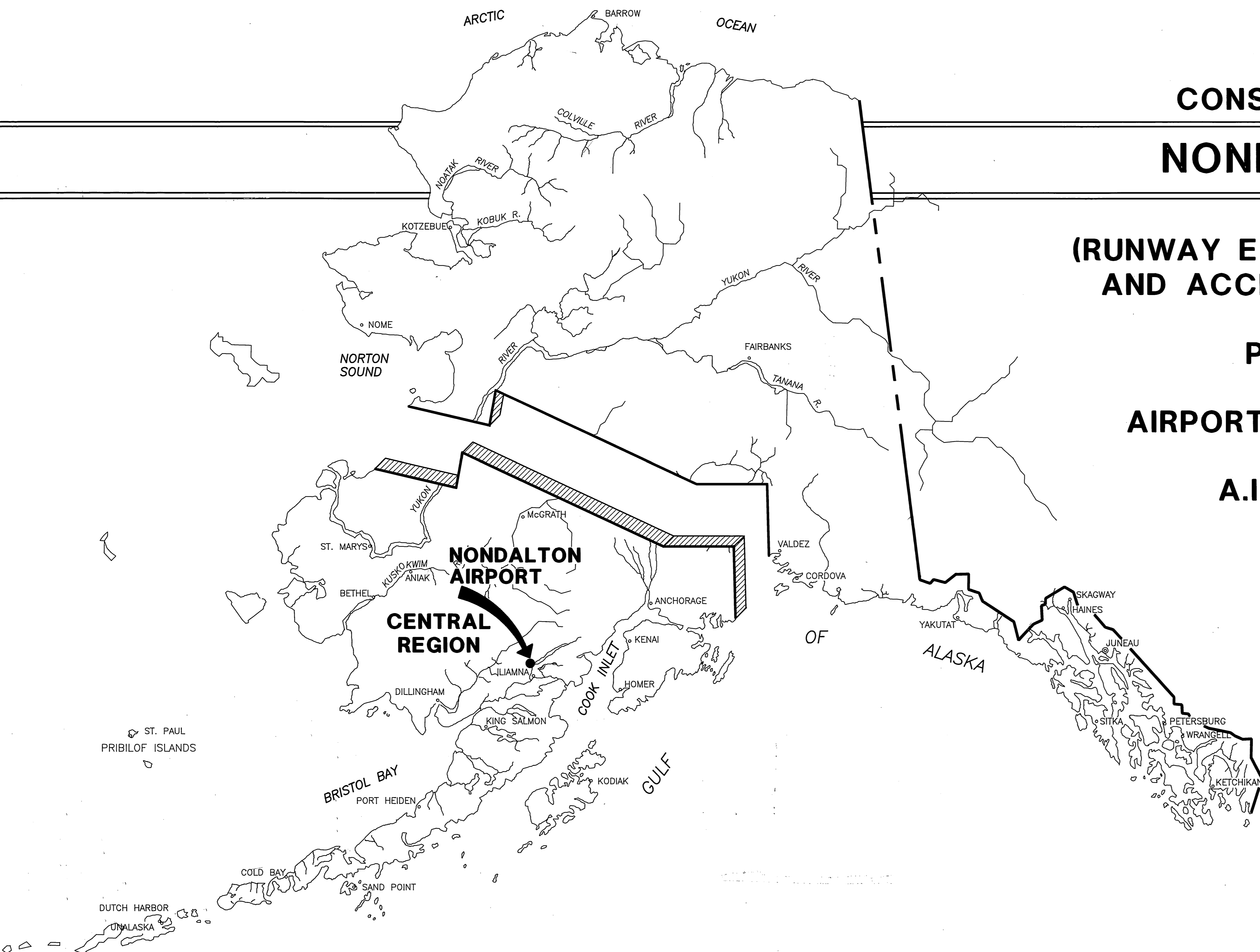
Proposed airport development will be entirely on airport property

OPERATOR	AIRCRAFT	DESIGN GROUP
Penn Air	Piper PA-32 Cherokee	A-I
Mulchitna Air	Cessna 207	A-I
King Air Flying Service	Piper PA-32 Cherokee	A-I
	Piper PA-28 Cherokee	A-I
Lake & Penn Air	Cessna 206	A-I
	Caravan 208	A-II
Iliamna Air Taxi	Piper Navajo	B-I
	Cessna 207	A-I
	Beechcraft Baron	B-I
	DHC-2 Beaver	A-I
	Pilatus	A-II
	Beechcraft Bonanza A-36	A-I
Shannons Air	Cessna 172	A-I
	Piper PA-32 Cherokee	A-I
Birchwood Air Service	Piper Navajo	B-I
Lake Clark Air Service	Cessna 180	A-I
	Cessna 206	A-I
	Cessna 207	A-I
	Beechcraft Bonanza A-36	A-I
	Piper Navajo	B-I
	Stinson 10-A	A-I
Bristol Bay Air	Cessna 207	A-I

ITEM	PRESENT	0 - 5 yrs	6 - 10 yrs	11 - 20 yrs
Total Annual Operations	1990	2197	2426	2957
Annual Enplanements	3792	4187	4622	5635
Annual Scheduled Operations	480	530	585	713
Annual Non-Scheduled Operations	1510	1657	1841	2244

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AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL SUBJECT TO ALP APPROVAL LETTER DATED <u>7/13/04</u>  By: <u>[Signature]</u> DATE: <u>7/15/04</u> FAA, AIRPORTS DIVISION ALASKAN REGION, AAL-601	STATE OF ALASKA <b>DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES</b> CENTRAL REGION  APPROVED: <u>[Signature]</u> DESIGN SECTION CHIEF STEPHEN M. RYAN, P.E.  APPROVED: <u>[Signature]</u> PROJECT MANAGER HARVEY M. DOUTHIT, P.E.	DATE <u>06/23/04</u> DESIGN <u>JMR</u> DRAWN <u>MGT</u> CHECKED <u>TJS</u>	<b>NONDALTON AIRPORT</b> NONDALTON, ALASKA  AIRPORT LAYOUT PLAN NARRATIVE REPORT	SHEET 11 OF 11
		FILE: DATE: 09/07/00 1=1 v=plan dovib		



**AS-BUILT**  
**CONSTRUCTION PLANS FOR**  
**NONDALTON AIRPORT**

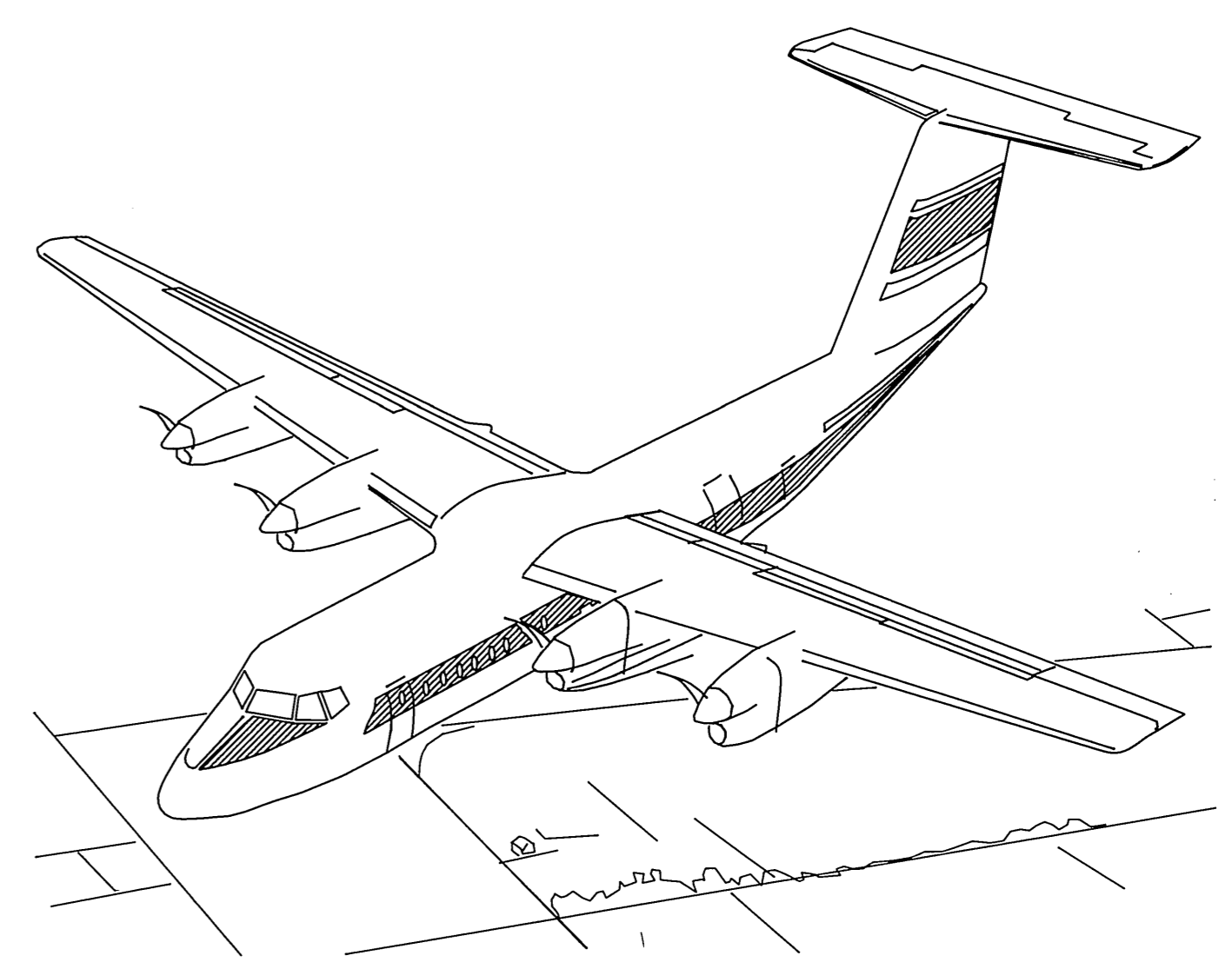
**IMPROVEMENTS**  
**(RUNWAY EXTENSION, TAXIWAY, APRON,**  
**AND ACCESS ROAD CONSTRUCTION)**

**PROJECT No. 58617**

**AIRPORT IMPROVEMENT PROGRAM**

**A.I.P. No. 3-02-0200-01**

**1992**



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

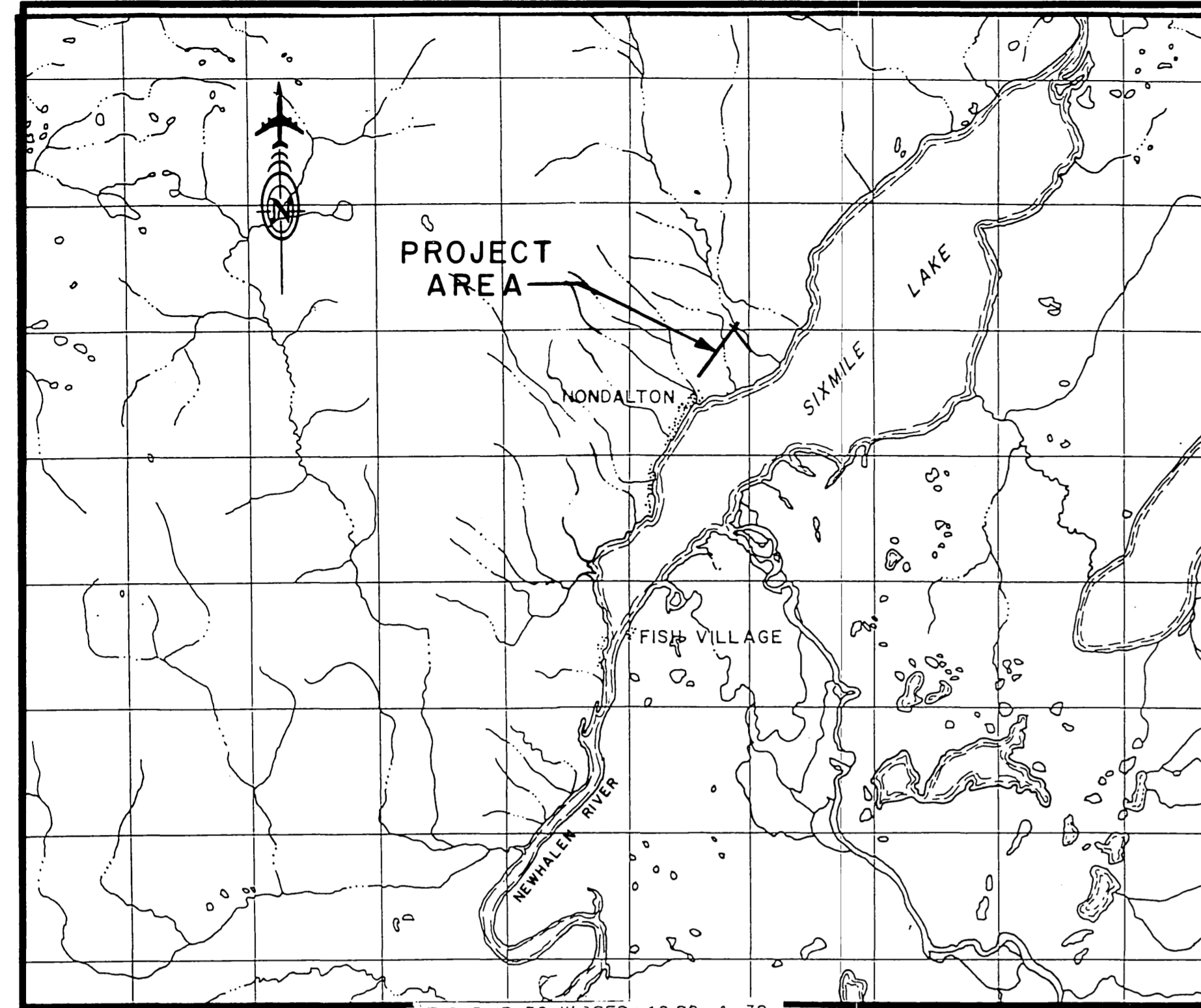
**APPROVED** *Boyd J. Brownfield* **DATE** 8/17/92  
**BOYD J. BROWNFIELD, P.E.** **DIRECTOR, DESIGN AND CONSTRUCTION**

**APPROVED** *Keith R. Morberg* **DATE** 8/17/92  
**KEITH R. MORBERG, P.E.** **CHIEF OF DESIGN**

**AS-BUILT**

**APPROVED** *Richard A. Briggs* **DATE** 2/5/95  
**RICHARD A. BRIGGS, P.E.** **AVIATION CONSTRUCTION ENGINEER**

**NONDALTON AIRPORT**  
**PROJECT No. 58617**  
**SHEET 1 OF 27**



T 2 S, R 32 W, SEC. 19, 20, & 30  
SEWARD MERIDIAN  
USGS ILLIAMNA (D-5) ALASKA

### VICINITY MAP

SCALE 1" = 1 MILE

### CHANGE ORDERS

CHANGE ORDER #	QUANTITY	UNIT
<b>CHANGE ORDER # 2</b>		
150a DOZER (CAT D6D)	0	HR.
150b DOZER (CAT D8H) WITH RIPPER	126.5	HR.
150c DOZER (CAT D8K) WITH WINCH	84	HR.
150d DOZER (CAT D9H) WITH RIPPER	0	HR.
150e SCRAPER (CAT 631)	5	HR.
150f HAULER (DJB 350)	0	HR.
150g LOADER (966 C)	0	HR.
150h GRADER (CAT 14G)	24.5	HR.
150i COMPACTOR (TAMPO)	16.5	HR.
150j EXCAVATOR (270 HITACHI)	0	HR.
150k HYDROAXE	4	HR.
<b>CHANGE ORDER # 4</b>		
540b AGG. SURFACE COURSE CREDIT	9356.90	C.Y.
<b>CHANGE ORDER # 6</b>		
ADDITIONAL RENO MATTRESSES	33	EA. (NON - A.I.P.)
<b>CHANGE ORDER # 5</b>		
1000x LADDER	ALL REQ.	

## ESTIMATED QUANTITIES

No.	ITEM	QUANTITY	UNIT
100	MOBILIZATION AND DEMOBILIZATION	ALL REQ'D	L.S.
120	DBE ADJUSTMENT	ALL REQ'D	C.S.
121	CONSTRUCTION SURVEYING BY THE CONTRACTOR	ALL REQ'D	L.S.
125	ENGINEERING TRANSPORTATION	ALL REQ'D	L.S.
132	FIELD LABORATORY	ALL REQ'D	L.S.
140	EQUIPMENT STORAGE BUILDING	ALL REQ'D	L.S.
200b	CLEARING	ALL REQ'D	L.S.
330a	UNCLASSIFIED EXCAVATION	225,370	C.Y.
330d	BORROW EMBANKMENT	110,376	C.Y.
345	DITCH LINING	110	C.Y.
400a	CORRUGATED METAL PIPE, 60" ROUND, STEEL, 14 GA. WITH END SECTIONS	316	L.F.
400b	CORRUGATED METAL PIPE, 36" ROUND, STEEL, 16 GA. WITH END SECTIONS	118	L.F.
440a	CHAIN LINK FENCE	1,488.5	L.F.
540	AGGREGATE SURFACE COURSE	9,164.9	C.Y.
550a	GEOTEXTILE SEPARATION	8,888	S.Y.
556	SILT FENCE	2,693	L.F.
710	RUNWAY THRESHOLD MARKERS	4	EACH
711	STANDARD SIGNS	30.85	S.F.
720	8 FOOT UNLIGHTED WIND CONE	1	EACH
721	SEGMENTED CIRCLE	ALL REQ'D	L.S.
731	REFLECTIVE MARKERS, TYPE II	98	EACH
830	TIE-DOWN ANCHORS	46	EACH
870	RENO MATTRESSES	10,656.1	C.F.
900b	SEED APPLICATION	2,000	LBS.
900c	FERTILIZER APPLICATION	27,625	LBS.
910a	ORGANIC MAT	8,967	S.Y.
910b	BOULDER CLUSTERS	9	EACH
910c	DECIDUOUS ROOT WADS	36	EACH
910d	FISH TRANSPLANTS	4 MANHOURS	EACH
950	FUEL TANK	1	EACH
960a	MOTOR GRADER WITH APPURTENANCES	1	EACH
960b	MOTOR GRADER OPERATING AND MAINTENANCE SUPPLIES	ALL REQ'D	L.S.
1000a	NEW REGULATOR, L-828, 7.5KV	1	EACH
1000e	NEW MEDIUM INTENSITY RUNWAY MARKER LIGHT, L-861	38	EACH
1000f	NEW TAXIWAY MARKER LIGHT, L-861T	60	EACH
1000g	NEW HANDHOLE, L-867	7	EACH
1000k	2" PE CONDUIT	ALL REQ'D	L.S.
1000l	UNDERGROUND CABLE, #8 AWG, COPPER, 5KV TYPE "B", L-824	ALL REQ'D	L.S.
1000m	#6 BARE COPPER GROUND CONDUCTOR	ALL REQ'D	L.S.
1000q	GROUND RODS	7	EACH
1010	8 FOOT LIGHTED WIND CONE	ALL REQ'D	L.S.
1040	STRUCTURE ELECTRICAL WORK	ALL REQ'D	L.S.

THE FOLLOWING ITEMS AND QUANTITIES ARE INELIGIBLE FOR F.A.A. REIMBURSEMENT AND ARE FOR THE ENGINEERS USE ONLY. THESE QUANTITIES ARE INCLUDED IN THEIR RESPECTIVE ITEMS ABOVE.

120	DBE ADJUSTMENT	ALL REQ'D	C.S.
960b	MOTOR GRADER OPERATING AND MAINTENANCE SUPPLIES	ALL REQ'D	L.S.
540	AGGREGATE SURFACE COURSE (STOCKPILE)	192	C.Y.

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### STANDARD DRAWINGS

S-00.00  
S-05.00

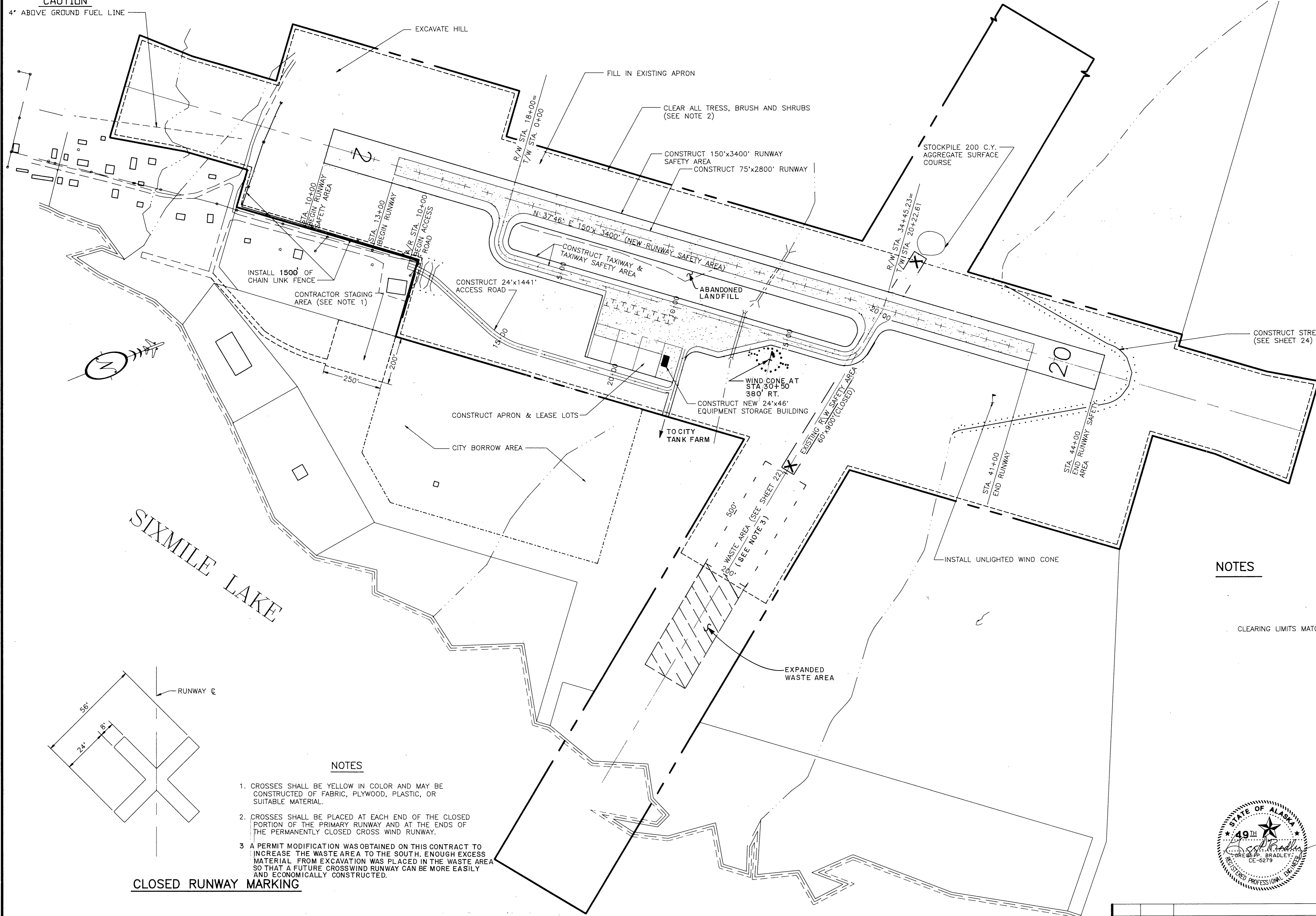


STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES			
NONDALTON AIRPORT 58617 A.I.P. No. 3-02-0200-01 VICINITY MAP, CONVERSION FACTORS, QUANTITIES, AND INDEX			
APPROVED	<i>Steve Van Horn</i>	DESIGN SECTION CHIEF	
APPROVED	<i>Greg P. Bradley</i>	PROJECT MANAGER	
SCALE	AS SHOWN	CHECKED	DATE
		VW	8-17-92
BY	DATE	CHANGED	
MDN	2-9-95	AS-BUILT	
REVISIONS			

**CAUTION**  
4' ABOVE GROUND FUEL LINE

**LEGEND**

- AIRPORT PROPERTY BOUNDARY
- - - EXISTING ROADS / EMBANKMENT
- - - EXISTING CREEK
- ==== APPROX. ORDINARY HIGH WATER LINE
- \* \* \* \* FENCE
- - - CLEARING LIMITS
- ▨ AGGREGATE SURFACE COURSE
- - - EXISTING CULVERTS
- - - NEW CULVERTS (THIS CONTRACT)
- ..... INSTALL SILT FENCE
- ✕ INSTALL PERMANENT YELLOW CLOSED RUNWAY CROSSES. INSTALLATION OF CROSSES SHALL BE INCIDENTAL TO THE CONTRACT AND NO SEPARATE PAYMENT SHALL BE MADE.



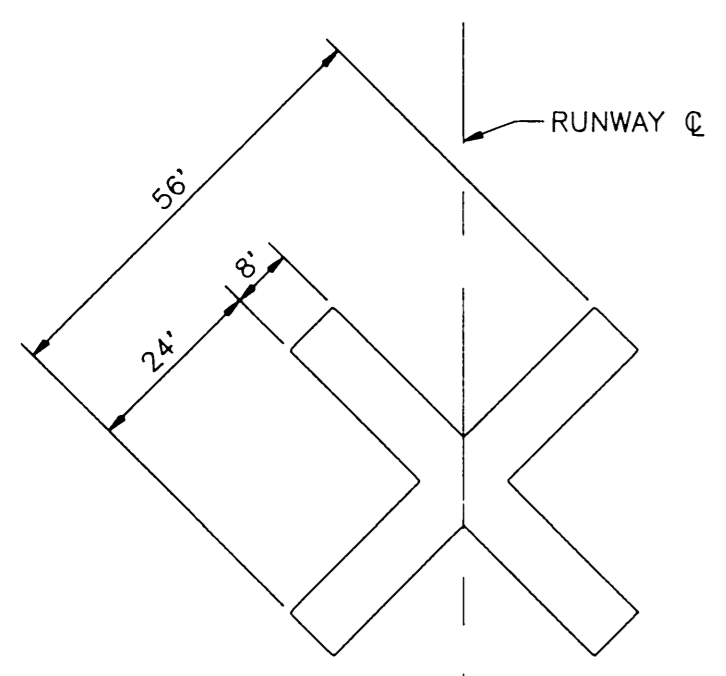
**NOTES**

CLEARING LIMITS MATCH PROPERTY LINE EXCEPT AT CROSSWIND RUNWAY.

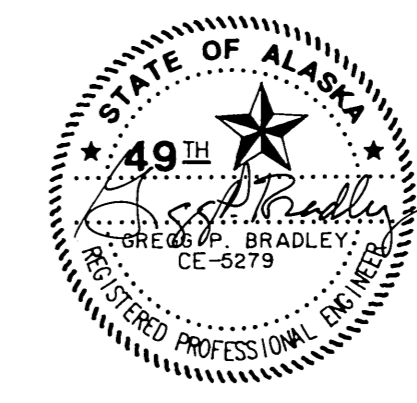
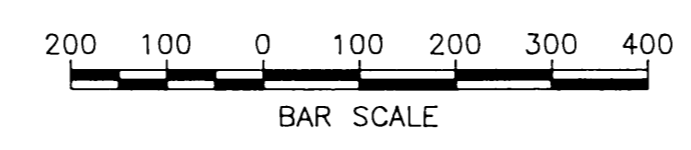
SIXMILE LAKE

**NOTES**

1. CROSSES SHALL BE YELLOW IN COLOR AND MAY BE CONSTRUCTED OF FABRIC, PLYWOOD, PLASTIC, OR SUITABLE MATERIAL.
2. CROSSES SHALL BE PLACED AT EACH END OF THE CLOSED PORTION OF THE PRIMARY RUNWAY AND AT THE ENDS OF THE PERMANENTLY CLOSED CROSS WIND RUNWAY.
3. A PERMIT MODIFICATION WAS OBTAINED ON THIS CONTRACT TO INCREASE THE WASTE AREA TO THE SOUTH. ENOUGH EXCESS MATERIAL FROM EXCAVATION WAS PLACED IN THE WASTE AREA SO THAT A FUTURE CROSSWIND RUNWAY CAN BE MORE EASILY AND ECONOMICALLY CONSTRUCTED.



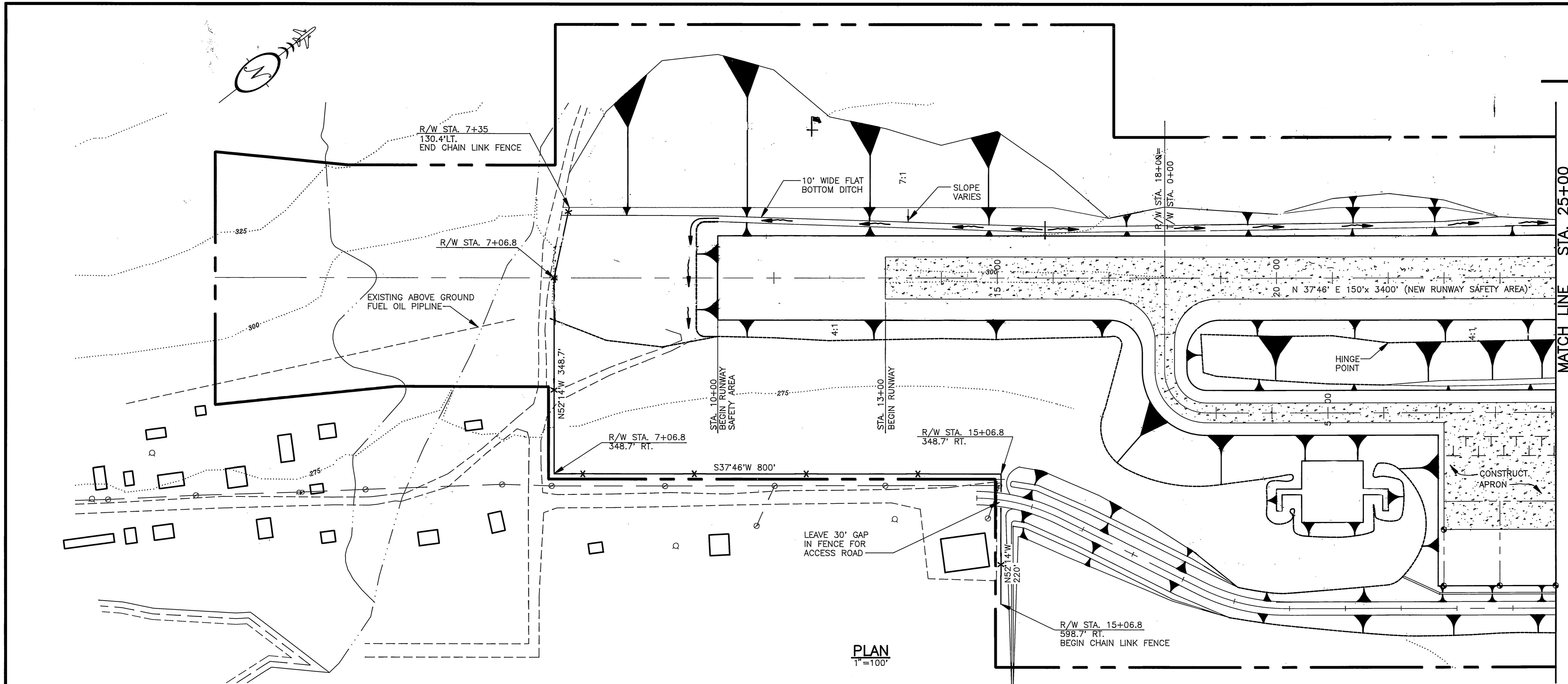
**CLOSED RUNWAY MARKING**



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

**NONDALTON AIRPORT**  
58617  
A.I.P. No. 3-02-0200-01  
PROJECT LAYOUT PLAN

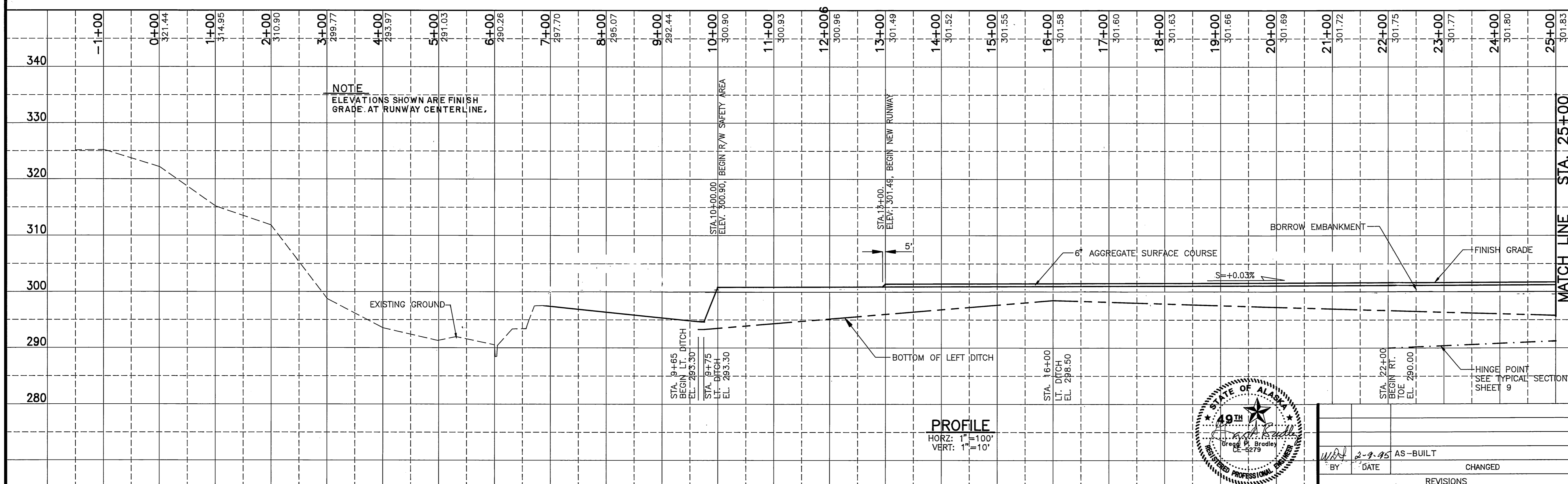
APPROVED	<i>Steve Van Horn</i>	STEVE VAN HORN, P.E.	DESIGN SECTION CHIEF
APPROVED	<i>Greg Bradley</i>	GREG BRADLEY, P.E.	PROJECT MANAGER
BY	DATE	DESIGNED	DRAWN
WJB	2-9-95	VW	DLB
REVISIONS		CHECKED	DATE
		DP	8-17-92
			SHEET 3 OF 27



- LEGEND**
- AIRPORT PROPERTY BOUNDARY
  - - - EXISTING EMBANKMENTS
  - - - EXISTING CREEK
  - ==== APPROXIMATE MEAN HIGH WATER LINE
  - EXISTING BUILDINGS
  - 300 --- CONTOUR LINE (5 FOOT INTERVAL)
  - EXISTING POWER LINES
  - EXISTING FIRE HYDRANTS
  - ⊗ EXISTING FUEL TANKS
  - ⊥ EXISTING WINDCONE ( TO BE REMOVED)
  - ⊥ NEW WINDCONE (THIS CONTRACT)
  - ✕ NEW CHAIN LINK FENCE (THIS CONTRACT)
  - - - BOTTOM LEFT DITCH
  - - - RIGHT HINGE POINT
  - ▨ AGGREGATE SURFACE COURSE
  - LEASE LOT CORNERS (NEW THIS CONTRACT)
  - TOE OF EMBANKMENT

**NOTE**  
 APRON, ACCESS RD & LEASE LOTS ARE NOT TO SCALE, SEE SHEETS 7 & 8 FOR DIMENSIONS.

**PLAN**  
 1" = 100'

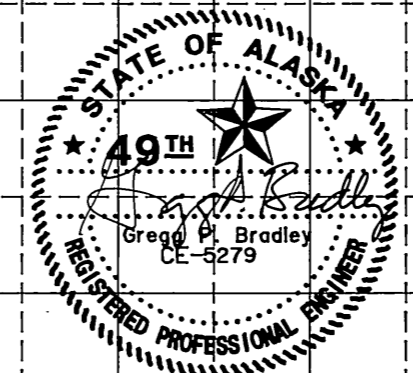


**NOTE**  
 ELEVATIONS SHOWN ARE FINISH GRADE AT RUNWAY CENTERLINE.

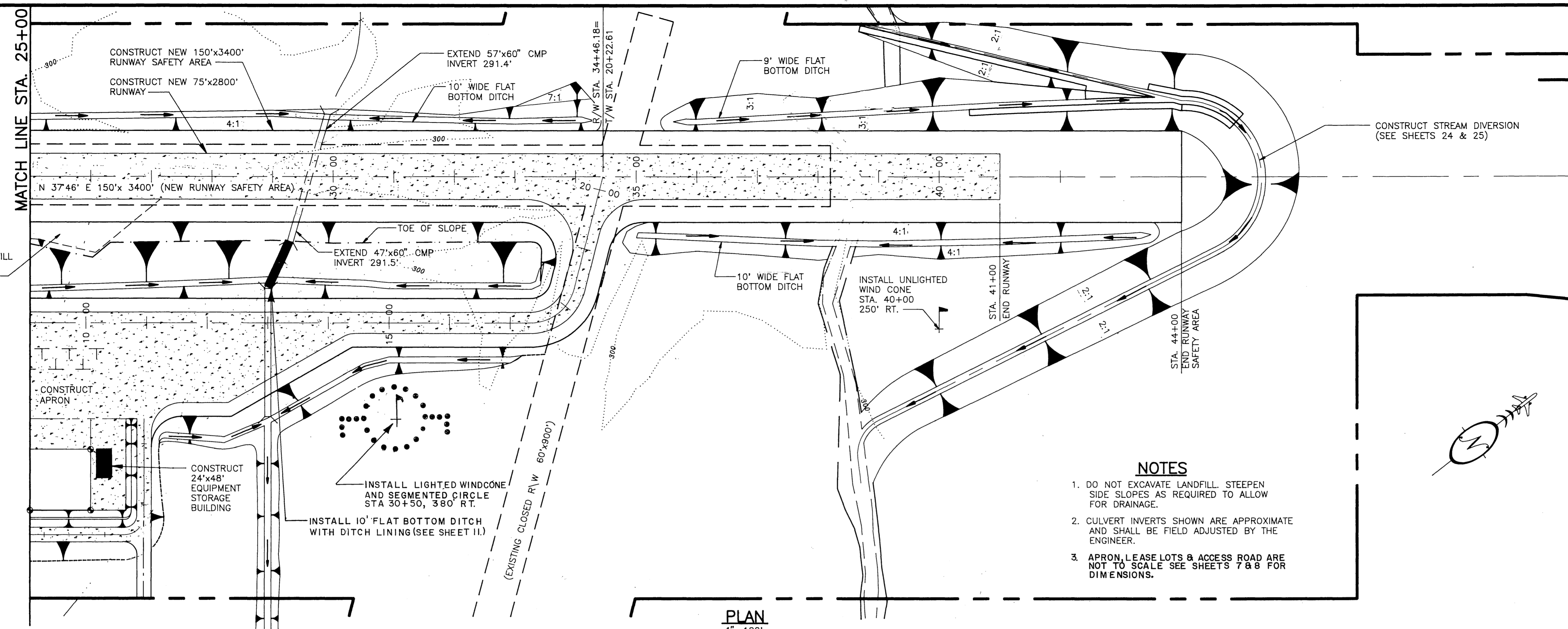
**PROFILE**  
 HORZ: 1" = 100'  
 VERT: 1" = 10'

MATCH LINE STA. 25+00

STATE OF ALASKA  
**DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES**  
 NONDALTON AIRPORT  
 58617  
 A.I.P. No. 3-02-0200-01  
 RUNWAY PLAN AND PROFILE  
 STA. 7+00 TO STA. 25+00



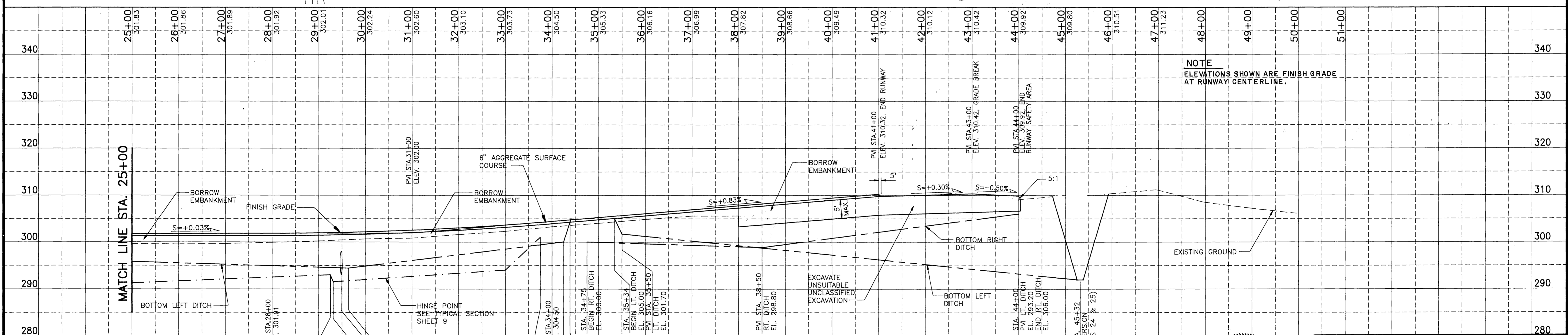
APPROVED	STEVE VAN HORN, P.E.	DESIGN SECTION CHIEF
APPROVED	<i>Greg P. Bradley</i>	PROJECT MANAGER
SCALE	AS SHOWN	
DESIGNED	VW	
CHECKED	MD	
DATE	8-17-92	
DATE	2-9-95	AS-BUILT
BY		
CHANGED		
REVISIONS		



- LEGEND**
- AIRPORT PROPERTY BOUNDARY
  - - - - EXISTING EMBANKMENTS
  - - - - EXISTING CREEK
  - ==== APPROXIMATE MEAN HIGH WATER LINE
  - NEW EQUIPMENT STORAGE BUILDING (THIS CONTRACT)
  - ..... CONTOUR LINE (5 FOOT INTERVAL)
  - ↑ NEW WINDCONES (THIS CONTRACT)
  - BOTTOM LEFT DITCH
  - BOTTOM RIGHT DITCH
  - RIGHT HINGE POINT
  - EXISTING CULVERT
  - NEW CULVERTS (THIS CONTRACT)
  - ▨ AGGREGATE SURFACE COURSE
  - TOE OF EMBANKMENT
  - LEASE LOT CORNERS (NEW THIS CONTRACT)

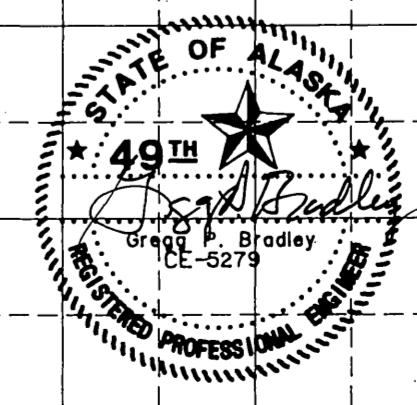
- NOTES**
- DO NOT EXCAVATE LANDFILL. STEEPEN SIDE SLOPES AS REQUIRED TO ALLOW FOR DRAINAGE.
  - CULVERT INVERTS SHOWN ARE APPROXIMATE AND SHALL BE FIELD ADJUSTED BY THE ENGINEER.
  - APRON, LEASE LOTS & ACCESS ROAD ARE NOT TO SCALE SEE SHEETS 7 & 8 FOR DIMENSIONS.

**PLAN**  
1"=100'



**NOTE**  
ELEVATIONS SHOWN ARE FINISH GRADE AT RUNWAY CENTERLINE.

**PROFILE**  
HORZ. 1"=100'  
VERT. 1"=10'

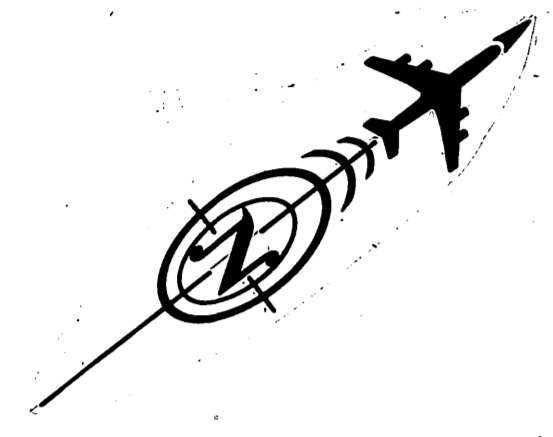


STATE OF ALASKA  
**DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES**  
NONDALTON AIRPORT  
58617  
A.I.P. No. 3-02-0200-01  
RUNWAY PLAN AND PROFILE  
STA. 25+00 TO STA. 44+00

APPROVED	<i>Steve Van Horn</i>	DESIGN SECTION CHIEF
APPROVED	<i>Gregg P. Bradley</i>	PROJECT MANAGER
BY	DATE	CHANGED
WDA	2-9-95	AS-BUILT
SCALE	AS SHOWN	DESIGNED
SCALE	AS SHOWN	CHECKED
DATE	8-17-92	DRAWN
SHEET	6	OF
SHEET	6	OF

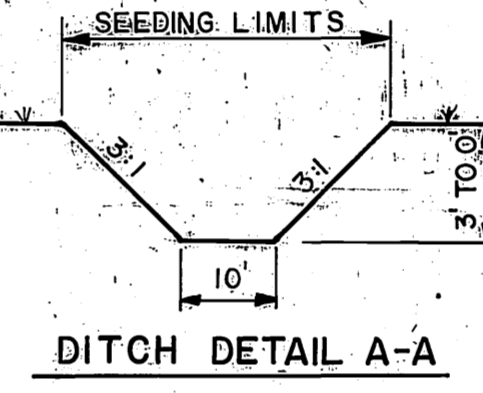
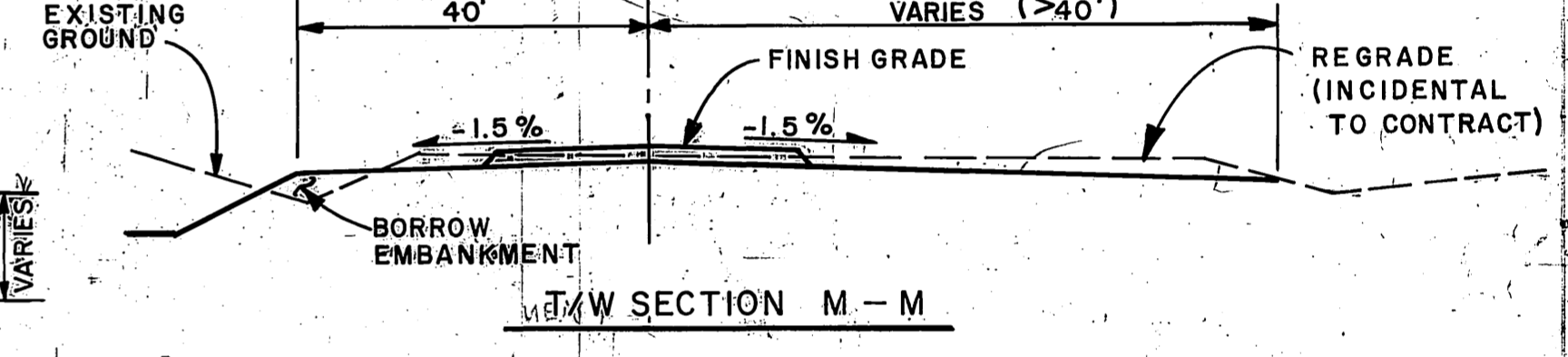
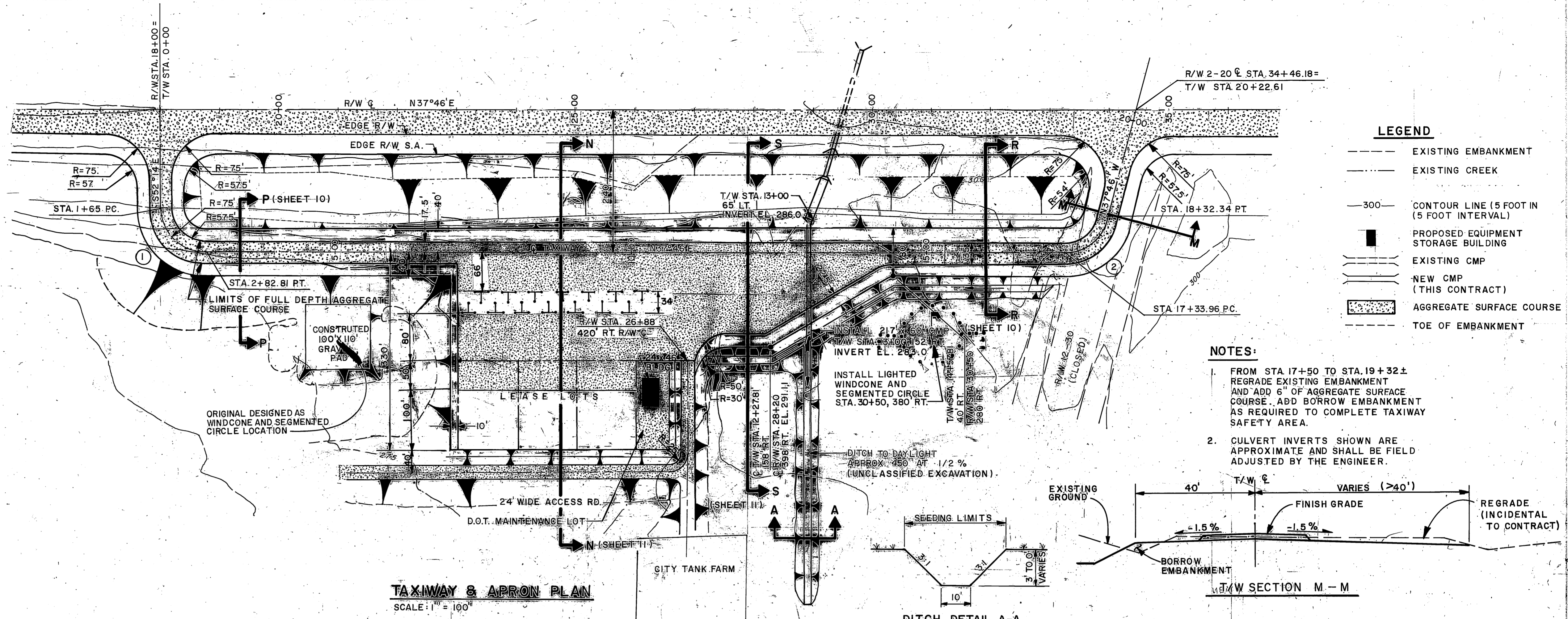
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 CHECKED BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 NO. \_\_\_\_\_

SURVEYED BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 NO. \_\_\_\_\_



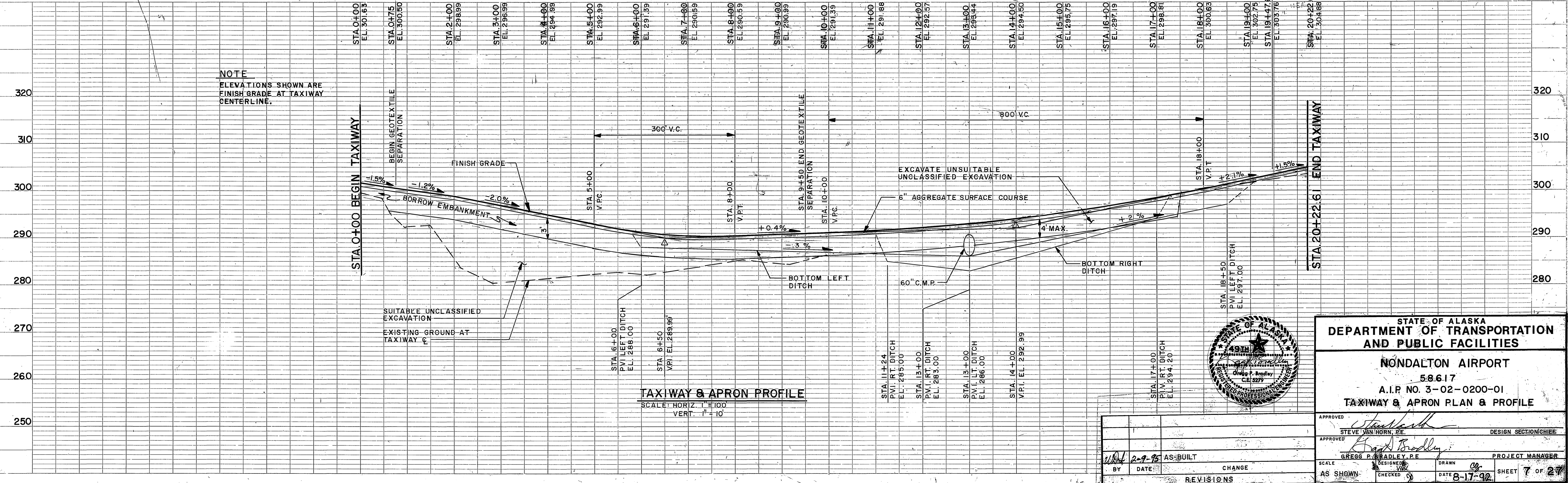
**TAXIWAY CURVE DATA**

CURVE	RADIUS	DELTA	LENGTH
1	75'	90°00'00"	117.81
2	75'	75°32'00"	98.87



**TAXIWAY & APRON PLAN**  
SCALE: 1" = 100'

**TAXIWAY & APRON PROFILE**  
SCALE: HORIZ. 1" = 100'  
VERT. 1" = 10'



NOTE  
ELEVATIONS SHOWN ARE  
FINISH GRADE AT TAXIWAY  
CENTERLINE.

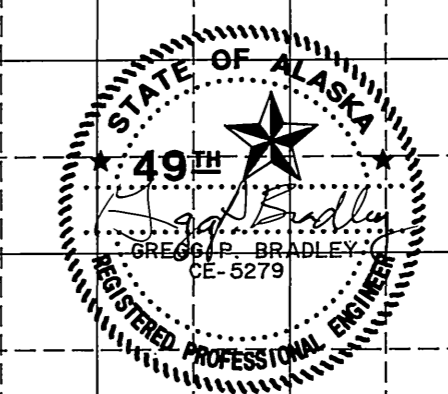
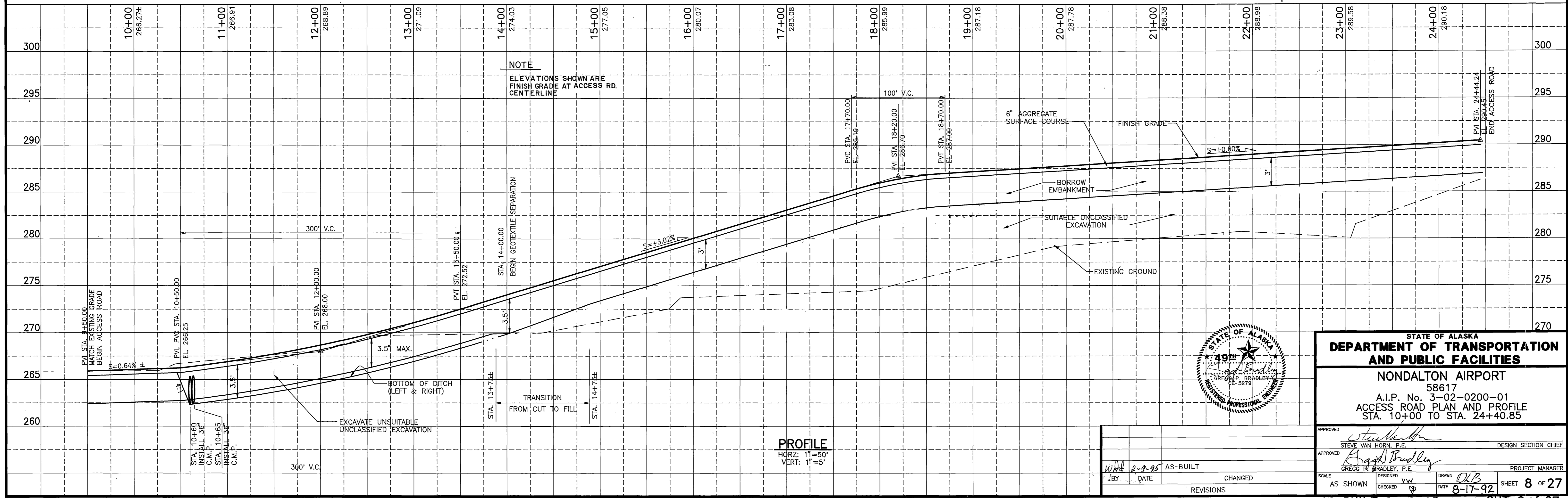
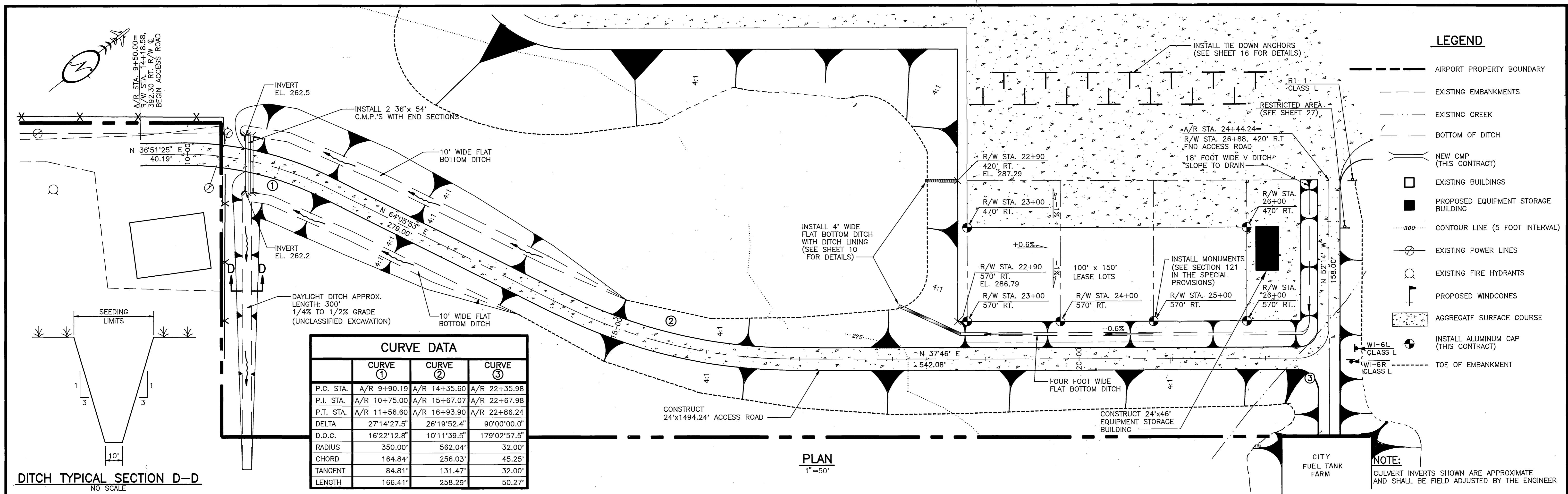


STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

NONDALTON AIRPORT  
 58.617  
 A.I.R. NO. 3-02-0200-01  
 TAXIWAY & APRON PLAN & PROFILE

BY	DATE	REVISIONS
AS-BUILT	2-9-95	AS-BUILT

APPROVED	<i>Steve Van Horn</i>	DESIGN SECTION CHIEF
APPROVED	<i>Gregg P. Bradley</i>	PROJECT MANAGER
SCALE	AS SHOWN	CHECKED
DATE	8-17-92	SHEET
AS-BUILT		2-95
SHEET		7 of 27



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

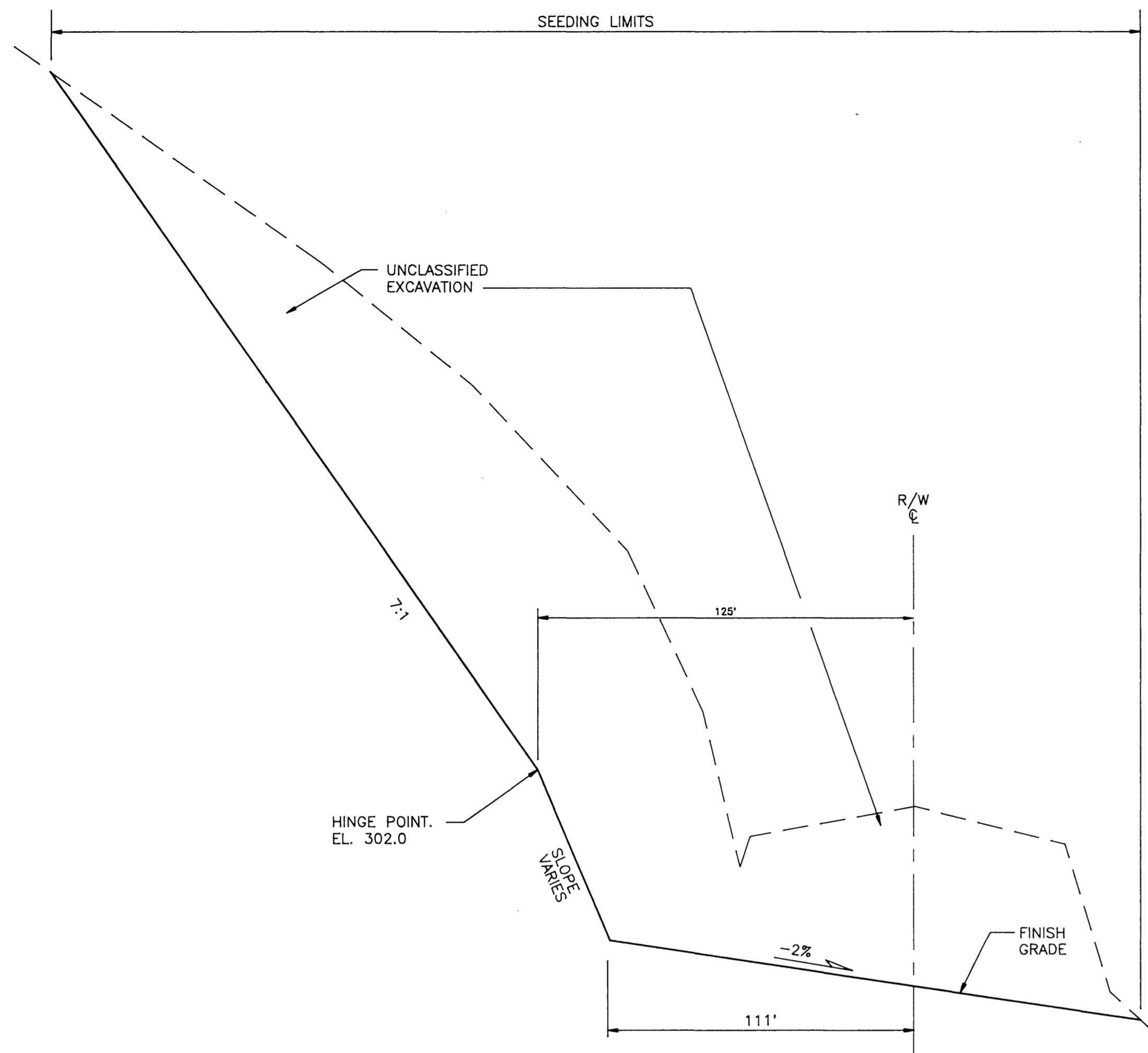
NONDALTON AIRPORT  
58617  
A.I.P. No. 3-02-0200-01  
ACCESS ROAD PLAN AND PROFILE  
STA. 10+00 TO STA. 24+40.85

APPROVED: *Steve Van Horn*  
STEVE VAN HORN, P.E. DESIGN SECTION CHIEF

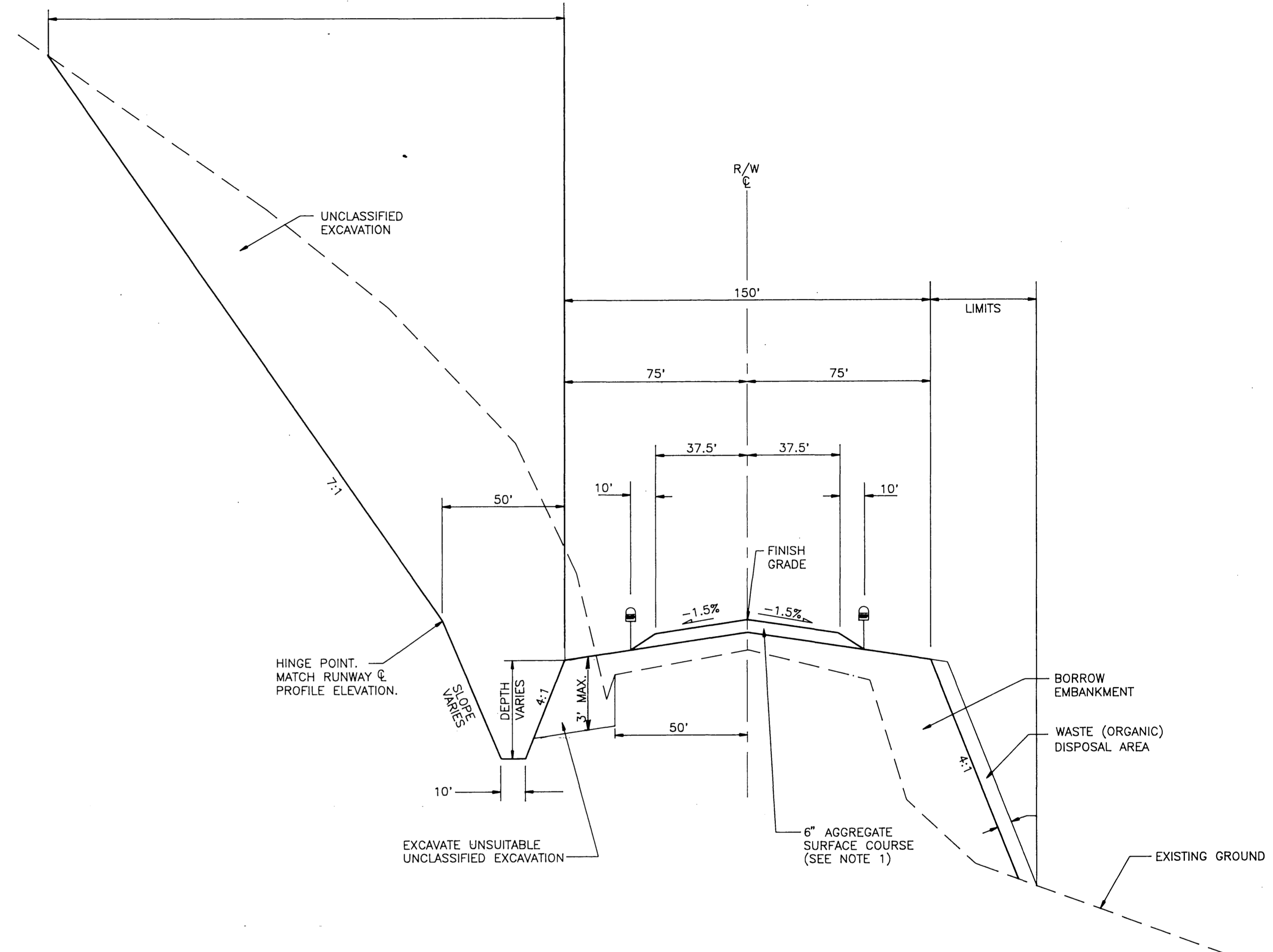
APPROVED: *Gregg R. Bradley*  
GREGG R. BRADLEY, P.E. PROJECT MANAGER

SCALE: AS SHOWN  
DESIGNED: VW  
CHECKED: SP  
DRAWN: OLB  
DATE: 8-17-92  
SHEET 8 OF 27

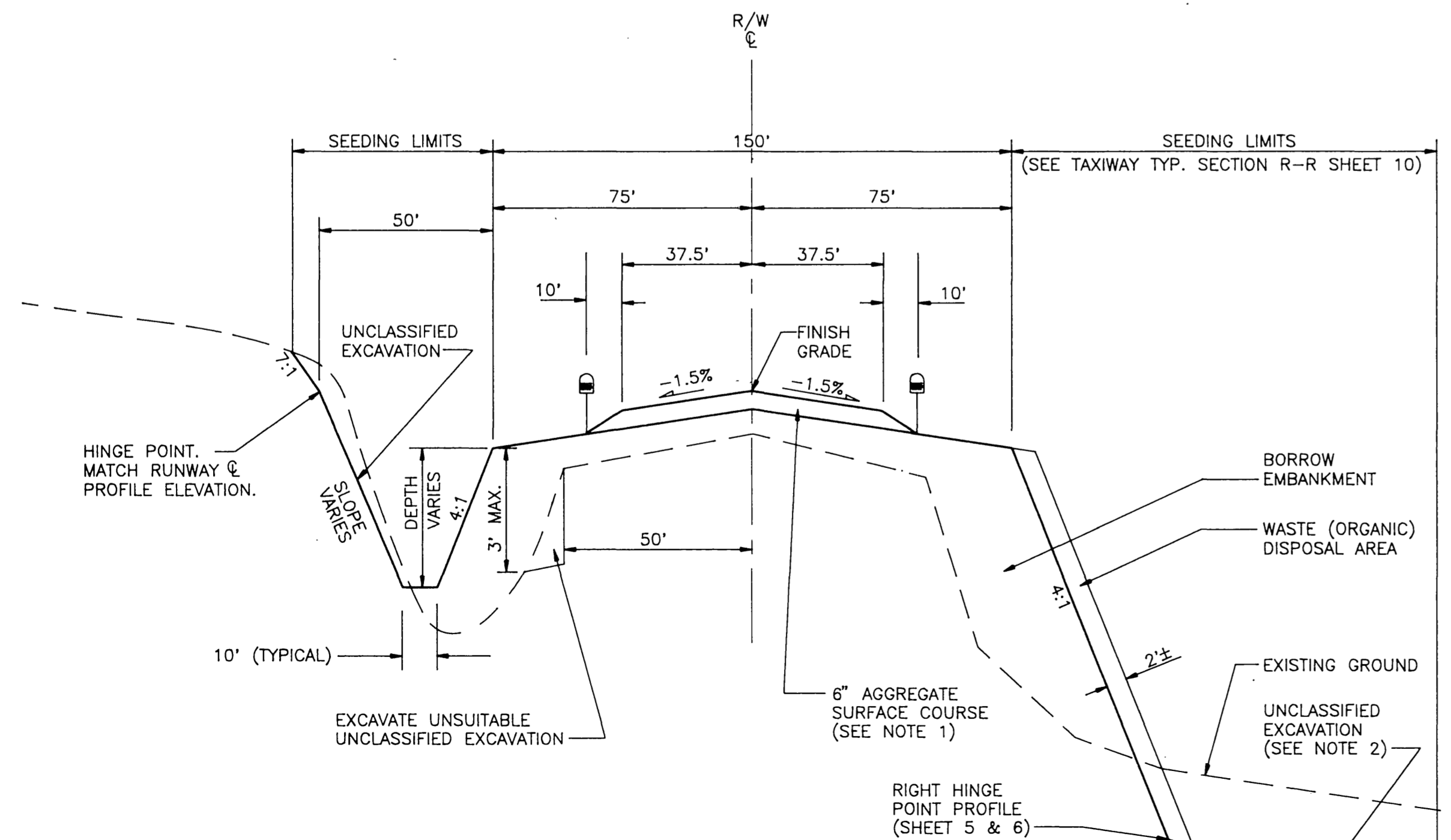
AS-BUILT 2-95 SHT. 8 OF 27



TYPICAL SECTION RUNWAY APPROXIMATE STA. 7+00 TO STA. 9+75



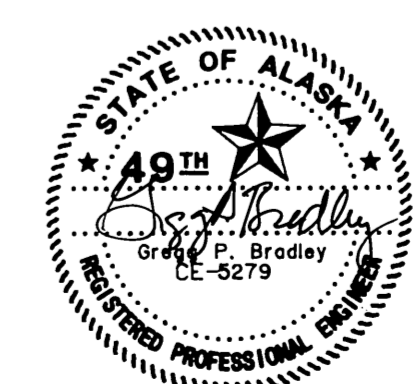
TYPICAL SECTION RUNWAY  
STA. 10+00 TO STA. 21+00 (APPROX.)



TYPICAL SECTION RUNWAY  
STA. 22+00 TO STA. 34+00 (APPROX.)

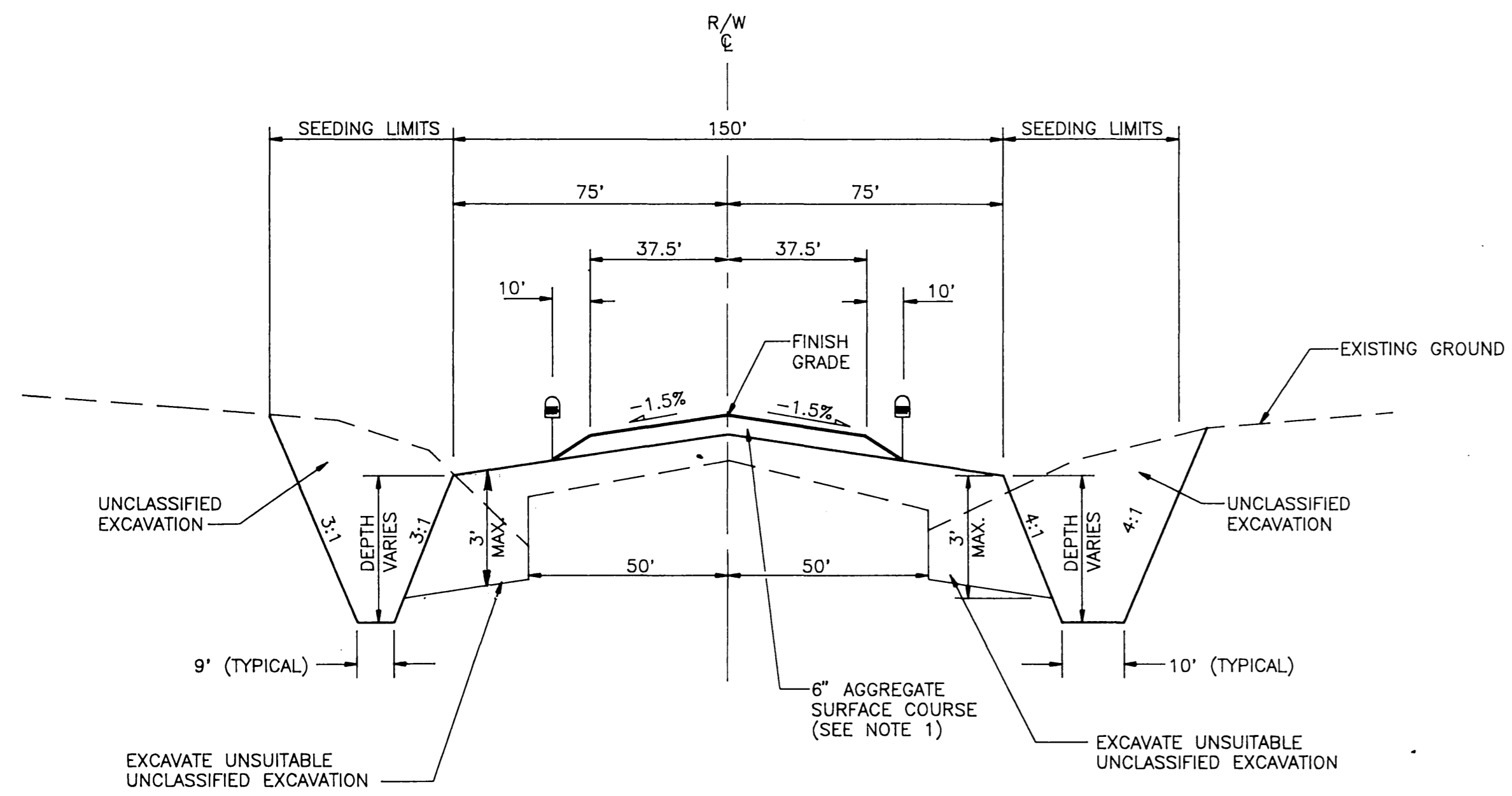
NOTES:

1. AGGREGATE SURFACE COURSE TO BE PLACED BETWEEN STA. 13+00 AND STA. 41+00
2. FROM R/W STA. 22+00 TO R/W STA. 33+50 THE INFIELD BETWEEN THE RUNWAY AND TAXIWAY SHALL BE EXCAVATED AS DEFINED BY THE RUNWAY HINGE POINT (RIGHT OF THE R/W CENTERLINE) AND THE TAXIWAY DITCH LINE (LEFT OF THE T/W CENTERLINE) SHOWN ON SHEETS 5, 6, & 7.



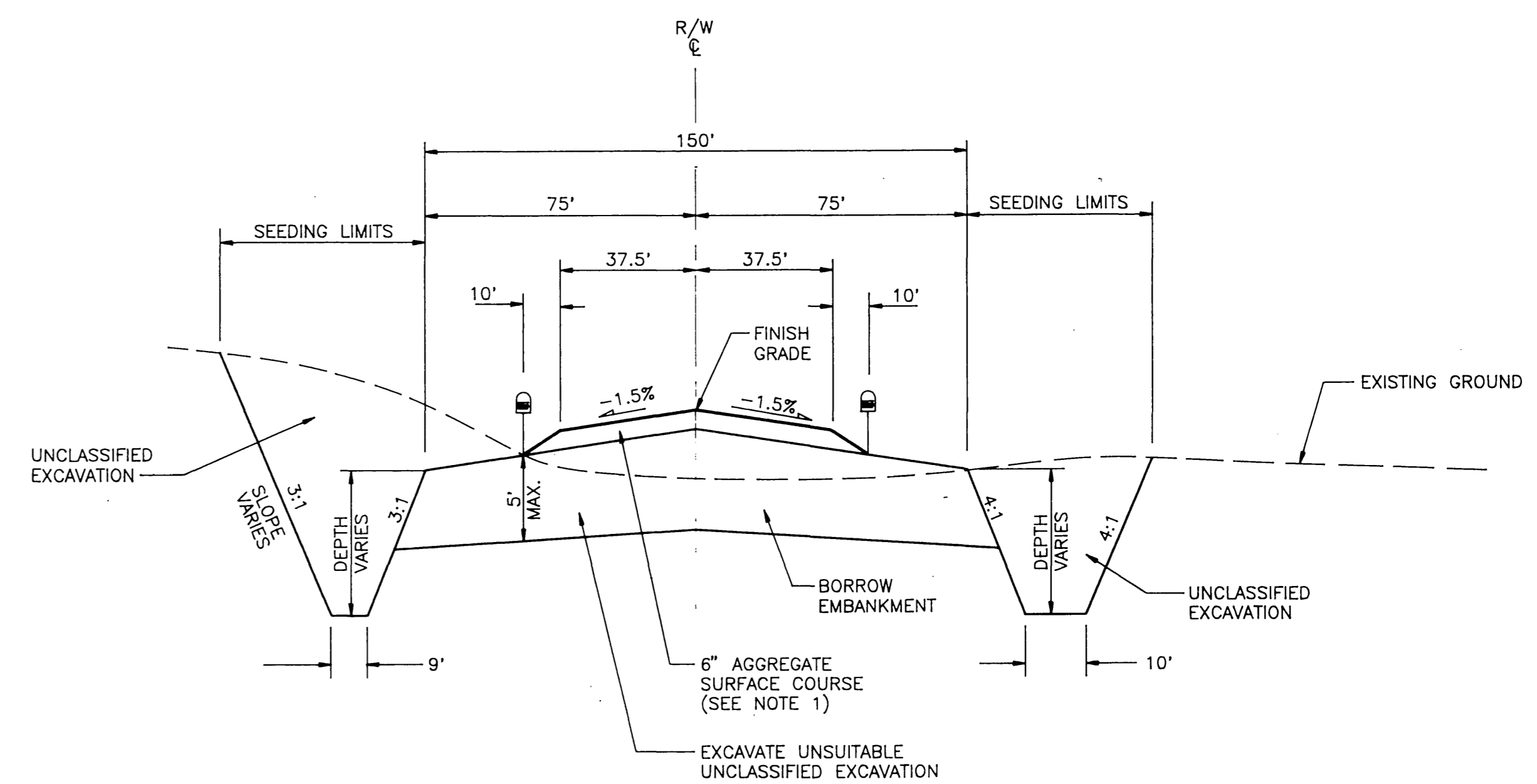
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
NONDALTON AIRPORT  
58617  
A.I.P. No. 3-02-0200-01  
RUNWAY TYPICAL SECTIONS

APPROVED	<i>Steve Van Horn</i>	DESIGN SECTION CHIEF
APPROVED	<i>Gregg P. Bradley</i>	PROJECT MANAGER
BY	DATE	CHANGED
WAB	2-9-95	AS-BUILT
SCALE	NO SCALE	DESIGNED
		YV
		CHECKED
		9D
		DATE
		8-17-92
		SHEET
		9 OF 27

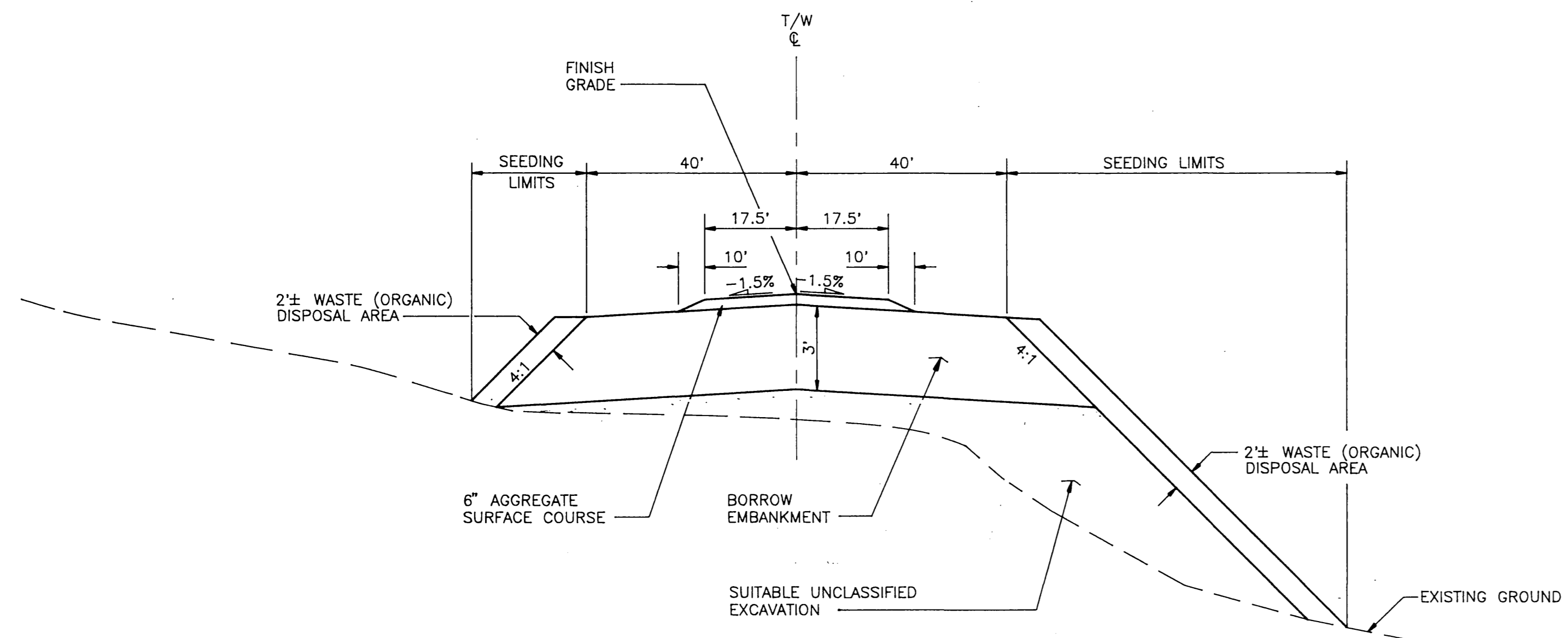


**TYPICAL SECTION RUNWAY**  
STA. 35+00 TO STA. 37+00 (APPROX.)

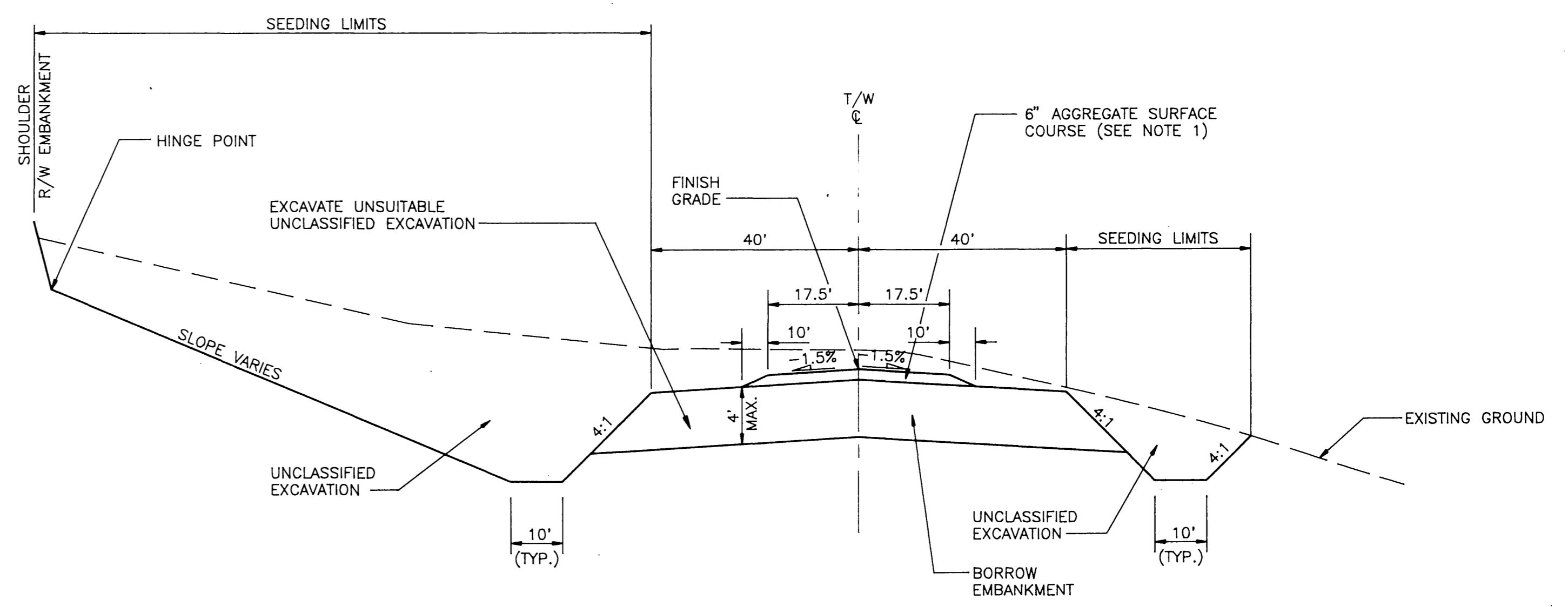
**NOTE:**  
1. AGGREGATE SURFACE COURSE TO BE PLACED BETWEEN STA. 13+00 AND STA. 41+00



**TYPICAL SECTION RUNWAY**  
STA. 38+00 TO STA. 46+00 (APPROX.)



**TYPICAL SECTION TAXIWAY (P-P SHEET 7)**  
(SEE NOTE 2)

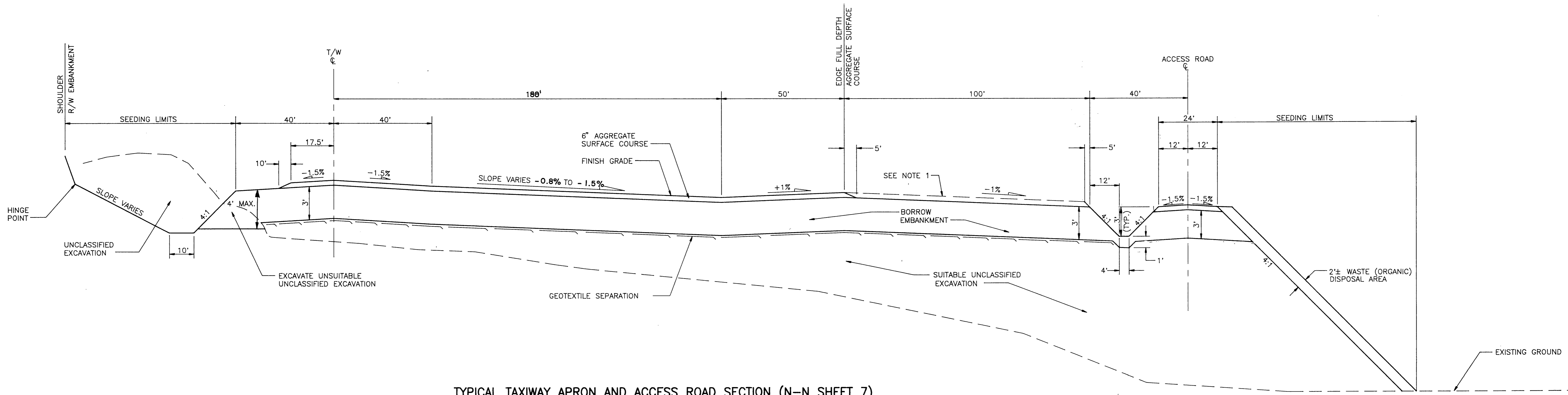


**TYPICAL SECTION TAXIWAY (R-R SHEET 7)**

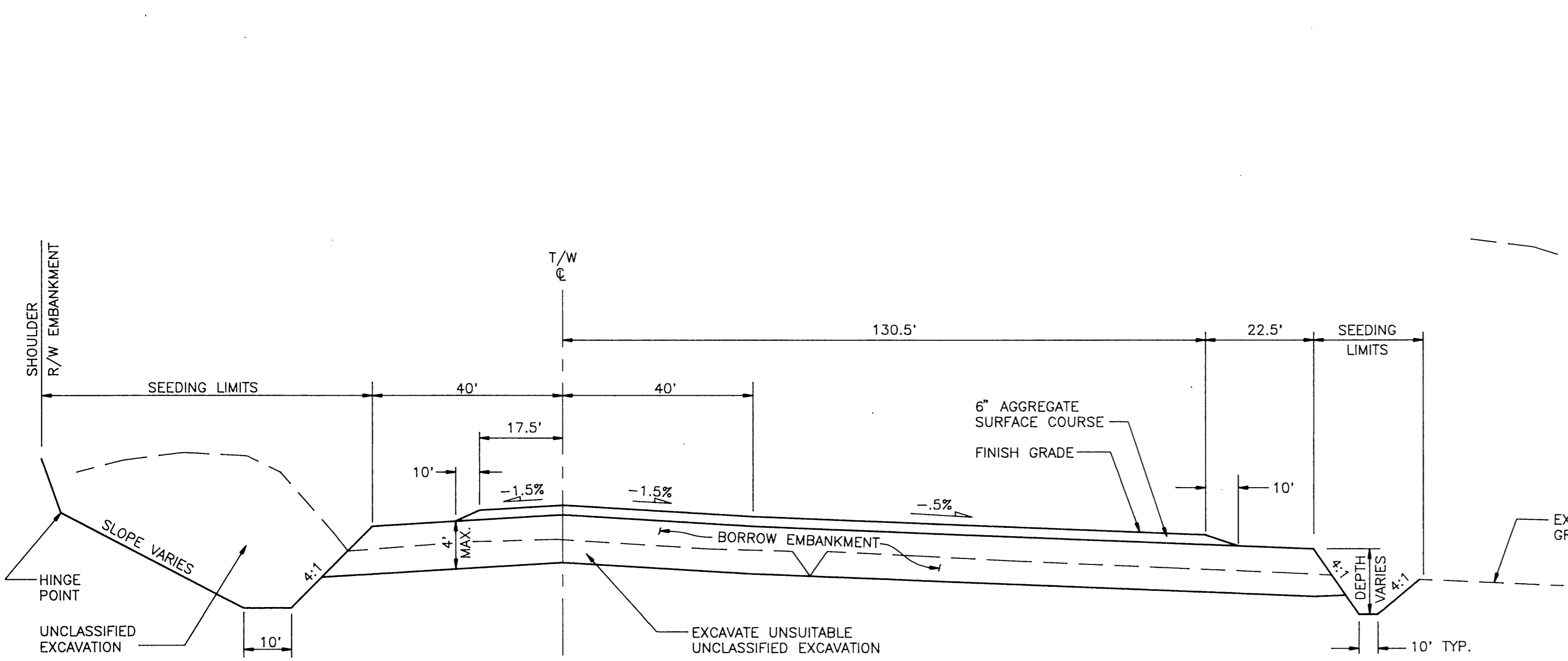


STATE OF ALASKA  
**DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES**  
NONDALTON AIRPORT  
58617  
A.I.P. No. 3-02-0200-01  
TAXIWAY, APRON & ACCESS RD. TYPICAL SECTIONS

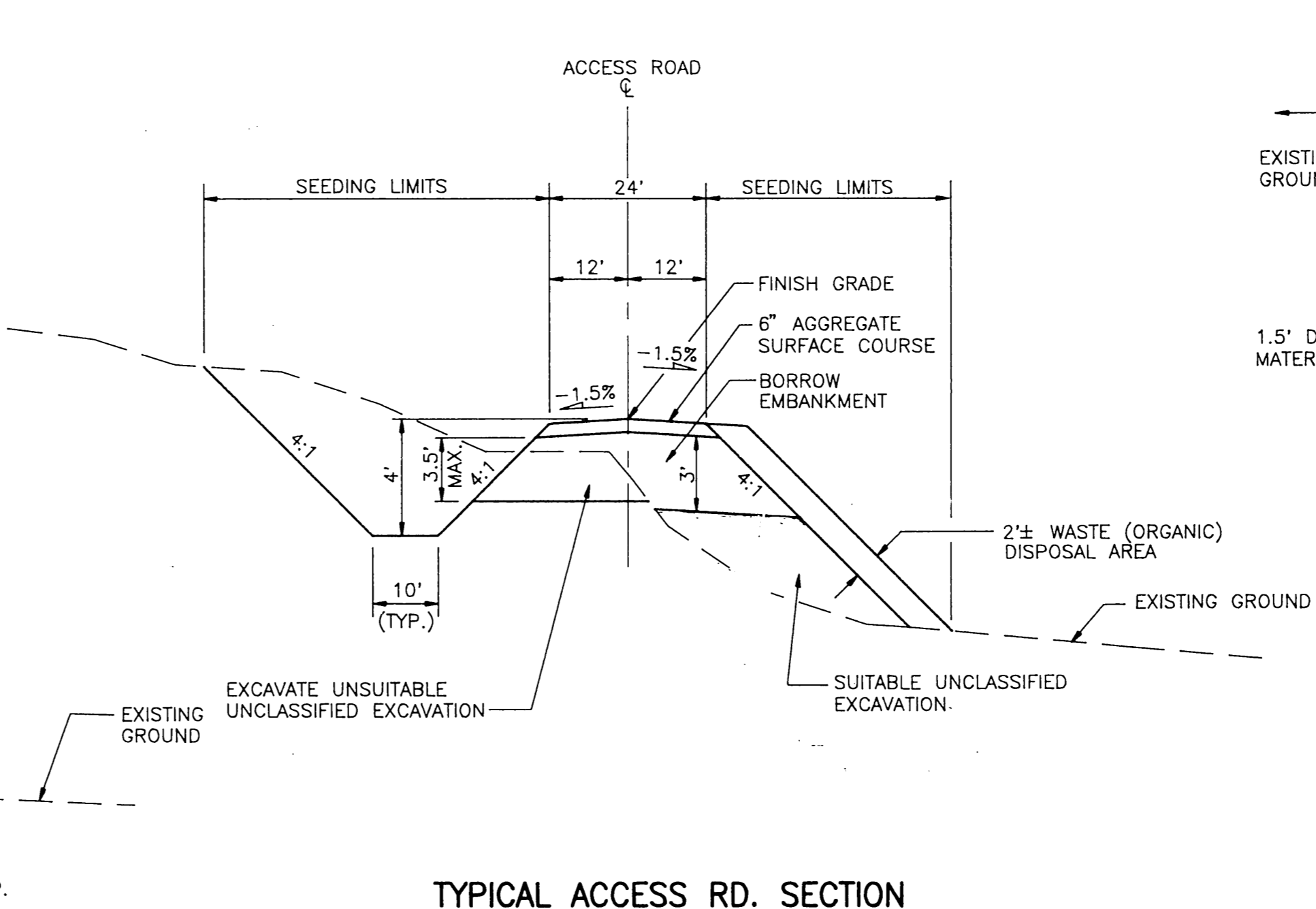
APPROVED	<i>Steve Van Horn</i>	DESIGN SECTION CHIEF
APPROVED	<i>Greg P. Bradley</i>	PROJECT MANAGER
BY	DATE	CHANGED
WV	2-9-95	AS-BUILT
SCALE	NO SCALE	
CHECKED	DATE	SHEET
WV	8-17-92	10 OF 27



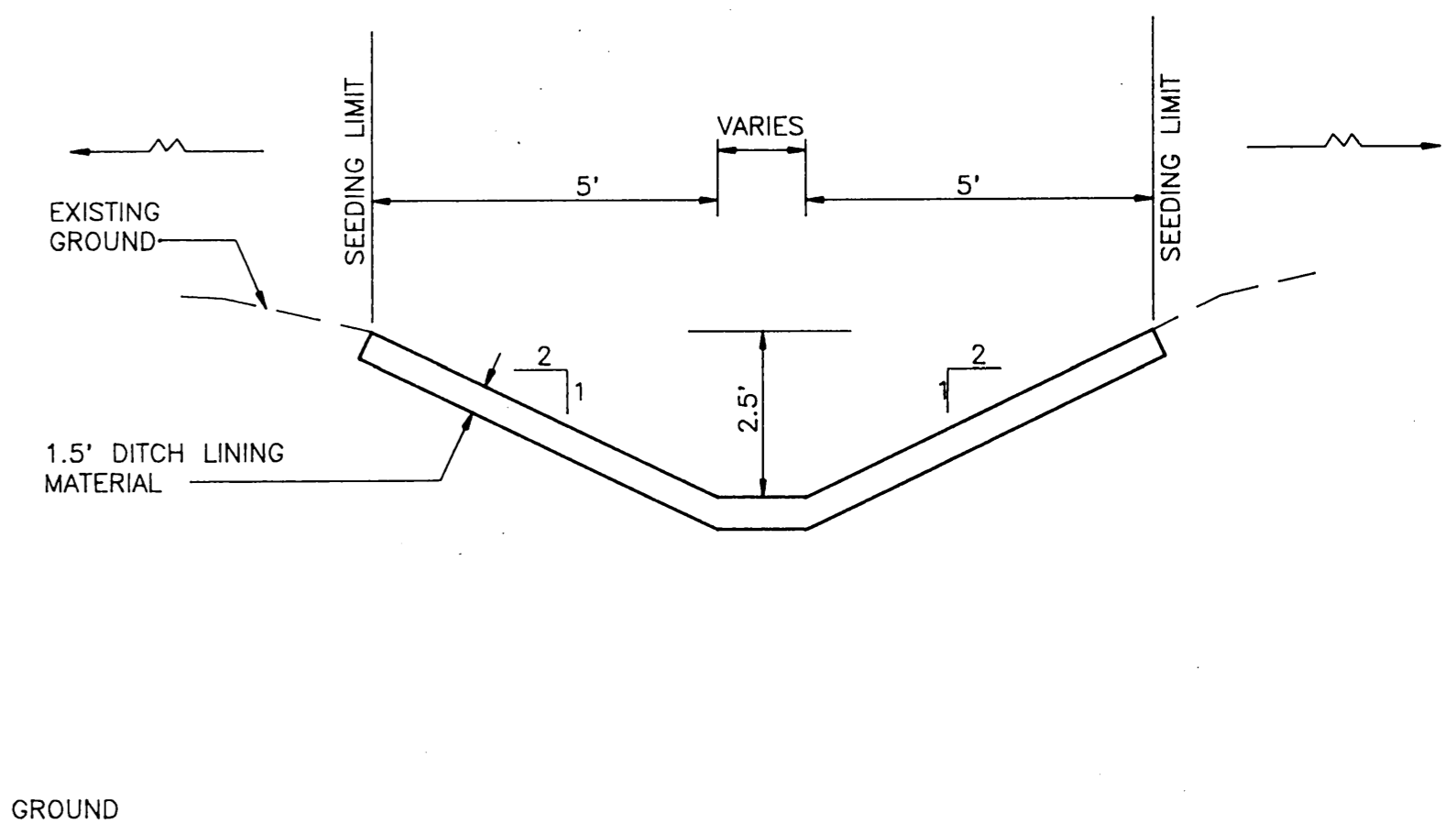
TYPICAL TAXIWAY APRON AND ACCESS ROAD SECTION (N-N SHEET 7)



TYPICAL TAXIWAY AND APRON SECTION (S-S SHEET 7)

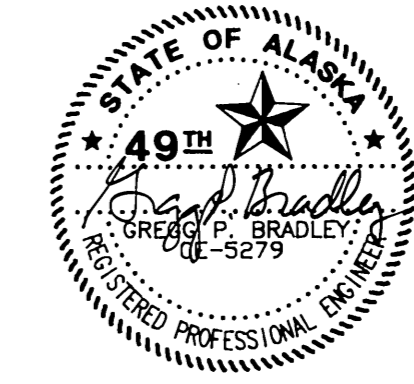


TYPICAL ACCESS RD. SECTION



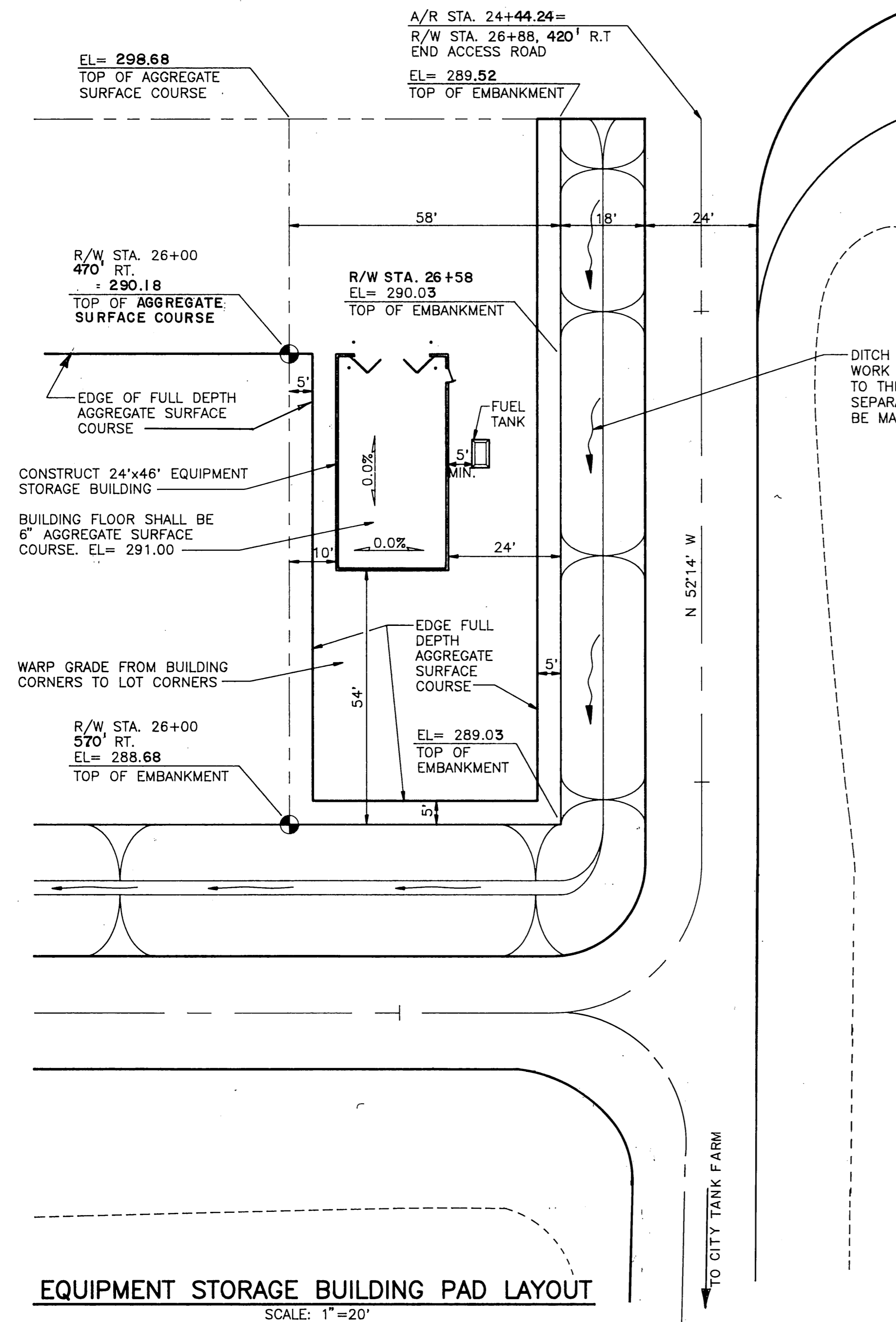
TYPICAL DITCH LINING DETAIL  
(SEE SHEETS 6 AND 8)

NOTE:  
1. EQUIPMENT STORAGE BUILDING PAD TO RECEIVE 6" OF AGGREGATE SURFACE COURSE. REMAINING LEASE LOTS DO NOT RECEIVE AGGREGATE SURFACE COURSE.

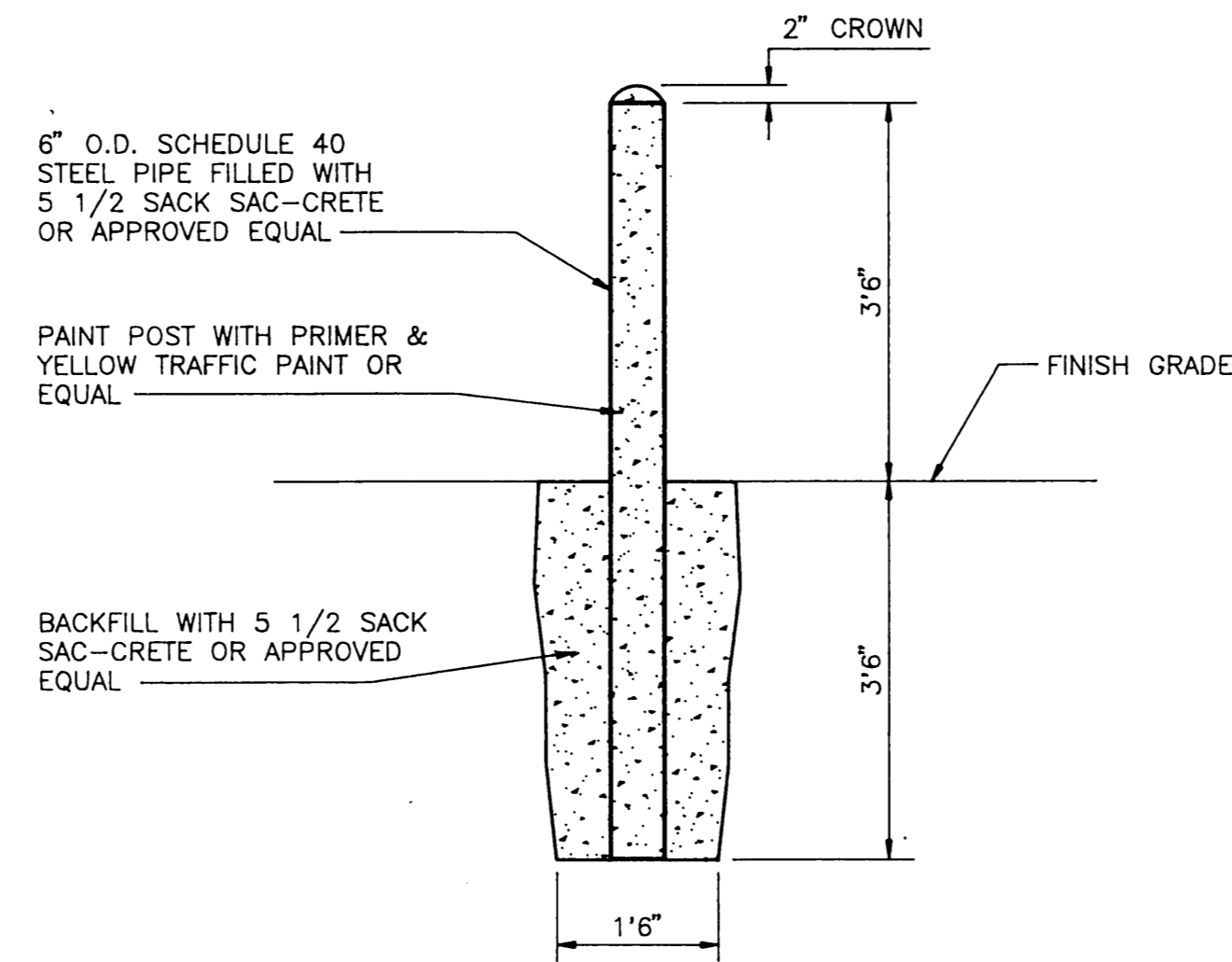


STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
NONDALTON AIRPORT  
58617  
A.I.P. No. 3-02-0200-01  
TAXIWAY, APRON &  
ACCESS RD. TYPICAL SECTIONS

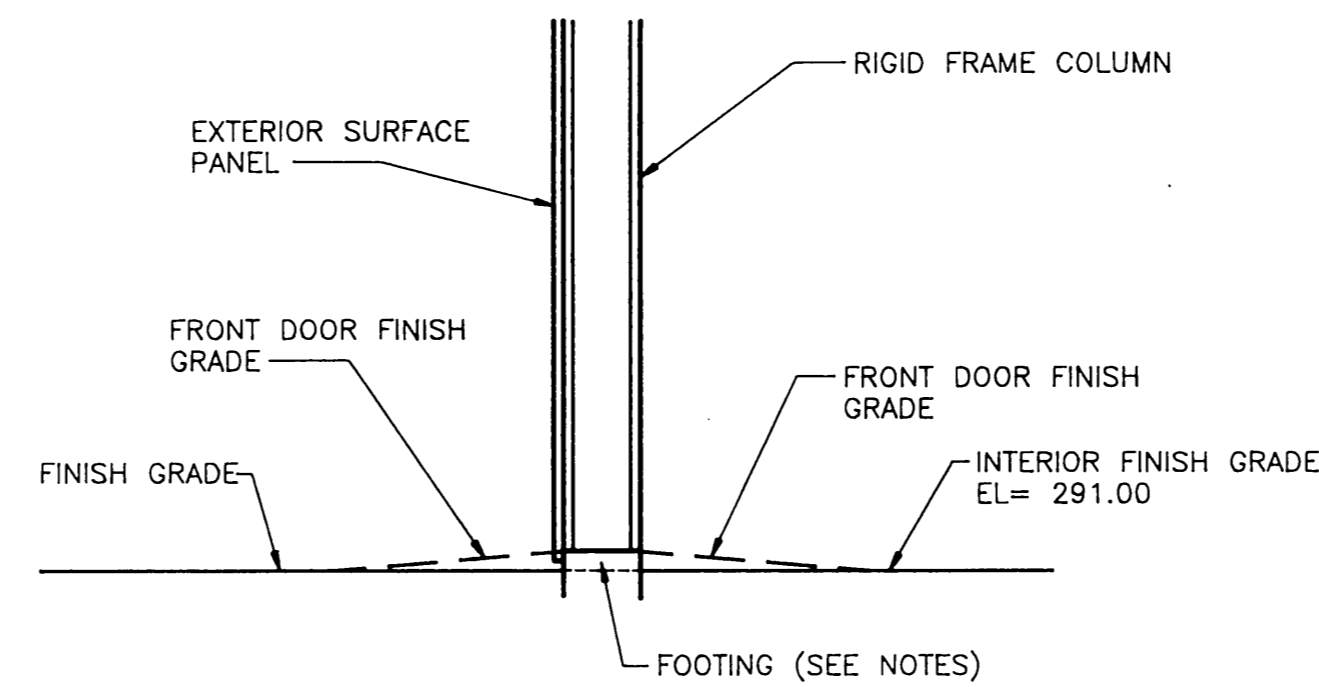
APPROVED	<i>Steve Van Horn</i>	DESIGN SECTION CHIEF
APPROVED	<i>Gregg P. Bradley</i>	PROJECT MANAGER
BY	DATE	REVISIONS
WHD	2-9-95	AS-BUILT
SCALE	DESIGNED	DRAWN
NO SCALE	VW	DUB
CHECKED	DATE	SHEET
W	8-17-92	11 OF 27



EQUIPMENT STORAGE BUILDING PAD LAYOUT  
SCALE: 1"=20'



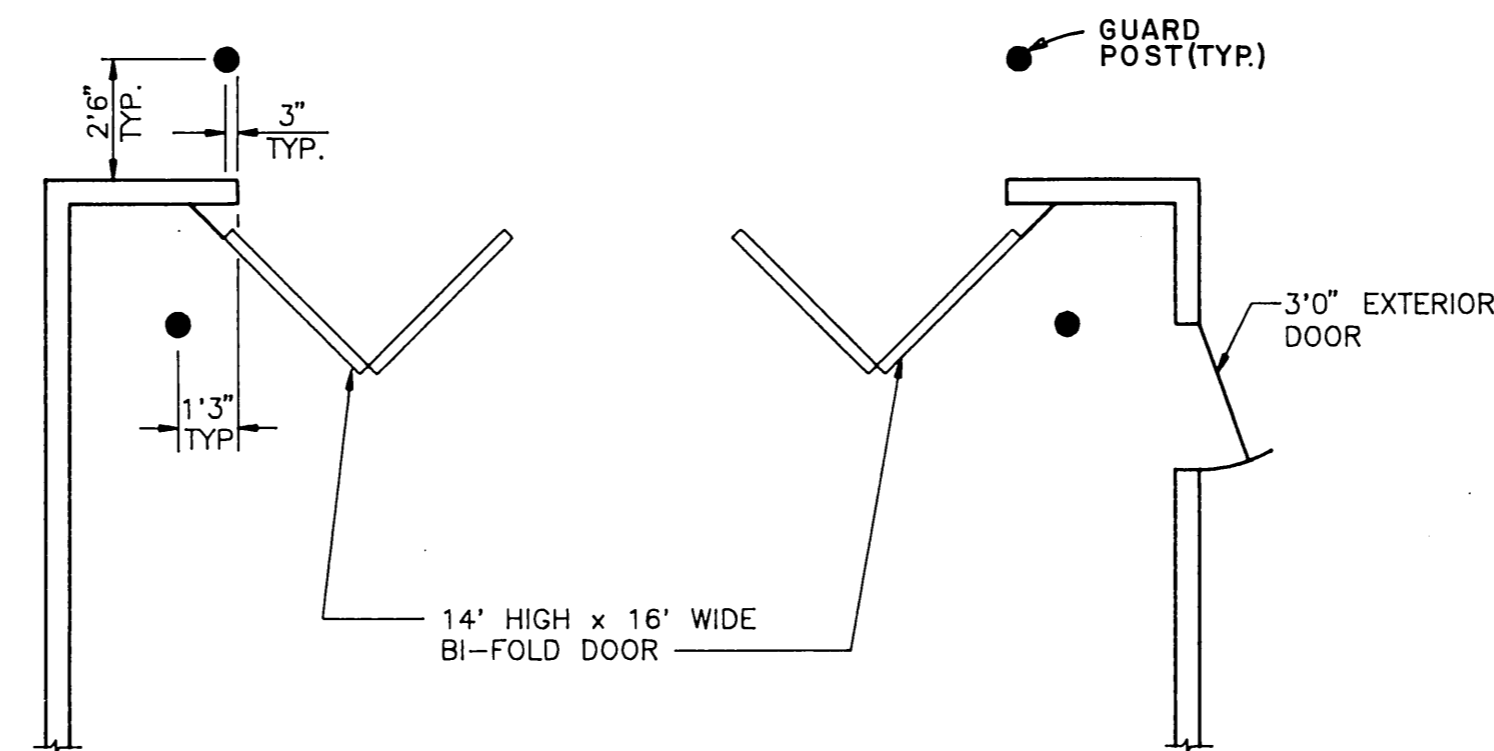
GUARD POST DETAIL  
NO SCALE



NOTES

- FOUNDATION DESIGN & DETAILS TO BE PROVIDED BY THE CONTRACTOR.
- TOP OF FOOTING SHALL BE 2" ABOVE THE FINISH GRADE EXCEPT AT THE OPENING FOR THE BI-FOLD DOORS WHERE THE FINISH GRADE SHALL BE RAMPED UP EVEN WITH THE TOP OF THE FOOTING.

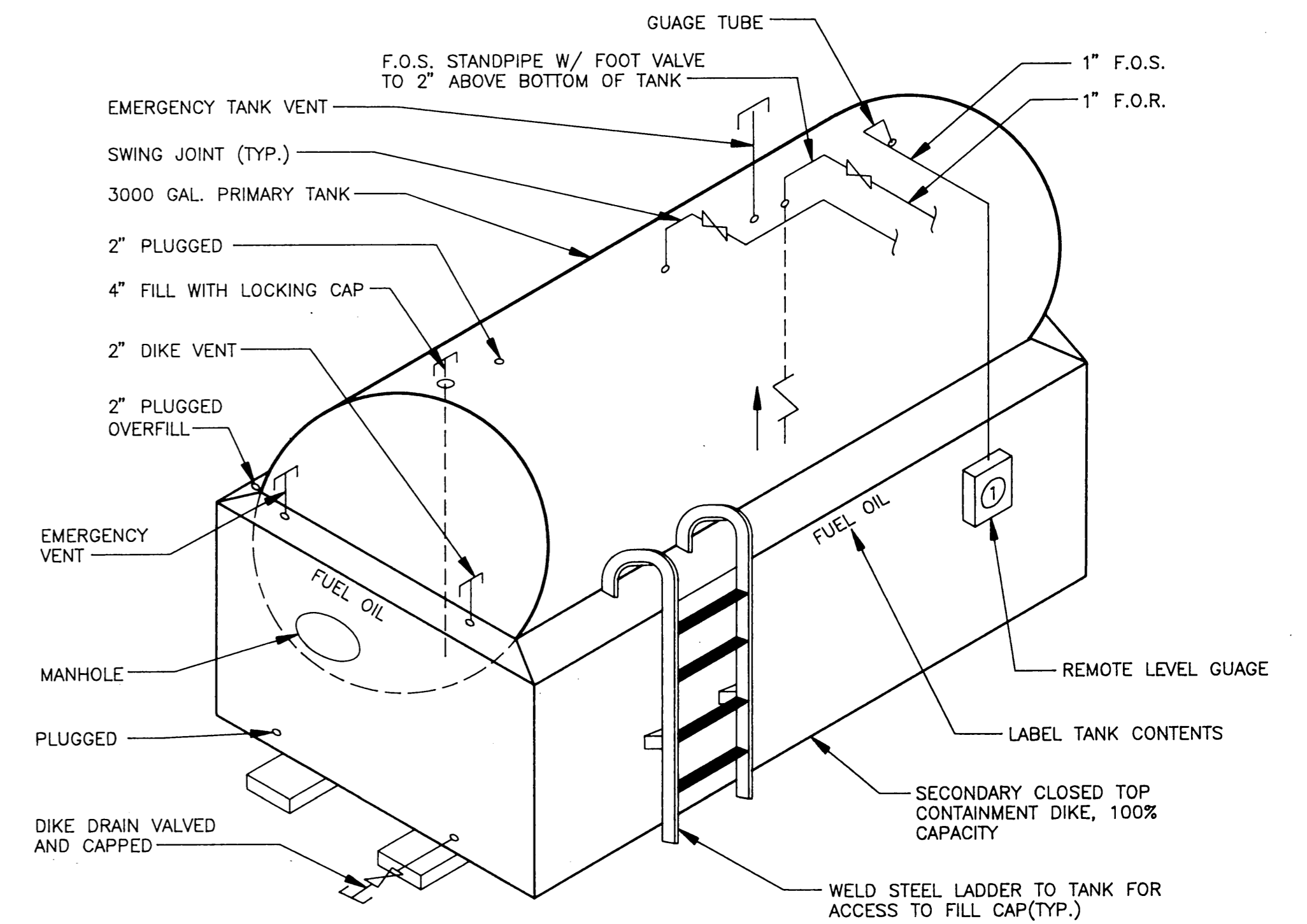
EQUIPMENT STORAGE BUILDING DETAIL  
NO SCALE



EQUIPMENT STORAGE BUILDING ENTRY DETAIL  
NO SCALE

NOTES:

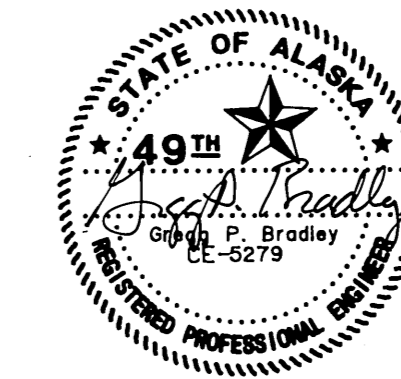
- TANK FILL PIPE SHALL BE INSTALLED TO WITHIN 6" FROM BOTTOM TANK.
- DIKE DRAIN SYSTEM SHALL BE INSTALLED INTERNALLY OR COUPLED VERY SHORT TO PREVENT DAMAGED OR ACCIDENTAL OPENING
- PROVIDE MANHOLE ACCESS ON THE CONTAINMENT DIKE.
- DETAIL IS SCHEMATIC ONLY AND IS INTENDED ONLY TO SHOW MAJOR FEATURES. THE ENTIRE TANK ASSEMBLY SHALL BE U.L. APPROVED AND SHALL CONFORM TO U.L. 142 SPECIFICATIONS.



FUEL OIL STORAGE TANK (FT-1) DETAIL  
NO SCALE

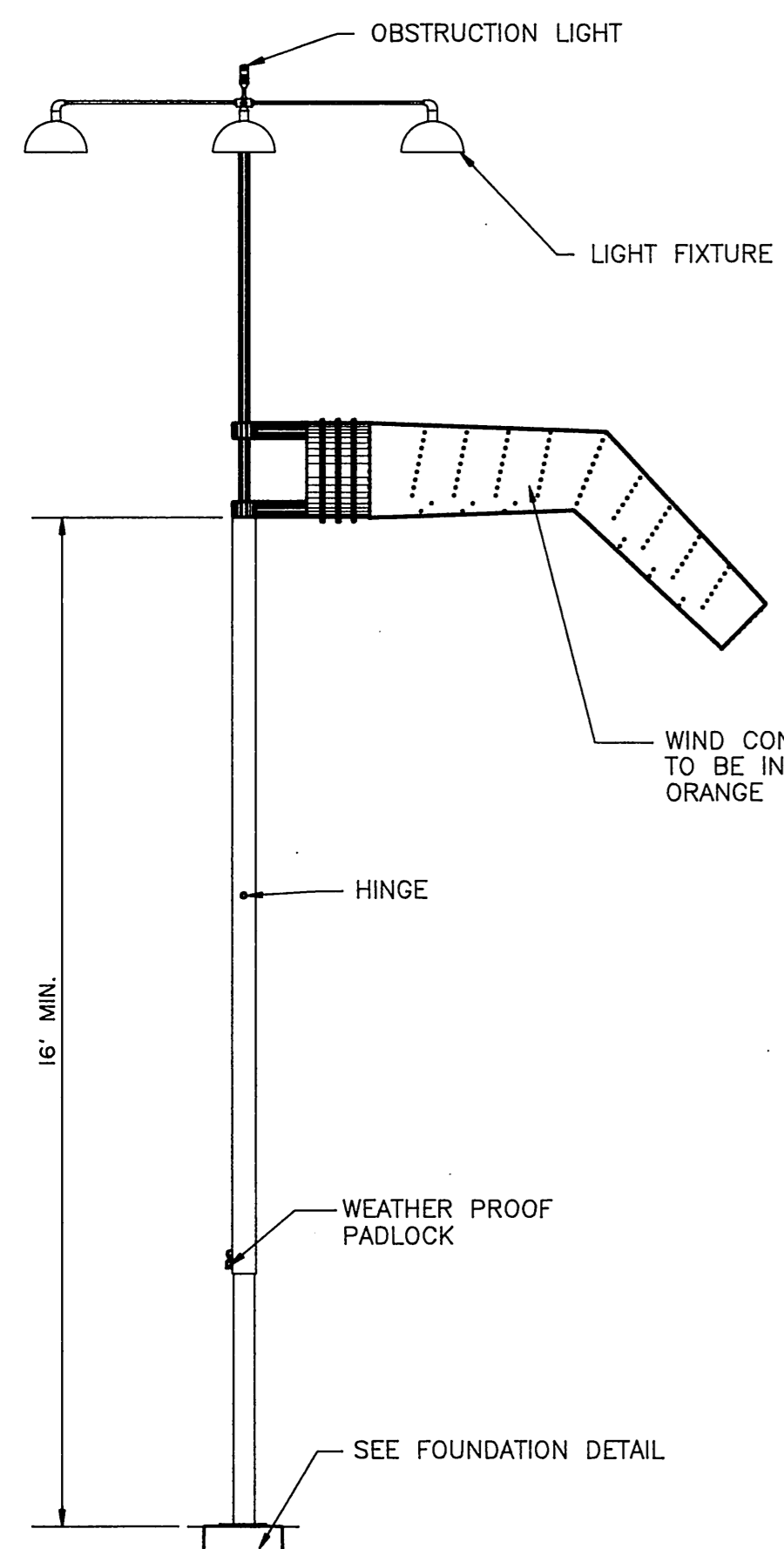
NOTES

ALL COSTS ASSOCIATED WITH THE CONSTRUCTION OF THE GUARD POSTS SHALL BE INCIDENTAL TO THE CONTRACT & NO SEPARATE PAYMENT SHALL BE MADE.

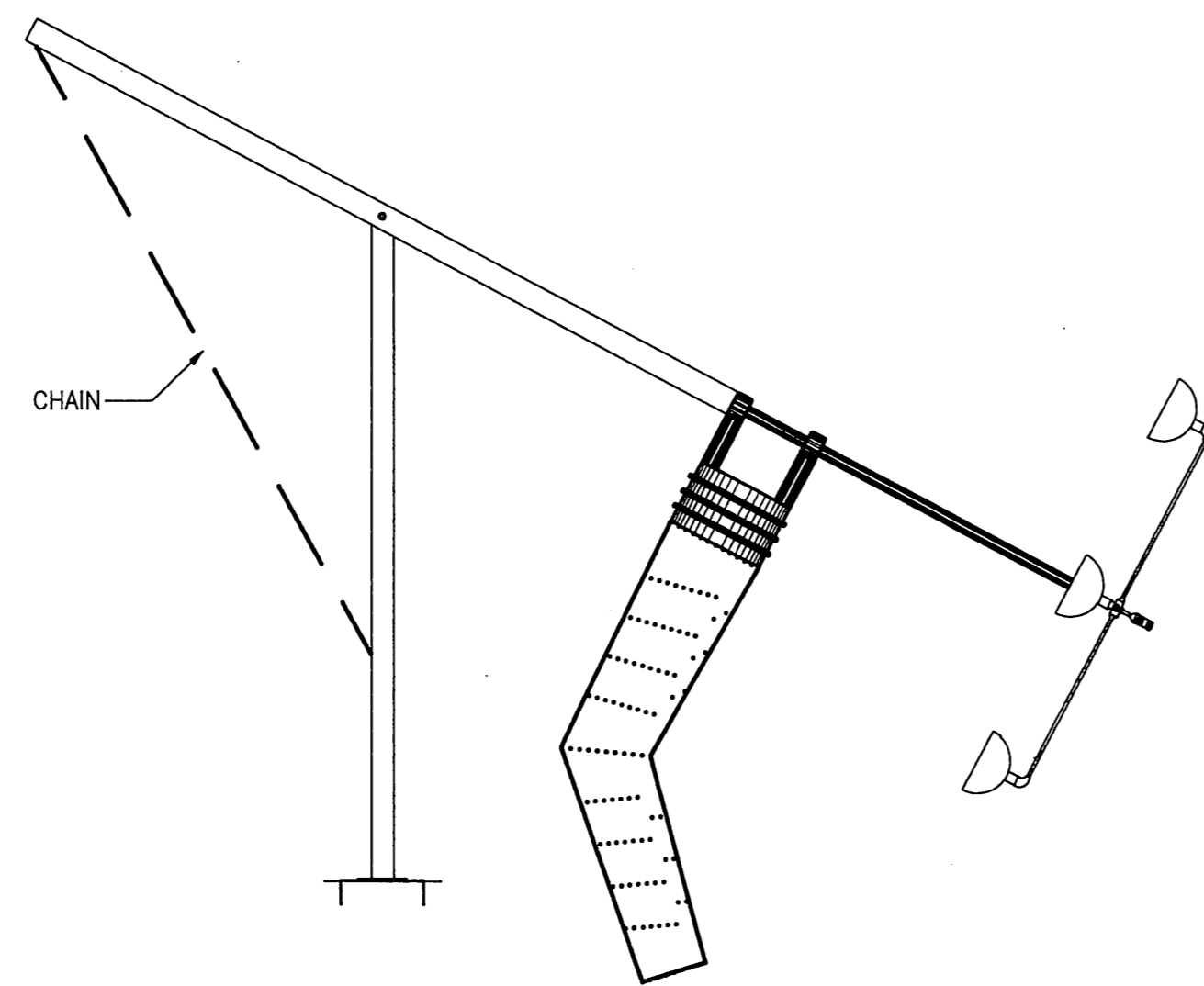


STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
NONDALTON AIRPORT  
58617  
A.I.P. No. 3-02-0200-01  
EQUIPMENT STORAGE BUILDING PLAN,  
DETAILS, PAD LAYOUT & FUEL TANK DETAILS

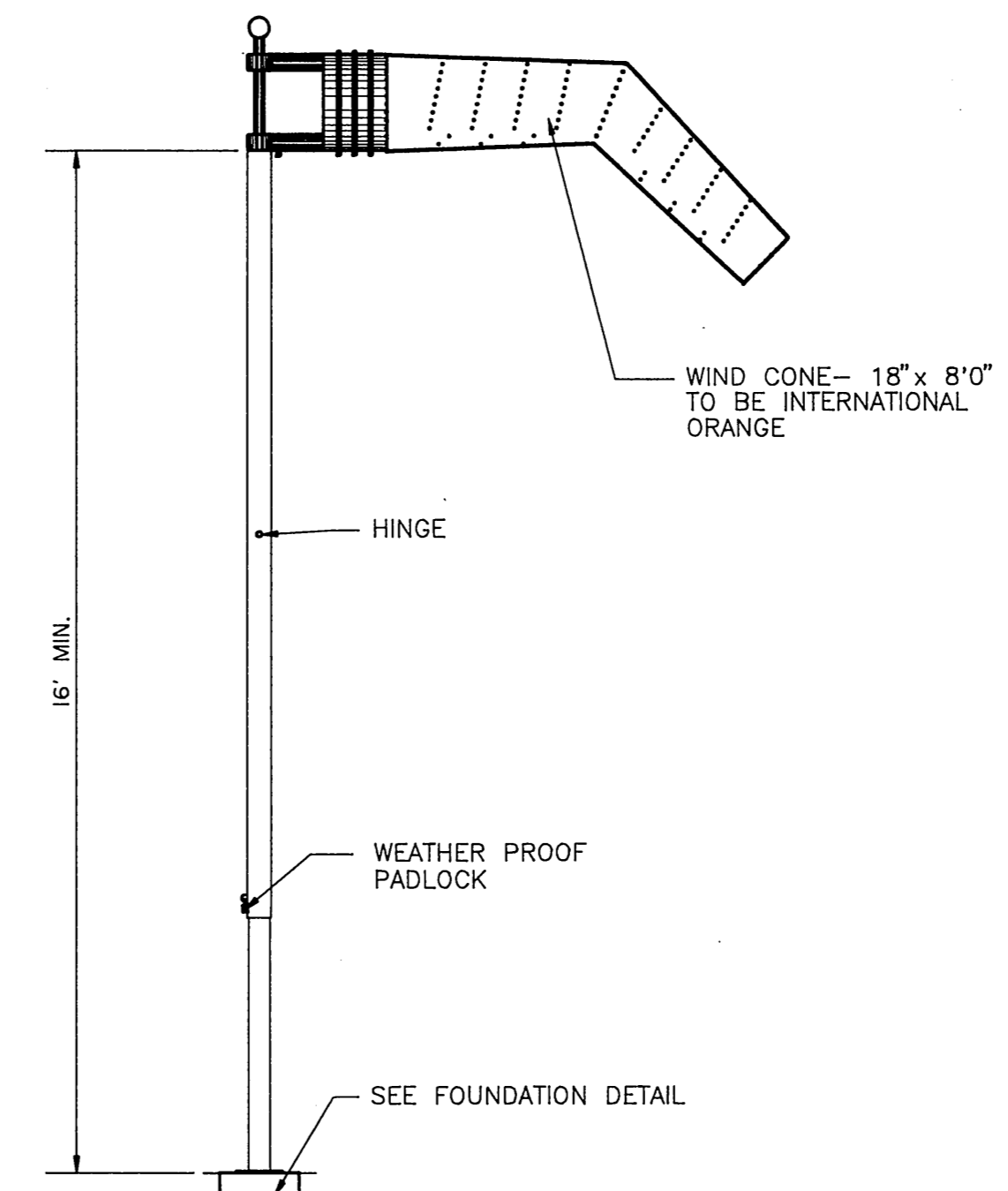
APPROVED	<i>Steve Van Horn</i>	DESIGN SECTION CHIEF
APPROVED	<i>Gregg P. Bradley</i>	PROJECT MANAGER
BY	DATE	CHANGED
WAB	2-9-95	AS-BUILT
SCALE	DESIGNED	DRAWN
AS SHOWN	V W	QVB
CHECKED	DATE	SHEET
SP	8-17-92	12 OF 27



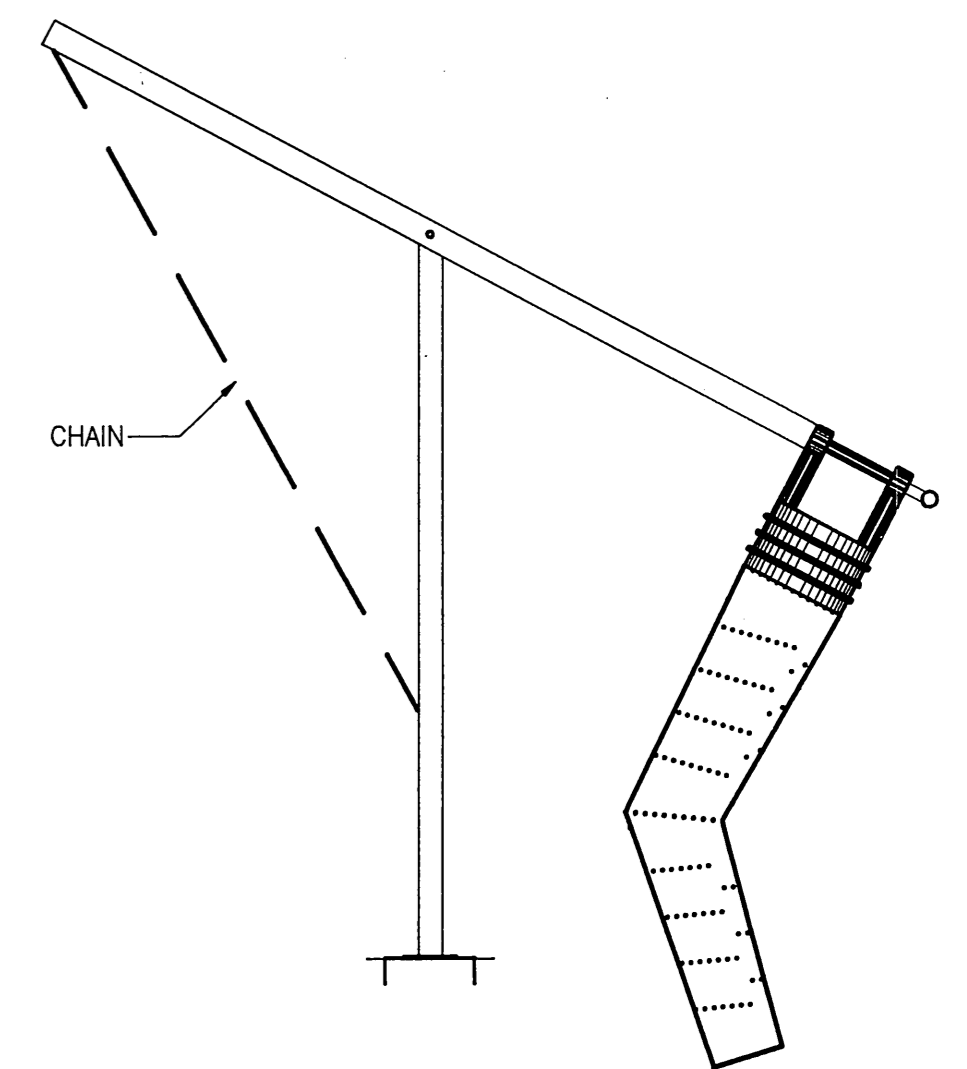
RAISED WIND CONE  
NO SCALE



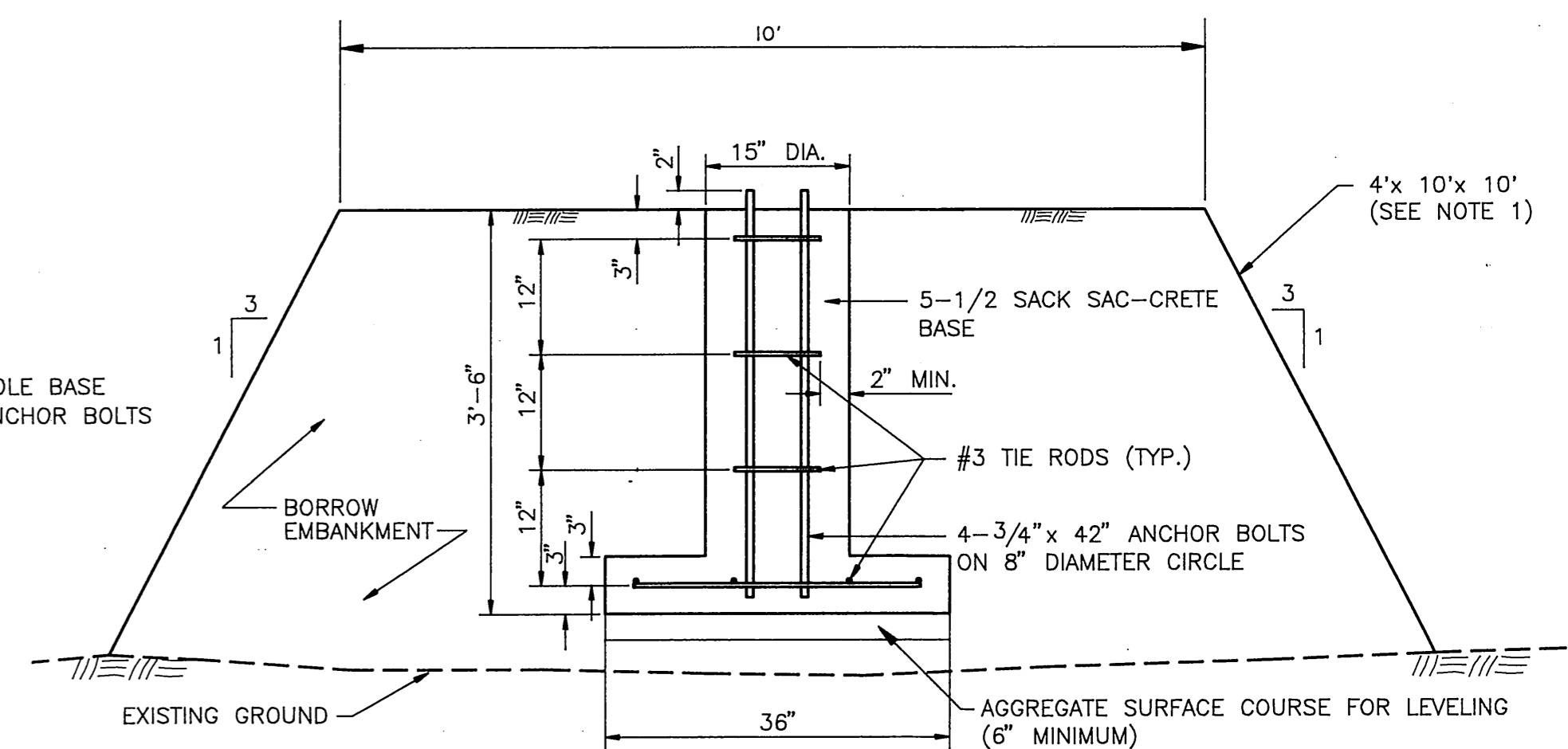
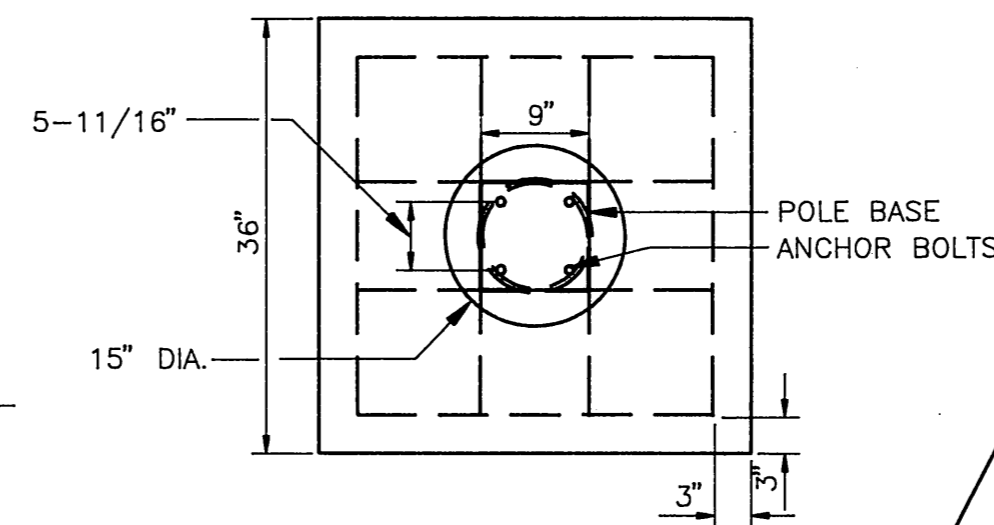
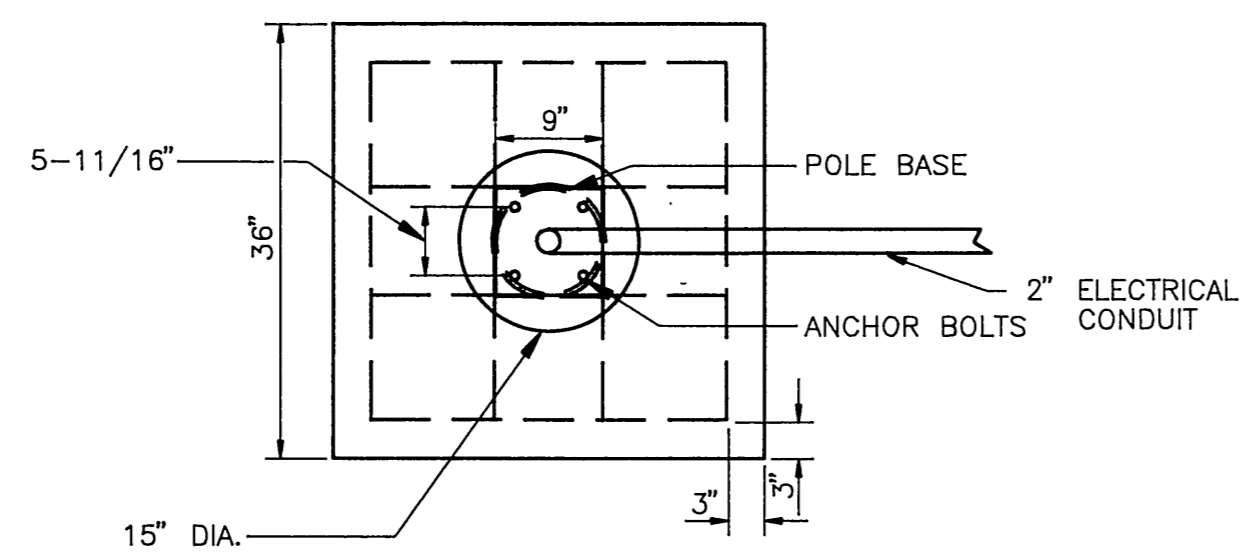
LOWERED WIND CONE  
NO SCALE



RAISED WIND CONE  
NO SCALE

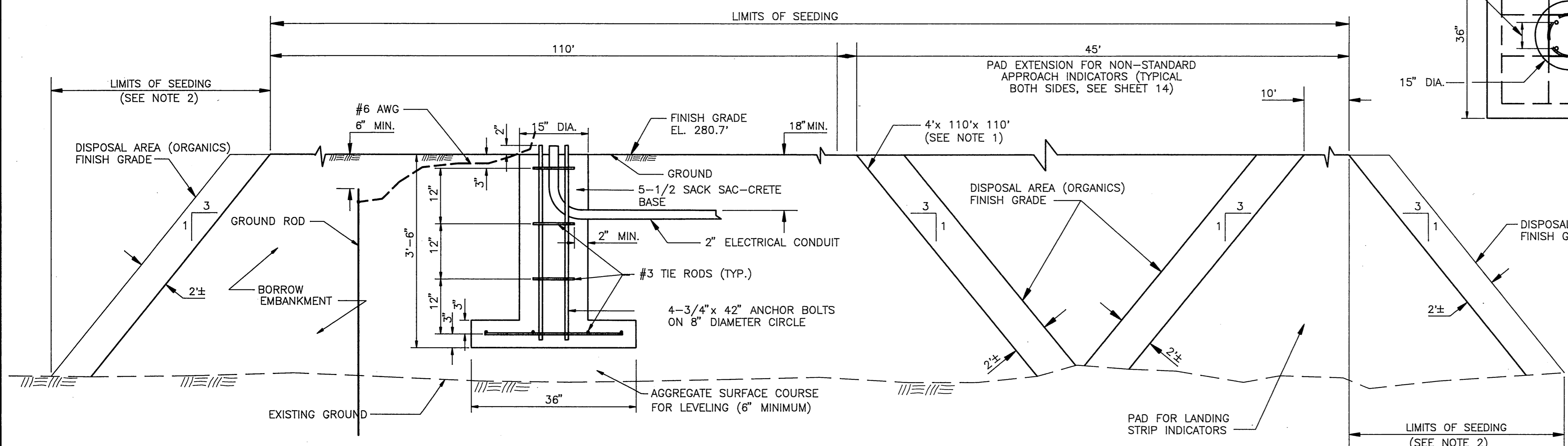


LOWERED WIND CONE  
NO SCALE



FOUNDATION DETAILS  
NO SCALE

UNLIGHTED WIND CONE DETAILS



FOUNDATION DETAILS  
NO SCALE

LIGHTED WIND CONE DETAILS

**NOTES:**

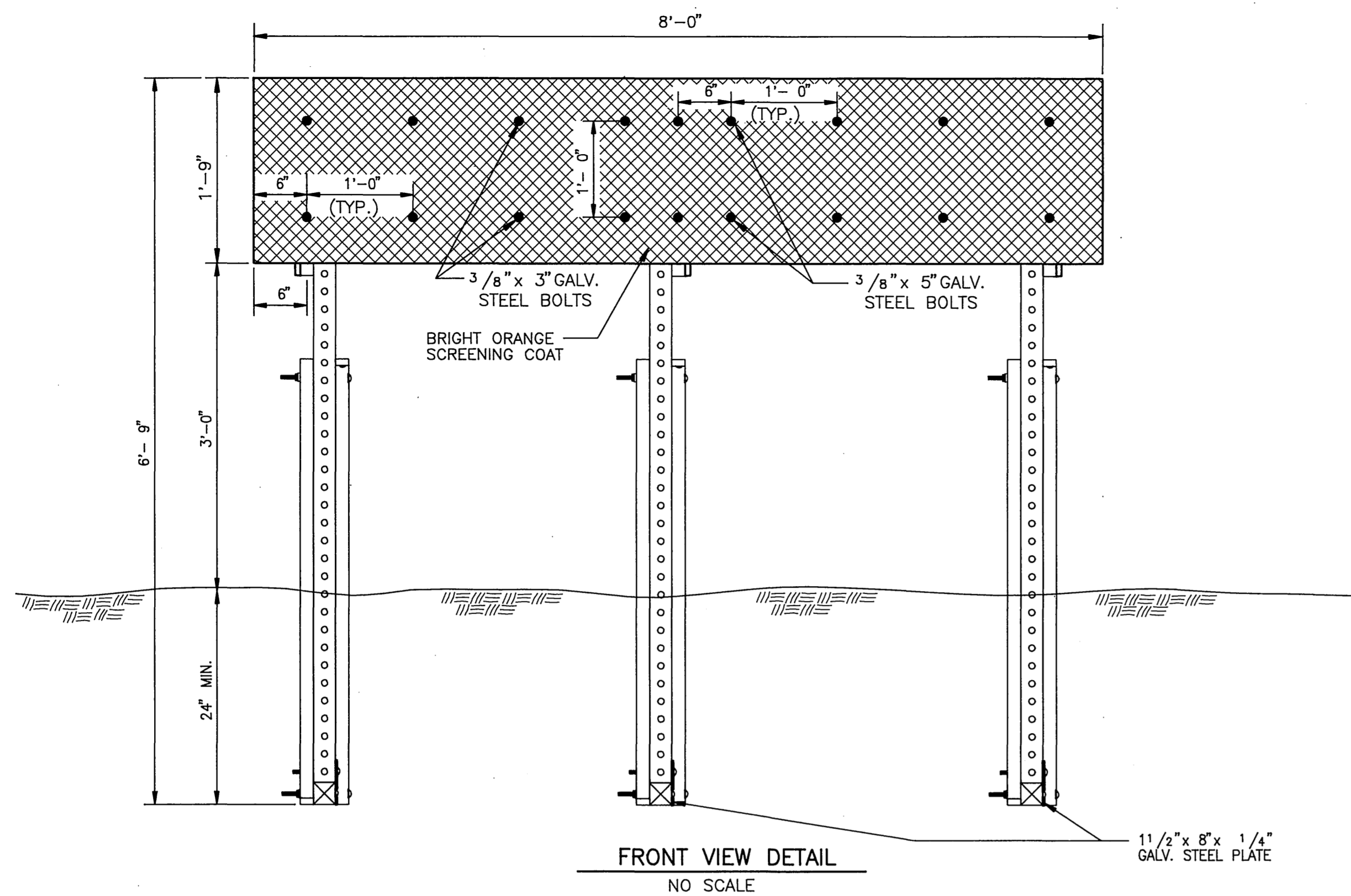
- PADS WILL BE CONSTRUCTED WITH BORROW EMBANKMENT. PAYMENT FOR THE SEGMENTED CIRCLE PAD CONSTRUCTION WILL BE MADE UNDER ITEM 330d. PAD CONSTRUCTION FOR THE UNLIGHTED WIND CONE SHALL BE INCIDENTAL TO THE CONTRACT AND NO SEPARATE PAYMENT WILL BE MADE.
- SEED ALL SLOPES.



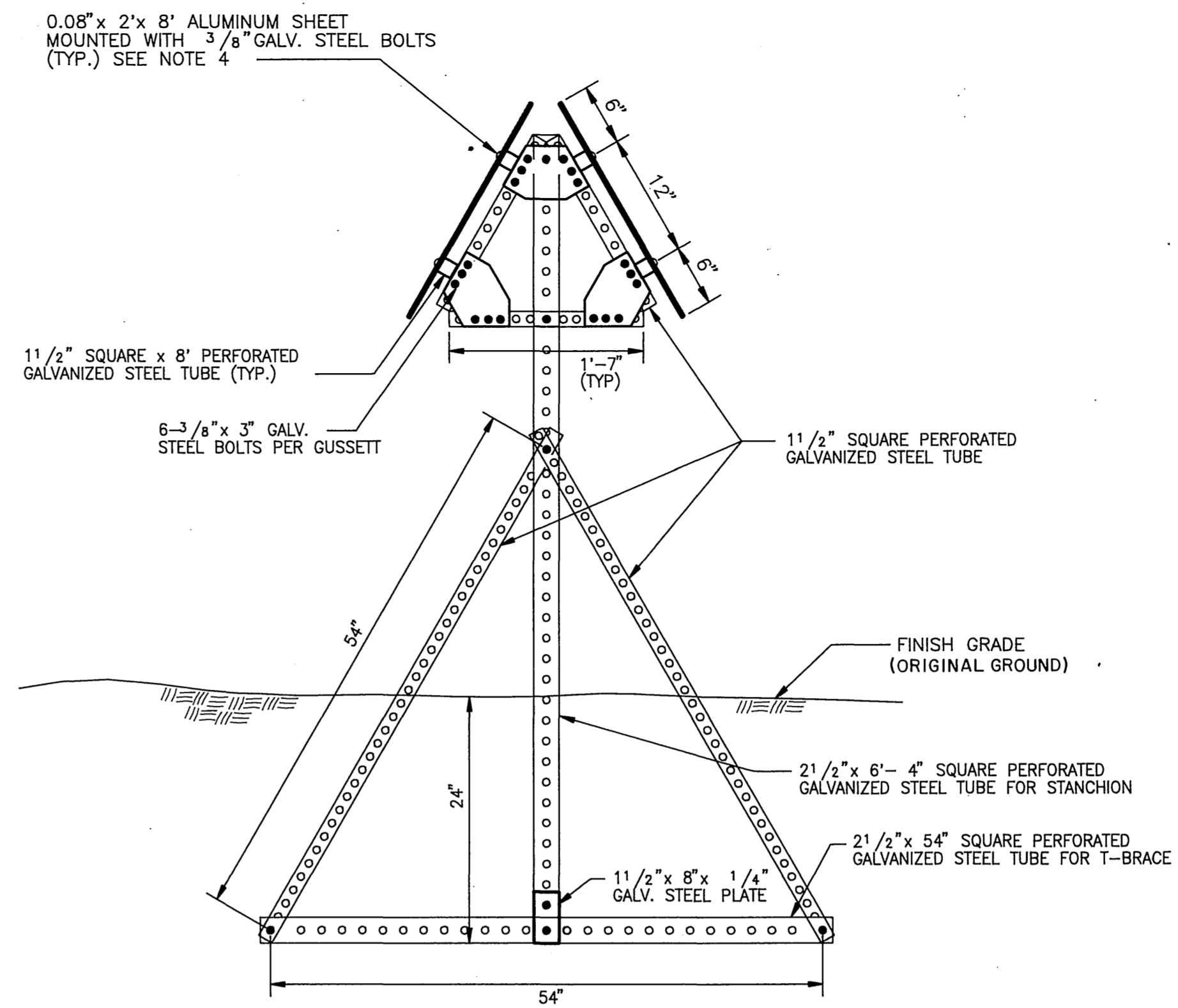
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
NONDALTON AIRPORT  
58617  
A.I.P. No. 3-02-0200-01  
LIGHTED AND UNLIGHTED WIND CONE DETAILS

APPROVED	<i>Steve Van Horn</i>	DESIGN SECTION CHIEF
APPROVED	<i>Gregg P. Bradley</i>	PROJECT MANAGER
BY	DATE	AS-BUILT
REVISIONS	CHANGED	DATE

SCALE	NO SCALE	DESIGNED	DATE	DRAWN	SHEET
CHECKED	DATE	DATE	DATE	DATE	DATE

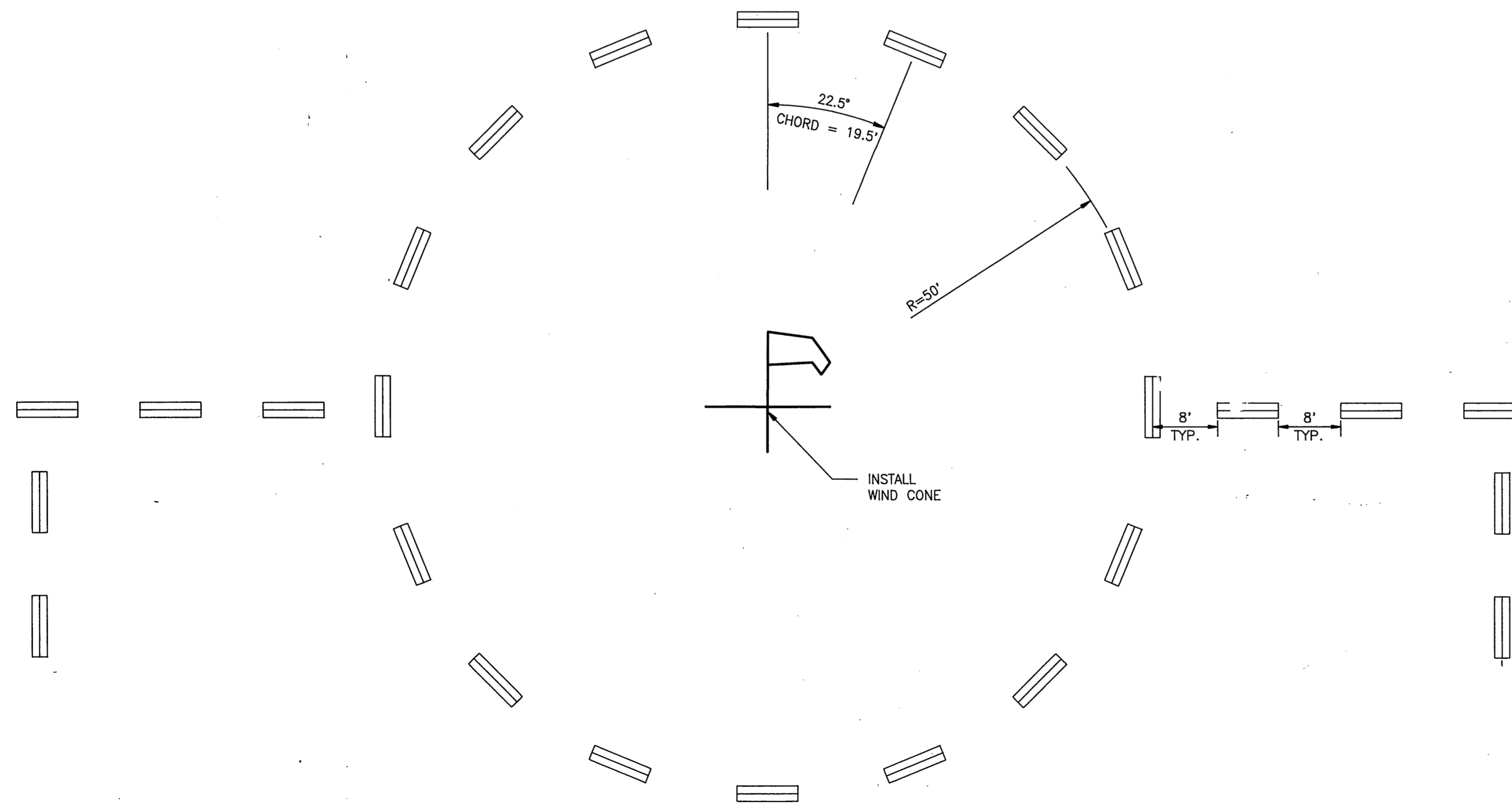


FRONT VIEW DETAIL  
NO SCALE

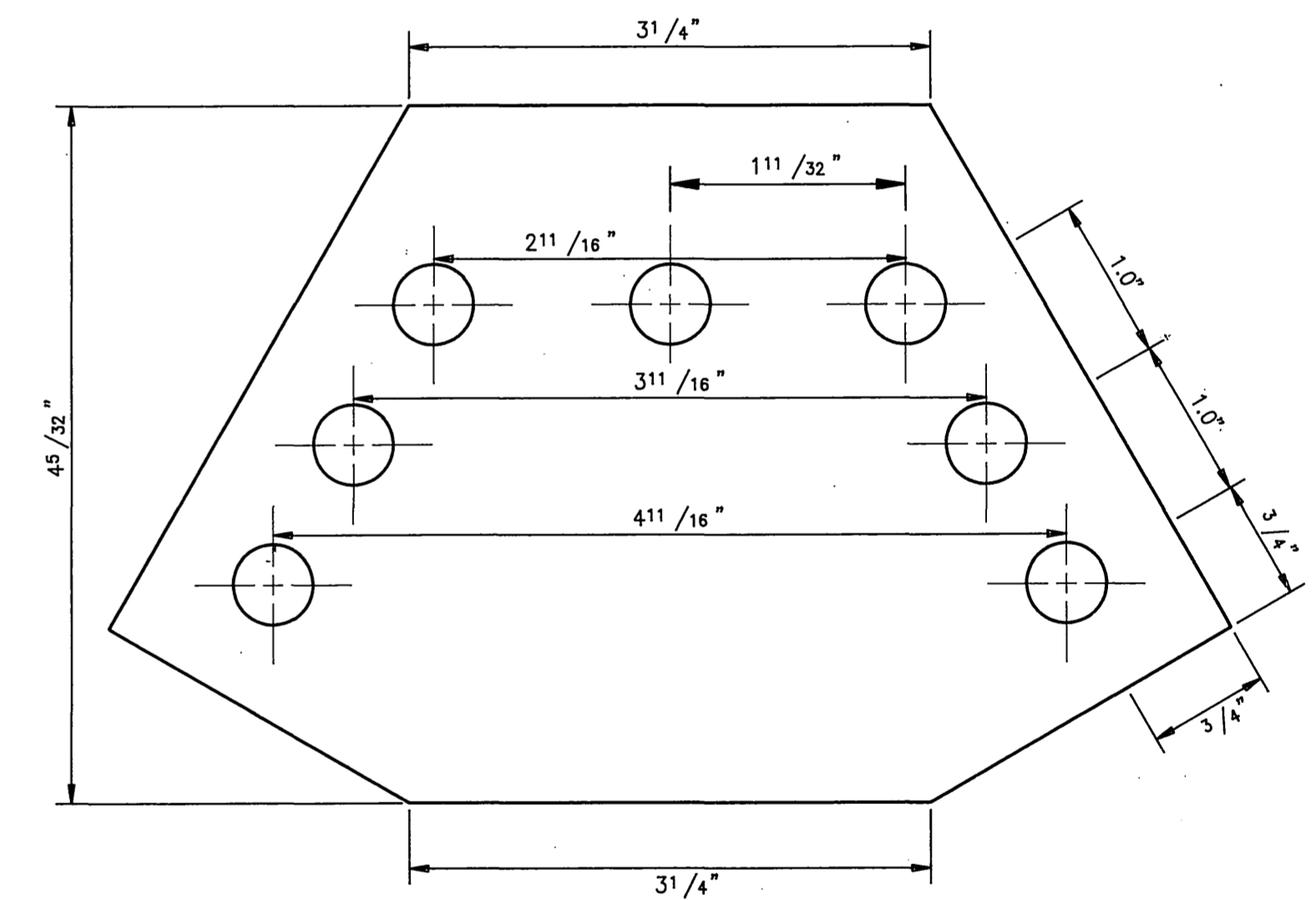


SIDE VIEW DETAIL  
NO SCALE

SEGMENTED CIRCLE PANELS



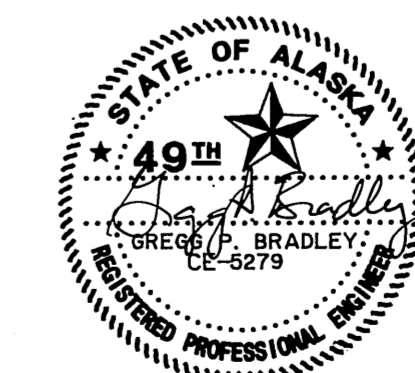
SEGMENTED CIRCLE LAYOUT  
NO SCALE



GUSSETT PLATE DETAIL  
NO SCALE

NOTES

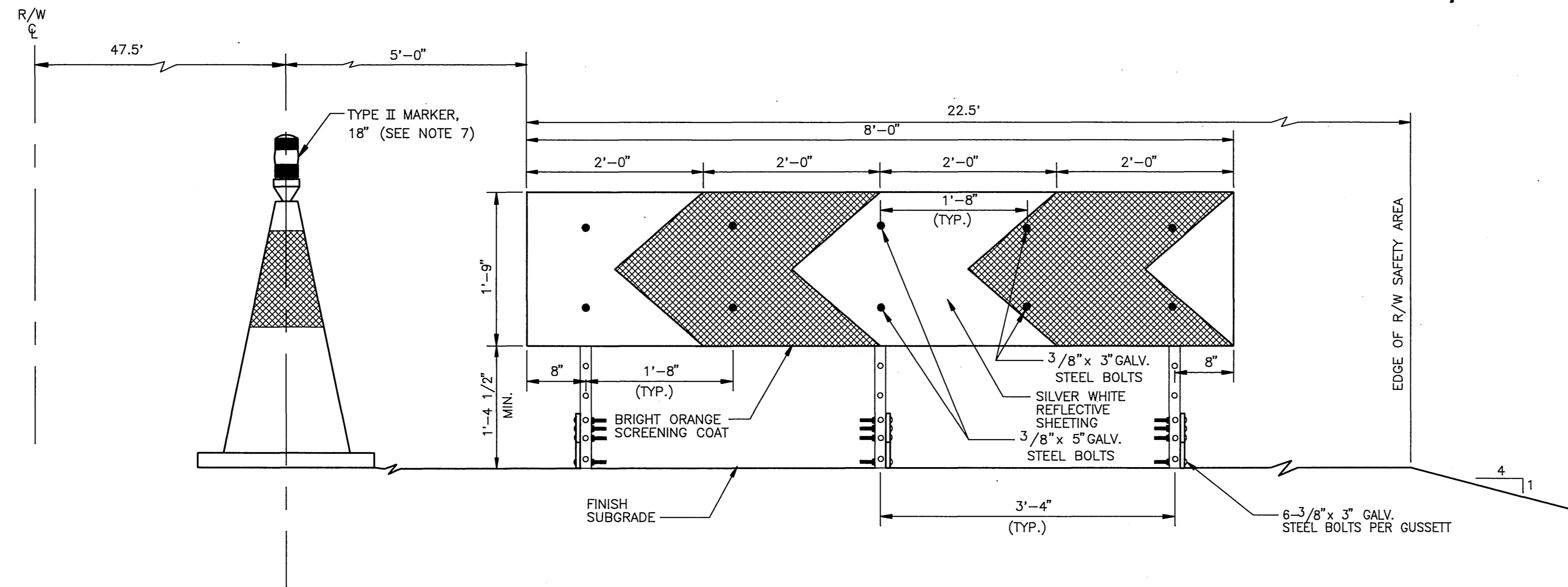
1. NO PAD WAS CONSTRUCTED FOR LIGHTED WINDCONE AND SEGMENTED CIRCLE THIS CONTRACT.
2. ALL STRUCTURAL MEMBERS ARE SQUARE PERFORATED GALVANIZED STEEL TUBING. (SIZE AS INDICATED IN DRAWING)
3. 3/8" x 5" GALVANIZED STEEL CARRIAGE BOLTS SHALL BE USED TO FASTEN THE STRUCTURAL MEMBERS TOGETHER. GUSSETT PLATES SHALL BE FASTENED WITH 6-3/8" x 3" GALV. STEEL BOLTS.
4. PRE PUNCH ALUMINUM SHEETS 6" FROM TOP AND BOTTOM AS INDICATED IN DRAWING. FASTEN TO STRUCTURAL MEMBERS THROUGH LONGITUDINAL MEMBERS WITH 3/8" x 5" GALVANIZED STEEL CARRIAGE BOLTS WITH 1" DIA. WASHERS.
5. THE GUSSETT PLATES SHALL BE FABRICATED FROM 1/4" GALVANIZED STEEL PLATE.



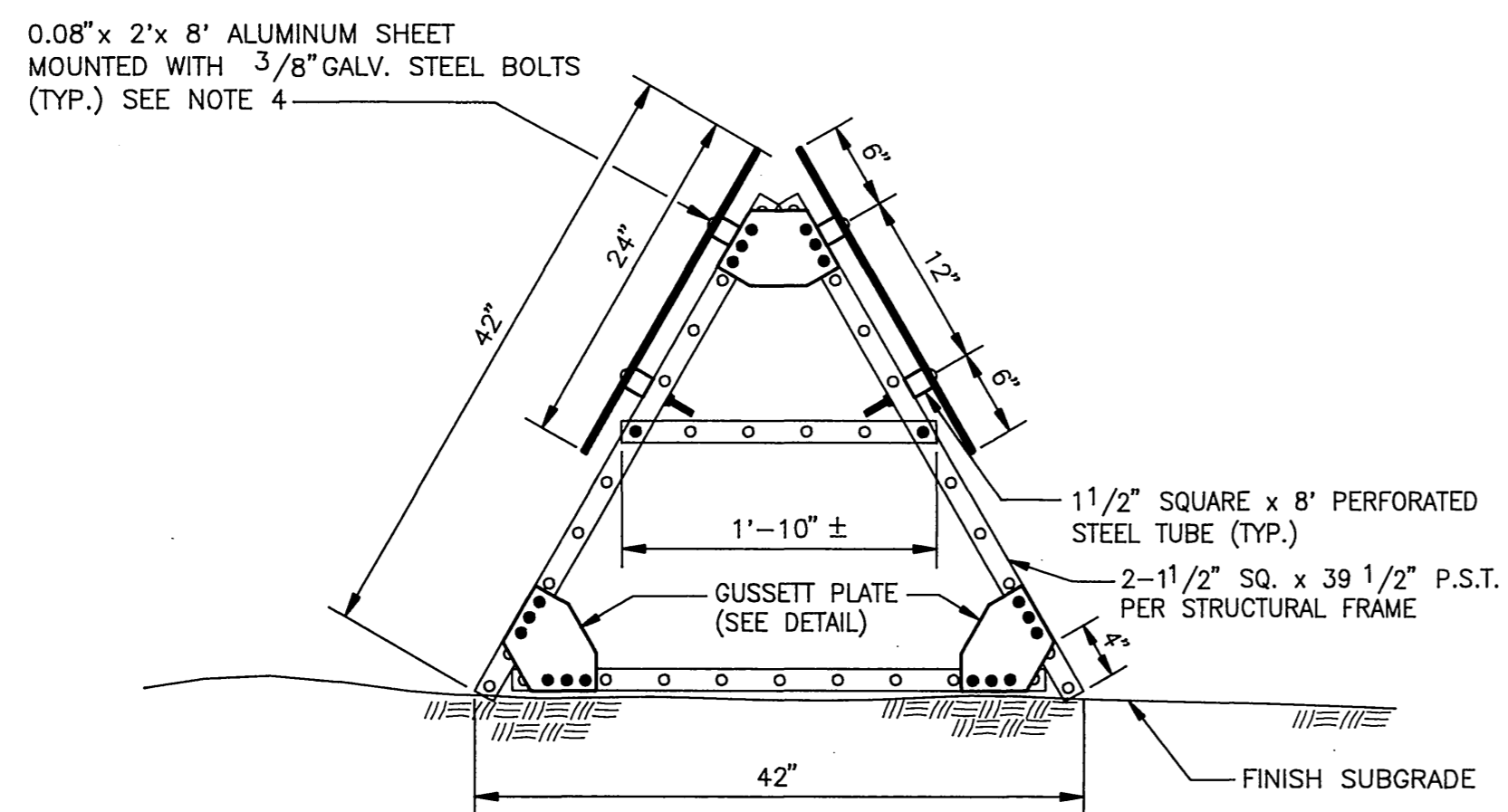
STATE OF ALASKA  
**DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES**

NONDALTON AIRPORT  
58617  
A.I.P. No. 3-02-0200-01  
SEGMENTED CIRCLE DETAILS

APPROVED	<i>Steve Van Horn</i>	DESIGN SECTION CHIEF
APPROVED	<i>Greg P. Bradley</i>	PROJECT MANAGER
BY	DATE	REVISIONS
AS-BUILT	2-9-95	
NO SCALE	CHECKED <i>vw</i>	DATE 8-17-92
		SHEET 14 OF 27



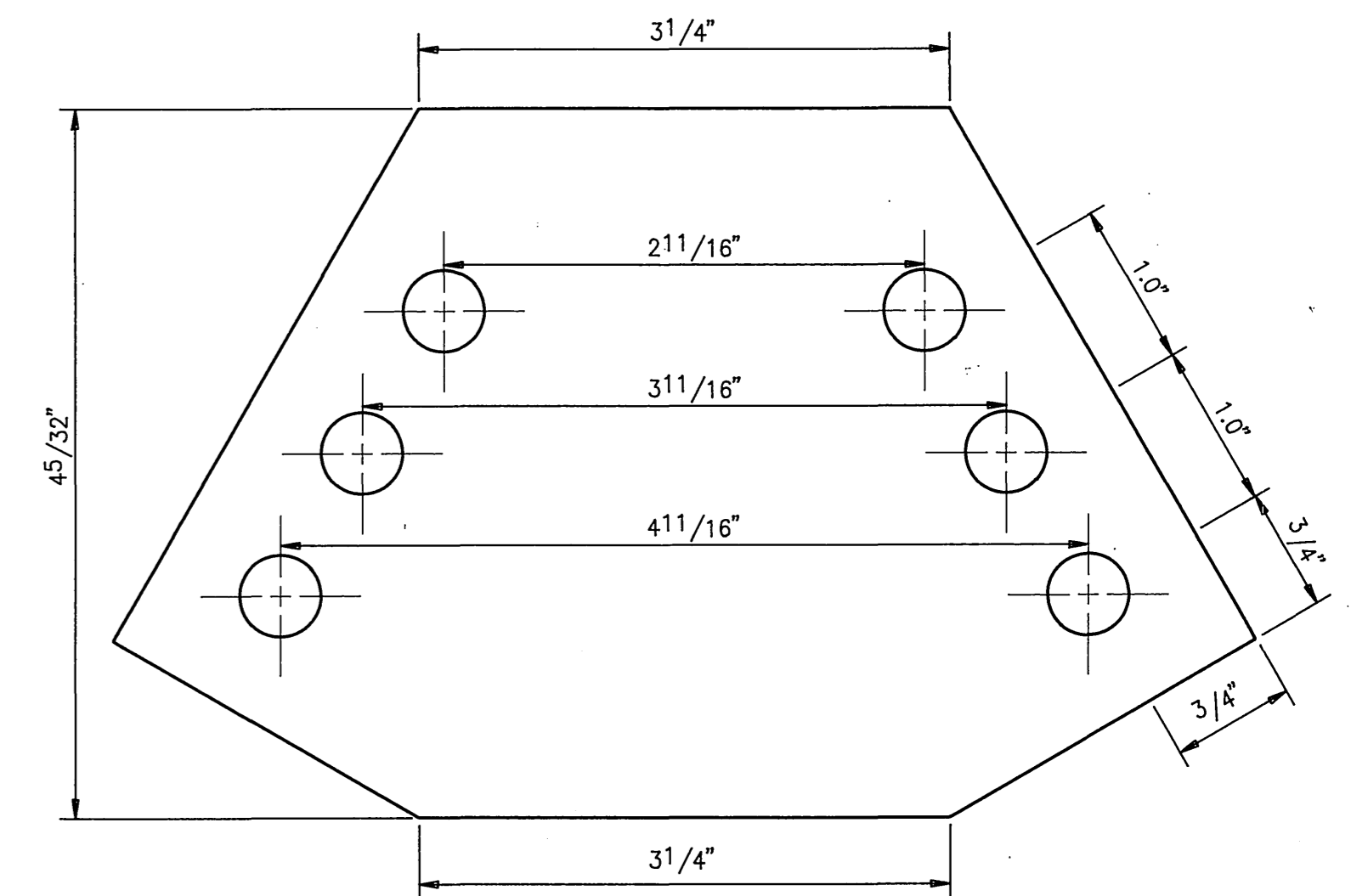
**FRONT VIEW DETAIL**  
NO SCALE



**SIDE VIEW DETAIL**  
NO SCALE

**NOTES:**

- MISCELLANEOUS GRADING FOR INSTALLATION OF RUNWAY THRESHOLD MARKERS AS PER DETAIL IS INCIDENTAL TO THE CONTRACT AND NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK.
- ALL STRUCTURAL MEMBERS ARE 1 1/2" SQUARE PERFORATED GALVANIZED STEEL TUBING.
- 3/8" x 5" GALVANIZED STEEL CARRIAGE BOLTS SHALL BE USED TO FASTEN THE STRUCTURAL MEMBERS TOGETHER. 3/8" x 3" GALVANIZED STEEL CARRIAGE BOLTS MAY BE USED AT THE APEX OF EACH STRUCTURAL MEMBER AND WHEN ATTACHING ALUMINUM SHEET TO LONGITUDINAL MEMBERS.
- PRE PUNCH ALUMINUM SHEETS 6" FROM TOP AND BOTTOM AS INDICATED IN DRAWING. FASTEN TO STRUCTURAL MEMBERS THROUGH LONGITUDINAL MEMBERS WITH 3/8" x 5" GALVANIZED STEEL CARRIAGE BOLTS WITH 1" DIA. WASHERS.
- THRESHOLD MARKER SHALL BE INSTALLED IN LINE WITH THE THRESHOLD LIGHTS.
- THE GUSSETT PLATES SHALL BE FABRICATED FROM 1/4" GALVANIZED STEEL PLATE.
- TYPE II MARKER SHALL BE INSTALLED OVER EACH LIGHT FIXTURE.



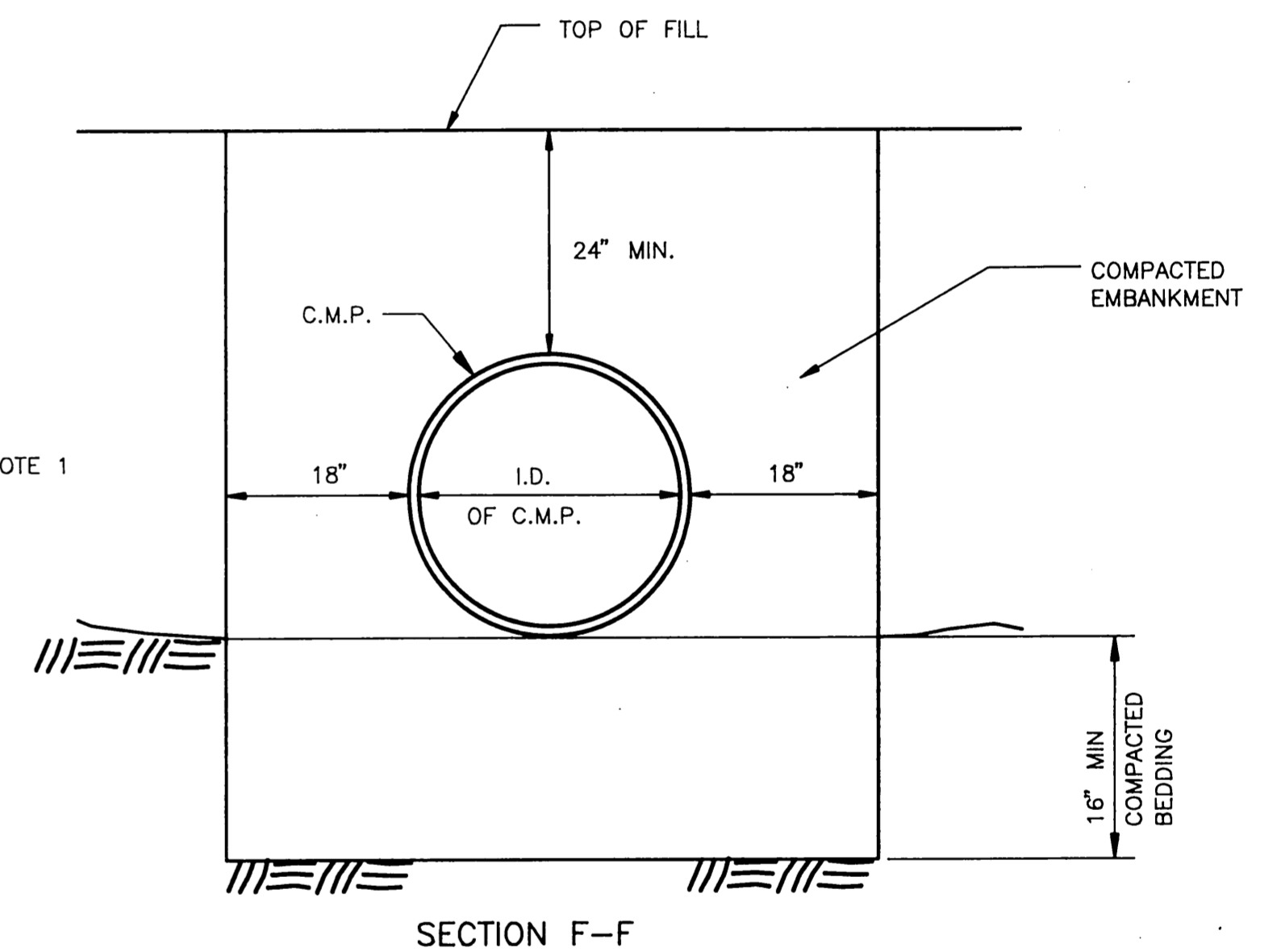
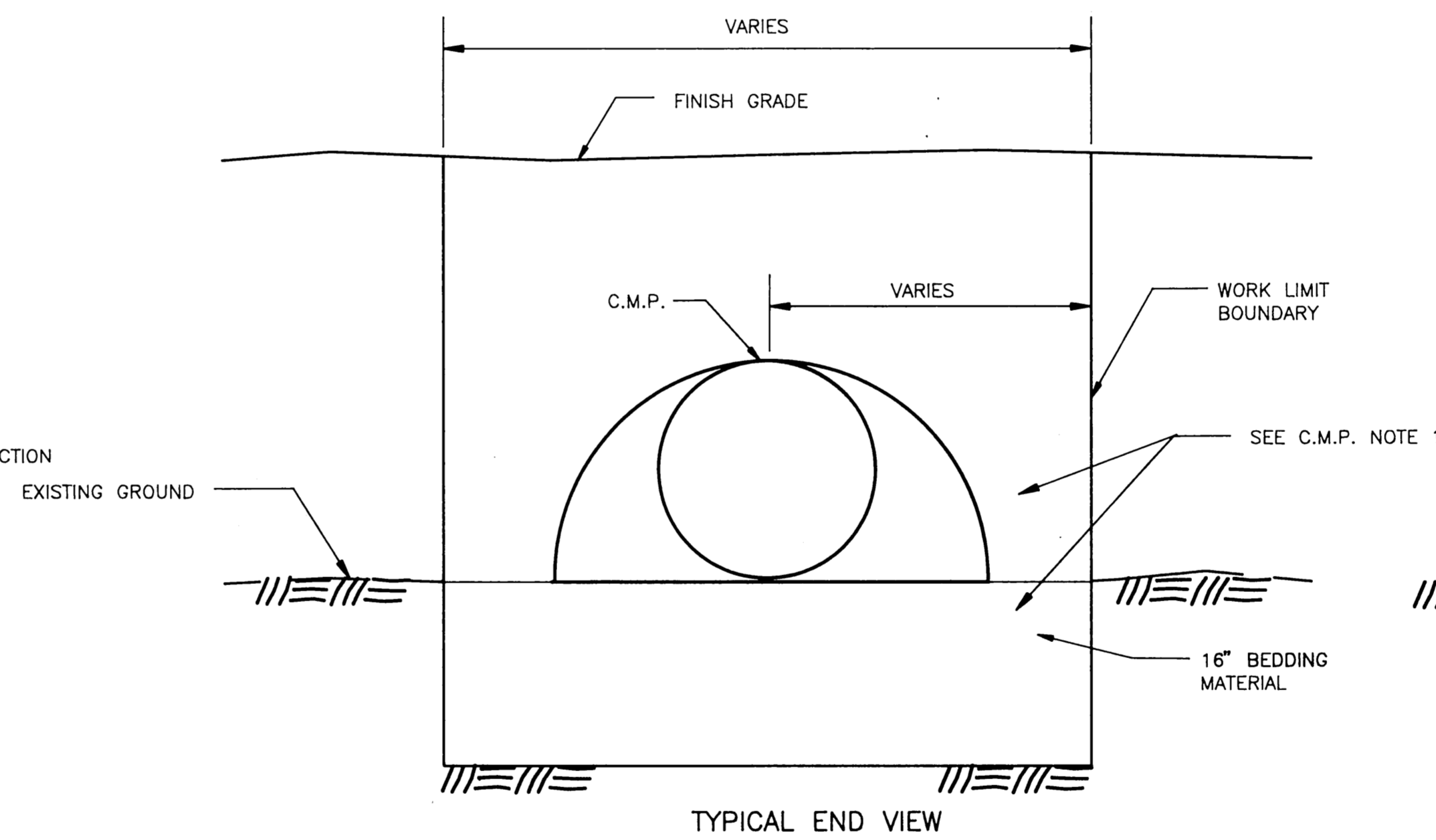
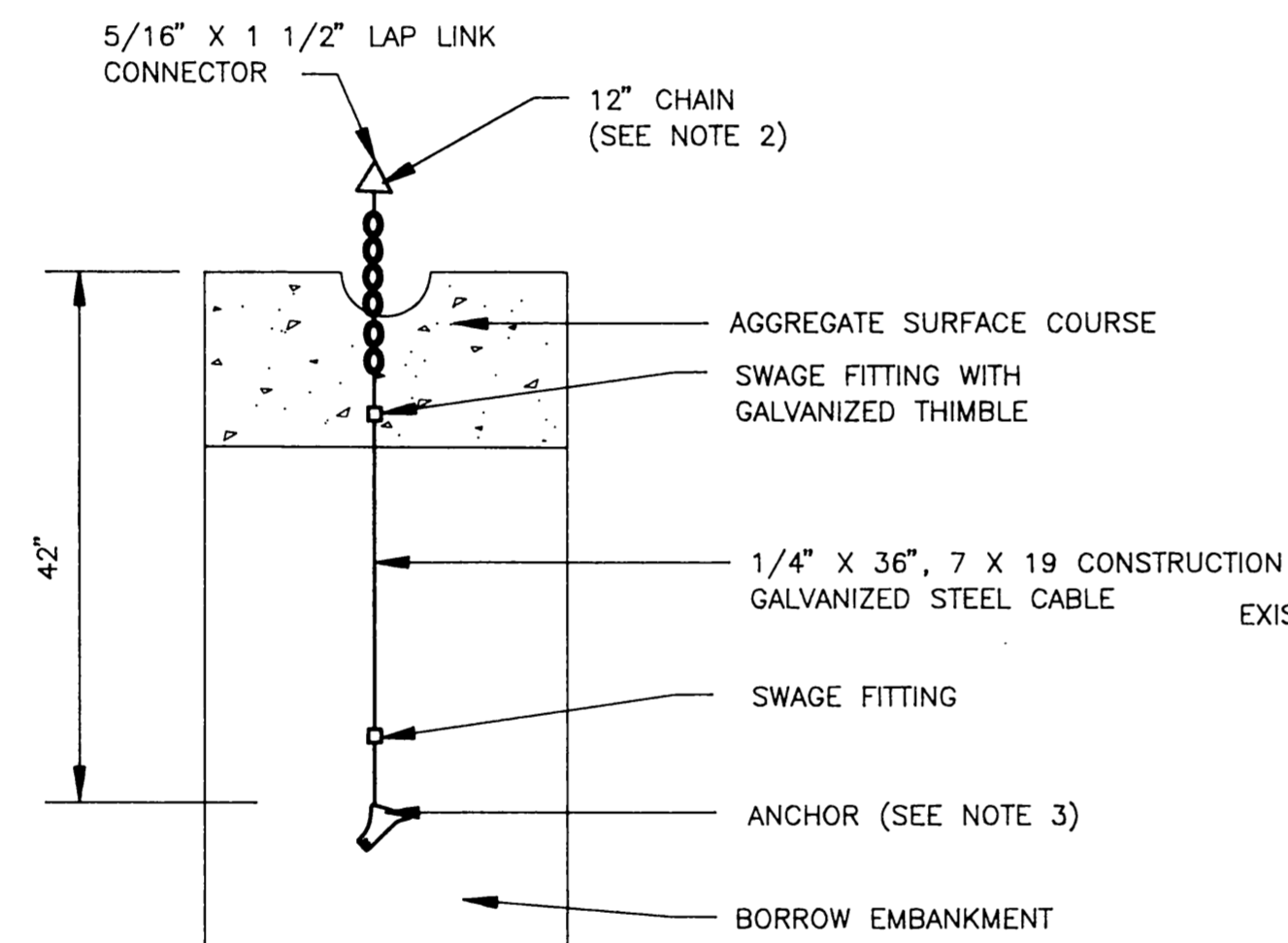
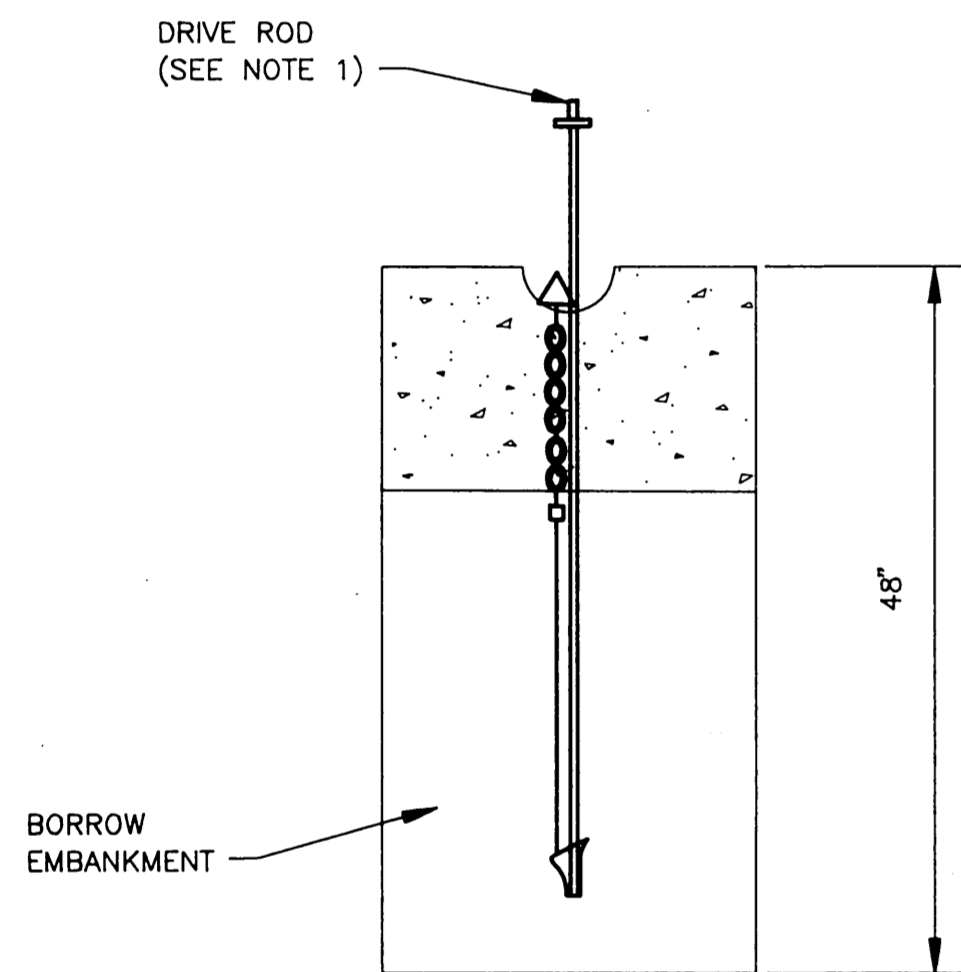
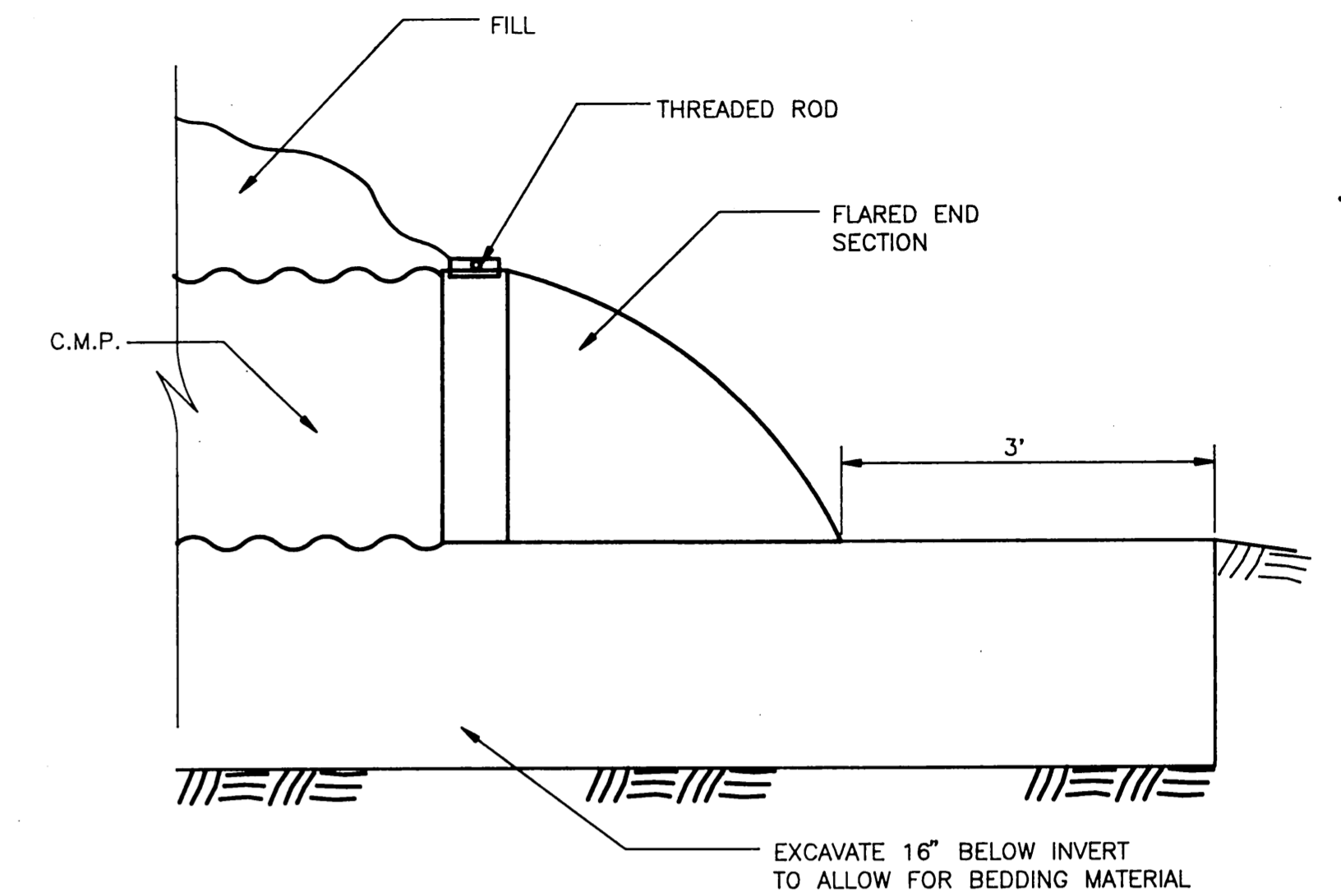
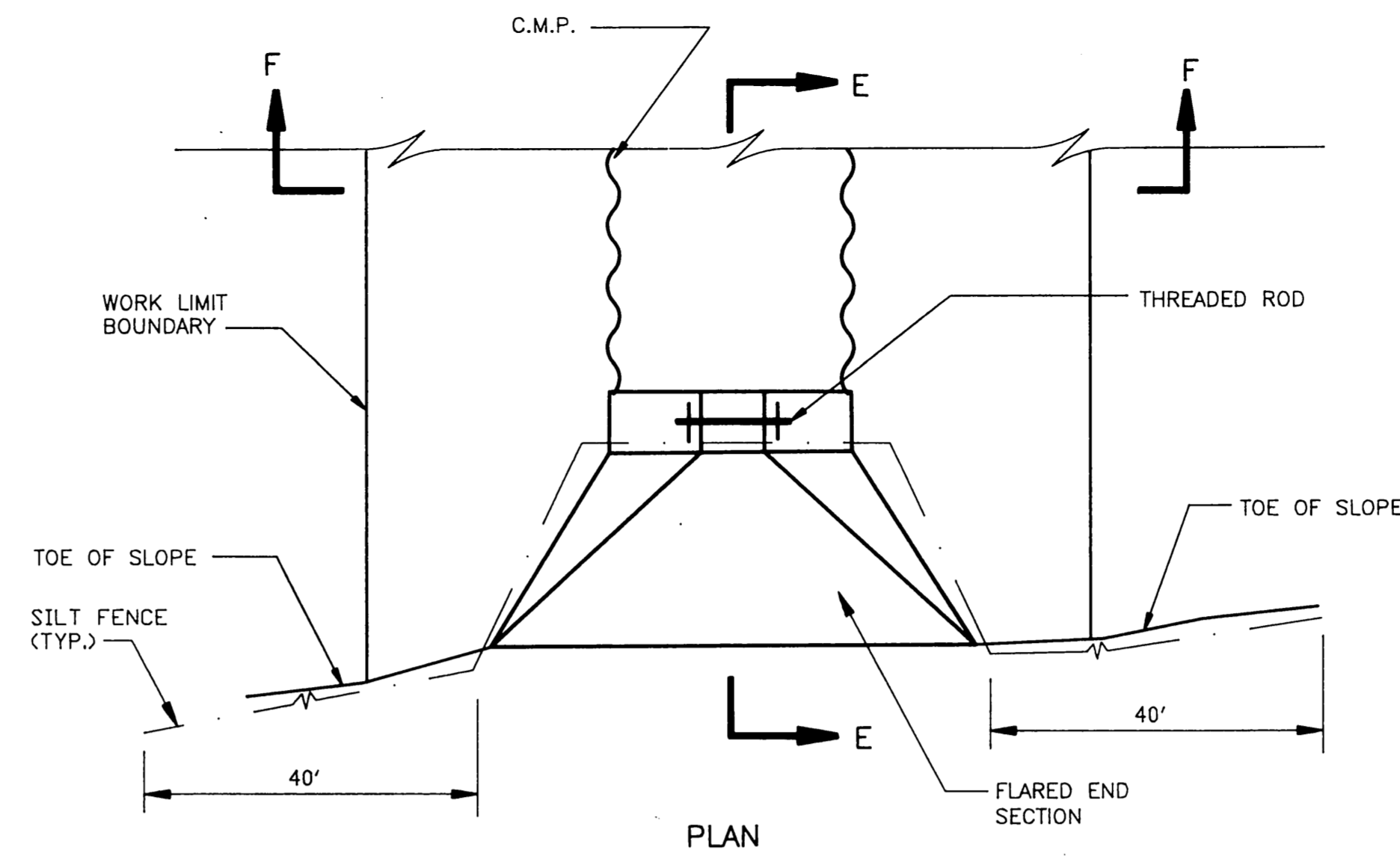
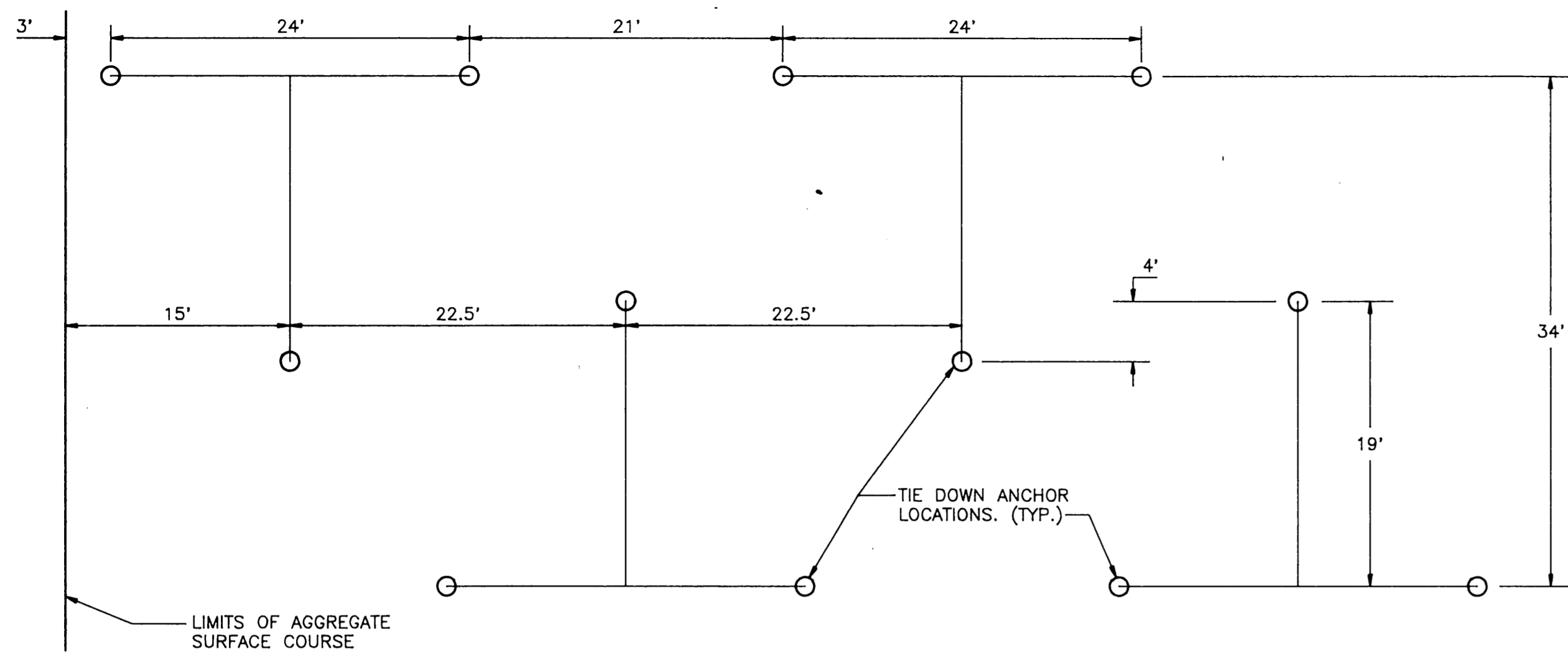
**GUSSETT PLATE DETAIL**  
NO SCALE



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

NONDALTON AIRPORT  
58617  
A.I.P. No. 3-02-0200-01  
RUNWAY THRESHOLD MARKER DETAILS

APPROVED	<i>Steve Van Horn</i>	DESIGN SECTION CHIEF
APPROVED	<i>Greg P. Bradley</i>	PROJECT MANAGER
BY	DATE	AS-BUILT
BY	DATE	CHANGED
REVISIONS		
SCALE	NO SCALE	
DESIGNED	QD	DRAWN 11/10/92
CHECKED	VW	DATE 8-17-92



TYPICAL TIE-DOWN ANCHOR DETAILS  
NO SCALE

TYPICAL C.M.P. DETAILS  
NO SCALE

TIE DOWN NOTES

1. DRIVE ROD USED MUST BE PER MANUFACTURER'S RECOMMENDATIONS.
2. USE G-43 HIGH TEST GALVANIZED CHAIN WITH 3900 LBS. WORKING LOAD (MIN.) 5/16" PROOF COIL, 1/2" MINIMUM I.D.
3. ANCHOR-DUCKBILL MODEL 88-08 1/C OR APPROVED EQUAL.
4. DUE TO THE EMBANKMENT, PRE-DRILLING MAY BE REQUIRED.
5. BACK FILL OF THE DRILL HOLE SHALL CONFORM TO SECTION 540.

C.M.P. NOTES

1. BEDDING MATERIAL SHALL CONSIST OF 2 INCH MINUS MATERIAL EITHER MANUFACTURED OR PIT RUN. THE BEDDING MATERIAL SHALL NOT EXCEED 12% PASSING #200 SCREEN WHEN TESTED IN ACCORDANCE WITH ATM T-7
2. THE BEDDING MATERIAL SHALL BE INCIDENTAL TO THE CONTRACT AND NO SEPARATE PAYMENT WILL BE MADE.
3. THE BEDDING MATERIAL SHALL BE COMPACTED WITH MECHANICAL TAMPERS TO THE SATISFACTION OF THE ENGINEER.
4. FOR C.M.P.s  $\geq 48"$  DIAMETER THE CORRUGATIONS SHALL BE 1" X 3" FOR C.M.P.s  $> 48"$  DIAMETER THE CORRUGATIONS SHALL BE 1/2" X 2 1/2".



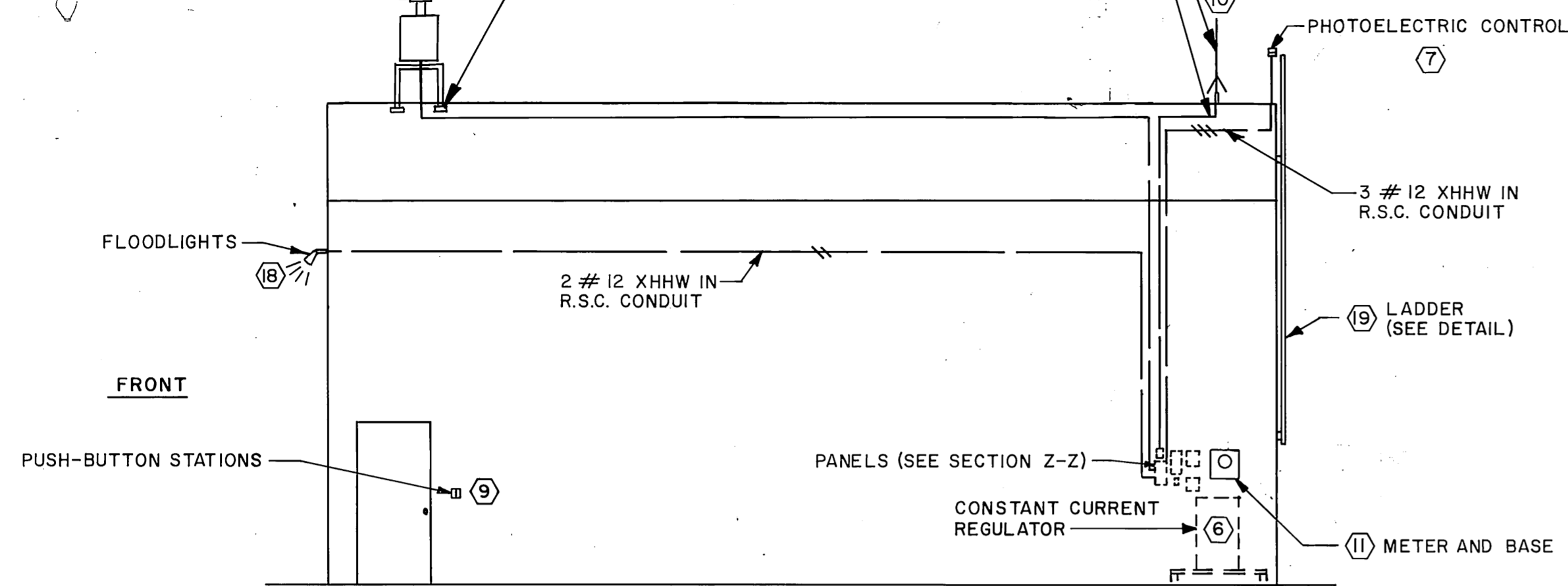
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
NONDALTON AIRPORT  
58617  
A.I.P. No. 3-02-0200-01  
C.M.P. AND TIE DOWN  
ANCHOR DETAILS

APPROVED	<i>Steve Van Horn</i>	DESIGN SECTION CHIEF
APPROVED	<i>Greg P. Bradley</i>	PROJECT MANAGER
BY	DATE	CHANGED
AS-BUILT	2-2-95	
SCALE	AS SHOWN	DESIGNED
		DATE
		8-17-92
		SHEET 16 OF 27

PROVIDE & INSTALL NEW ROTATING BEACON.  
L-801A, NATIONAL AIRPORT EQUIPMENT  
CO. N-1000A OR APPROVED EQUAL ON  
ROOF OF EQUIPMENT STORAGE BUILDING

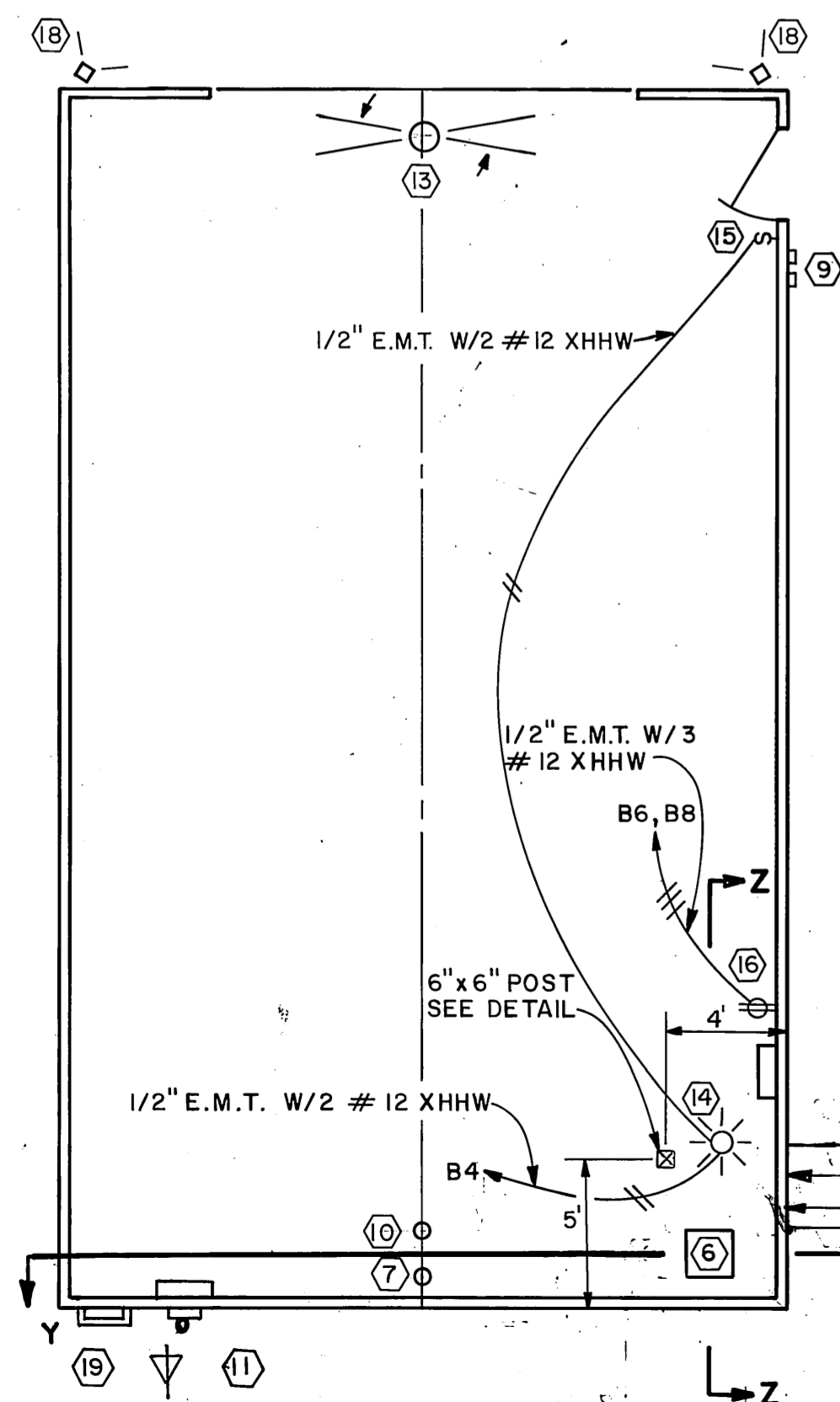
PROVIDE AND INTALL ANTENNA  
SPECIALISTS CO. MODEL AV-1 OR  
APPROVED EQUAL  
COAXIAL CABLE IN R.S.C.  
CONDUIT

ALL PENETRATIONS INTO THE ROOF  
OF THE BUILDING SHALL BE SEALED  
TO PREVENT LEAKS IN THE ROOF



**ELECTRICAL ELEVATION LAYOUT  
IN EQUIPMENT STORAGE BUILDING**

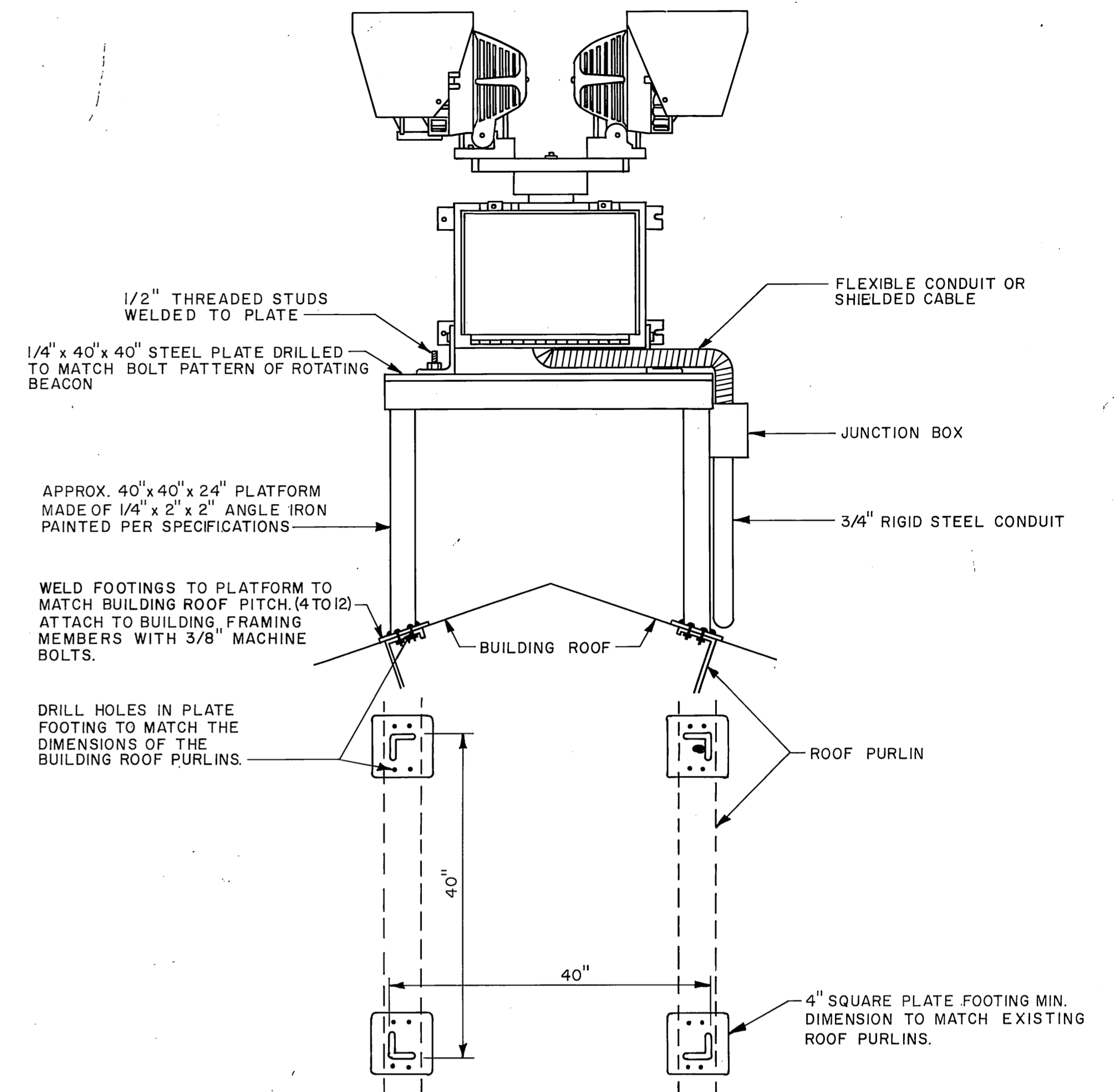
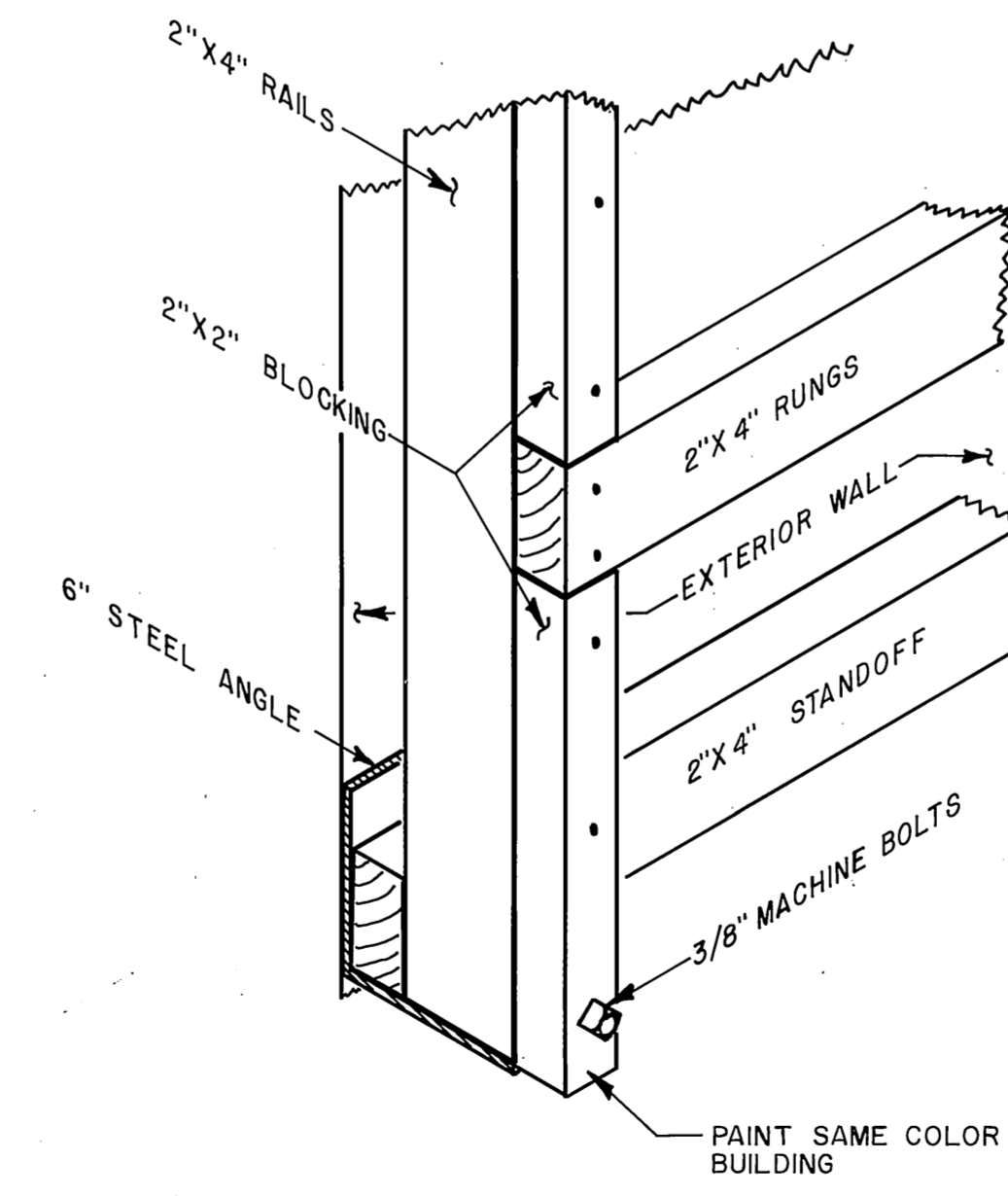
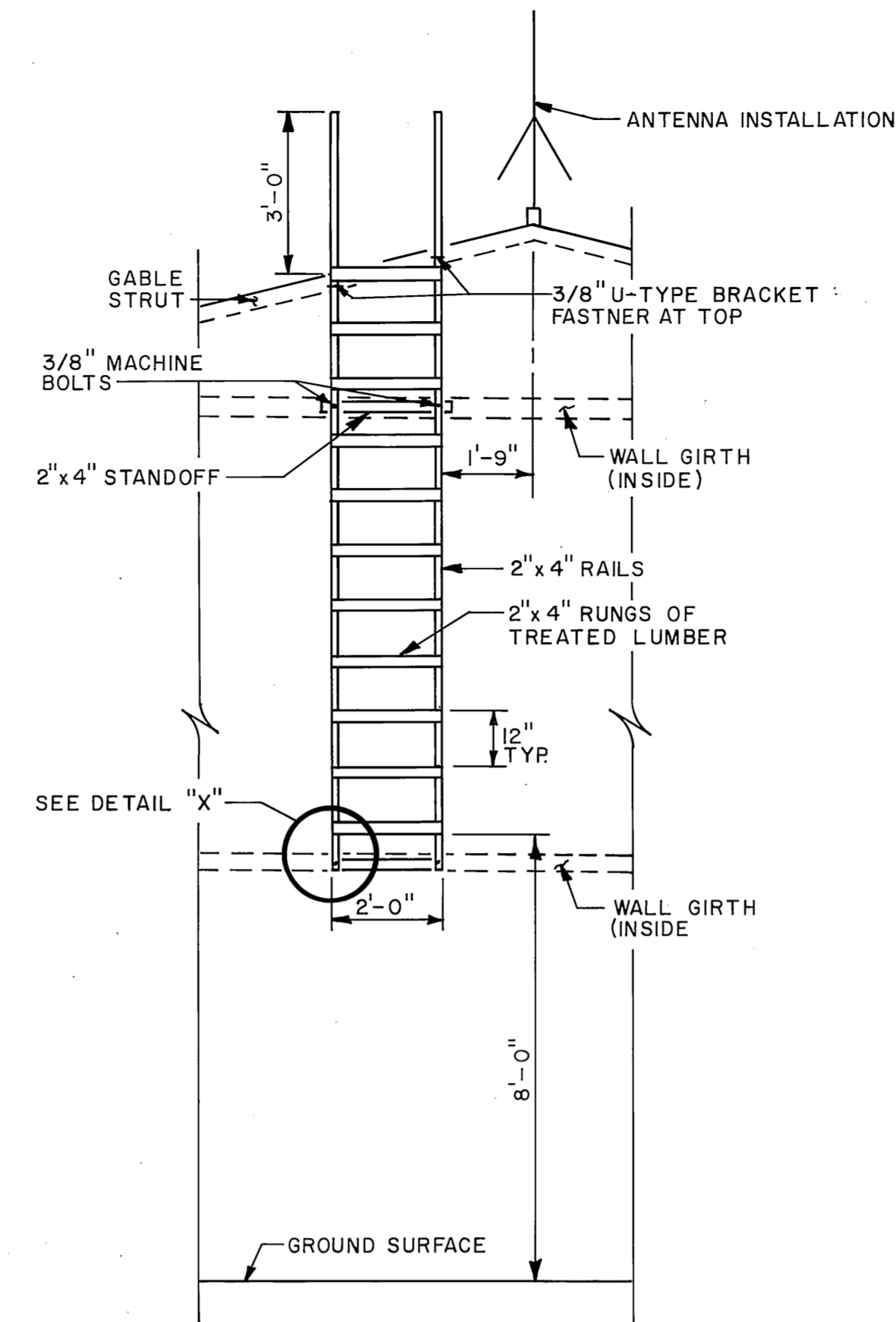
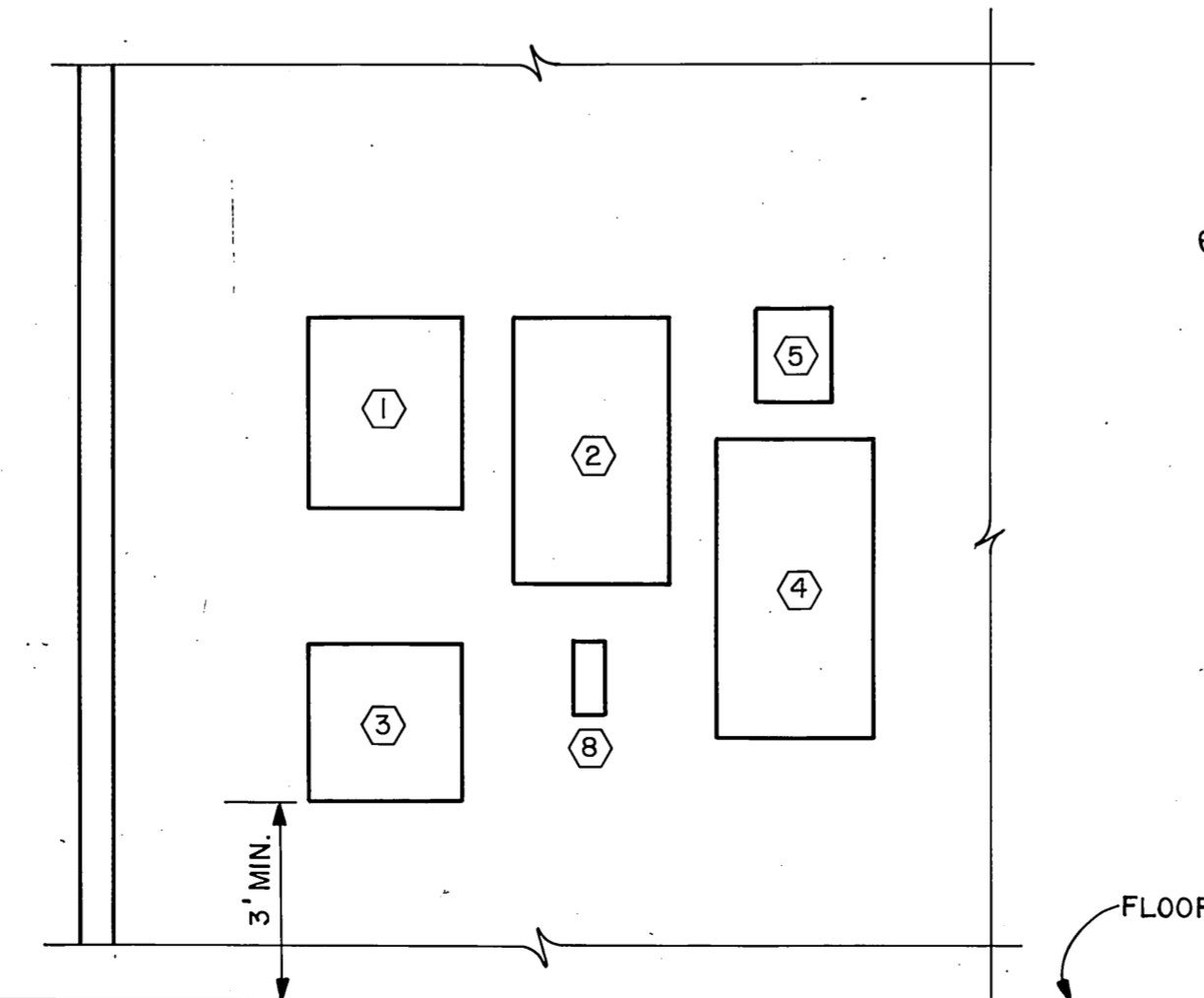
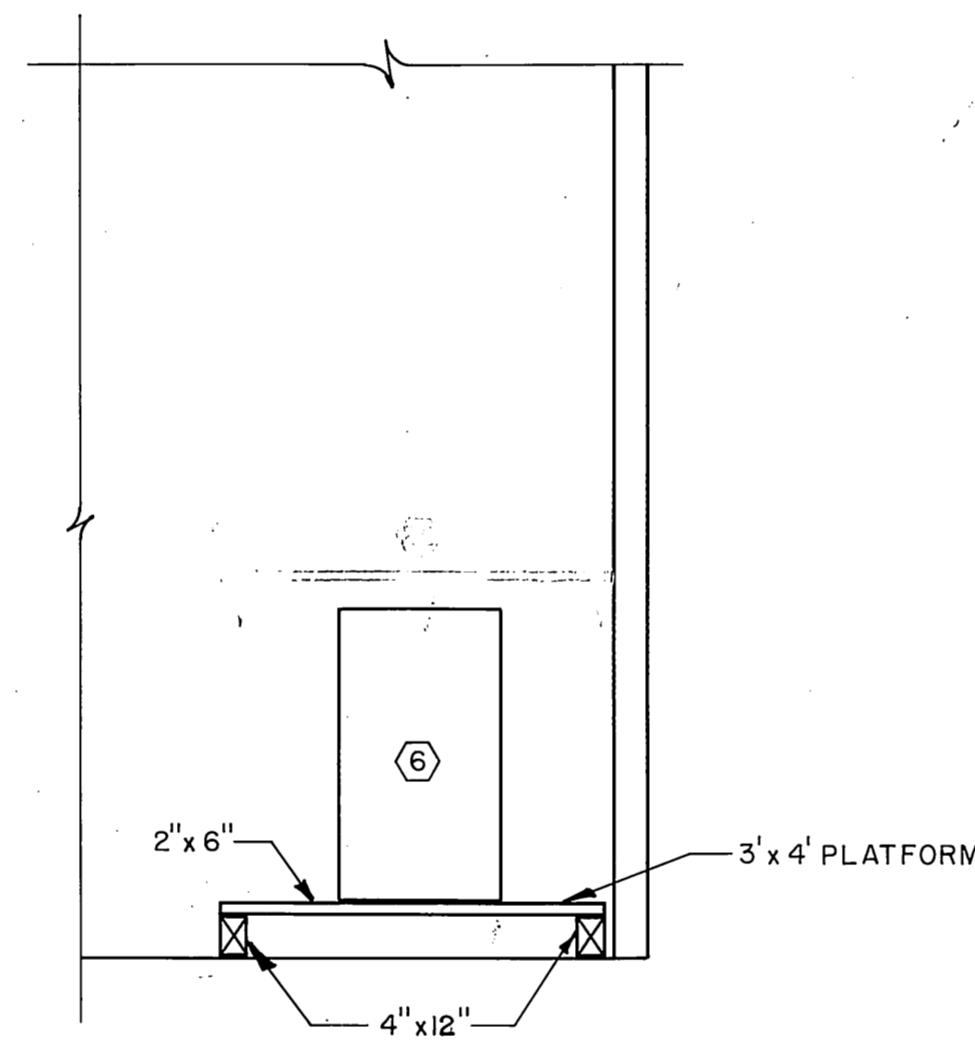
NO SCALE



**PLAN-ELECTRICAL WORK  
IN STORAGE BUILDING**

NO SCALE

NOTE:  
SEE SHEET 18 FOR  
ADDITIONAL DETAILS

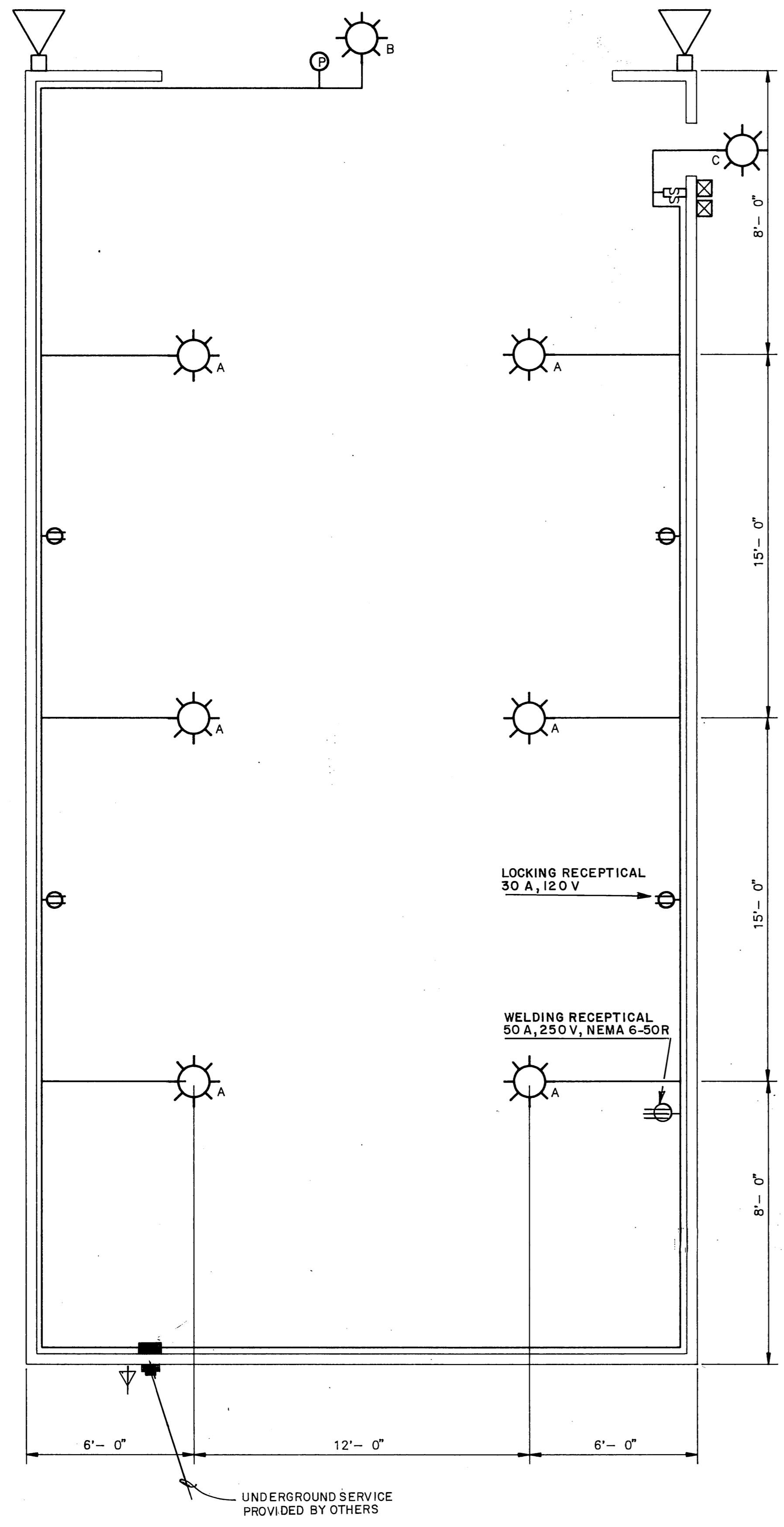


- ① PANEL A
- ② PANEL B
- ③ TRANSFER SWITCH
- ④ CONTROL PANEL
- ⑤ RADIO CONTROLLER
- ⑥ CONSTANT CURRENT REGULATOR
- ⑦ PHOTOELECTRIC CONTROLLER
- ⑧ PLUG CUTOFF
- ⑨ PUSH-BUTTON STATIONS
- ⑩ RADIO ANTENNA
- ⑪ METER AND BASE
- ⑫ HANDHOLE, L-867
- ⑬ ROTATING BEACON
- ⑭ BUILDING LIGHT
- ⑮ LIGHT SWITCH
- ⑯ RECEPTACLE
- ⑰ EMERGENCY GENERATOR RECEPTACLE
- ⑱ FLOODLIGHTS
- ⑲ LADDER



STATE OF ALASKA  
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NONDALTON AIRPORT  
58617  
A.I.P. No. 3-02-0200-01  
EQUIPMENT STORAGE BUILDING  
ELECTRICAL DETAILS

APPROVED	<i>Steve Van Horn</i>	DESIGN SECTION CHIEF
APPROVED	<i>Gregg R. Bradley</i>	PROJECT MANAGER
BY	DATE	CHANGE
AS-BUILT	2-9-92	
SCALE	DESIGNED	DRAWN
AS SHOWN	CMS	2/32
CHECKED	DATE	
VW	8-17-92	
REVISIONS		



NEW CIRCUIT BREAKER PANEL "A"	
SQUARE D* TYPE LOAD CENTER WITH 225A MAINS, 150A, 2P, MAINS, 10 SPACES, 120/240V, 1Ø SURFACE MOUNTED ALL BREAKERS RATED 10,000 A.I.C..	
1-2P-100A BKR. TRANSFER SWITCH	
1-2P-20A BKR. LIGHTING CIRCUIT INSIDE	
1-1P-20A BKR. LIGHTING CIRCUIT OUTSIDE	
2-1P-20A BKR. OUTLETS	
1-1P-30A BKR. LOCKING OUTLET	
1-2P-50A BKR. WELDER OUTLET	
*OR APPROVED EQUAL	

FIXTURE SCHEDULE								
SYMBOL	MANUFACTURING		MOUNTING		LAMP		REMARKS	
	NAME	CAT. NO.	TYPE	HEIGHT	QUAN.	TYPE		SIZE
☀️ A	GENERAL ELECTRIC LOWMOUNT 150 *	C 768N553	PENDANT	16'- 0"	1	HPS	100W	240V, INPUT SWITCH CONTROLLED
☀️ B	HUBBEL *	PVL-0100S-111	BRACKET	OVER DOOR	1	HPS	100W	120V, PHOTOCELL CONTROLLED
☀️ C	KENDALL *	#3737	SURFACE	OVER DOOR	1	INCAND.	100W	120V, PHOTOCELL CONTROLLED

\*OR APPROVED EQUAL

**NOTES:**

1. MOUNT LIGHTS WITH BOTTOM OF LIGHT 16' ABOVE FLOOR ELEVATION. HANG EACH LIGHT FROM A CEILING MOUNTED JUNCTION BOX.
2. MOUNT SWITCHES AND RECEPTACLES 48" (MIN.) ABOVE TOP OF FOOTING.
3. ALL LIGHTING WIRING SHALL BE IN METALLIC CONDUIT. MINIMUM WIRE SIZE SHALL BE #12AWG COPPER. CONDUIT RUNS SHALL BE INSTALLED AT EAVE HEIGHT.
4. INSTALL NEW METER BASE ON THE OUTSIDE OF THE BUILDING A MAXIMUM OF 6 FEET ABOVE FINISH GRADE.
5. INSTALL 2 LIGHT SWITCHES CONTROLLING INTERIOR OVERHEAD LIGHTS ALLOWING 3 LIGHTS ON EACH SWITCH.

**LEGEND**

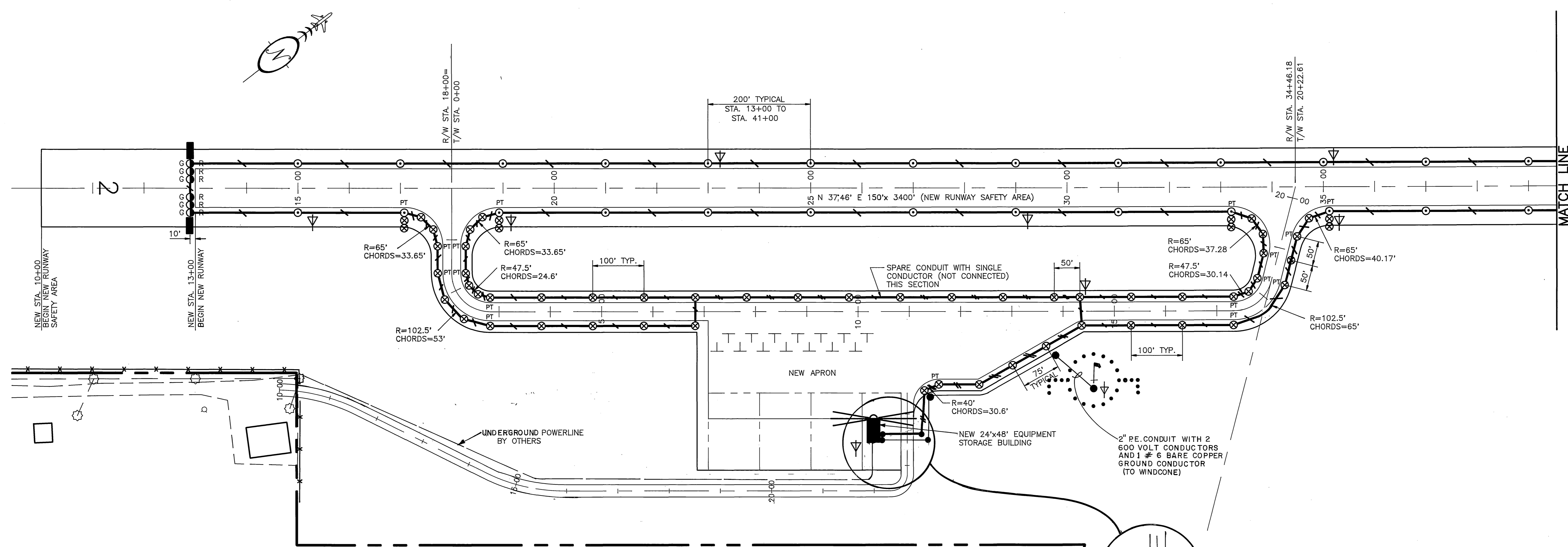
- ☀️ LIGHT FIXTURE, SEE FIXTURE SCHEDULE
- ⊕ PHOTO-ELECTRIC CELL (CONTROLS OUTSIDE LIGHTS)
- ⚡ SWITCH, 20A, 240V, DOUBLE POLE, W/ STAINLESS STEEL PLATE, ALLEN-BRADLEY PUSH BUTTON AND HUBBELL NO.1121 OR APPROVED EQUAL.
- NEW CIRCUIT BREAKER BOX, (SEE PANEL SCHEDULE).
- NEW METALLIC CONDUIT
- ⚡ NEW 200AMP METER-MAIN COMBINATION
- ⚡ GROUND ROD
- ⊕ DUPLEX OUTLET
- ☀️ APRON FLOODLIGHT
- ⊗ PUSH BUTTON STATION

SEE SHEET 18 FOR ADDITIONAL DETAILS



STATE OF ALASKA  
**DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES**  
 NONDALTON AIRPORT  
 58617  
 A.I.P. 3-02-0200-01  
 EQUIPMENT STORAGE BUILDING  
 ELECTRICAL DETAILS

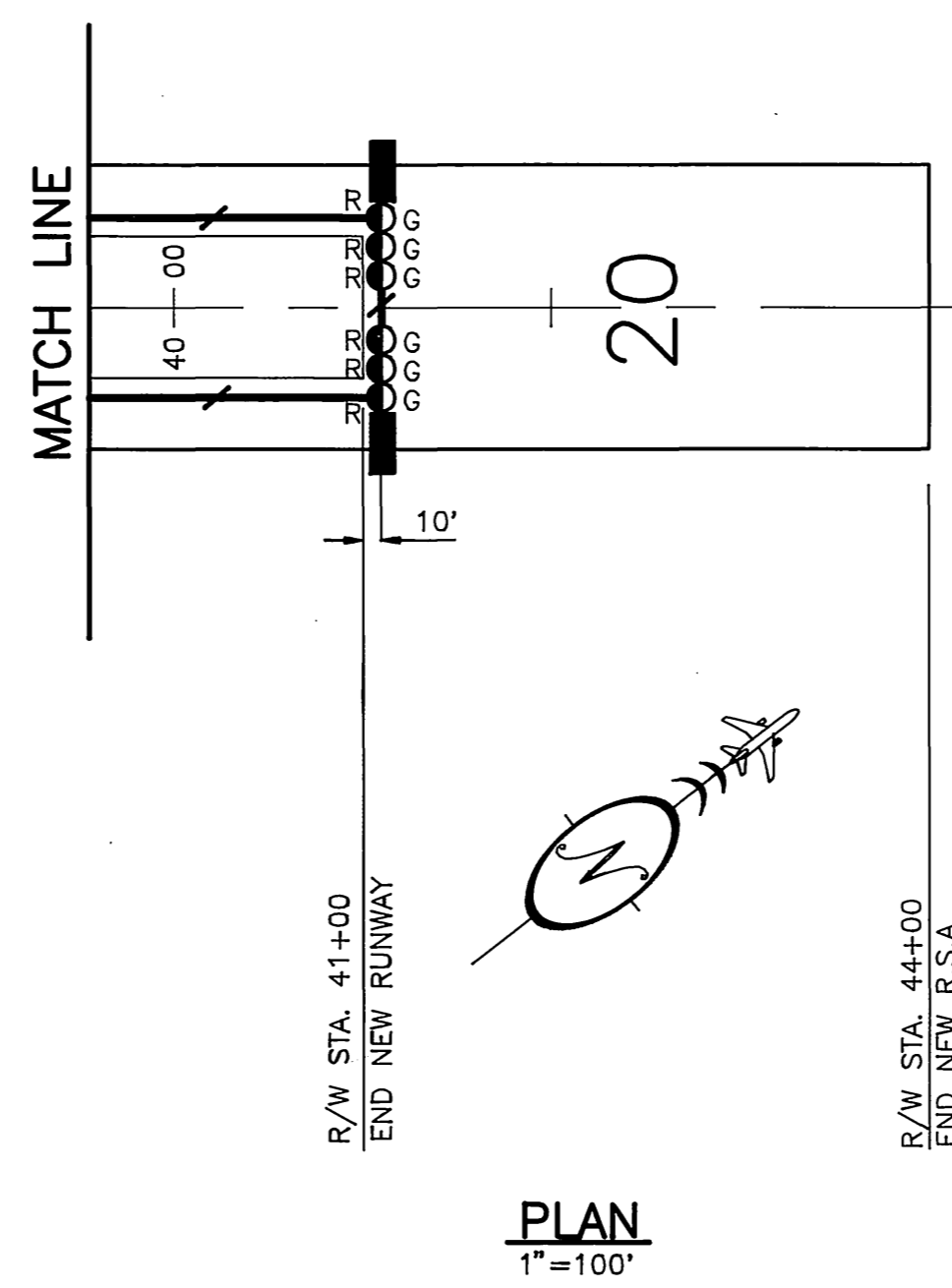
APPROVED	<i>Steve Van Horn</i>	DESIGN SECTION CHIEF
APPROVED	<i>Gregg P. Bradley</i>	PROJECT MANAGER
BY	DATE	CHANGED
WJD	2-9-95	AS-BUILT
SCALE	NO SCALE	SHEET 18 OF 27
CHECKED	DATE	DESIGNED
JW	8-17-92	DLB



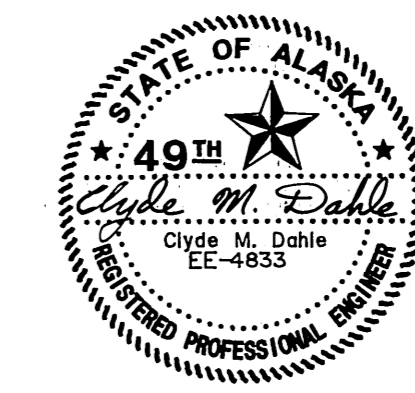
**LEGEND**

- NEW 2" P.E. CONDUIT. HASH MARKS INDICATE NUMBER OF #8 AWG, SKV CABLES PLUS ONE #6 BARE COPPER GROUND CONDUCTOR.
- NEW HANDHOLE (SEE DETAIL, SHEET 20)
- NEW ROTATING BEACON (ON BUILDING)
- POWERLINE TO UTILITY COMPANY TRANSFORMER (BY OTHERS)
- NEW RUNWAY THRESHOLD MARKERS
- NEW 3/4"x10" GROUND ROD
- NEW LIGHTED WIND CONE
- NEW EQUIPMENT STORAGE BUILDING

**PLAN**  
1"=100'



**PLAN**  
1"=100'



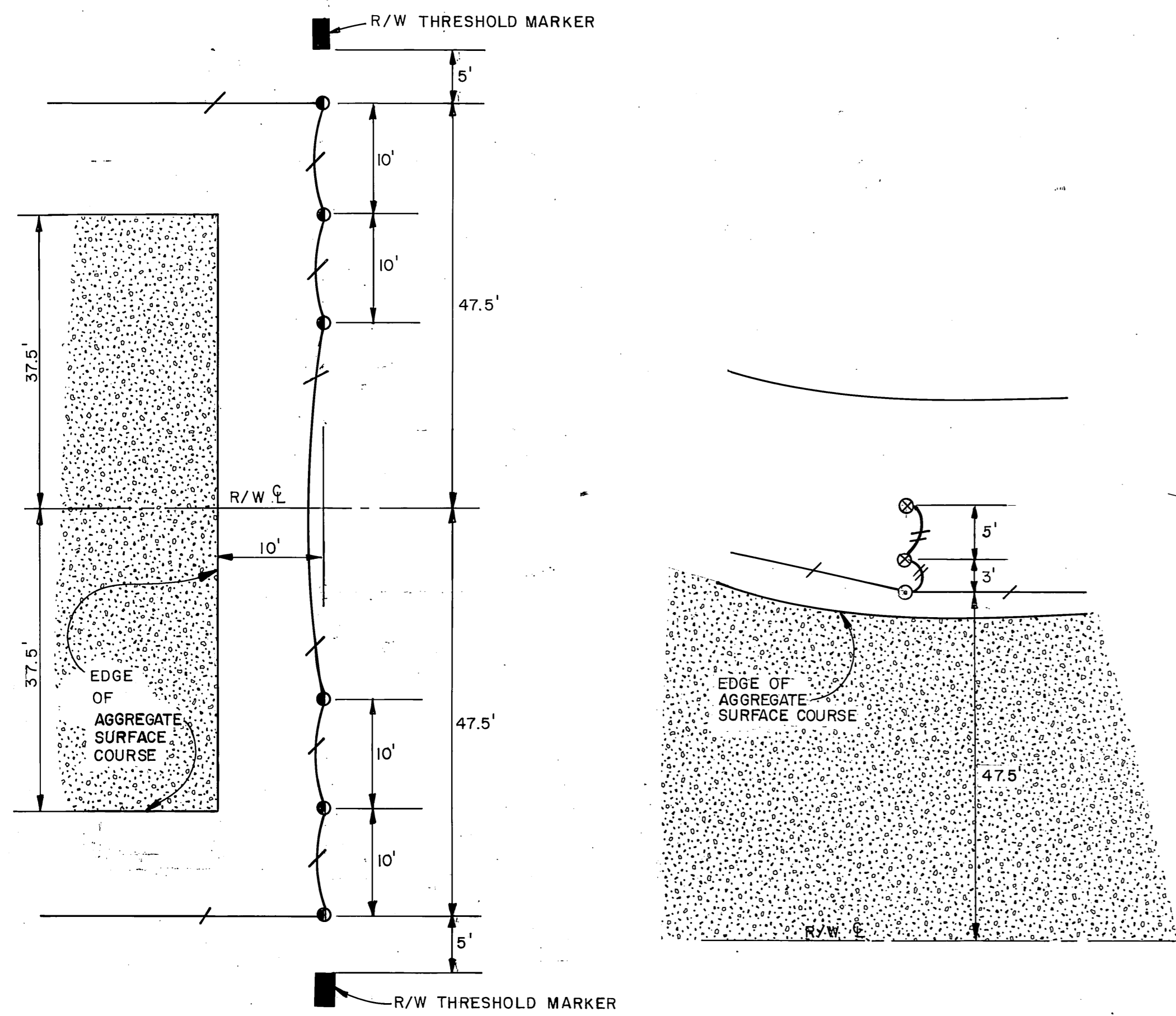
STATE OF ALASKA  
**DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES**  
 NONDALTON AIRPORT  
 58617  
 A.I.P. No. 3-02-0200-01  
 RUNWAY AND TAXIWAY LIGHTING LAYOUT PLAN

LIGHT & CONE SCHEDULE										
SYMBOLS		No.REQ.		LOCATION	LIGHT DETAILS			CONE DETAILS		
LIGHT	CONE	L	C		LIGHT COLOR	F.A.A. NUMBER	WATTAGE	CONE COLOR	BAND COLOR	
G	R	*	12	12	THRESHOLD	180°RED-180°GRN	L-861E	45	ORANGE	RED-GREEN
⊗		*	60	60	T/W-APRON	BLUE	L-861T	45	ORANGE	BLUE
⊙		*	26	26	RUNWAY	WHITE	L-861	30	ORANGE	WHITE
			98	98	<b>TOTAL UNITS REQUIRED</b>					

\* CONES SHALL BE INSTALLED ON EACH RESPECTIVE LIGHT

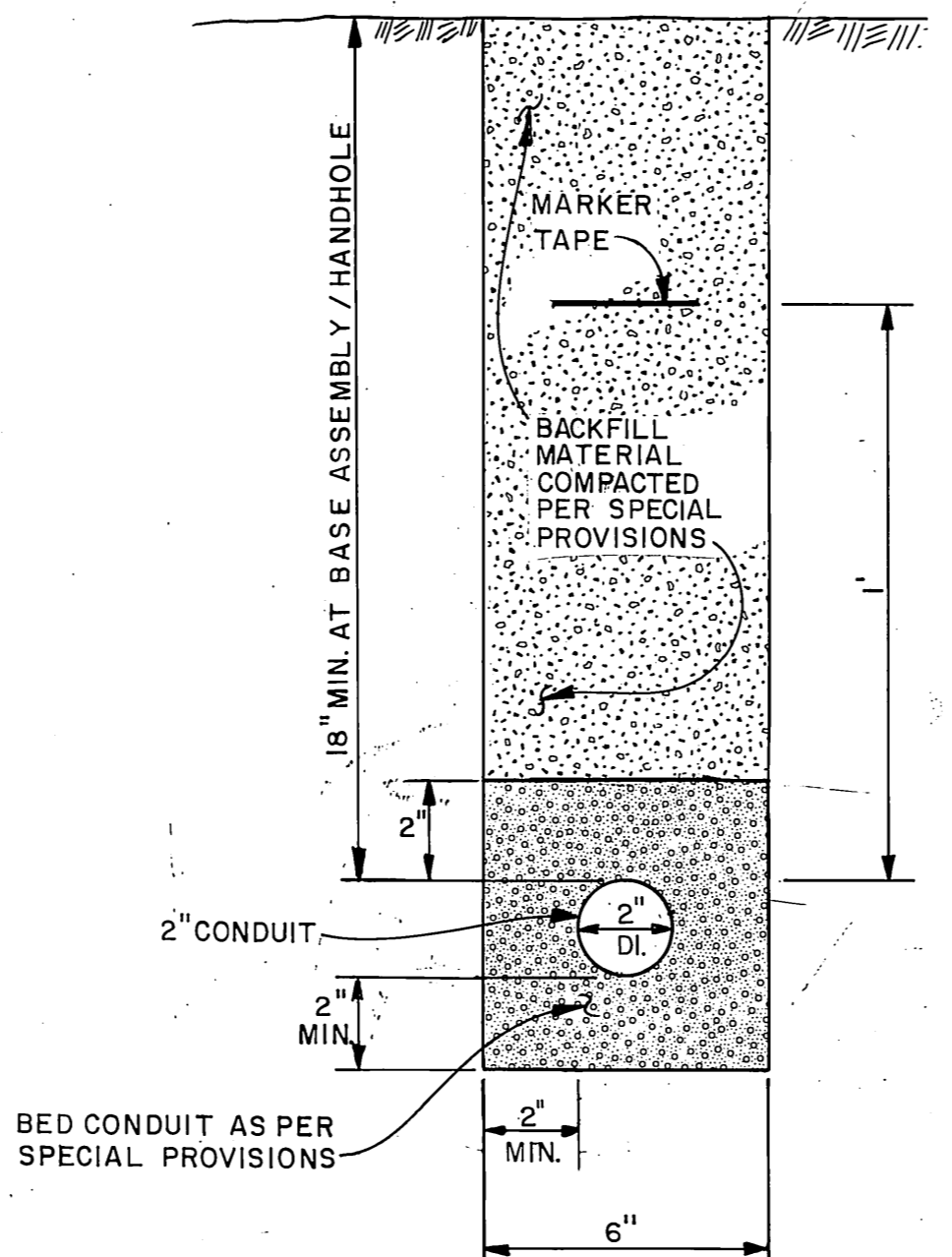
APPROVED: *Steve Van Horn*  
 STEVE VAN HORN, P.E. DESIGN SECTION CHIEF  
 APPROVED: *Gregg P. Bradley*  
 GREGG P. BRADLEY, P.E. PROJECT MANAGER  
 SCALE: AS SHOWN  
 DESIGNED: *CMO* DRAWN: *DLB*  
 CHECKED: *JW* DATE: 8-17-92 SHEET 19 OF 27

BY	DATE	REVISIONS
WJB	2-9-95	AS-BUILT

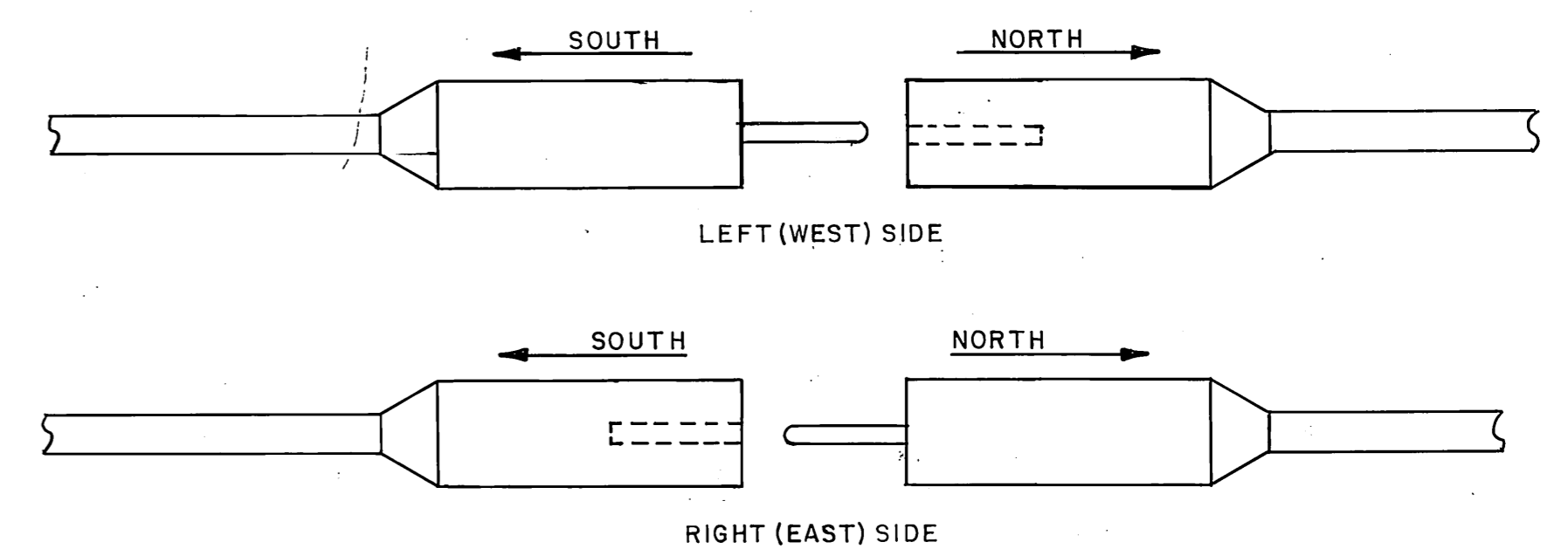


THRESHOLD T/W ENTRANCE

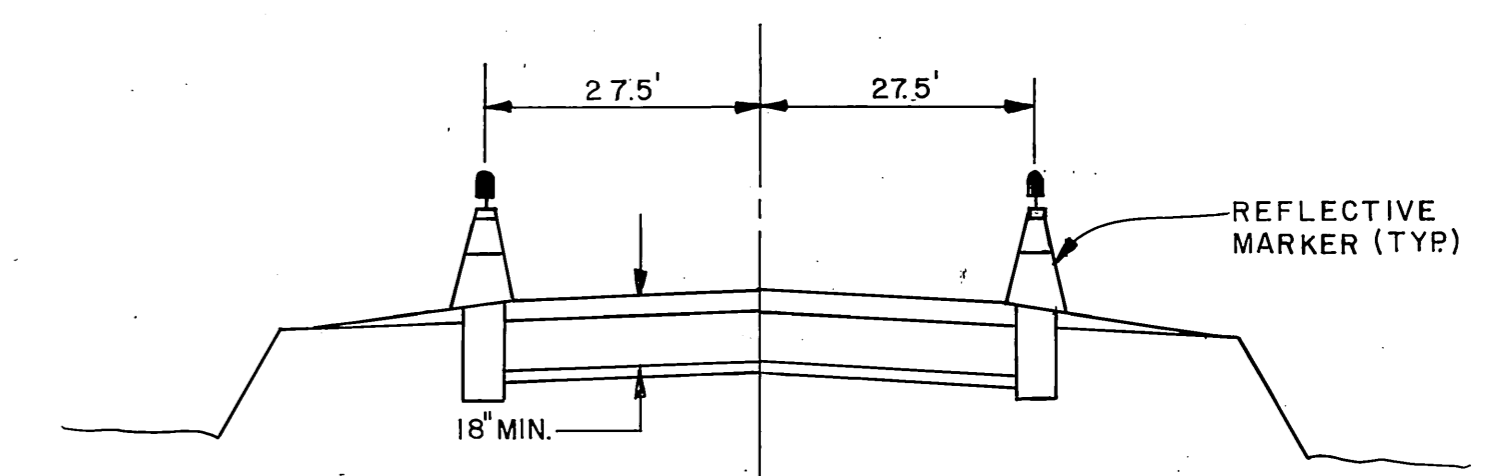
LIGHTING DETAILS



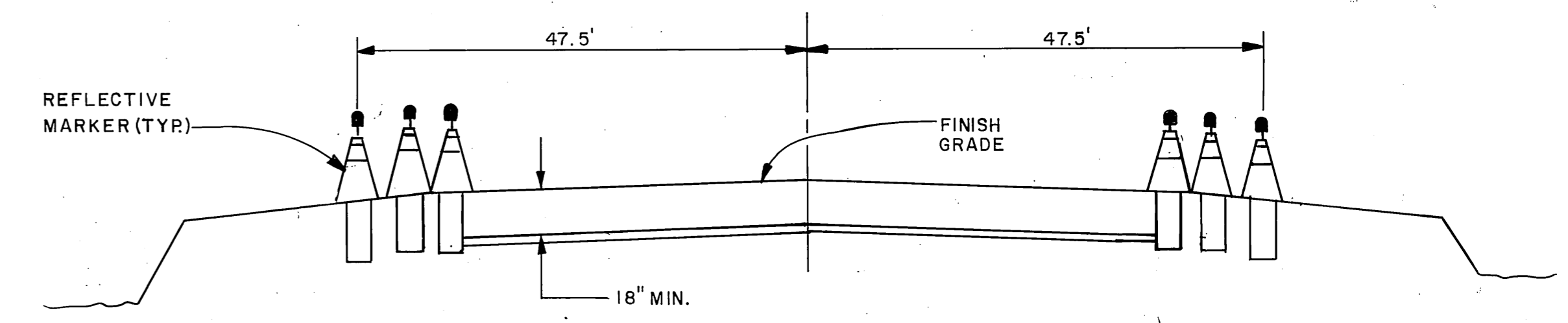
CONDUIT TRENCH DETAIL



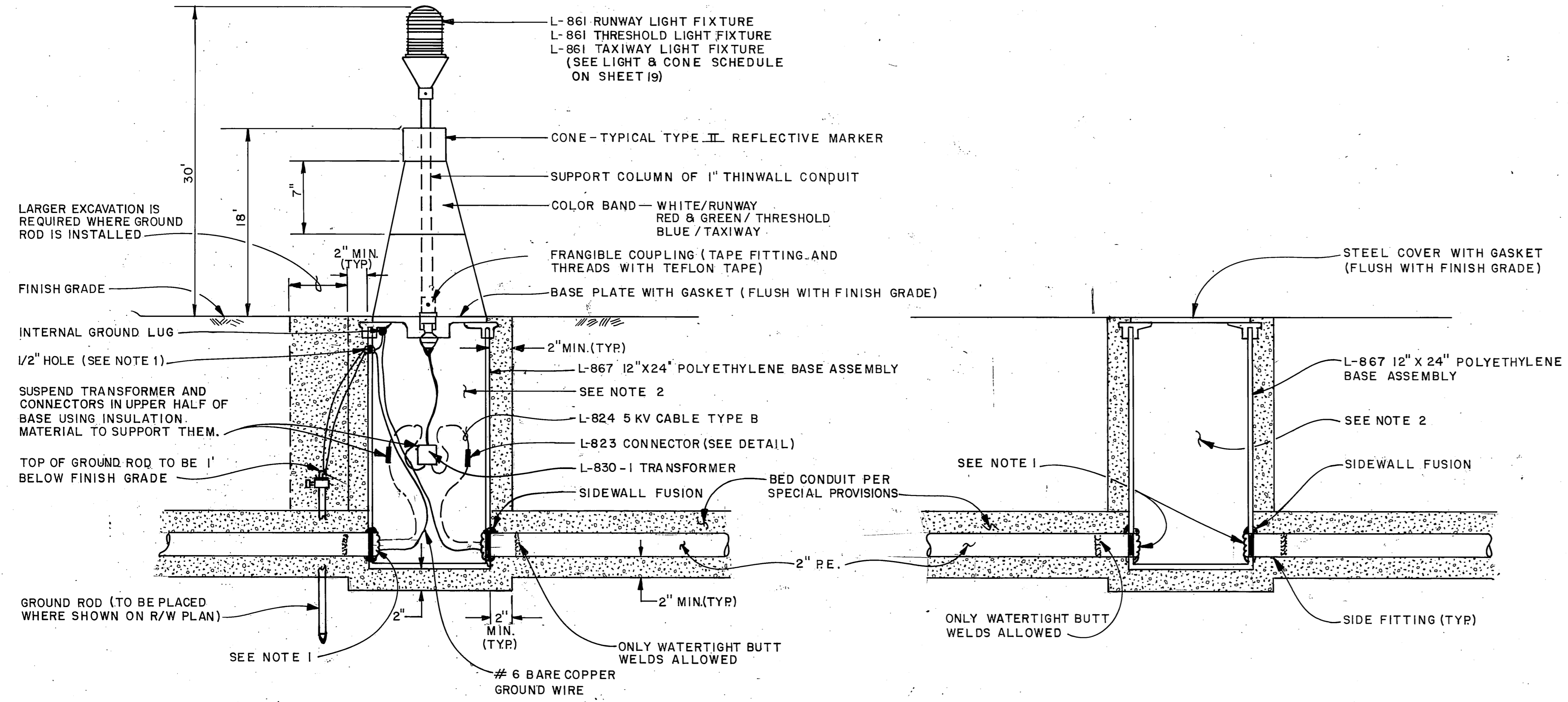
ORIENTATION OF L-823 CABLE CONNECTORS IN LIGHT BASE DETAIL



TAXIWAY



RUNWAY THRESHOLD TYPICAL LIGHTING SECTION



MEDIUM INTENSITY R W-T W LIGHT DETAIL

HANDHOLE DETAIL

NOTES

1. CONDUITS AND ANY OPENINGS SHALL BE CAULKED TO PREVENT WATER FROM ENTERING THE BASE ASSEMBLIES.
2. BASE ASSEMBLIES SHALL BE SEALED WATERTIGHT AND SHALL BE FILLED WITH GILSULATE 500 (AVAILABLE FROM ALASKA INSULATION SUPPLY, INC. ANCHORAGE, ALASKA) OR APPROVED EQUAL.
3. THE BASE ASSEMBLIES SHALL BE TYPE L-867, CLASS B, SIZE B, MADE FROM HIGH DENSITY POLYETHYLENE.
4. THE CONDUIT STUB SHALL BE SIDEWALL FUSED TO THE BASE ASSEMBLIES AT THE FACTORY OR IN THE FIELD USING SADDLE FITTINGS MADE FROM HIGH DENSITY POLYETHYLENE, (AVAILABLE FROM MASKELL-ROBBINS, INC., ANCHORAGE, ALASKA) OR APPROVED EQUAL.



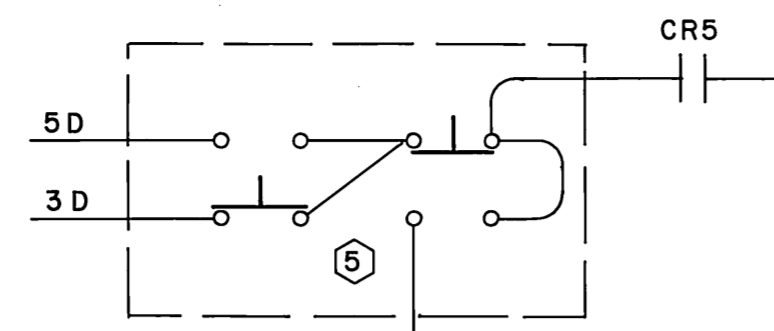
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

NONDALTON AIRPORT  
58617  
A.I.P. No. 3-02-0200-01  
LIGHTING DETAILS

APPROVED	<i>Steve Van Horn</i>	DESIGN SECTION CHIEF
APPROVED	<i>Gregg P. Bradley</i>	PROJECT MANAGER
BY	DATE	CHANGE
WAB	2-9-95	AS-BUILT
SCALE	NO SCALE	DESIGNED
		CMD
		DRAWN
		OT
		CHECKED
		VW
		DATE
		8-17-92
		SHEET
		20 OF 27



- ① CONTROL RELAY, 3PDT, GE No. CRI20HC47W02
- ② CONTACTOR, GE No. CR205K002
- ③ TIMING RELAY, 1-60 MIN. OMRON SYD-AH-UA
- ④ SWITCH, SPDT, GE No. CR104PSG21B91
- ⑤ SWITCH, 3-POSITION, GE No. CR104PSG36B92
- ⑥ PUSH-BUTTON STATION, OFF-ON MOMENTARY CONTACT, WATER-DUST TIGHT, NEMA TYPE 4, GE No. CR2943AJ202B
- ⑦ TERMINAL STRIP, 20A, 12-POINT, GE No. CR151B2
- ⑧ PHOTOELECTRIC CONTROL, TORK No. 2100
- ⑨ PUSH-BUTTON STATION, "ON," MOMENTARY CONTACT, WATER-DUST TIGHT, NEMA TYPE 4, GE No. CR2943AJ201B
- ⑩ SWITCH, 3-POSITION, GE No. CR104PSG34B91



DETAIL  
MANUAL BRIGHTNESS  
SWITCH (3-POSITION)

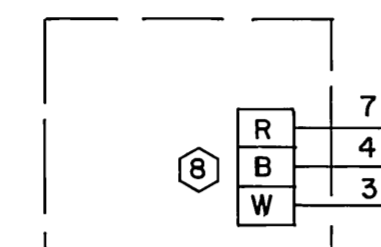
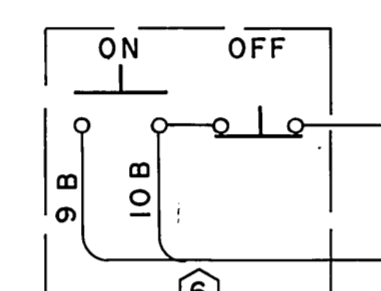
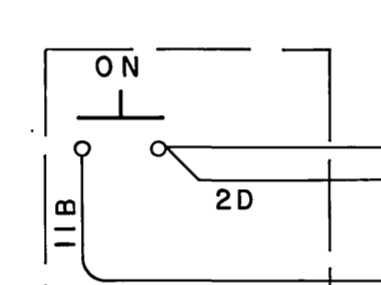


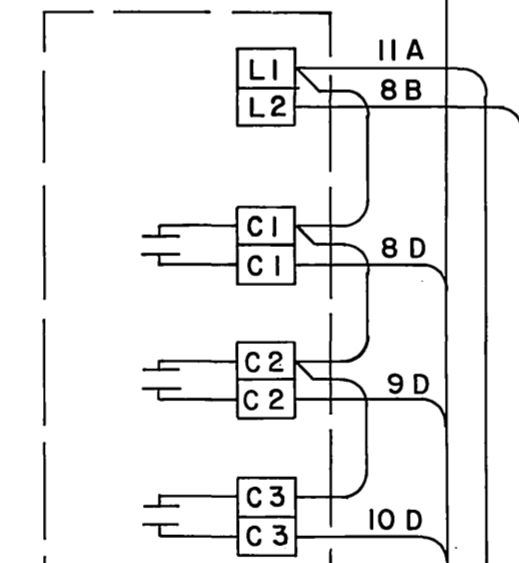
PHOTO ELECTRIC  
CONTROLLER



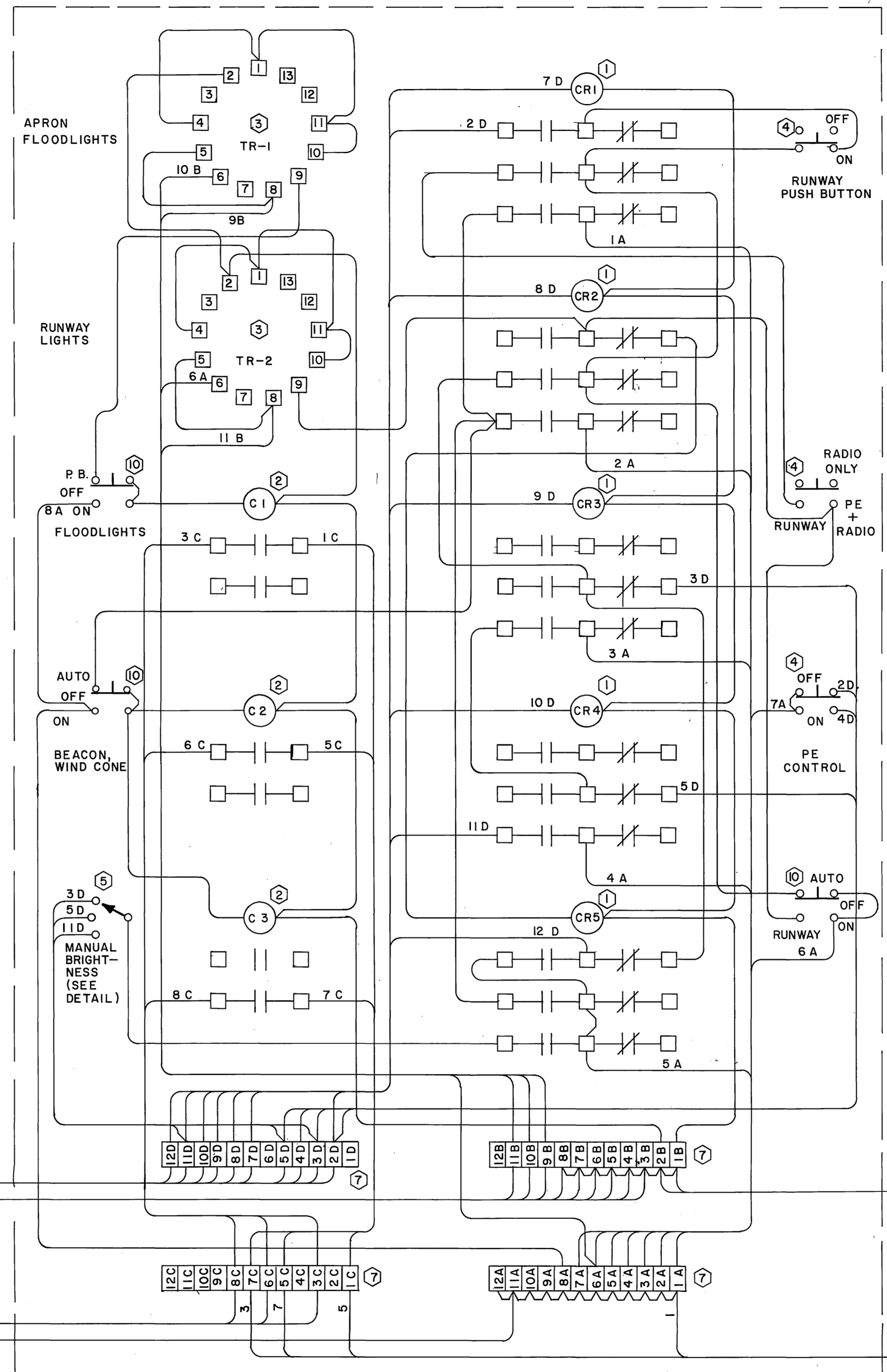
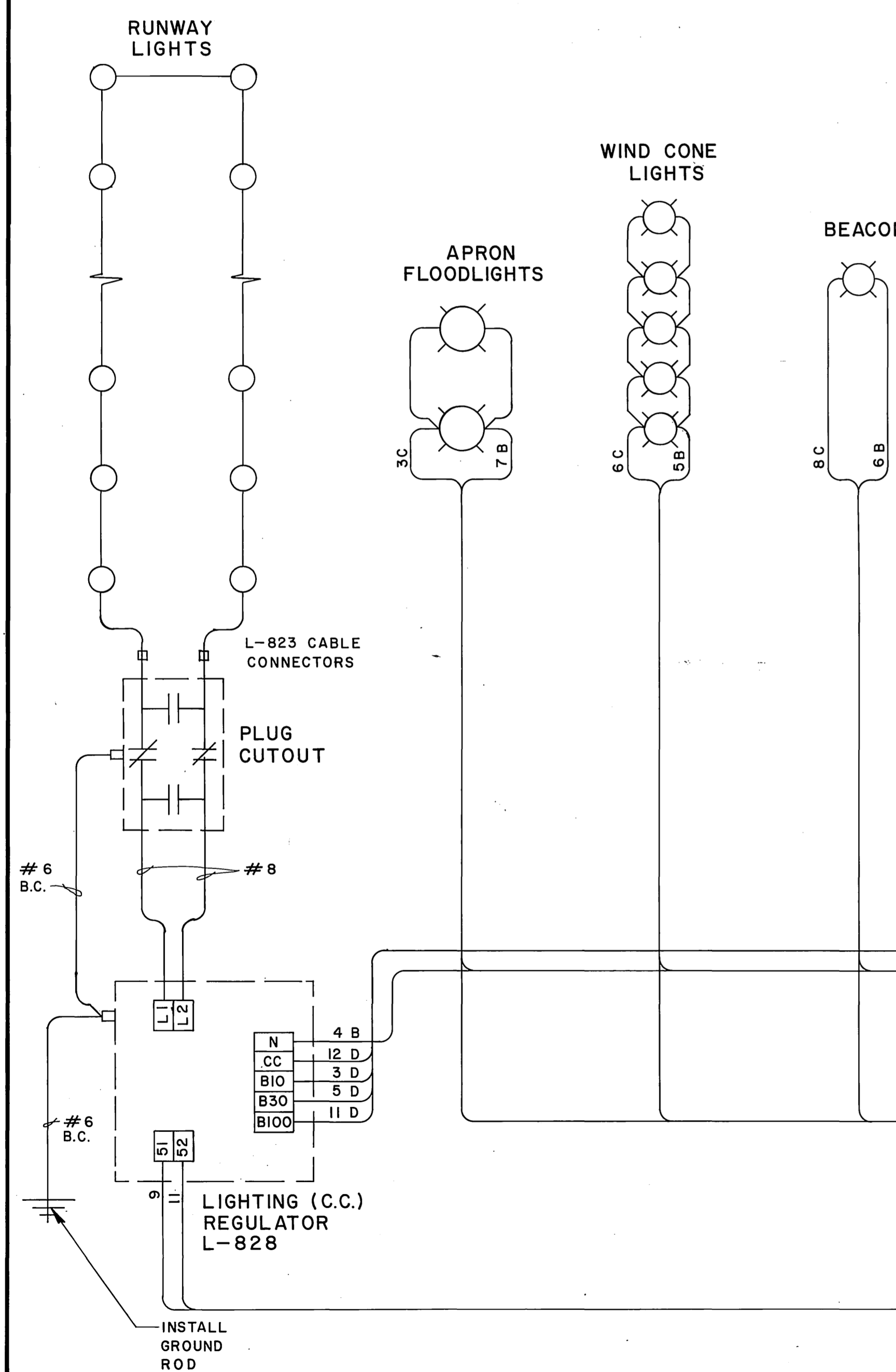
FLOODLIGHTS



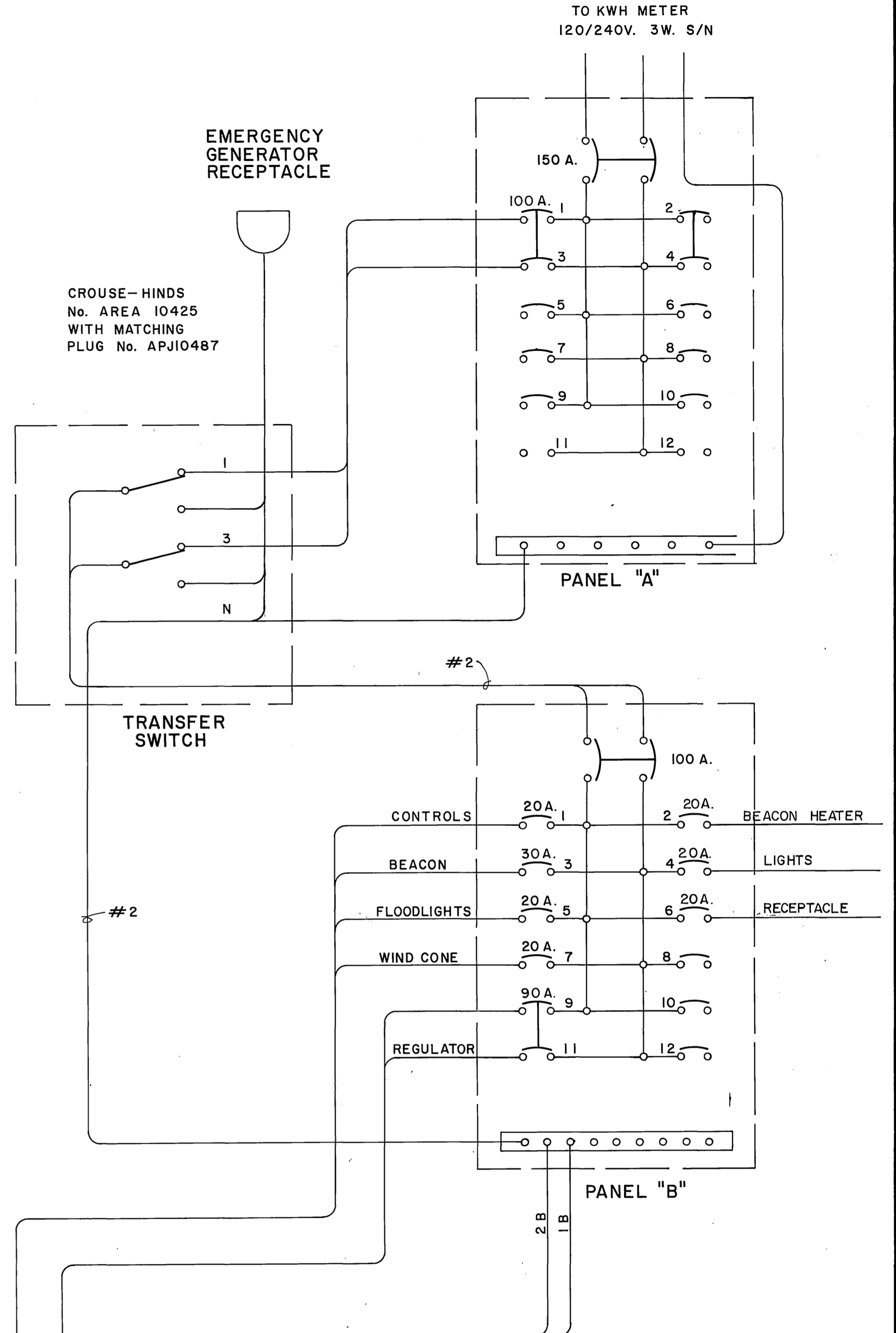
RUNWAY LIGHTS



RADIO  
CONTROLLER  
122.9 MHZ



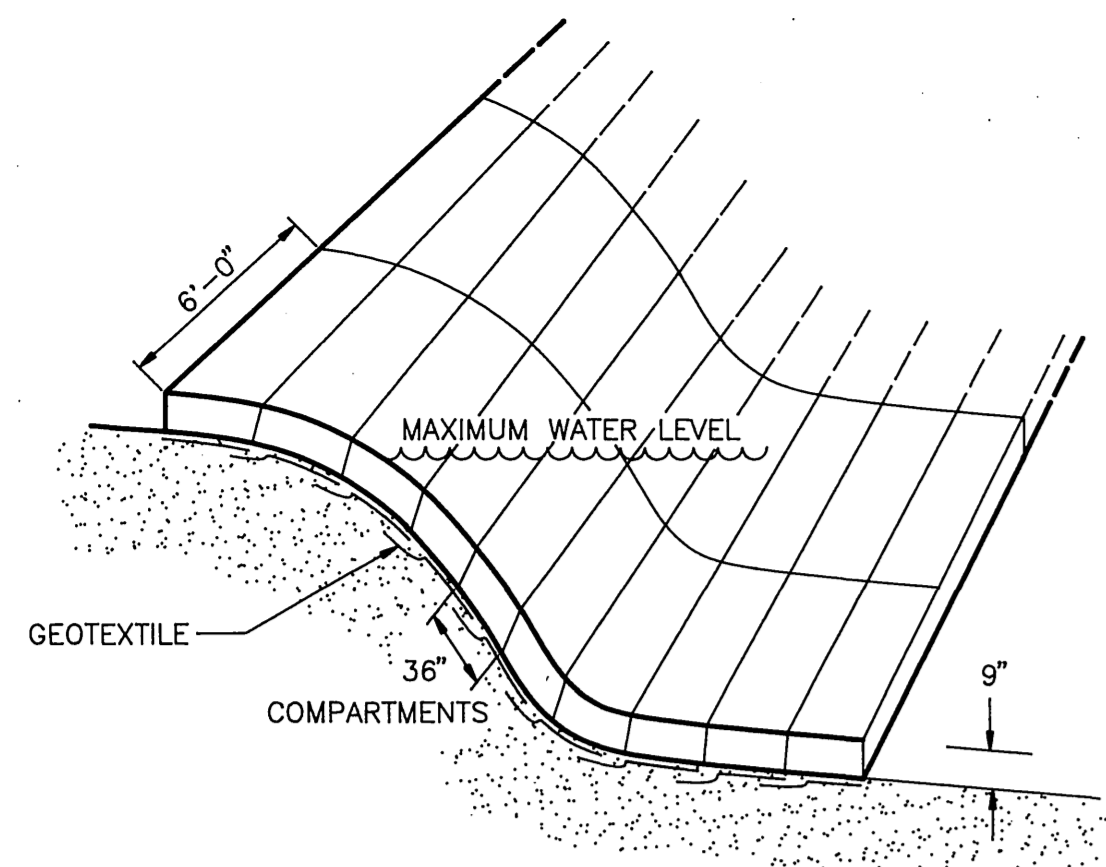
CONTROL PANEL  
(SEE SHEET 21)



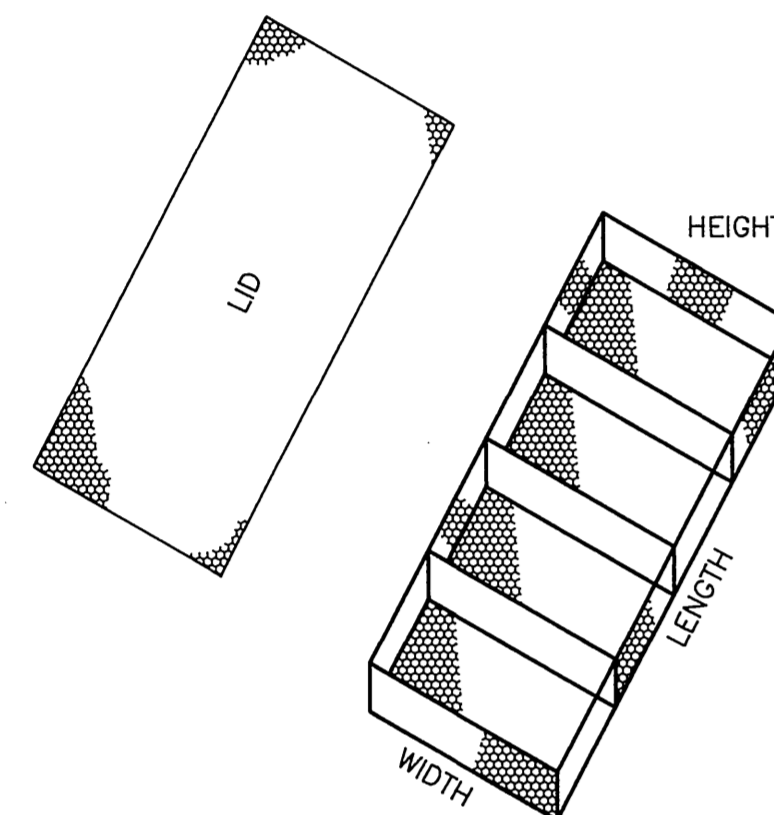
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
NONDALTON AIRPORT  
58617  
A.I.P. No. 3-02-0200-01  
LIGHTING SYSTEM - WIRING DIAGRAMS

APPROVED	<i>Steve Van Horn</i>	DESIGN SECTION CHIEF
APPROVED	<i>Gregg P. Bradley</i>	PROJECT MANAGER
BY	DATE	AS-BUILT
NO SCALE	DESIGNED <i>cmj</i>	DRAWN <i>llg</i>
CHECKED <i>vhw</i>	DATE	8-17-92





**TYPICAL INSTALLATION OF RENO MATS**  
NO SCALE

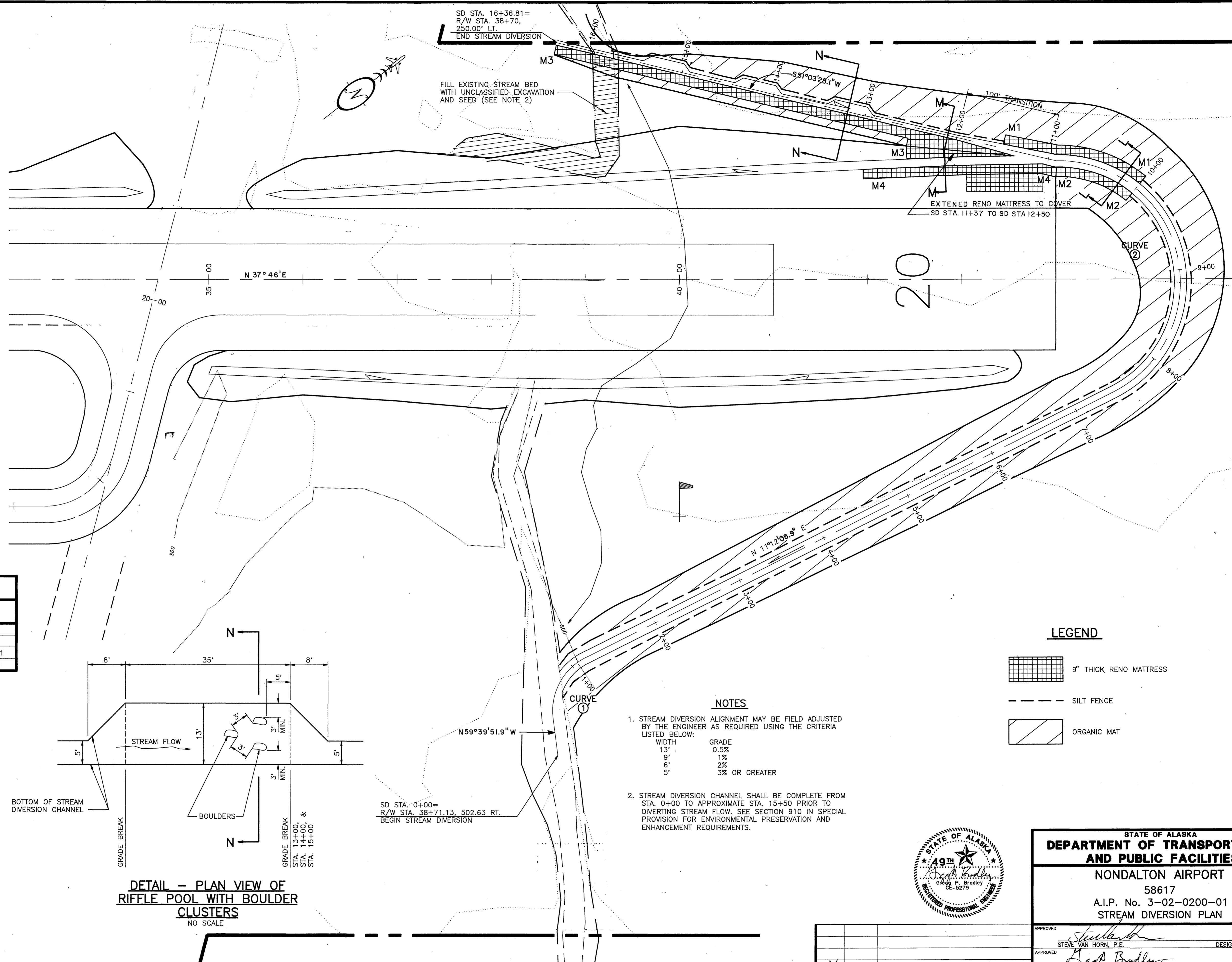


**TYPICAL RENO MATTRESS**  
NO SCALE

RENO MATTRESS DATA		
MATTRESS NUMBER	STARTING STATION	ENDING STATION
M1	SD STA. 10+00	SD STA. 11+50
M2	SD STA. 10+00	SD STA. 10+94
M3	SD STA. 11+37	SD STA. 16+36.81
M4	R/W STA. 42+00	R/W STA. 44+00

	CURVE DATA	
	CURVE ①	CURVE ②
P.C. STA.	SD STA. 0+39.14= R/W STA. 38+66.07,	SD STA. 7+43.49= R/W STA. 44+61.03,
	463.82' RT.	119.48' RT.
P.T. STA.	SD STA. 1+16.24= R/W STA. 39+00.00,	SD STA. 10+92.23= R/W STA. 44+00,
	400.00' RT	124.30' LT.
DELTA	70°51'57.8"	-154°55'27.5"
D.O.C.	91°54'52.9"	44°25'29.7"
RADIUS	62.34'	128.97'
CHORD	72.28'	251.79'
TANGENT	44.35'	579.94'
LENGTH	77.10'	348.74'

\* NON-TANGENT INTERSECTION POINT IS ALSO INTERSECTION OF STREAM DIVERSION AND DITCH



**DETAIL - PLAN VIEW OF RIFFLE POOL WITH BOULDER CLUSTERS**  
NO SCALE

**PLAN**  
1"=50'

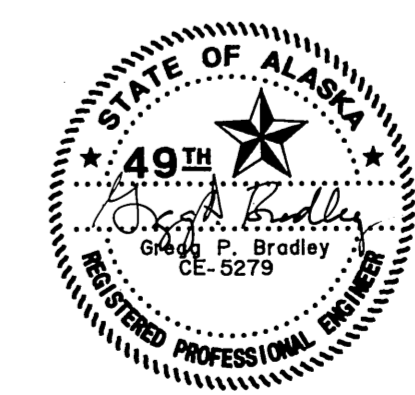
**LEGEND**

- 9" THICK RENO MATTRESS
- SILT FENCE
- ORGANIC MAT

**NOTES**

- STREAM DIVERSION ALIGNMENT MAY BE FIELD ADJUSTED BY THE ENGINEER AS REQUIRED USING THE CRITERIA LISTED BELOW:
 

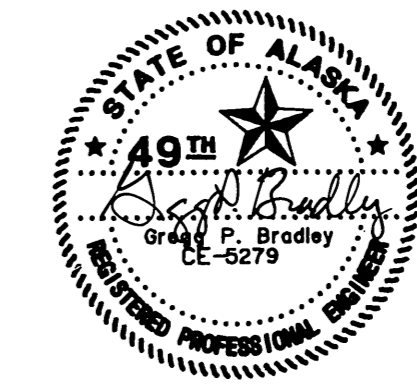
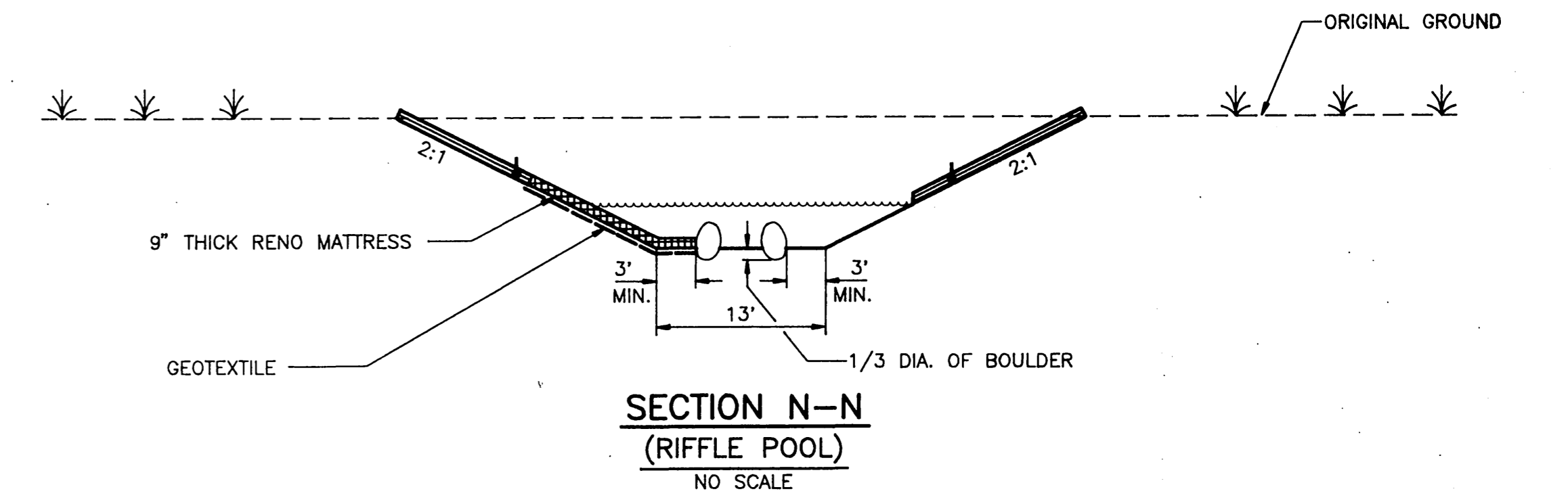
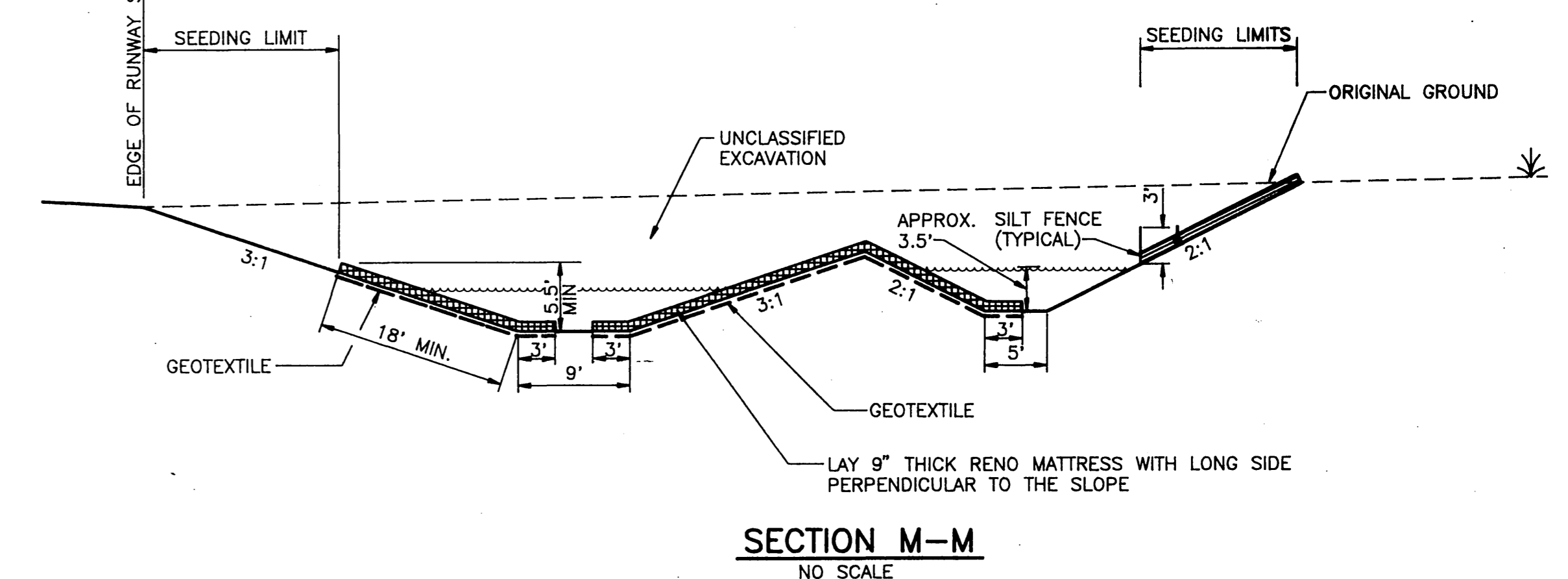
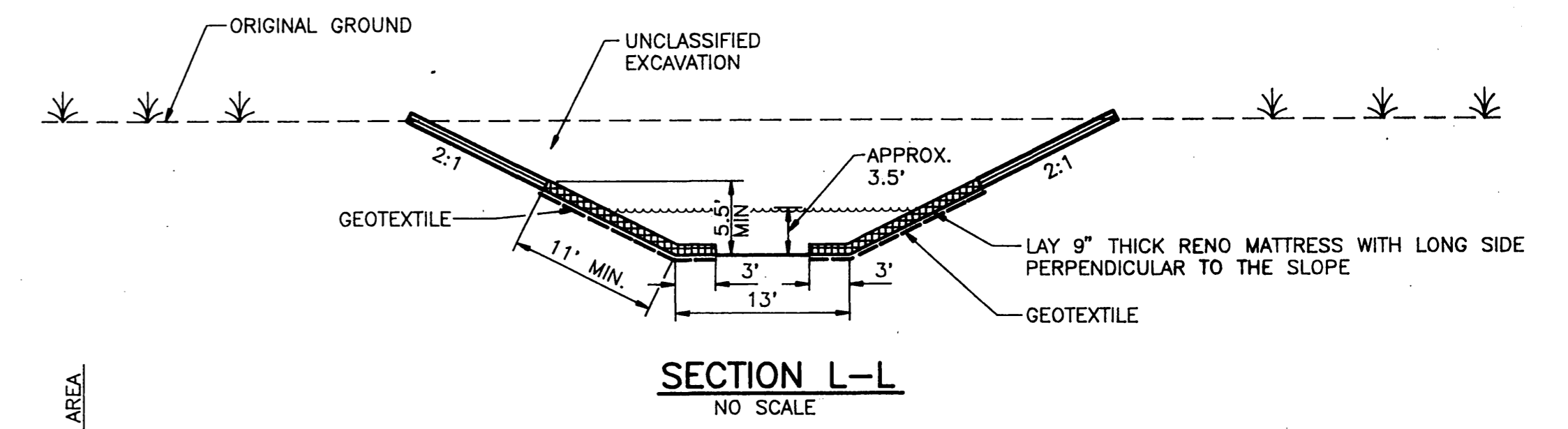
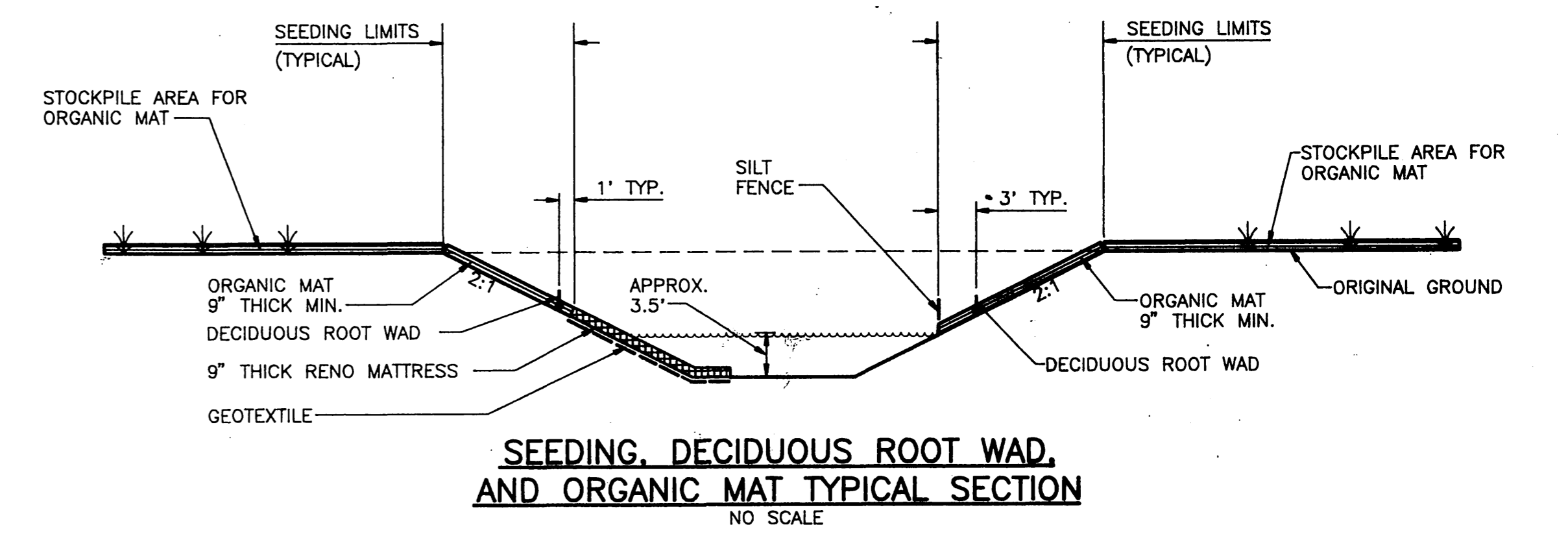
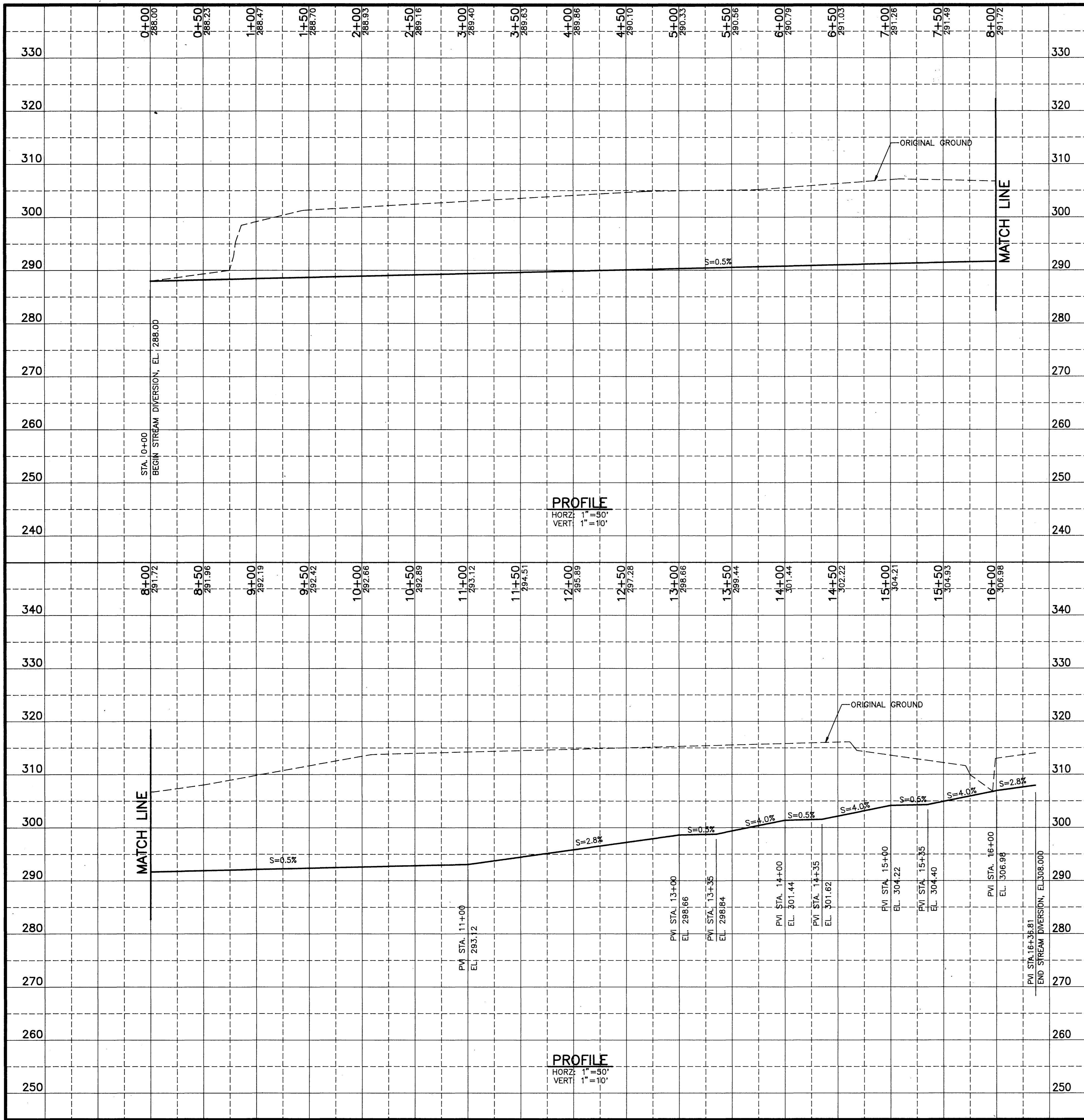
WIDTH	GRADE
13'	0.5%
9'	1%
6'	2%
5'	3% OR GREATER
- STREAM DIVERSION CHANNEL SHALL BE COMPLETE FROM STA. 0+00 TO APPROXIMATE STA. 15+50 PRIOR TO DIVERTING STREAM FLOW. SEE SECTION 910 IN SPECIAL PROVISION FOR ENVIRONMENTAL PRESERVATION AND ENHANCEMENT REQUIREMENTS.



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

**NONDALTON AIRPORT**  
58617  
A.I.P. No. 3-02-0200-01  
**STREAM DIVERSION PLAN**

APPROVED: <i>Steve Van Horn</i> STEVE VAN HORN, P.E. DESIGN SECTION CHIEF	
APPROVED: <i>Greg P. Bradley</i> GREGG P. BRADLEY, P.E. PROJECT MANAGER	
BY: <i>VW</i>	DATE: 2-9-95 AS-BUILT
SCALE: AS SHOWN	DESIGNED: VW CHECKED: <i>GP</i> DATE: 8-17-92
SHEET 24 OF 27	

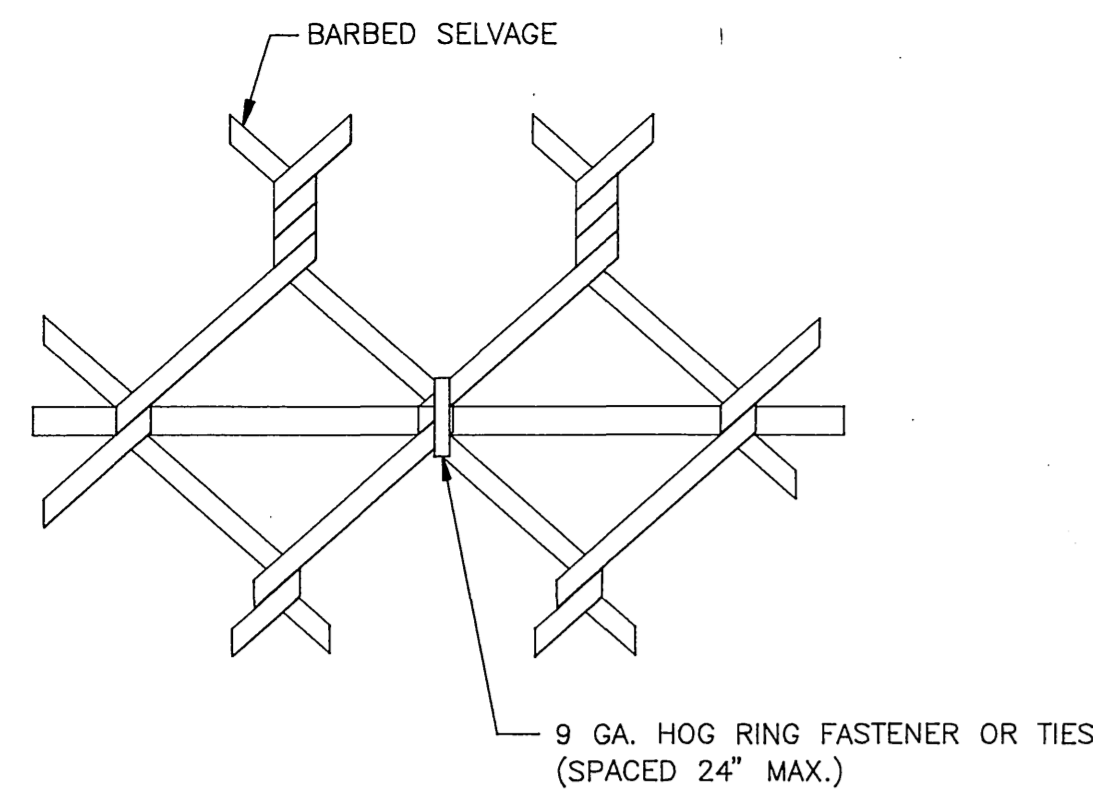


STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES

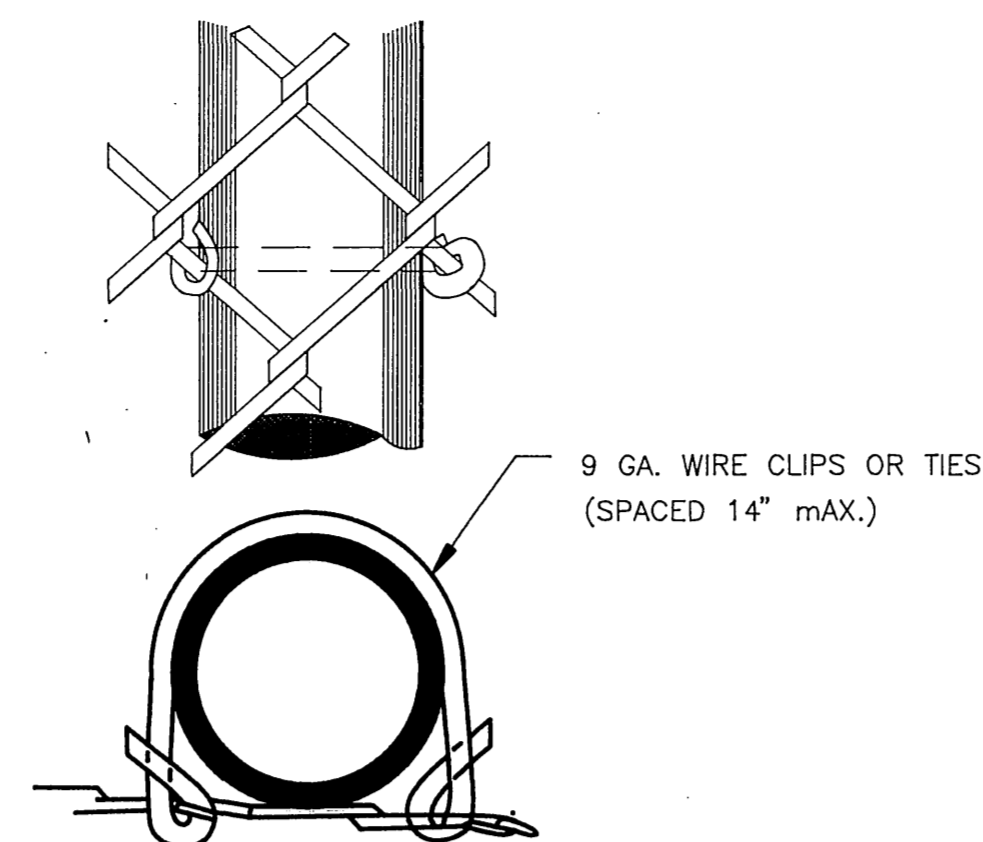
NONDALTON AIRPORT  
 58617  
 A.I.P. No. 3-02-0200-01  
 STREAM DIVERSION  
 PROFILE AND TYPICAL SECTIONS

BY	DATE	CHANGED	REVISIONS
WJH	2-7-95	AS-BUILT	

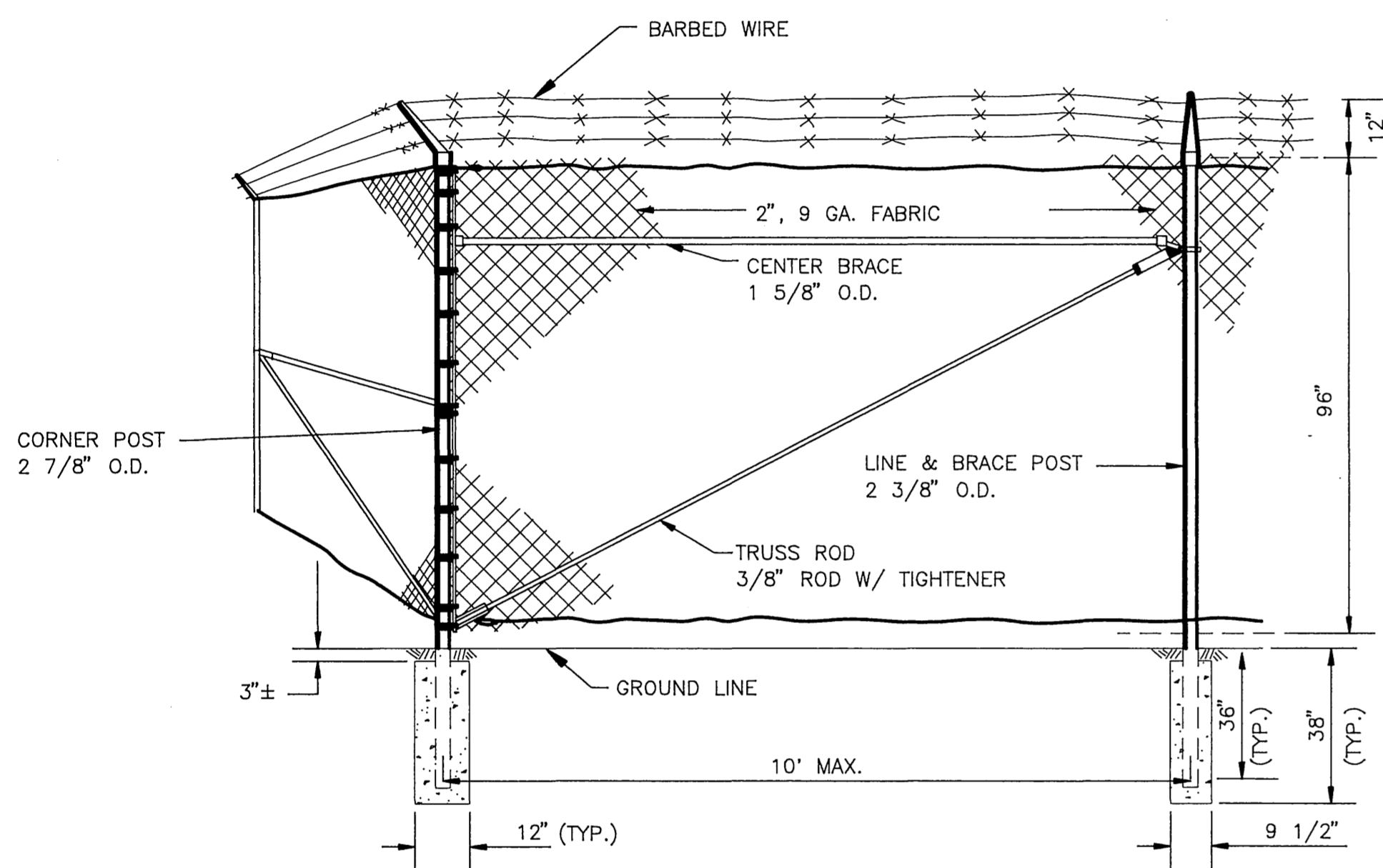
APPROVED	<i>Steve Van Horn</i>	DESIGN SECTION CHIEF
APPROVED	<i>Greg P. Bradley</i>	PROJECT MANAGER
SCALE	AS SHOWN	
CHECKED	VW	
DATE	8-17-92	
SHEET	25 OF 27	



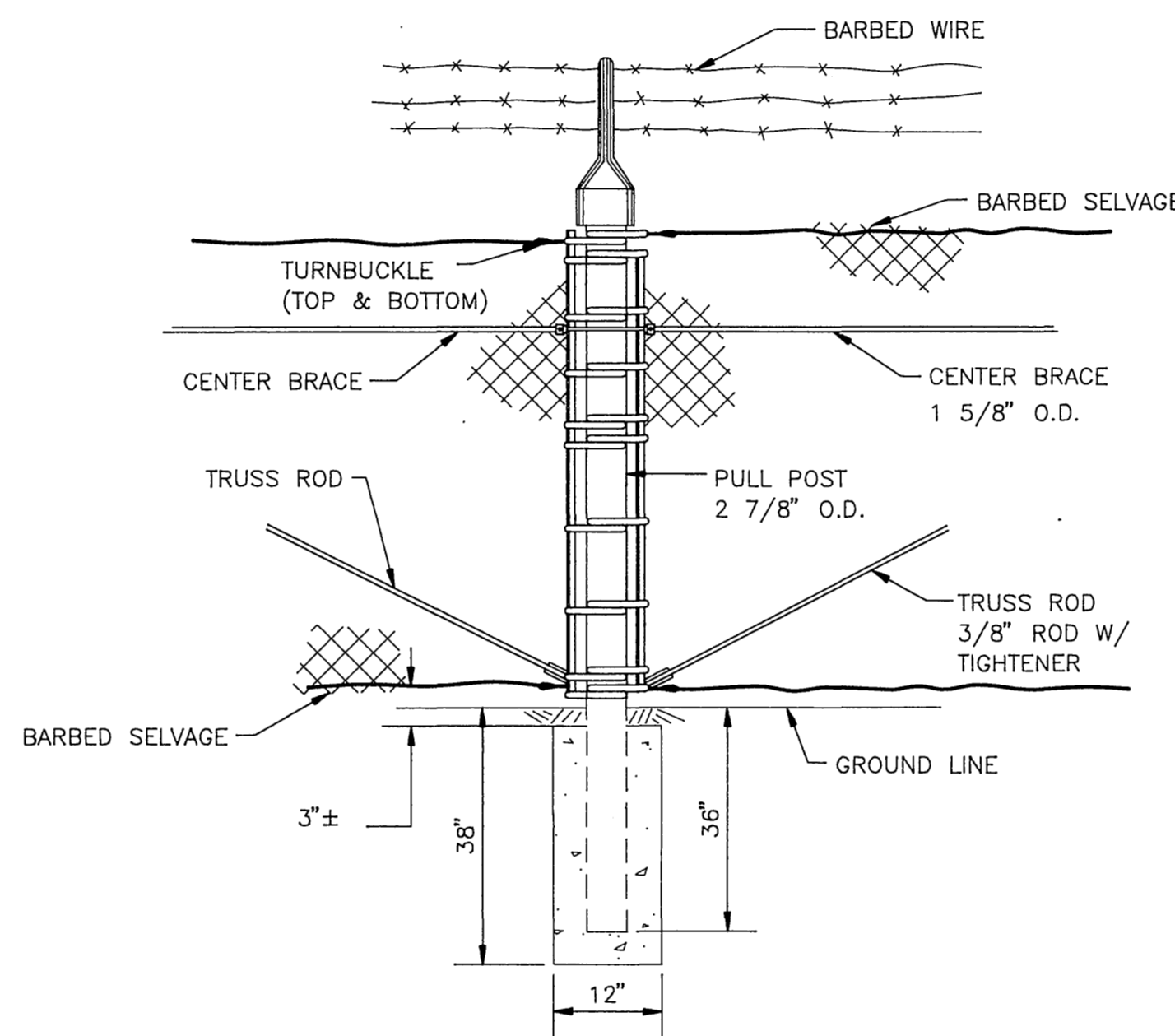
TYPICAL METHOD OF TYING  
FABRIC TO TENSION WIRE



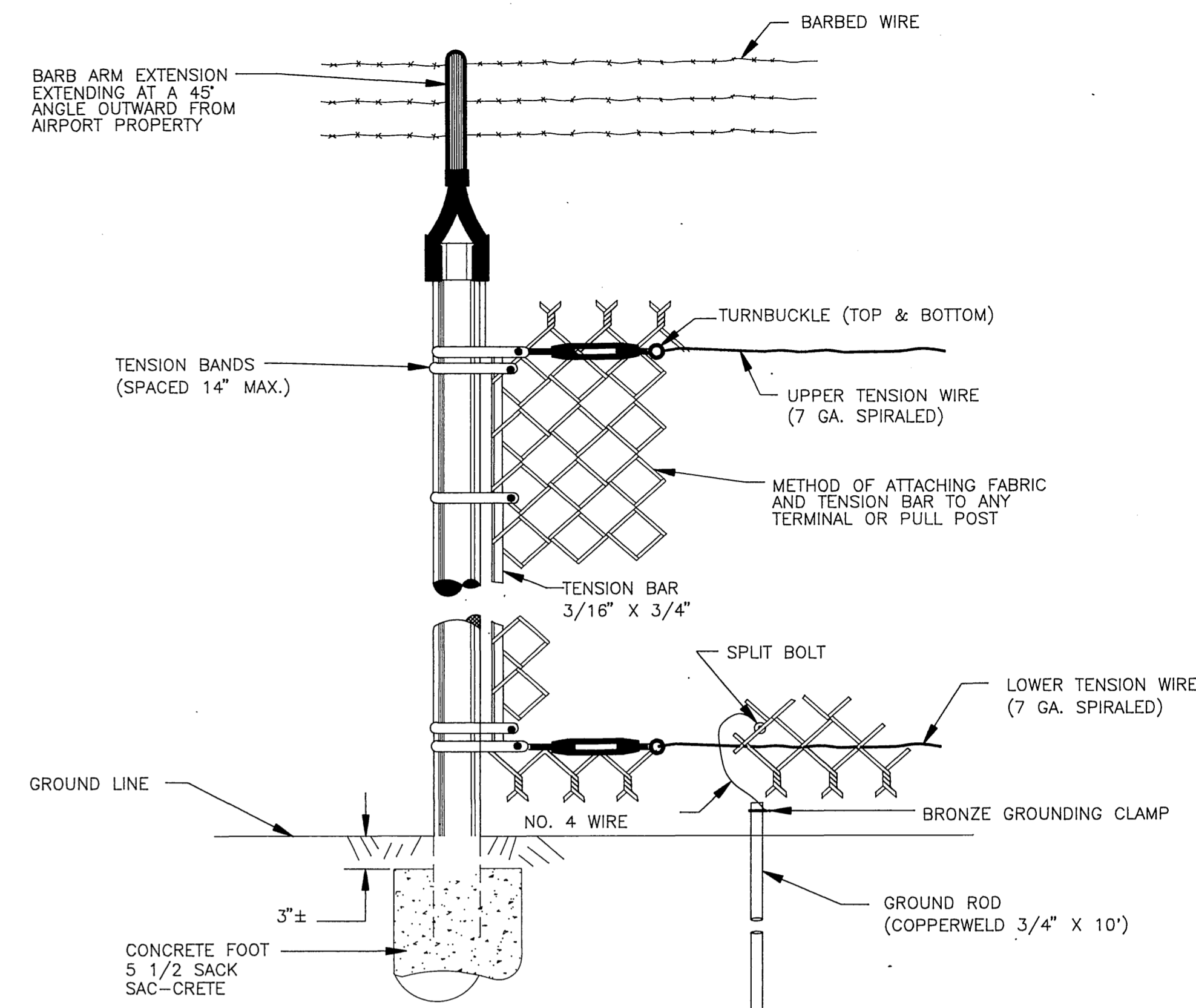
TYPICAL METHOD OF TYING  
FABRIC TO TUBULAR POSTS



TYPICAL CORNER TERMINAL



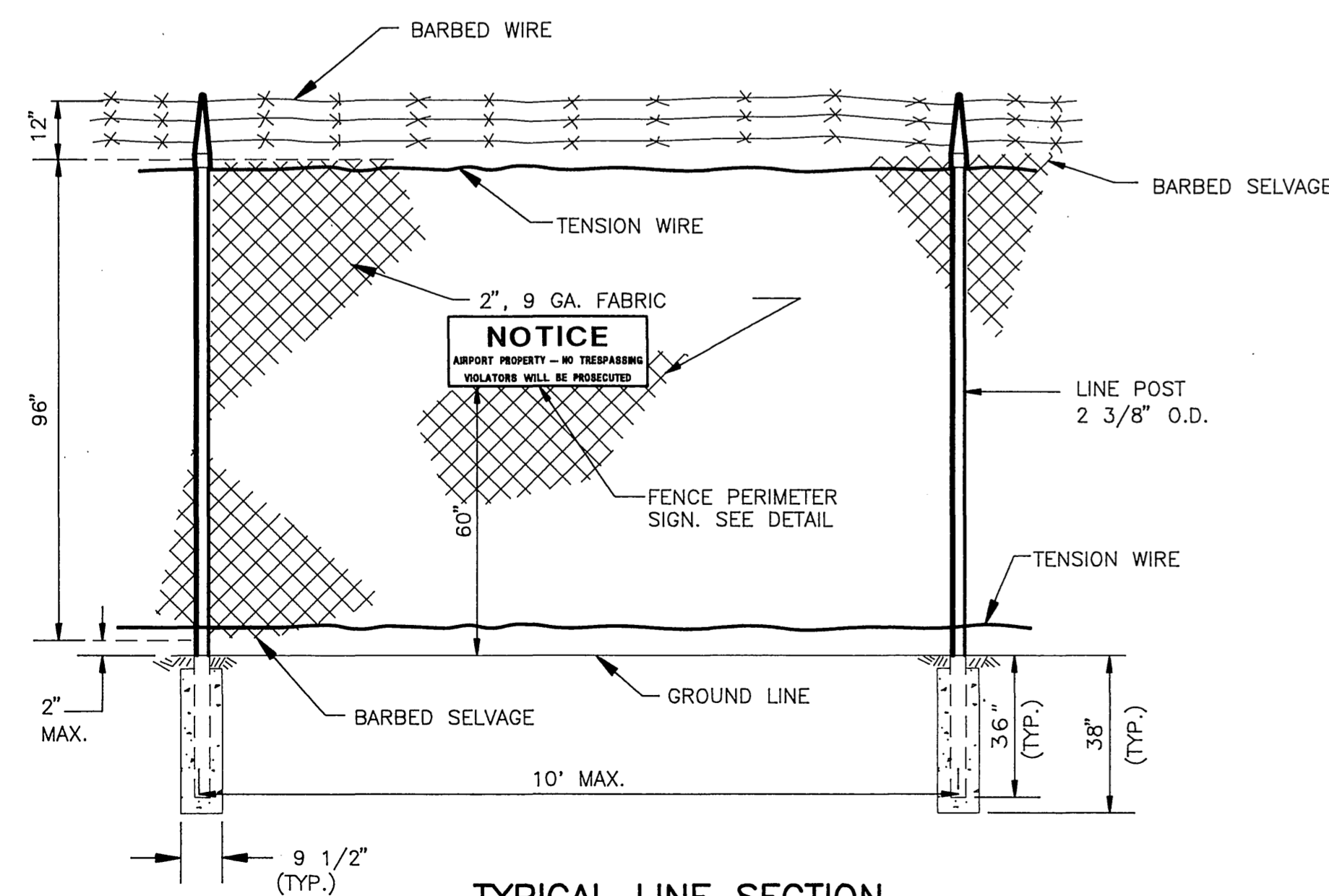
TYPICAL PULL POST



TERMINAL POST

NOTES

- IF THE LINE POSTS ARE DRIVEN THEY SHALL BE DRIVEN 5' INTO THE GROUND.



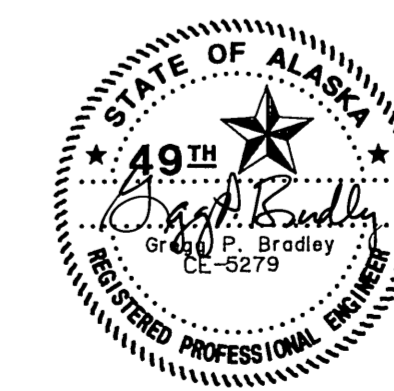
TYPICAL LINE SECTION



NOTES

- "NOTICE" SIGN PLATE SHALL HAVE WHITE REFLECTIVE SHEETING BACKGROUND WITH RED LETTERING.
- THE LOWER EDGE OF ALL "NOTICE" SIGN PLATES SHALL BE INSTALLED 60" ABOVE THE GROUND. THE "NOTICE" SIGN PLATES SHALL BE INSTALLED EVERY 300'.

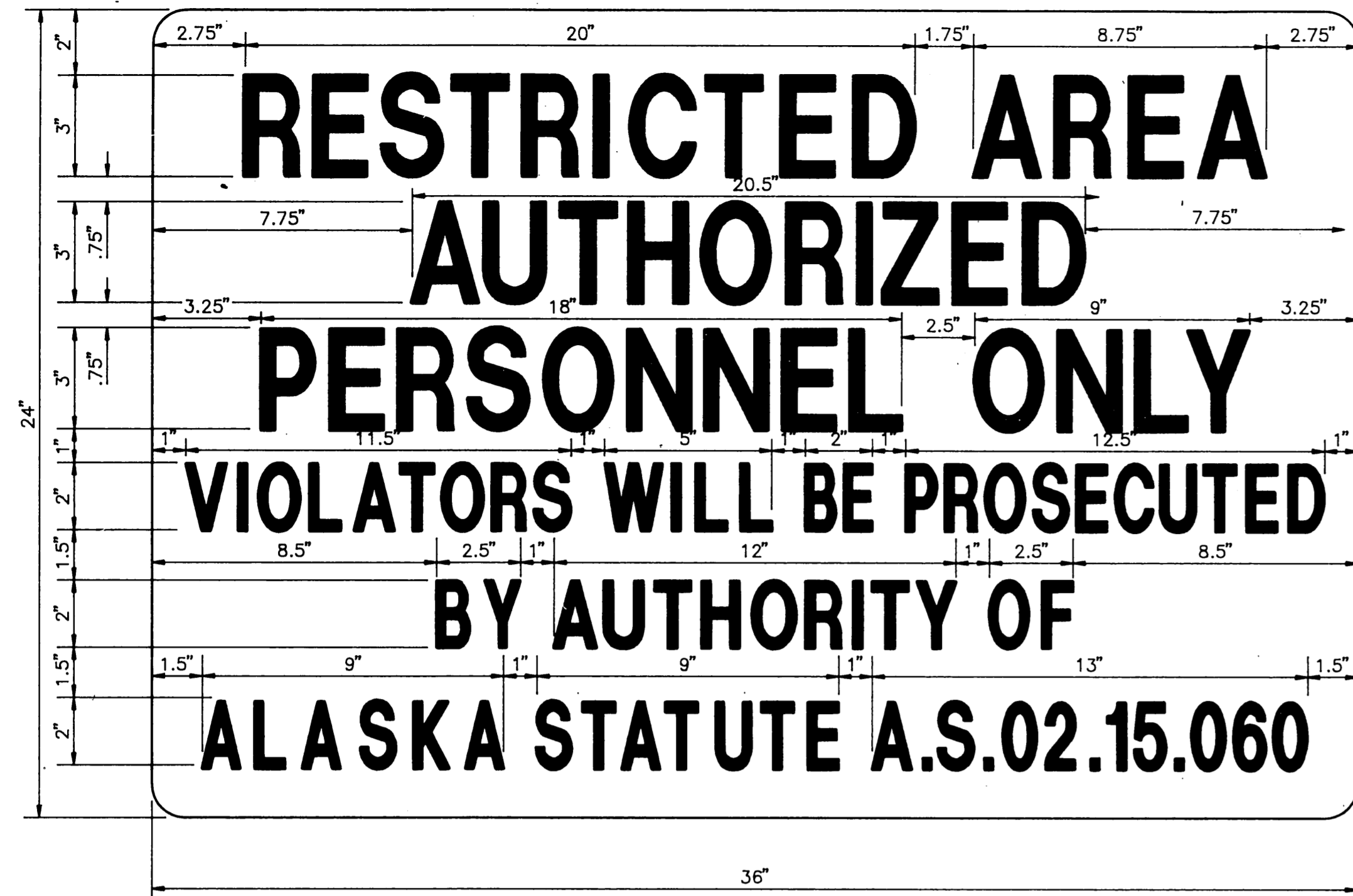
TYPICAL FENCE PERIMETER SIGN DETAIL



STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
NONDALTON AIRPORT  
58617  
A.I.P. No. 3-02-0200-01  
CHAIN LINK FENCE  
AND FENCE SIGN DETAILS

APPROVED	<i>Steve Van Horn</i>	DESIGN SECTION CHIEF
APPROVED	<i>Greg P. Bradley</i>	PROJECT MANAGER
SCALE	NO SCALE	SHEET 26 OF 27
DATE	8-17-92	

BY	DATE	AS-BUILT	CHANGED	REVISIONS



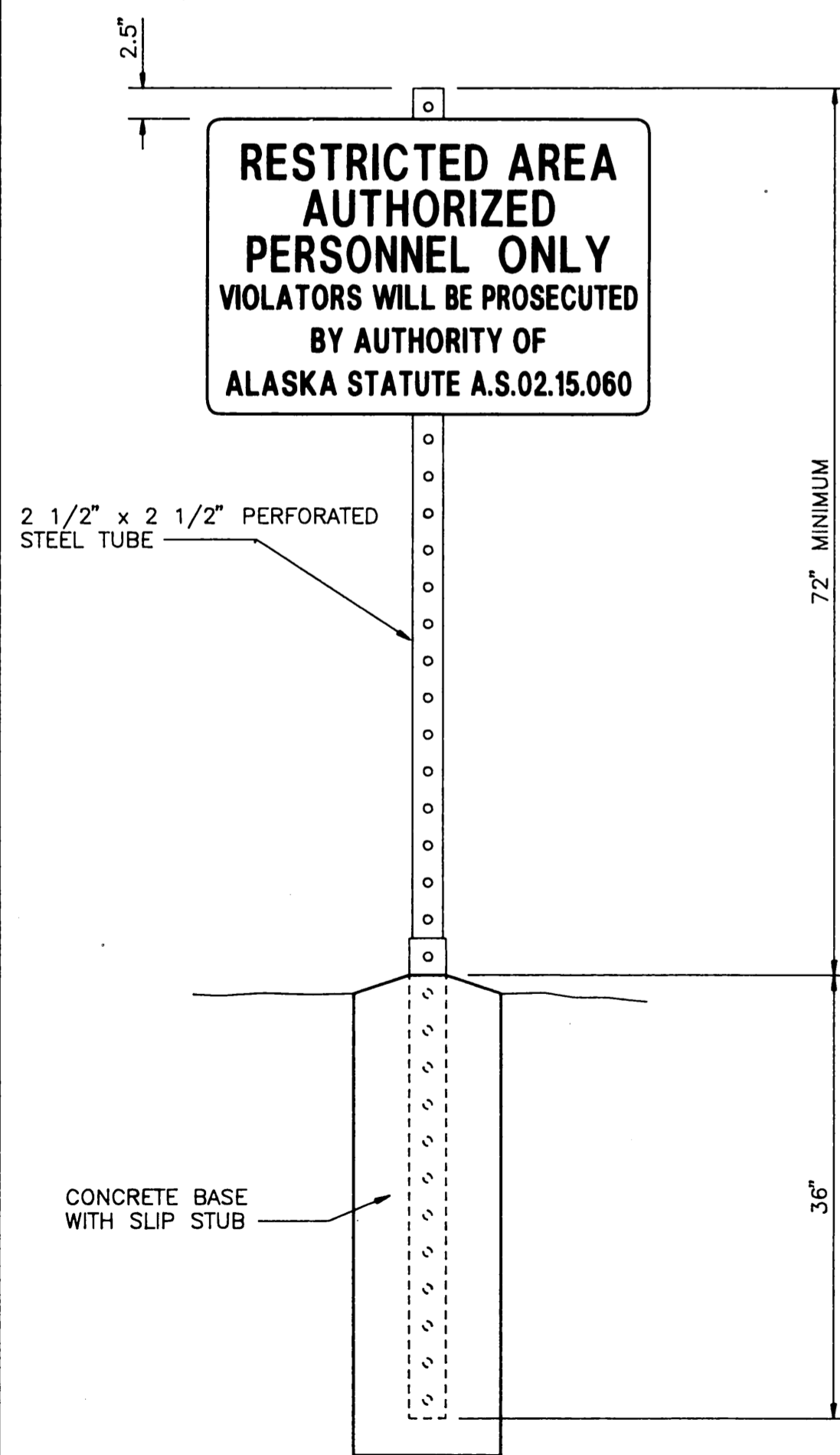
TYPE 1

NOTES

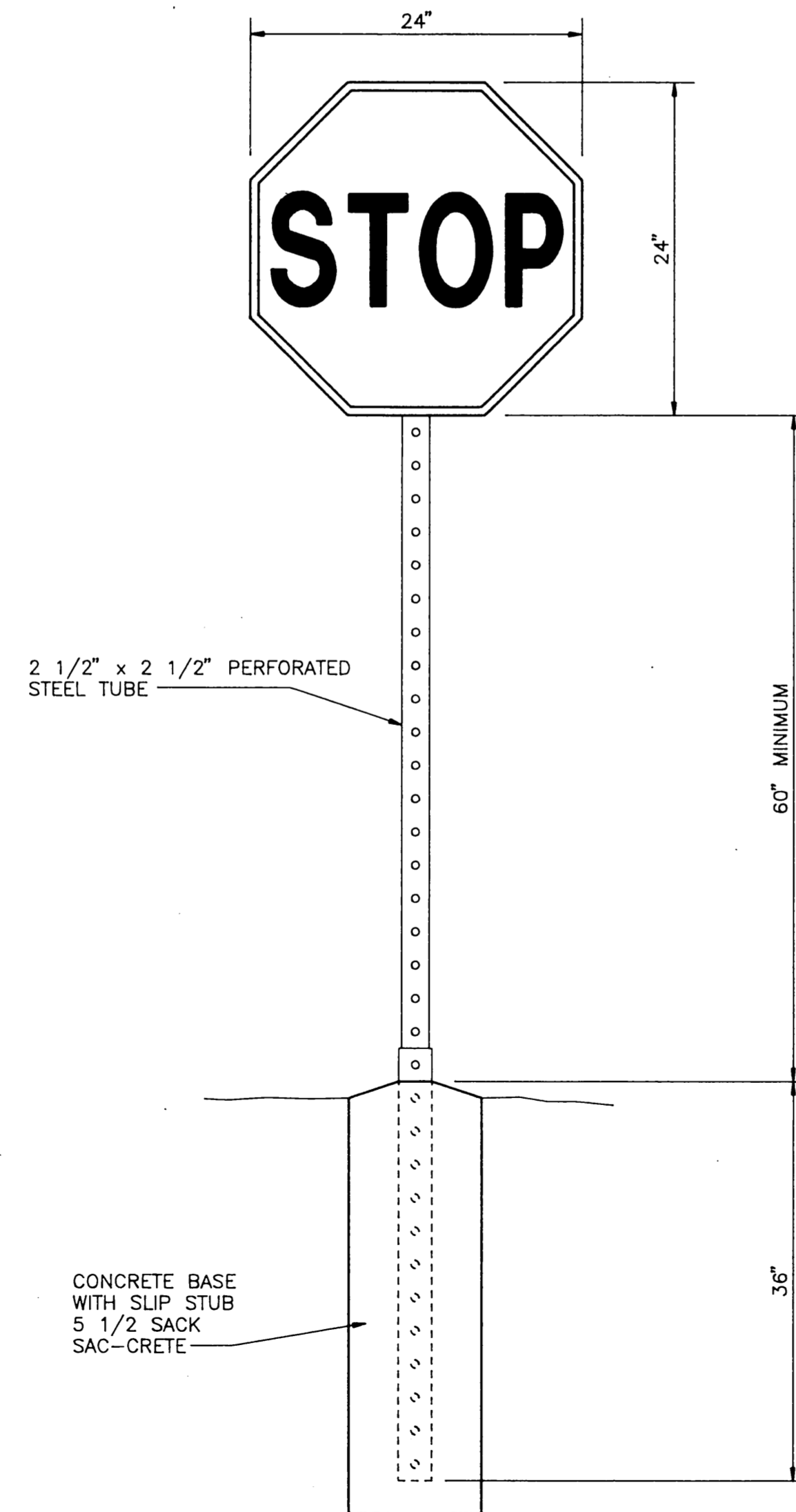
1. DETAILS SHOWN ARE TO INDICATE GENERAL DESIGN ONLY. DIMENSIONS AND DESIGN MAY VARY AMONG THE MANUFACTURERS.
2. PIPE AND TUBE POST SHALL HAVE A WEATHER TIGHT CAP. DRIVE CAPS SHALL BE USED ON POSTS BEING DRIVEN.
3. TOP OF POST, MOUNTING BRACKETS SHALL HAVE A MINIMUM CLEARANCE OF 3" FROM TOP EDGE OF SIGN.
4. ALL SIGN MOUNTING FASTENERS ON SIGN FACE SHALL BE PAINTED AS CLOSELY AS POSSIBLE IN MATCHING COLOR OF SIGN FACE.
5. ALL SIGNS, ZEES, AND BRACES MOUNTED TO THE POSTS SHALL BE ATTACHED WITH 5/16" BOLTS.
6. ALL STEEL NUTS, BOLTS, AND WASHERS SHALL BE GALVANIZED TO A.S.T.M. A-153.
7. ALL ALUMINUM NUTS, BOLTS, AND WASHERS SHALL BE ANODIZED.
8. FASTENER SPECIFICATION TABLE. 3 PER SIGN.

FASTENERS		ALUMINUM	STEEL	STAINLESS STEEL
BOLTS	MACHINE, CARRIAGE, "U"	2024-T4	A-307	A-276
NUTS	REGULAR	6061-T6	A-307	A-276
	LOCK	2017-T4		
WASHERS		2024-T4	A-36	A-276
"J" BOLTS				A-276
POST CLIPS		356-T6		

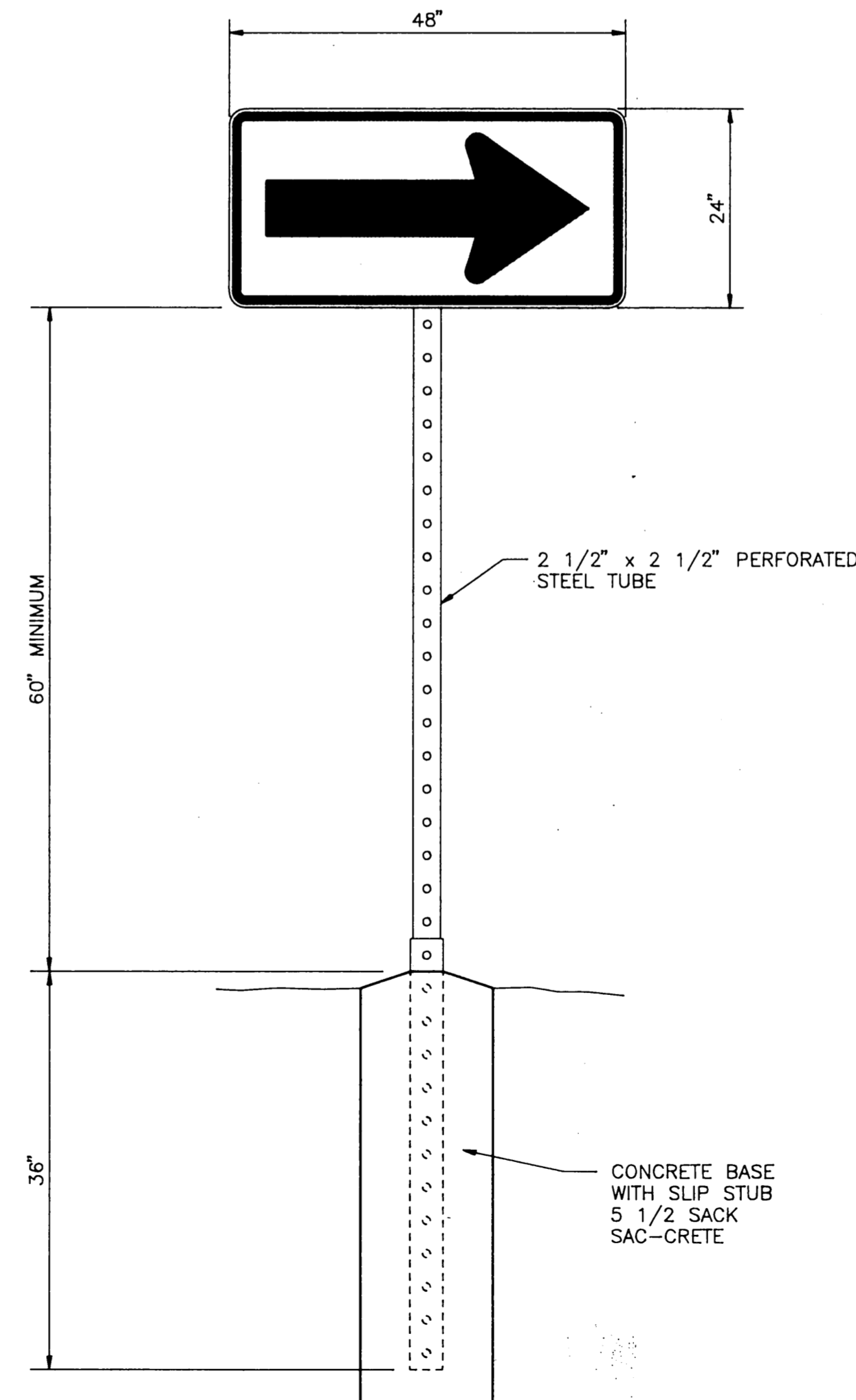
9. SIGN SHAPES AND COLORS SHALL CONFORM TO THE ALASKA TRAFFIC MANUAL, ALASKA SIGN DESIGN SPECIFICATIONS, AND THE ALASKA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.



TI-3 & TYPE 1  
(AS PER ALASKA TRAFFIC MANUAL)

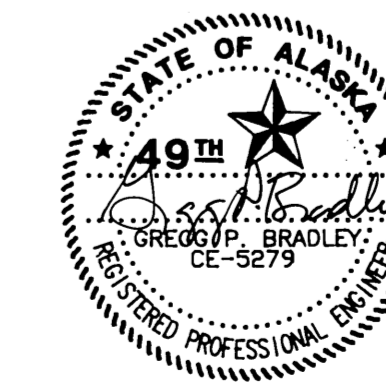


R1-1  
(AS PER ALASKA TRAFFIC MANUAL)



W1-6  
(AS PER ALASKA TRAFFIC MANUAL)

TYPICAL SIGN DETAILS



STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
NONDALTON AIRPORT  
58617  
A.I.P. No. 3-02-0200-01  
STANDARD SIGN DETAILS

APPROVED	<i>Steve Van Horn</i>	DESIGN SECTION CHIEF
APPROVED	<i>Greg P. Bradley</i>	PROJECT MANAGER
BY	DATE	CHANGED
WV	2-9-95	AS-BUILT
SCALE	NO SCALE	REVISIONS
DESIGNED	DATE	DRAWN
VW	8-17-92	DLB
CHECKED	DATE	SHEET
90	8-17-92	27 OF 27

