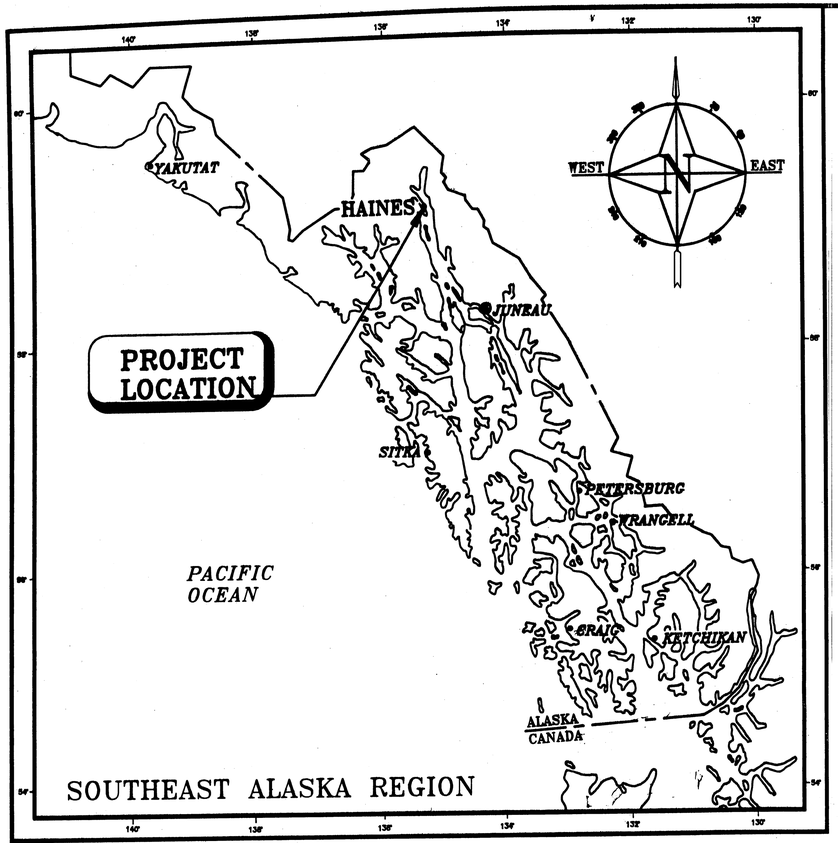


STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION
DESIGN AND CONSTRUCTION DIVISION

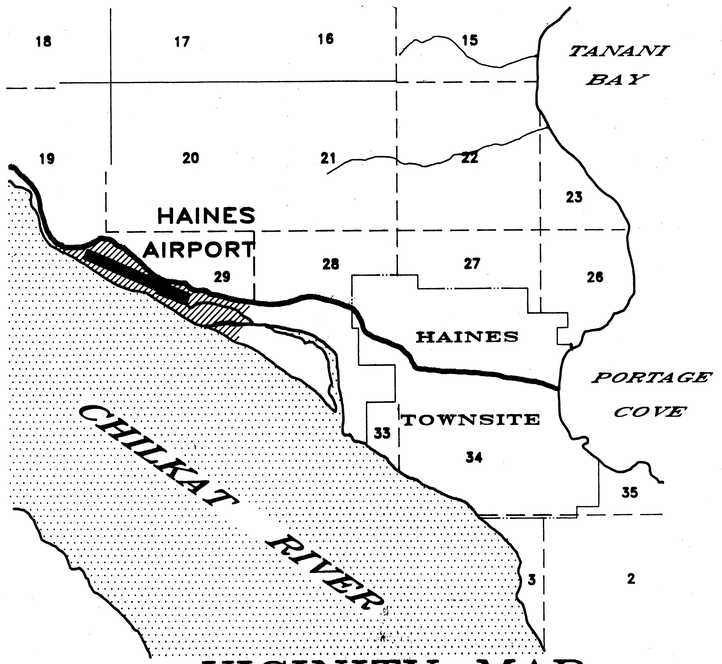
HAINES AIRPORT IMPROVEMENTS

CONSTRUCTION OF 100' X 4,000' RUNWAY, TAXIWAYS, APRON, AND RELATED WORK

A.I.P. NO. 3-02-0112-03
STATE NO. 69523
1990

DESIGN DATA

RUNWAY SAFETY AREA	–	150' x 4600'
TAXIWAY SAFETY AREA	–	100' x 4000'
RUNWAY	–	100' x 4000'
TAXIWAY	–	75' x 4000'
AIRPORT CATEGORY	–	GENERAL UTILITY I
RUNWAY SURFACE	–	ASPHALT CONCRETE



VICINITY MAP

INDEX OF SHEETS

AS-BUILT PLANS

CONTRACTOR : NORTHERN TIMBER CORPORATION
ORIGINAL CONTRACT AMOUNT : 3,812,954.32
PROJECT ENGINEER : GREG BROWNING
START DATE : OCTOBER 1990
END DATE : JULY 1993

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEASTERN REGION DESIGN SECTION

APPROVED G Mansell S.E. Region Design Chief Date 8/10/90

APPROVED E.W. Barnell Director, S.E. Region Design & Construction Date 8/10/90

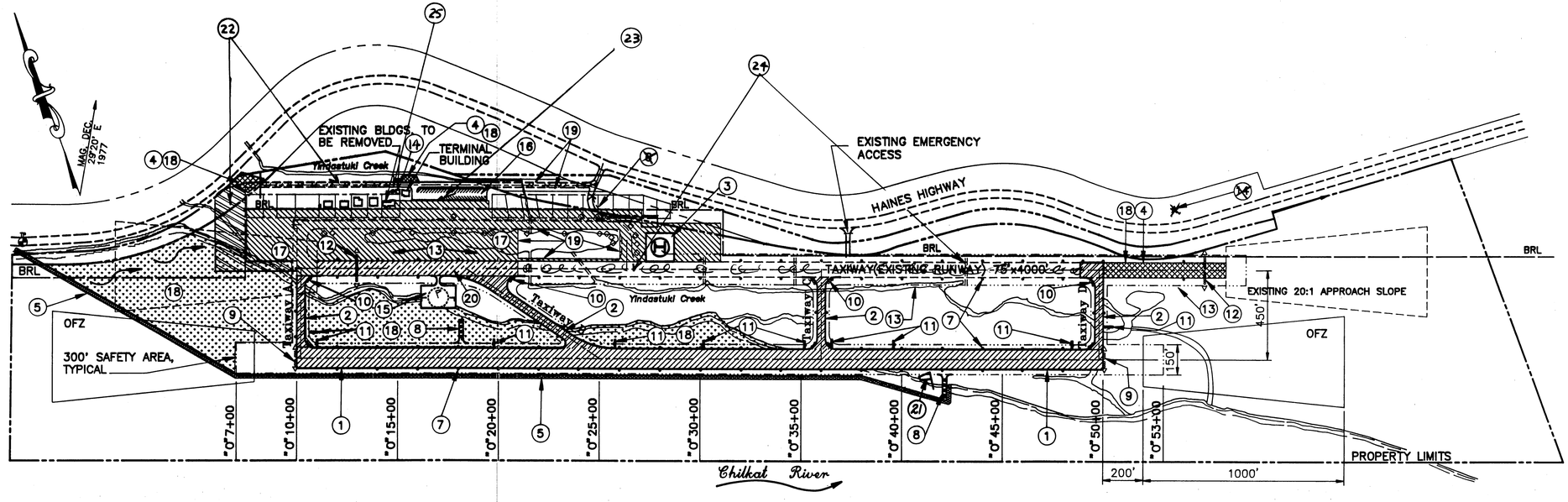
PROJECT NUMBER: 69523

DATE: AUGUST 1990

SHEET 1 OF 39

ENGINEER'S SEAL

STATE OF ALASKA 49th
Tracy W. Moore
CE-4032
REGISTERED PROFESSIONAL ENGINEER



PROPOSED IMPROVEMENTS

1. CONSTRUCT NEW RUNWAY 100'x4000' WITH 150'x4600' SAFETY AREA
2. CONSTRUCT NEW TAXIWAY RAMPS (40' WIDE) (79' SAFETY AREA)
3. CONSTRUCT HELIPAD
4. REMOVE EXISTING FILL AND CONVERT TO WETLANDS
5. CONSTRUCT DIVERSION DIKE
6. ~~CONSTRUCT NEW ACCESS ROADS~~
7. INSTALL NEW MIRL SYSTEM
8. INSTALL NEW PAPI SYSTEM
9. INSTALL NEW REIL LIGHTS & THRESHOLD LIGHTS
10. INSTALL NEW MITL SYSTEM / CONVERT EXISTING MIRL TO MITL
11. INSTALL NEW RUNWAY / TAXIWAY SIGNS
12. REMOVE EXISTING REIL LIGHTS & THRESHOLD LIGHTS
13. REMOVE EXISTING VASI LIGHTS
14. INSTALL AIRPORT BEACON
15. RELOCATE LIGHTED WINDCONE AND CONSTRUCT NEW SEGMENTED CIRCLE WITH TRAFFIC PATTERN
16. CONSTRUCT VEHICLE PARKING AREAS
17. CONSTRUCT NEW APRON WITH TIE-DOWNS AND DRAINAGE SYSTEM
18. WETLAND CREATION
19. SECURITY FENCE
20. OVERLAY PORTION EXISTING RUNWAY
21. NEW LIGHTED WINDCONE
22. APRON EXTENSION & "T" HANGAR AREA & ACCESS ROAD PAVED
23. KIOSK
24. TAXIWAY EXTENSION PAVING
25. NEW BEACON LOCATION

GENERAL NOTES :

1. GRADES AND LAYOUTS AS SHOWN ON THE PLANS ARE SUBJECT TO MINOR REVISIONS.
2. PIPE CONDUIT LENGTHS AND LOCATIONS ARE APPROXIMATE AND ARE SUBJECT TO MINOR REVISIONS.
3. AERIAL TELEPHONE FACILTIES AND UNDERGROUND ELECTRICAL SERVICE WILL BE RELOCATED BY OTHERS DURING THE PROJECT.
4. FISHERY PONDS AND CREEK RELOCATION WORK NOT SHOWN ON THIS DRAWING.
5. LOCATION OF EXISTING OVERHEAD AND UNDERGROUND UTILITIES IS APPROXIMATE AND REQUIRE FIELD VERIFICATION. THE EXISTING POWER SUPPLY TO THE TERMINAL WILL BE RELOCATED BY OTHERS DURING THE CONTRACT.
6. WASTE FILL MATERIAL SHALL BE STOCKPILED IN AREAS DESIGNATED FOR WETLANDS CREATION. ALTERNATE SITES MAY BE USED WITH PRIOR APPROVAL.

GRAPHIC SCALE

300' 0 150' 300' 600' 1200'

(IN FEET)

AS-BUILT
B.A. 2-9-96

BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

HAINES AIRPORT
SITE PLAN

DESIGNED BY: T.W. MOORE	PROJECT No. 69523
DRAWN BY: AutoCAD / B.W.B.	DATE: AUGUST 1990
CHECKED BY: C. HAKARI	SHEET 2 OF 39

ENGINEER'S SEAL
STATE OF ALASKA
49TH
Tracy W. Moore
CE #4932
REGISTERED PROFESSIONAL ENGINEER

ESTIMATE OF QUANTITIES

Item No.	Description	Unit	Total
100	MOBILIZATION AND DEMOBILIZATION	L.S.	ALL REQ'D.
111	TEMPORARY EROSION AND POLLUTION CONTROL	C.S.	ALL REQ'D.
120	DBE ADJUSTMENT	C.S.	ALL REQ'D.
121	CONSTRUCTION SURVEYING BY THE CONTRACTOR	L.S.	ALL REQ'D.
125	ENGINEERING TRANSPORTATION	L.S.	ALL REQ'D.
200[illegible]a	CLEARING	ACRE	~~32~~ 24
121d	SURVEYING FOR CO NO. 2	L.S.	ALL REQ
210a	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	L.S.	ALL REQ'D.
210b	BUILDING DEMOLITION	L.S.	ALL REQ'D.
210c	REMOVAL OF CULVERT PIPE	L.F.	~~786~~ 886
250a	EXCAVATION & DISPOSAL OF PAVEMENT MATERIAL	S.Y.	~~18,600~~ 20,149
330a	UNCLASSIFIED EXCAVATION	C.Y.	~~53,600~~ 62,918
330c	EMBANKMENT	C.Y.	~~330,000~~ 308,243
330e	FISHERIES POND EXCAVATION	C.Y.	~~17,000~~ 18,408
330f	SUBSIDENCE PLATFORMS	EACH	~~40~~ 38
350a	RIPRAP, CLASS II	C.Y.	~~14,500~~ 14,210
350b	RIPRAP, CLASS III	C.Y.	5,605 ~~5,700~~
351	INFILTRATION GALLERY	L.S.	ALL REQ'D.
400a	18-INCH CORRUGATED STEEL PIPE	L.F.	~~790~~ 914
400b	24-INCH CORRUGATED STEEL PIPE	L.F.	~~800~~ 854
400c	48-INCH CORRUGATED STEEL PIPE	L.F.	830
405	INLET, TYPE A	EACH	~~10~~ 12
412	WELL SYSTEM	L.S.	ALL REQ'D.
440a	CHAIN LINK FENCE, 8 FEET HIGH	L.F.	3,605 ~~3,800~~
440b	DRIVE-THRU SLIDE GATE (8'x20')	EACH	14
440c	PEDESTRIAN GATE (8'x4')	EACH	16
330H	FOUNDATION REPAIR	L.S.	ALL REQ
441	GATE OPERATOR	EACH	1
~~440D~~	FENCE FOR CO #2	L.F.	~~873~~
500a	SUBBASE COURSE	C.Y.	21,821 ~~27,600~~
510a	CRUSHED AGGREGATE BASE COURSE	TON	26,873 ~~35,800~~
551b	GEOTEXTILE, RIPRAP LINER	S.Y.	7,543 ~~16,200~~
551c	CUSHION BLANKET	C.Y.	2,515 ~~2,000~~
600a	BITUMINOUS PRIME COAT, CUTBACK	TON	~~115~~ 102
660a	ASPHALT CONCRETE	TON	~~17,542~~ 14,325
660c	ASPHALT CEMENT, AC-5	TON	~~937~~ 930
700c	STATE TRAFFIC MARKING PAINT	L.S.	ALL REQ'D.
610	BITUMINOUS TACK COAT, CSS-1	TON	5
722	SEGMENTED CIRCLE	L.S.	ALL REQ'D.
801	CURB AND GUTTER, STD.	L.F.	680
820a	TIE-DOWN ANCHORS	EACH	102
900a	SEEDING	ACRE	~~24~~ 29
900d	WASTE FILL	M.S.F.	~~1,010~~ 963
910	SURVEY MONUMENTS	EACH	4
920	STANDARD SIGNS	S.F.	~~23~~ 19

ESTIMATE OF QUANTITIES

Item No.	Description	Unit	Total
1000a	NEW REGULATOR, L-828	EACH	1
1000e	NEW MEDIUM INTENSITY RUNWAY MARKER LIGHT, L-861	EACH	~~36~~ 48
1000f	NEW TAXIWAY MARKER LIGHT, L-861T	EACH	~~48~~ 55
1000g	NEW HANDHOLE, L-867	EACH	~~5~~ 10
1000l	2" RIGID STEEL CONDUIT	L.F.	~~50~~ 85
1000k	2" PVC CONDUIT	L.F.	21,607 ~~15,675~~
1000L	UNDERGROUND CABLE #8 AWG, COPPER, 5KV TYPE "B", L-824	L.F.	24,413 ~~19,000~~
1000m	#8 X HHW INSULATED COPPER GROUND CONDUCTOR	L.F.	17,215 ~~14,000~~
1000o	REMOVE EXISTING RUNWAY LIGHTS	EACH	~~13~~ 49
1000q	GROUND ROD	EACH	~~12~~ 19
1000r	LIGHTED RUNWAY / TAXIWAY SIGNS	EACH	13
1000s	TAXIWAY LIGHT LENS	L.S.	ALL REQ'D.
1000t	ADJUST EXISTING HANDHOLE	EACH	~~8~~ 12
1010a	RELOCATED WIND CONE	L.S.	ALL REQ'D.
1010[illegible]	8-FOOT LIGHTED WIND CONE	L.S.	ALL REQ'D.
1025	OMNIDIRECTIONAL REIL L-859	PAIR	2
1030	PAPI-4, L-880, STYLE "A", CLASS II	EACH	2
1040	ADDITIONAL ELECTRICAL	L.S.	ALL REQ

ALTERNATE No. 1

1020	AIRPORT LIGHT BEACON AND BEACON POLE	L.S.	ALL REQ'D.
330a	EMBANKMENT CO #2	C.Y.	10,719
900D	ADDITIONAL STRIPING	L.S.	ALL REQ
930	KIOSK	L.S.	ALL REQ

ESTIMATING FACTORS

Item No.	Item	Factor
500a	SUBBASE COURSE	2.18 ~~2.13~~ TONS / C.Y.
510a	CRUSHED AGGREGATE BASE COURSE	2.18 ~~2.13~~ TONS / C.Y.
600a	BITUMINOUS PRIME COAT, CUTBACK	0.25 GAL/S.Y. & 256 GAL/TON
660a	ASPHALT CONCRETE	143 ~~126~~ LBS. / S.Y.-IN.
660c	ASPHALT CEMENT, AC-5	5.1 6.5% OF ITEM 660a

REMOVAL OF STRUCTURES & OBSTRUCTIONS

Station	Offset	Description
"A" 15+09	96' LT.	DRAINAGE STRUCTURE
"A" 17+00	93' LT.	DRAINAGE STRUCTURE
"A" 19+00	94' LT.	DRAINAGE STRUCTURE
"A" 11+00	20' RT.	40'x40' CONCRETE PAD
"M" 16+63	25' RT.	4-CONCRETE PEDESTAL GUARD POSTS
"M" 14+85	30' RT.	STORAGE BUILDING
"M" 14+60	90' RT.	2-STORY RESIDENCE
"M" 16+25	32' LT.	WELL, ELEC. WIRE & CONDUIT, WATERLINE-SAVLAGE PUMP

CULVERT REMOVAL SUMMARY

Station	Length	Comments
"M" 16+95, ℄	46'	
"A" 15+09, 22' LEFT TO 94' LEFT	72'	
"A" 15+09, 94' LEFT TO 240' LEFT	146'	STRUCTURE @ 240' LT. TO REMAIN. GROUT HOLE.
"A" 17+00, 12 LEFT TO 90' LEFT	78'	
"A" 19+00, 18' LEFT TO 92' LEFT	74'	
"T" ~~26~~ 30+45, 30' LEFT TO 240' LEFT	210'	
"T" 51+85, ℄	160'	

AS-BUILT
B.A. 2-9-96

ENGINEER'S SEAL
STATE OF ALASKA 49th
Tracy W. Moore
CE-4932
REGISTERED PROFESSIONAL ENGINEER

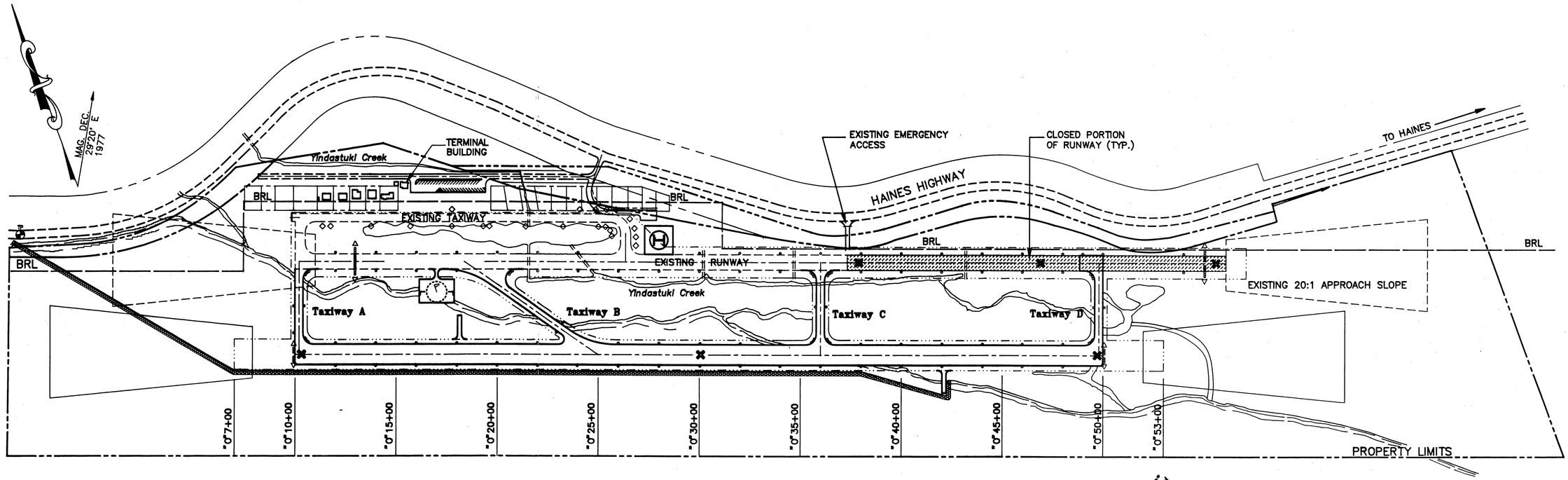
BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

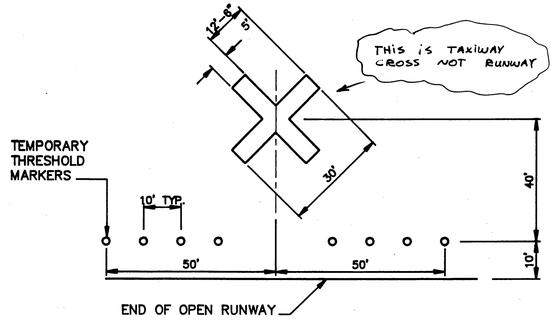
HAINES AIRPORT
ESTIMATE OF QUANTITIES

DESIGNED BY: T.W. MOORE	PROJECT No. 69523
DRAWN BY: AutoCAD / B.W.B.	DATE: AUGUST 1990
CHECKED BY: C. HAKARI	SHEET 3 OF 39



RUNWAY CLOSURE NOTES:

1. AT LEAST A 2,500' X 75' LANDING SURFACE ON THE EXISTING RUNWAY SHALL REMAIN OPEN TO AIRCRAFT TRAFFIC AT ALL TIMES, UNTIL THE NEW RUNWAY IS PAVED AND OPENED.
2. THE WEST 2,500' OF THE EXISTING RUNWAY MUST REMAIN OPEN TO AIRCRAFT TRAFFIC FROM MAY 20 THRU SEPTEMBER 10, UNLESS THE NEW PAVED RUNWAY HAS BEEN OPENED. BOTH EXISTING TAXIWAY RAMPS SHALL REMAIN OPEN THROUGH THE SAME TIME PERIOD.
3. EQUIPMENT SHALL NOT BE ALLOWED ON THE OPEN PORTION OF THE EXISTING RUNWAY, OR WITHIN 200' OF IT'S TEMPORARY THRESHOLD. WHEN AIRCRAFT ARE APPROACHING OR DEPARTING, EQUIPMENT SHALL NOT BE WITHIN 100' OF THE OPEN RUNWAY CENTERLINE.
4. RUNWAY LIGHTS AND THRESHOLD LIGHTS ALONG THE OPEN PORTION OF THE RUNWAY SHALL REMAIN OPERATIONAL AT ALL TIMES. EXISTING THRESHOLD LIGHTS SHALL BE RELOCATED BY THE CONTRACTOR, AS NECESSARY TO IDENTIFY THE TEMPORARY RUNWAY LIMITS. RUNWAY LIGHTS ALONG THE CLOSED PORTION OF THE EXISTING RUNWAY SHALL BE REMOVED OR COVERED.
5. EXISTING RUNWAY NUMBERS SHALL BE COVERED OR REMOVED AT THE END OF THE RUNWAY THAT IS CLOSED.



CLOSED RUNWAY MARKER

NOT TO SCALE

CLOSED RUNWAY MARKER NOTES:

1. CROSSES SHALL BE YELLOW IN COLOR AND MAY BE CONSTRUCTED OF PLASTIC OR OTHER SUITABLE MATERIAL.
2. CROSSES SHALL BE PLACED AT EACH END OF AND IN THE MIDDLE OF THE CLOSED PORTION OF THE EXISTING RUNWAY.
3. CROSSES SHALL BE MAINTAINED ON THE NEW RUNWAY AS CONSTRUCTION PROCEEDS FROM TOP OF EMBANKMENT THROUGH OPENING TO TRAFFIC.

AS-BUILT
B.A. 2-9-96

BY:	DATE:	DESCRIPTION OF CHANGE:

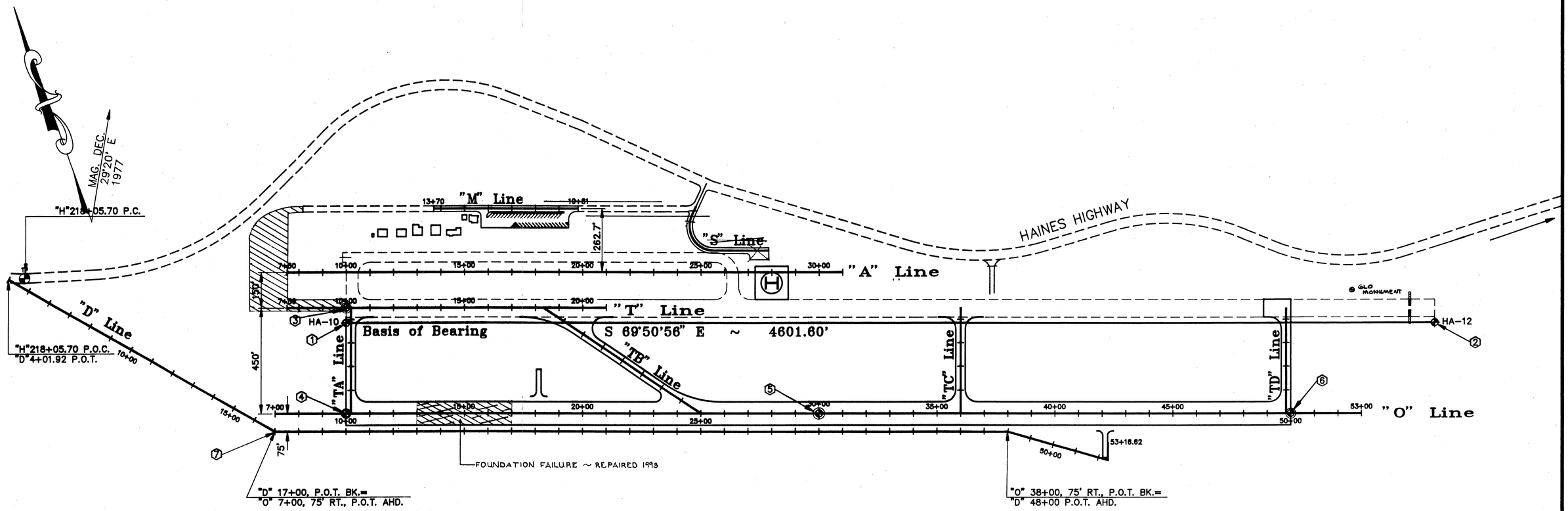
RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

HAINES AIRPORT
RUNWAY CLOSURE PLAN

DESIGNED BY: T.W. MOORE	PROJECT No. 69523
DRAWN BY: AutoCAD / B.W.B.	DATE: AUGUST 1990
CHECKED BY: C. HAKARI	SHEET 4 OF 39

ENGINEER'S SEAL
STATE OF ALASKA
49TH
Tracy W. Moore
CE #4932
REGISTERED PROFESSIONAL ENGINEER



COORDINATE TABLE

Point No.	Northing	Easting	Elevation
①	19985.814	38348.379	18.51
②	18400.584	42868.302	16.02
③	20034.361	38366.215	
④	19611.949	38211.077	23.74
⑤	18922.445	40088.464	22.00
⑥	18232.940	41965.852	20.26
⑦	19644.972	37903.612	21.50

ABBREVIATIONS

REIL	–	RUNWAY END IDENTIFICATION LIGHT
MIRL	–	MEDIUM INTENSITY RUNWAY LIGHT
PAPI	–	PRECISION APPROACH PATH INDICATOR
MITL	–	MEDIUM INTENSITY TAXIWAY LIGHT
VASI	–	VISUAL APPROACH SLOPE INDICATOR
BST	–	BITUMINOUS SURFACE TREATMENT
TORR	–	TOP OF RIPRAP
BRL	–	BUILDING RESTRICTION LINE

LEGEND

- RIPRAP DIKE
- EXISTING MONUMENT
- NEW MONUMENT
- EXISTING GROUND
- EXISTING PROPERTY LINE
- FUTURE PROPERTY LINE
- BUILDING RESTRICTION LINE (BRL)
- SUBSIDENCE PLATFORM
- APRON EXTENSION & "T"-HANGAR AREA

NOTES :

1. FOR "D" LINE LAYOUT, SEE SHEET 21.
2. BASIS OF VERTICAL AND HORIZONTAL CONTROL ARE STATED ON SHEET No. 7.

AS-BUILT
B.A. 2-9-96

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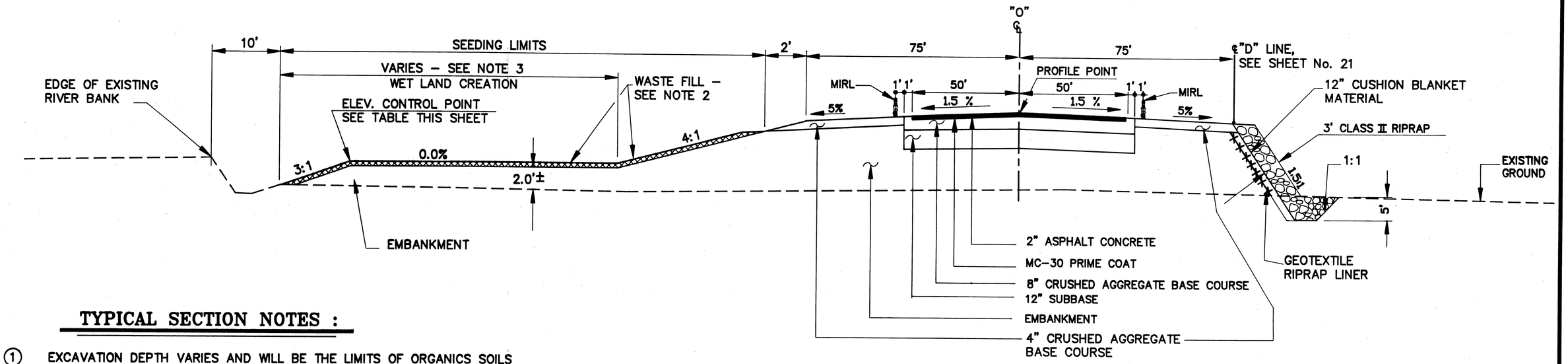
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

HAINES AIRPORT
LAYOUT SHEET

DESIGNED BY: C. HAKARI	PROJECT No. 69523
DRAWN BY: AutoCAD / B.W.B.	DATE: AUGUST 1990
CHECKED BY: T.W. MOORE	SHEET 5 OF 39

ENGINEER'S SEAL
STATE OF ALASKA
49TH
Tracy W. Moore
CE #4932
REGISTERED PROFESSIONAL ENGINEER



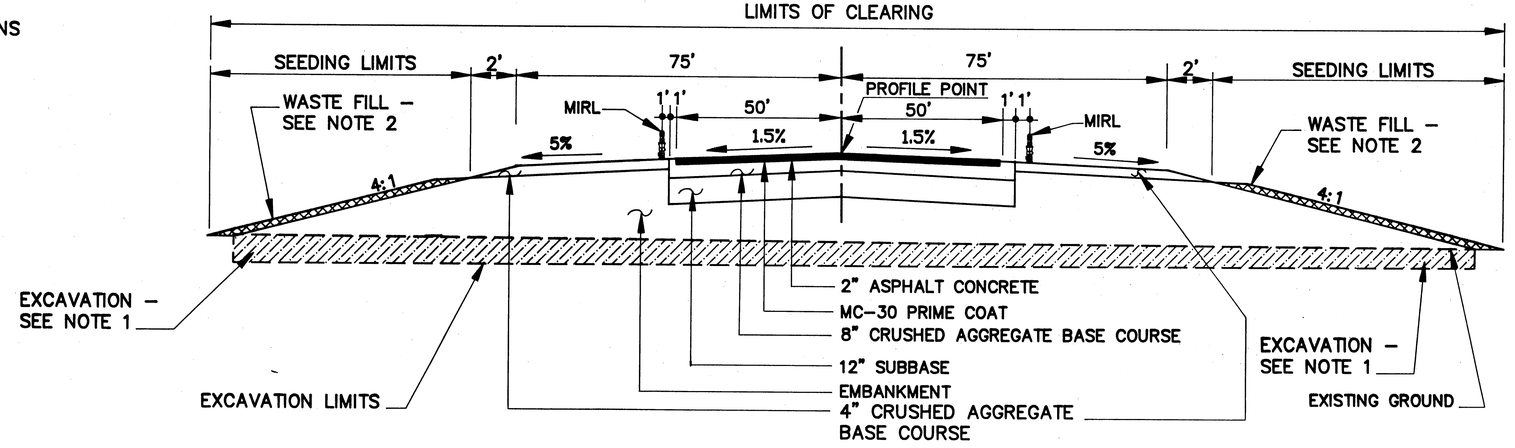
TYPICAL SECTION NOTES :

1. EXCAVATION DEPTH VARIES AND WILL BE THE LIMITS OF ORGANICS SOILS OR AS DIRECTED.
2. WASTE FILL – GRUBBING DEBRIS, EXCAVATION OF ORGANIC SOILS AND/OR TOPSOIL – SHALL BE PLACED ON ALL NEW EMBANKMENT SLOPES FOR SEED PROPAGATION. DEPTH SHALL BE 2" MINIMUM.
3. WIDENED EMBANKMENT FOR WETLAND CREATION SHALL EXTEND FROM STATION "D" 4+50 TO STATION "D" 17+00 AND STATION "O" 7+00 TO STATION "O" 33+00. SEE SHEETS No. 2 AND 21.
4. IN RUNWAY SAFETY AREAS, STATIONS "O" 7+00 TO "O" 10+00 AND STATIONS "O" 50+00 TO "O" 53+00, PLACE AN ADDITIONAL 2" CRUSHED AGGREGATE BASE IN LIEU OF THE 2" ASPHALT CONCRETE.

ELEVATION CONTROL POINTS	
STATION	ELEVATION
"D" 4+50	15.50
"D"17+00="O"7+00	15.00
"O" 10+50	15.00
"O" 33+00	14.00
ELEVATIONS SHALL VARY LINEARLY BETWEEN CONTROL POINTS. OFFSETS ARE TO THE LEFT AND ARE VARIABLE. SEE RUNWAY TYPICAL THIS SHEET AND DIKE TYPICAL ON SHEET No. 21.	

RUNWAY

STA. "O"7+00 TO "O"42+25



RUNWAY

STA. "O"42+25 TO "O"53+00

AS BUILT
B.T. 2-9-96

BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

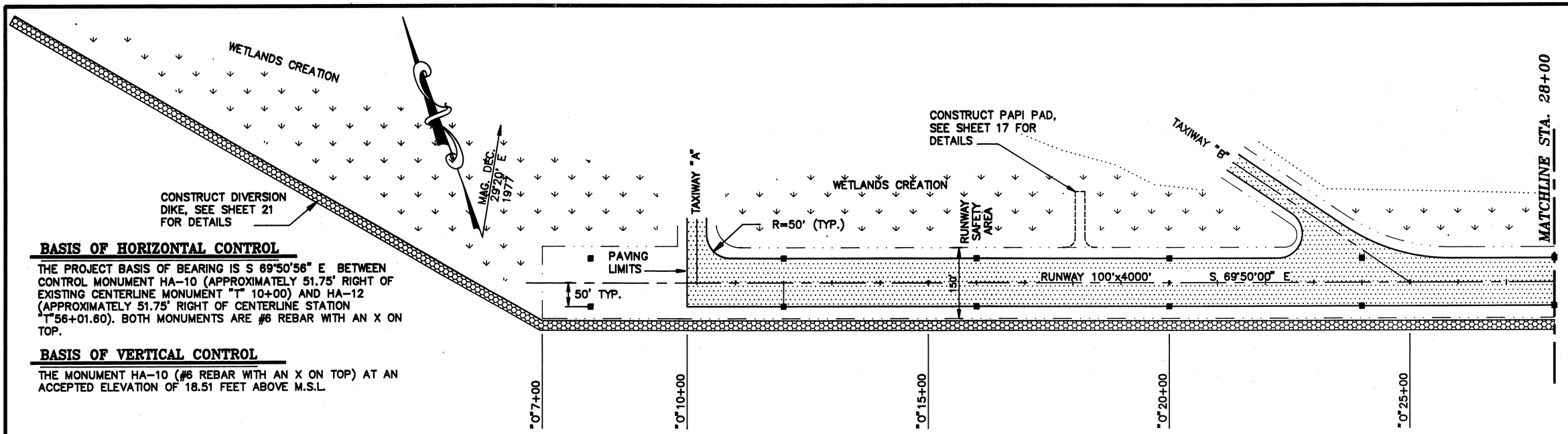
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

HAINES AIRPORT

RUNWAY TYPICAL SECTIONS

DESIGNED BY: T.W. MOORE	PROJECT No. 69523
DRAWN BY: AutoCAD / B.W.B.	DATE: AUGUST 1990
CHECKED BY: C. HAKARI	SHEET 6 OF 39

ENGINEER'S SEAL
STATE OF ALASKA 49th
Tracy W. Moore
Tracy W. Moore CE-6837
REGISTERED PROFESSIONAL ENGINEER

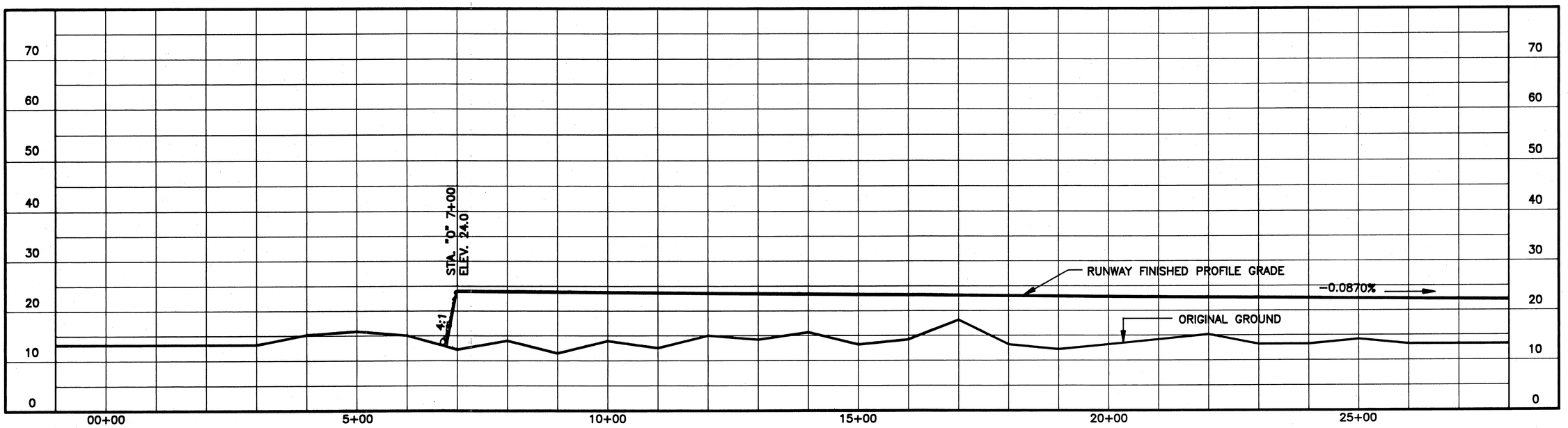


BASIS OF HORIZONTAL CONTROL

THE PROJECT BASIS OF BEARING IS S 69°50'56" E BETWEEN CONTROL MONUMENT HA-10 (APPROXIMATELY 51.75' RIGHT OF EXISTING CENTERLINE MONUMENT "T" 10+00) AND HA-12 (APPROXIMATELY 51.75' RIGHT OF CENTERLINE STATION "T"56+01.60). BOTH MONUMENTS ARE #6 REBAR WITH AN X ON TOP.

BASIS OF VERTICAL CONTROL

THE MONUMENT HA-10 (#6 REBAR WITH AN X ON TOP) AT AN ACCEPTED ELEVATION OF 18.51 FEET ABOVE M.S.L.



AS-BUILT
B.A. 2-9-96

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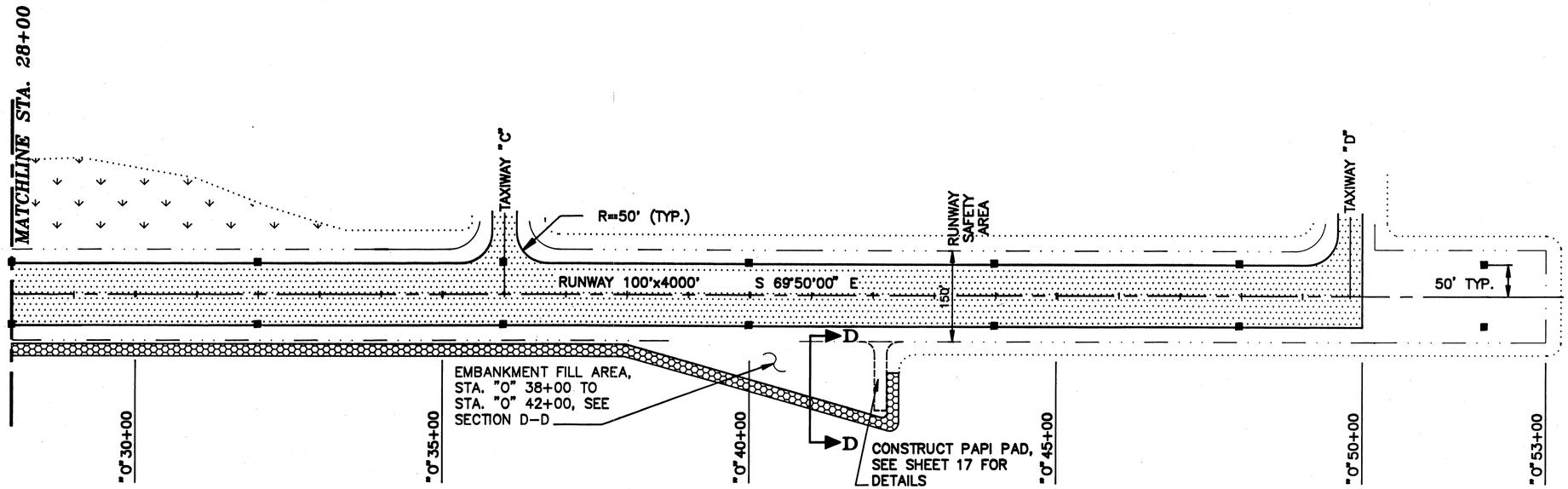
RECORD OF REVISIONS

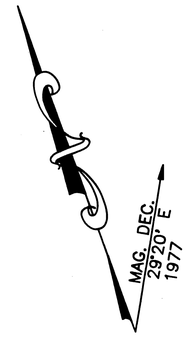
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

HAINES AIRPORT
RUNWAY PLAN AND PROFILE

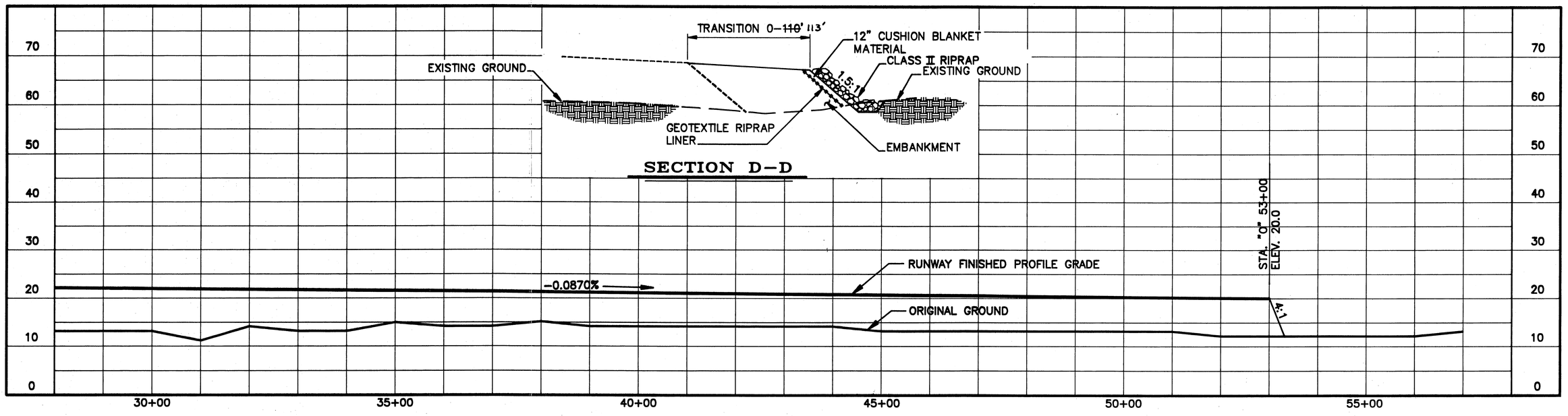
DESIGNED BY: T.W. MOORE	PROJECT No. 69523
DRAWN BY: AutoCAD / B.W.B.	DATE: AUGUST 1990
CHECKED BY: C. HAKARI	SHEET 7 OF 39

ENGINEER'S SEAL
STATE OF ALASKA
49TH
Tracy W. Moore
CE #4932
REGISTERED PROFESSIONAL ENGINEER





SECTION D-D



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STATE OF ALASKA
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HAINES AIRPORT
RUNWAY PLAN AND PROFILE

DESIGNED BY: T.W. MOORE	PROJECT No. 69523
DRAWN BY: AutoCAD / B.W.B.	DATE: AUGUST 1990
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ENGINEER'S SEAL
STATE OF ALASKA
49TH
Tracy W. Moore
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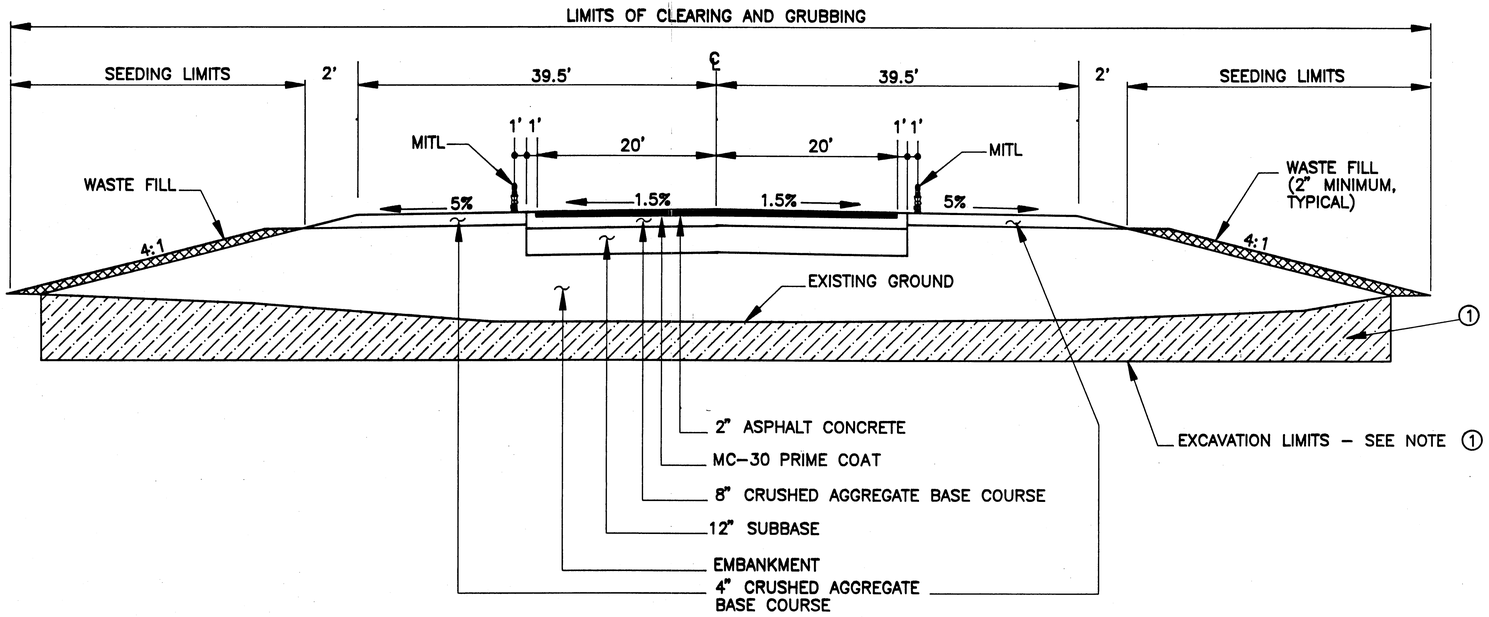
REGISTERED PROFESSIONAL ENGINEER

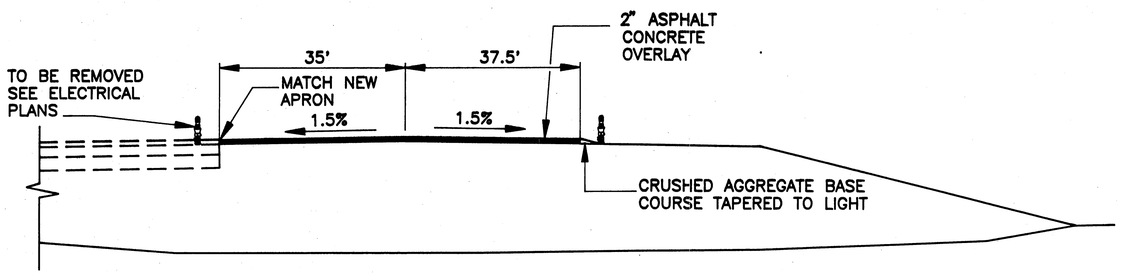


TAXIWAY

A, B, C, & D

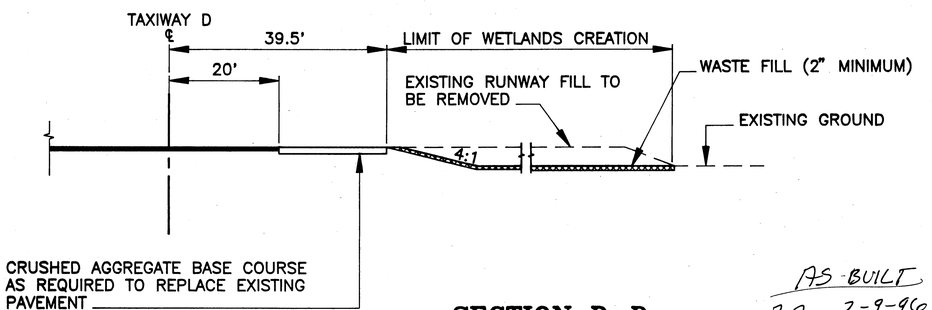
TYPICAL SECTION NOTES :

① EXCAVATION DEPTH VARIES AND WILL BE THE LIMITS OF ORGANICS SOILS OR AS DIRECTED BY THE ENGINEER.



TAXIWAY

STA. "T" 11+00 TO STA. "T" 21+00



SECTION D-D

SEE SHEET 10 FOR PLAN VIEW

AS-BUILT
B.A. 2-9-96

BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

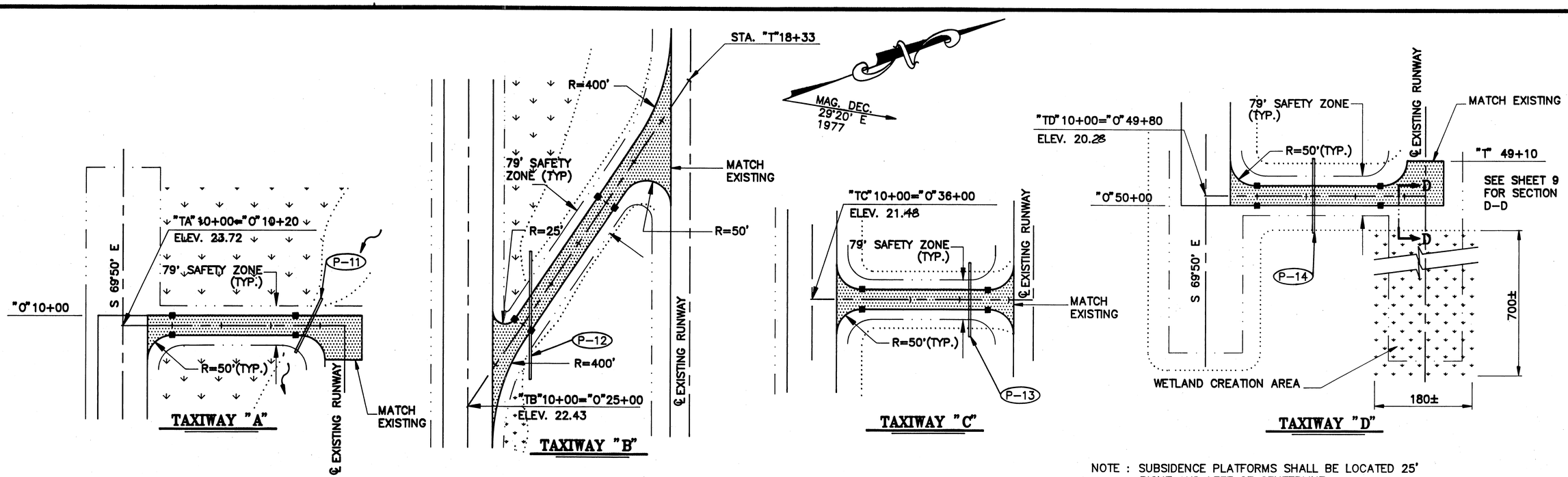
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

HAINES AIRPORT

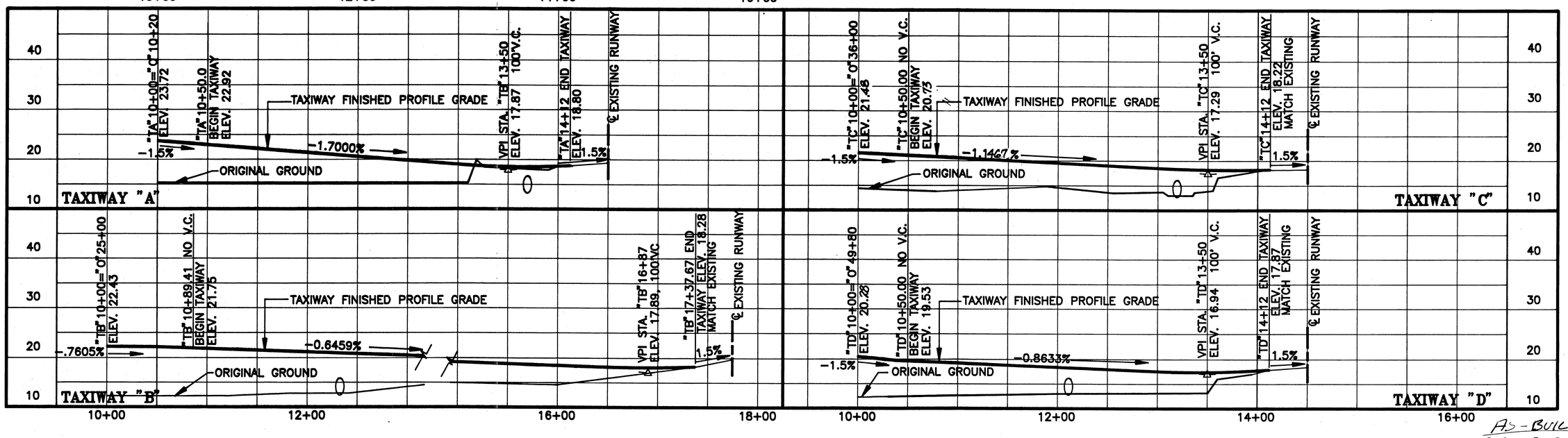
TAXIWAY TYPICAL SECTION

DESIGNED BY: T.W. MOORE	PROJECT No. 69523
DRAWN BY: AutoCAD / B.W.B.	DATE: AUGUST 1990
CHECKED BY: C. HAKARI	SHEET 9 OF 39

ENGINEER'S SEAL
STATE OF ALASKA
49th
Tracy W. Moore
CE-4932
REGISTERED PROFESSIONAL ENGINEER



NOTE : SUBSIDENCE PLATFORMS SHALL BE LOCATED 25' RIGHT AND LEFT OF CENTERLINE.



AS-BUILT
B.A. 2-9-96

BY:	DATE:	DESCRIPTION OF CHANGE:

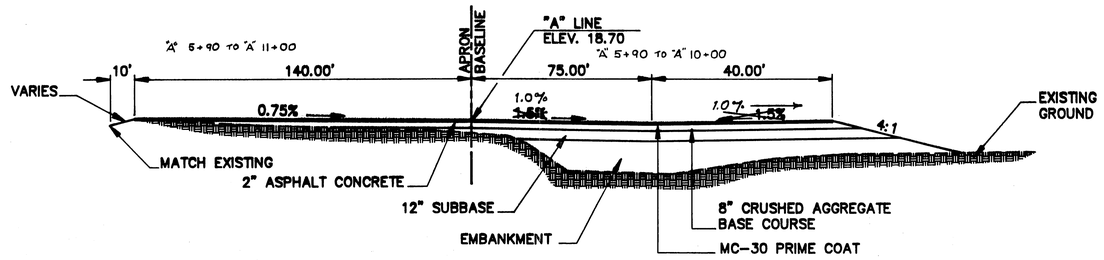
RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

HAINES AIRPORT
TAXIWAYS PLAN AND PROFILE

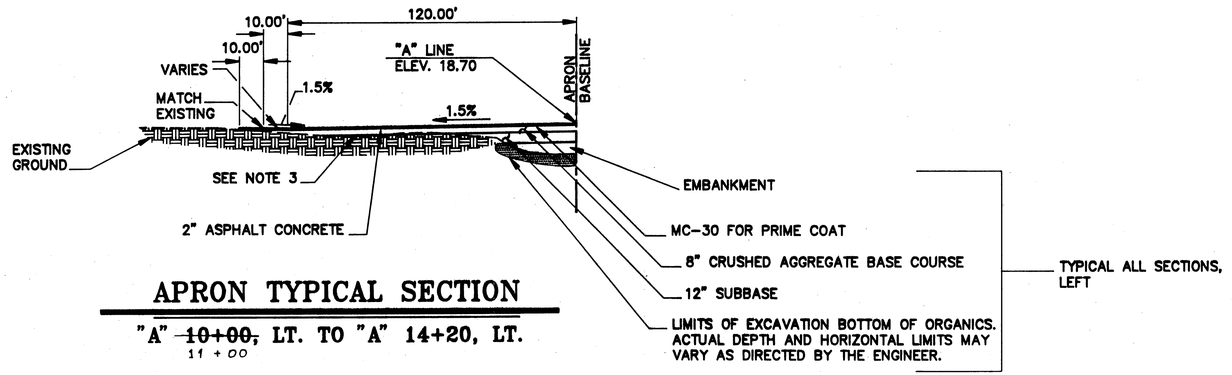
DESIGNED BY: T.W. MOORE	PROJECT No. 69523
DRAWN BY: AutoCAD / B.W.B.	DATE: AUGUST 1990
CHECKED BY: C. HAKARI	SHEET 10 OF 39

ENGINEER'S SEAL
STATE OF ALASKA 49TH
Tracy W. Moore CE #4932
REGISTERED PROFESSIONAL ENGINEER



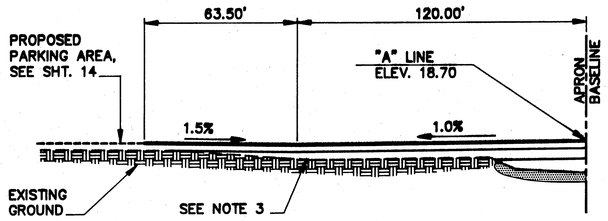
APRON TYPICAL SECTION

"A" 7+50 TO "A" 10+00



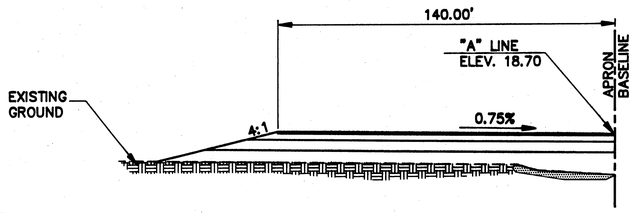
APRON TYPICAL SECTION

"A" ~~10+00,~~ LT. TO "A" 14+20, LT.
11 + 00



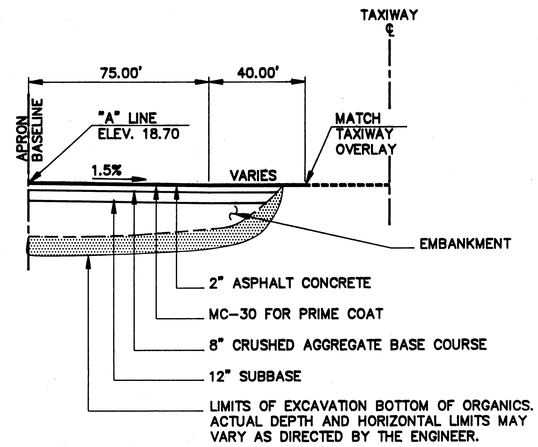
APRON TYPICAL SECTION

"A" 14+20, LT. TO "A" 19+51, LT.



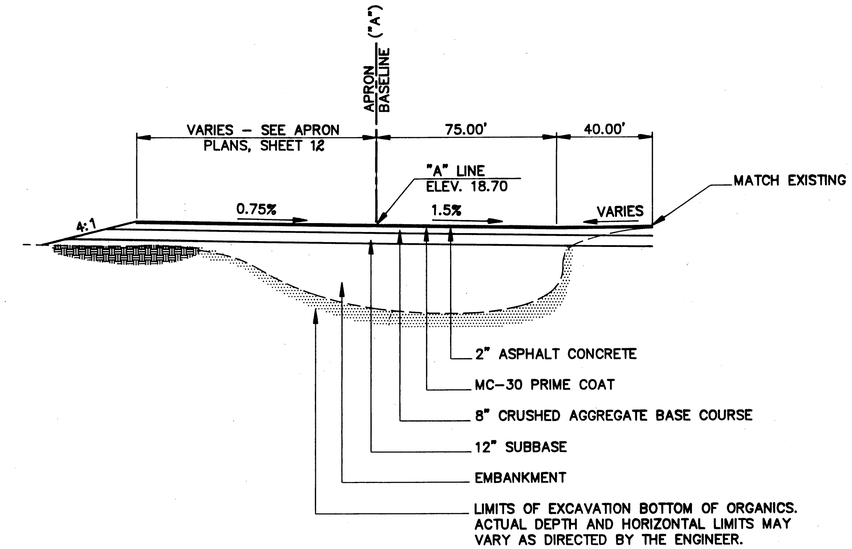
APRON TYPICAL SECTION

"A" 19+51, LT. TO "A" 21+00, LT.



APRON TYPICAL SECTION

"A" 10+00, RT. TO "A" 21+00, RT.



HELIPAD TYPICAL SECTION

"A" 21+00 TO "A" 31+00

NOTES :

1. ACTUAL LIMITS OF ASPHALT CONCRETE, PRIME COAT AND CRUSHED AGGREGATE BASE COURSE VARY. SEE APRON PLANS ON SHEET 12 FOR PAVING LIMITS.
2. TRANSITIONS BETWEEN TYPICALS SHALL BE 100 FEET.
3. EXCAVATION OF THE EXISTING TAXIWAY AND APRON IS NOT REQUIRED FOR OBTAINING FULL DEPTH STRUCTURAL SECTION. BLEND NEW MATERIAL WITH EXISTING WHERE MATCHING INTO EXISTING STRUCTURAL SECTION.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

AS-BUILT
B.A. 2-9-96

BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

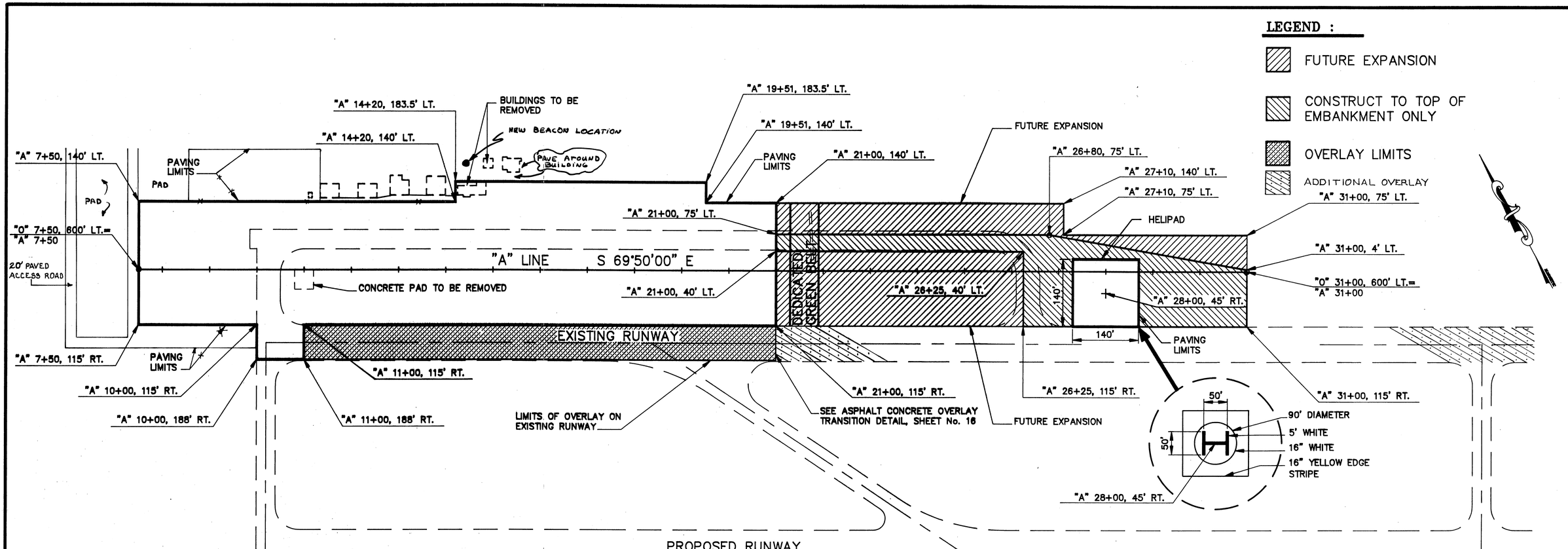
HAINES AIRPORT

APRON TYPICAL SECTIONS

DESIGNED BY: C. HAKARI	PROJECT No. 69523
DRAWN BY: AutoCAD / B.W.B.	DATE: AUGUST 1990
CHECKED BY: T.W. MOORE	SHEET 11 OF 39

ENGINEER'S SEAL

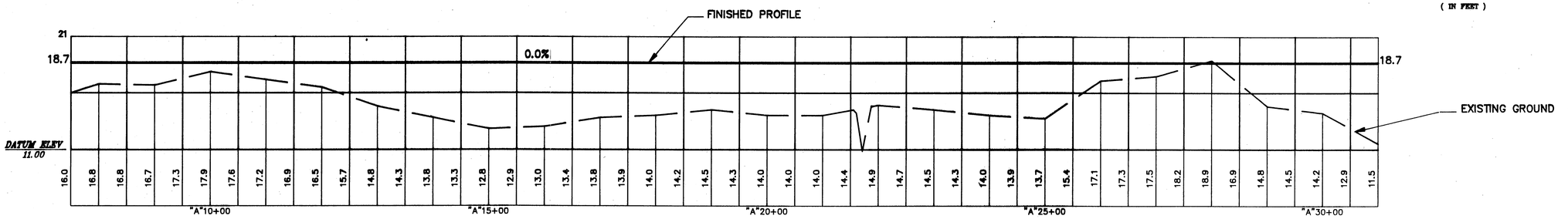
STATE OF ALASKA 49th
Tracy W. Moore CE-4932
REGISTERED PROFESSIONAL ENGINEER



GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)



AS-BUILT
B.A. 2-9-96

BY:	DATE:	DESCRIPTION OF CHANGE:

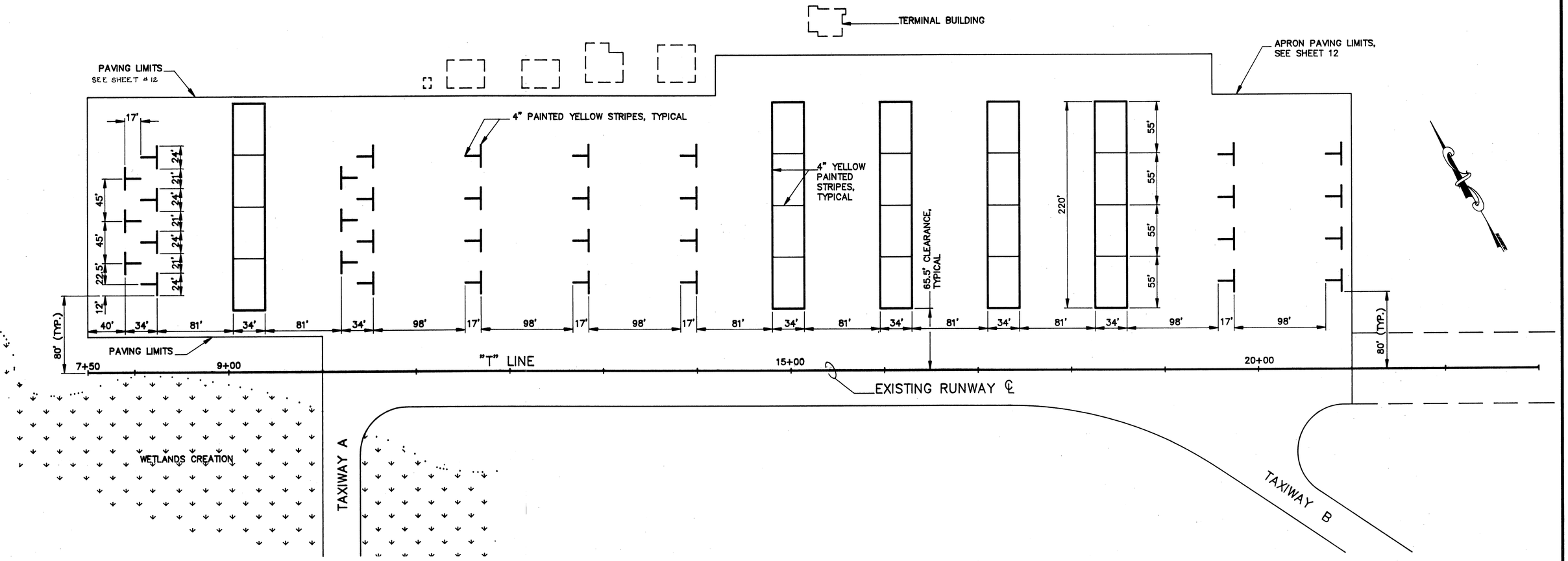
RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

HAINES AIRPORT
APRON PLAN AND PROFILE

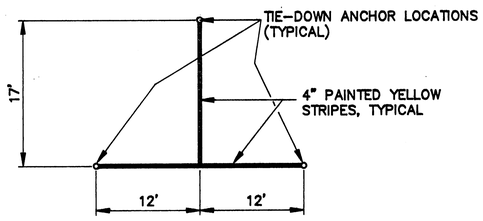
DESIGNED BY: C. HAKARI	PROJECT No. 69523
DRAWN BY: AutoCAD / B.W.B.	DATE: AUGUST 1990
CHECKED BY: C. HAKARI	SHEET 12 OF 39

ENGINEER'S SEAL
STATE OF ALASKA 49th
Tracy W. Moore CE-4932
REGISTERED PROFESSIONAL ENGINEER



NOTES :

1. ALL LARGE AIR TAXI PARKING SPACES SHALL BE 34'x55'. NO TIE-DOWNS WILL BE PROVIDED.
2. ALL PARKING AND TIE-DOWN SPACES SHALL BE DELINEATED WITH 4 INCH YELLOW STRIPES.
3. CONTROL FOR THE TIE-DOWN PLAN SHALL BE THE TAXIWAY CENTERLINE, STATION "T" 7+90.



TIE-DOWN TYPICAL

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)

AS-BUILT
B.A. 2-9-96

BY:	DATE:	DESCRIPTION OF CHANGE:

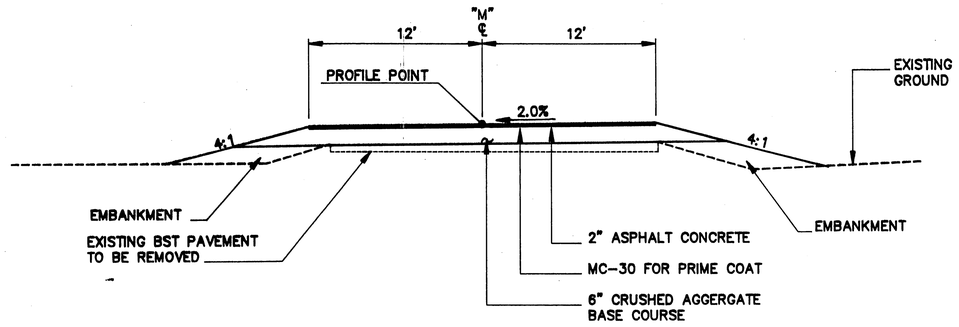
RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

HAINES AIRPORT
AIRPORT TIE-DOWN PLAN

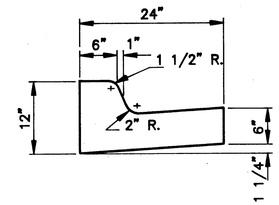
DESIGNED BY: T.W. MOORE	PROJECT No. 69523
DRAWN BY: AutoCAD / B.W.B.	DATE: AUGUST 1990
CHECKED BY: C. HAKARI	SHEET 13 OF 39

ENGINEER'S SEAL
STATE OF ALASKA 49th
Tracy W. Moore CE-4932
REGISTERED PROFESSIONAL ENGINEER

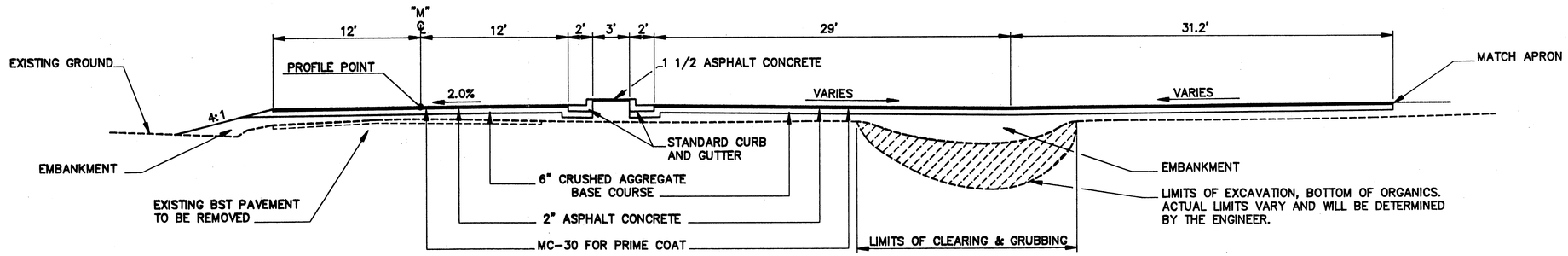


TERMINAL ACCESS ROAD

"M" 13+20 TO "M" 15+80
"M" 19+51 TO "M" 20+31
HAINES HWY TO "M" 20+31 (OVERLAY EXISTING
'M' T HANGAR TO 'M' 13+20 BST WITH 2" ASPHALT)



STANDARD CURB & GUTTER



TERMINAL ACCESS ROAD & PARKING AREA TYPICAL

"M" 15+80 TO "M" 19+51

AS-BUILT
B.A. 2-9-96

BY:	DATE:	DESCRIPTION OF CHANGE:

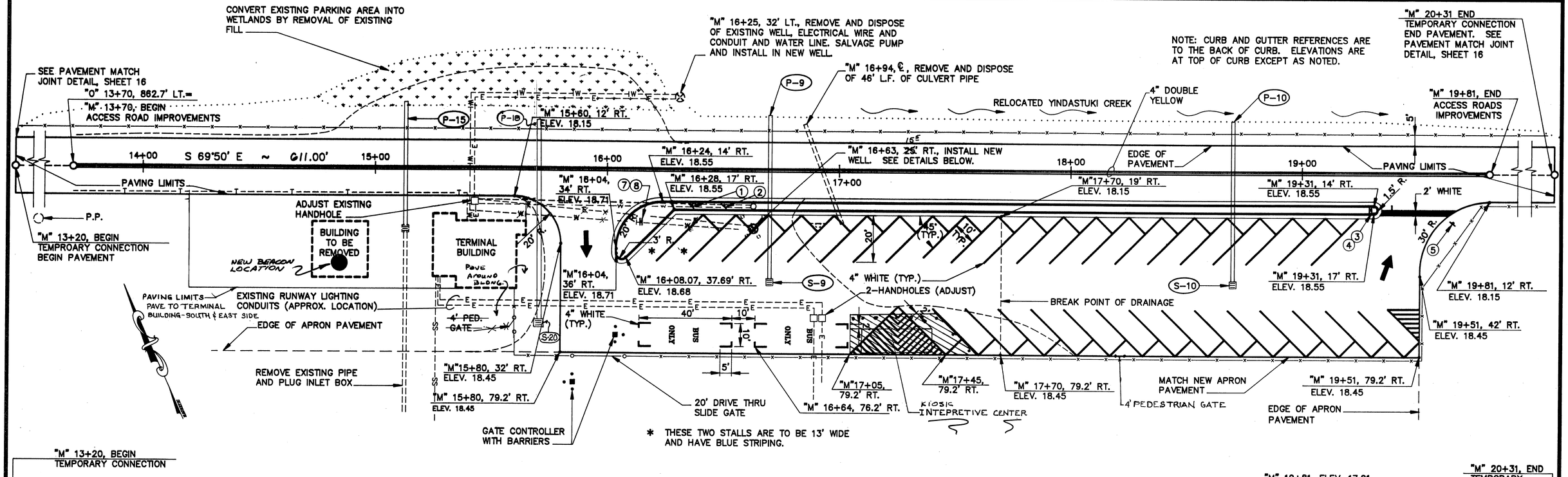
RECORD OF REVISIONS

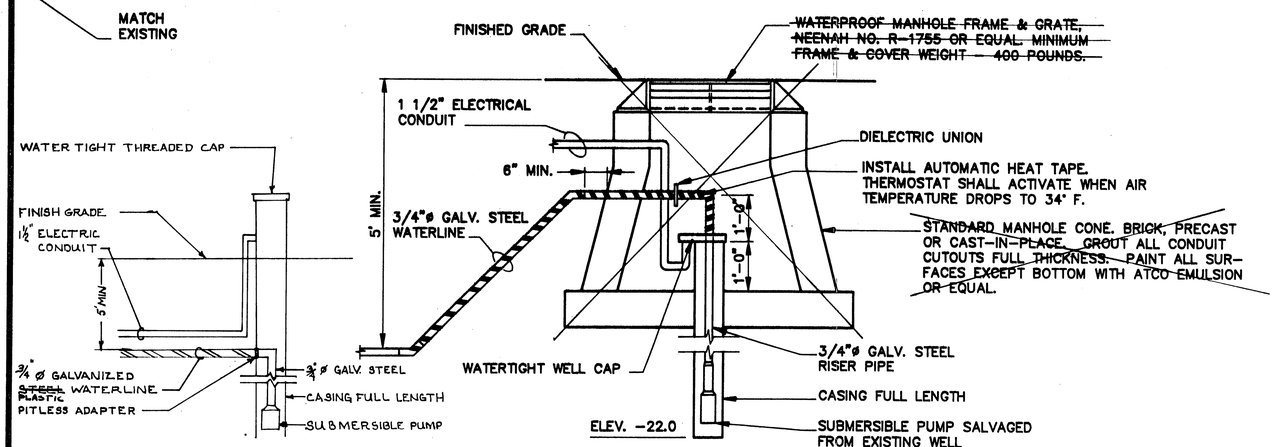
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

HAINES AIRPORT
PARKING TYPICAL SECTIONS

DESIGNED BY: C. HAKARI	PROJECT No. 69523
DRAWN BY: AutoCAD / B.W.B.	DATE: AUGUST 1990
CHECKED BY: T.W. MOORE	SHEET 14 OF 39

ENGINEER'S SEAL
STATE OF ALASKA
49th
Tracy W. Moore
CE-4932
REGISTERED PROFESSIONAL ENGINEER





NEW WELL DETAIL

"M" 16+63, ~~25'~~ 15.5' RT.

SIGN SUMMARY

No.	Station	Code No.	Legend	Size	Area S.F.	Post	Facing Traffic	Remarks
1	"M"16+35, 15.5' RT.	R7-8RL	Reserved Parking (Handicapped Symbol)	12"x18"	1.5	1	E.B.	
2	"M"16+49, 15.5' RT.	R7-8RL	Reserved Parking (Handicapped Symbol)	12"x18"	1.5	1	E.B.	
3	"M"19+30, 15.5' RT.	R6-1R	ONE WAY	12"x36"	3.0	1	W.B.	
4	"M"19+30, 15.5' RT.	R6-1L	ONE WAY	12"x36"	3.0		E.B.	
5	"M"19+65, 22' RT.	R1-1	STOP	24"x24"	4.0	1	N.B.	
~~6~~	~~"S"10+40, 24' LT.~~	~~R1-1~~	~~STOP~~	~~24"x24"~~	~~4.0~~	~~1~~	~~N.B.~~	
7	"M"16+15, 25' RT.	R6-1R	ONE WAY	12"x36"	3.0	1	E.B.	
8	"M"16+15, 25' RT.	R6-1L	ONE WAY	12"x36"	3.0		W.B.	

AS-BUILT
B.A. 2-12-96

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)

BY:	DATE:	DESCRIPTION OF CHANGE:

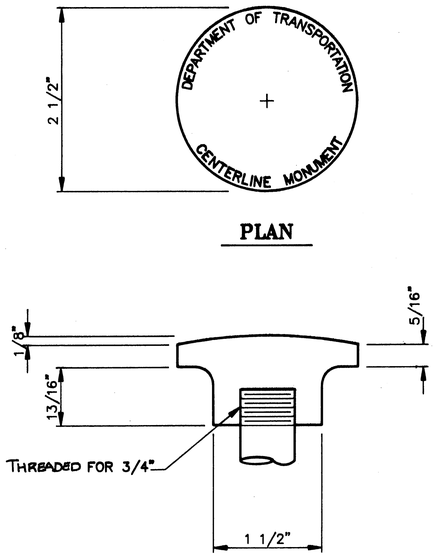
RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

HAINES AIRPORT
PARKING LAYOUT

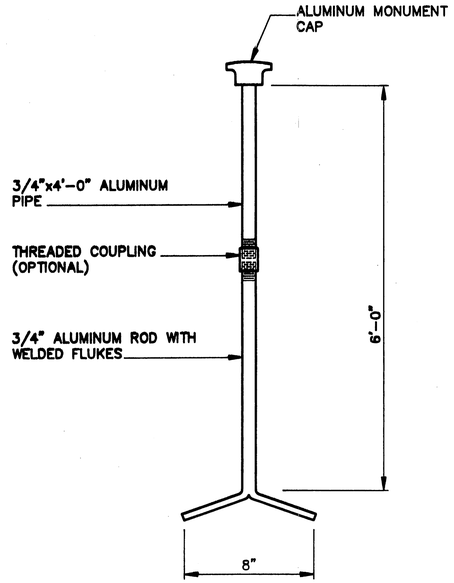
DESIGNED BY: C. HAKARI	PROJECT No. 69523
DRAWN BY: AutoCAD / B.W.B.	DATE: AUGUST 1990
CHECKED BY: T.W. MOORE	SHEET 15 OF 39

ENGINEER'S SEAL
STATE OF ALASKA 49th
Tracy W. Moore CE-4932
REGISTERED PROFESSIONAL ENGINEER



PLAN

SECTION



ELEVATION

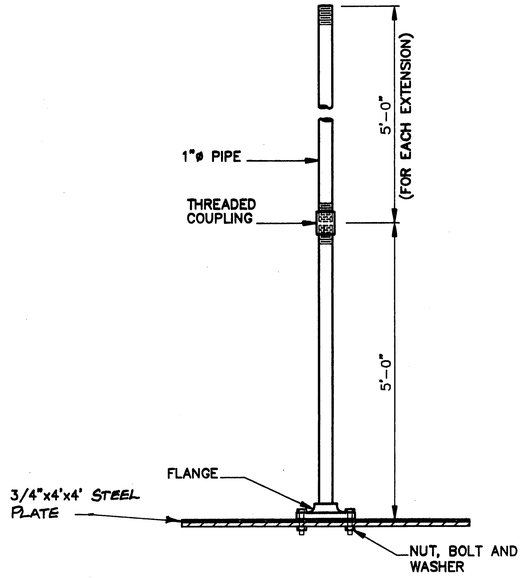
MONUMENT DETAIL

N.T.S.

MONUMENT DETAIL NOTES:

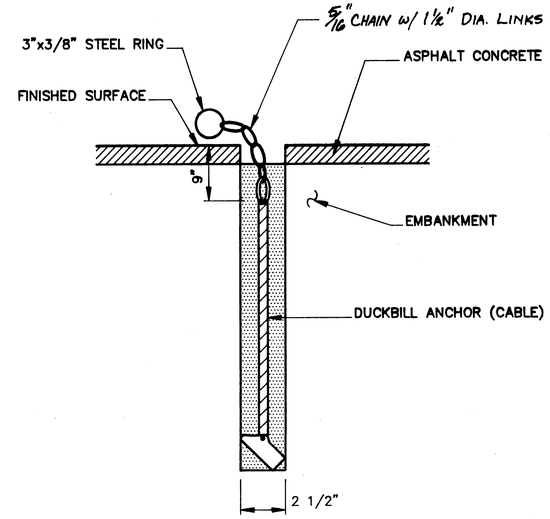
1. MONUMENT SHALL BE PLACED PRIOR TO PAVING AND COVERED TO PROTECT SURFACE. FINAL POSITIONING AND POINT STAMPING SHALL BE ACCOMPLISHED AFTER PAVEMENT HAS BEEN PLACED AND COMPACTED.

2. MONUMENTS SHALL BE PLACED FLUSH WITH THE FINISHED SURFACE.



SETTLEMENT PLATFORM DETAIL

N.T.S.

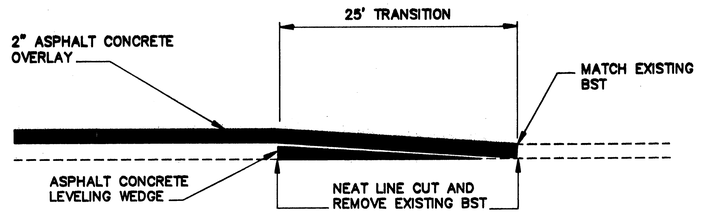


TIE-DOWN ANCHOR DETAIL

N.T.S.

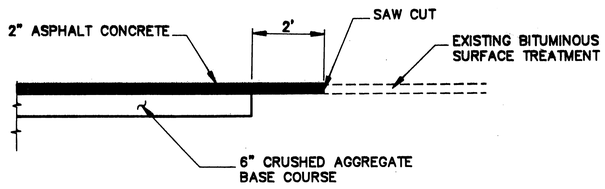
TIE-DOWN ANCHOR NOTES:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE TYPE OF MATERIAL IN THE TIE-DOWNS.
2. DEPTH OF ANCHOR SHALL BE AS REQUIRED TO DEVELOP 5000 LBS. OF PULL-OUT STRENGTH PER ANCHOR.
3. WHEN ROCK IS ENCOUNTERED, ROCK ANCHORS SHALL BE USED. ROD DIAMETER SHALL BE 3/4".
4. ALL EYE-BOLTS SHALL BE ASTM A-36, 40,000 P.S.I. MINIMUM YIELD STRENGTH.



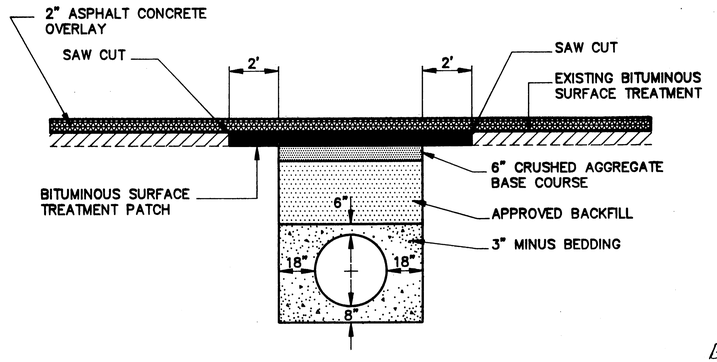
ASPHALT CONCRETE OVERLAY TRANSITION DETAIL

N.T.S.



PAVEMENT MATCH JOINT DETAIL

N.T.S.



AS-BUILT
B.A. 2-12-96

CULVERT BEDDING & PAVEMENT PATCH DETAIL

N.T.S.

BY:	DATE:	DESCRIPTION OF CHANGE:

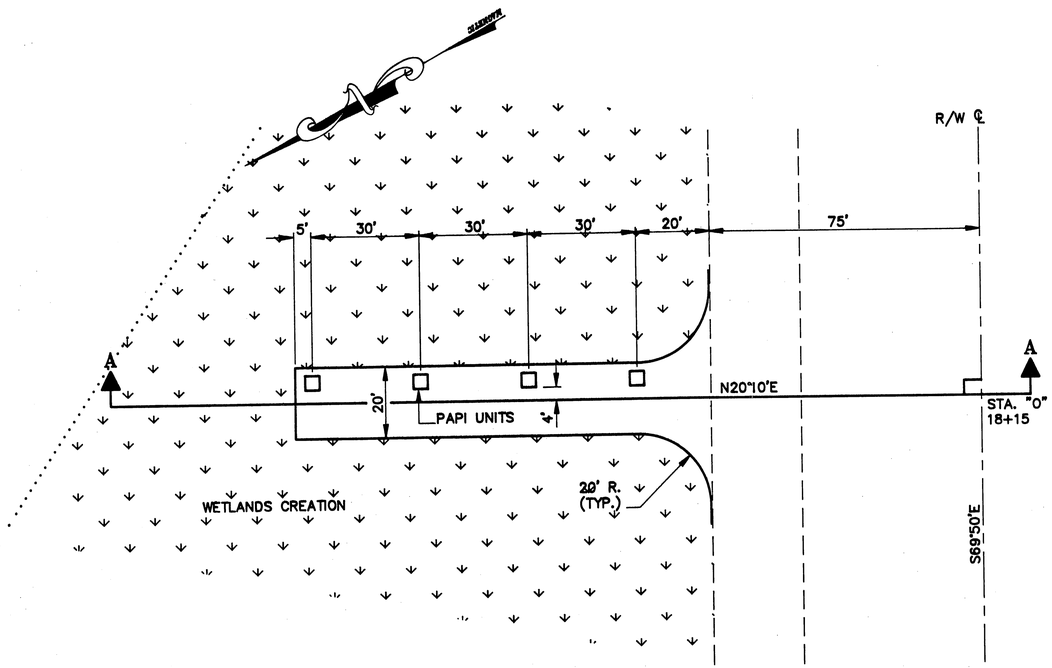
RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

HAINES AIRPORT
MISCELLANEOUS DETAILS

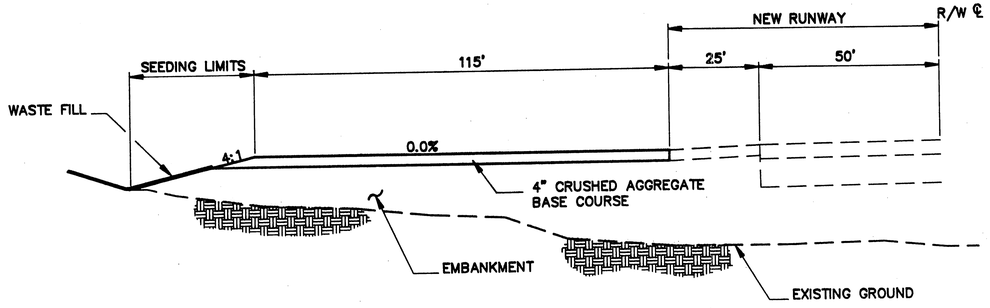
DESIGNED BY: T.W. MOORE	PROJECT No. 69523
DRAWN BY: AutoCAD / B.W.B.	DATE: AUGUST 1990
CHECKED BY: C. HAKARI	SHEET 16 OF 39

ENGINEER'S SEAL
STATE OF ALASKA
49th
Tracy W. Moore
CE-4932
REGISTERED PROFESSIONAL ENGINEER



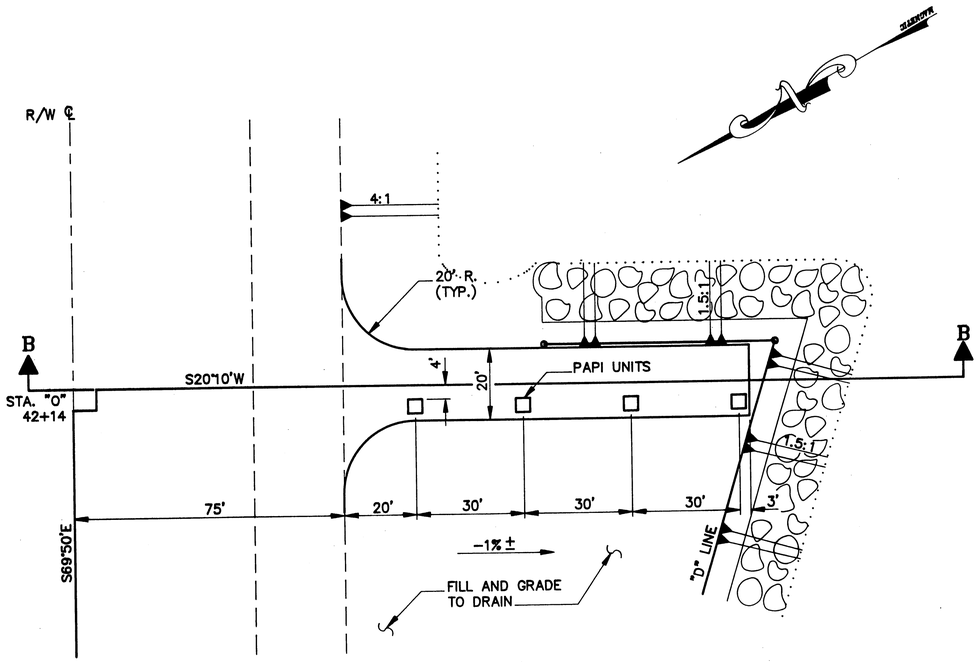
PAPI PAD PLAN

STA. "0" 18+15, LT.



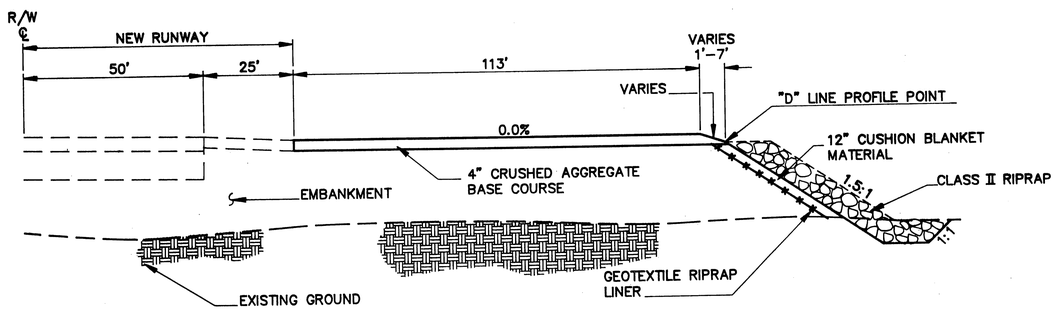
SECTION A-A

STA. "0" 18+15, LT.



PAPI PAD PLAN

STA. "0" 42+14, RT.



SECTION B-B

STA. "0" 42+14, RT.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

AS-BUILT
B.A. 2-12-96

ENGINEER'S SEAL

STATE OF ALASKA
49th
Tracy W. Moore
CE-4832
REGISTERED PROFESSIONAL ENGINEER

BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

HAINES AIRPORT
PAPI PAD DETAILS

DESIGNED BY: T.W. MOORE	PROJECT No. 69523
DRAWN BY: AutoCAD / B.W.B.	DATE: AUGUST 1990
CHECKED BY: C. HAKARI	SHEET 17 OF 39

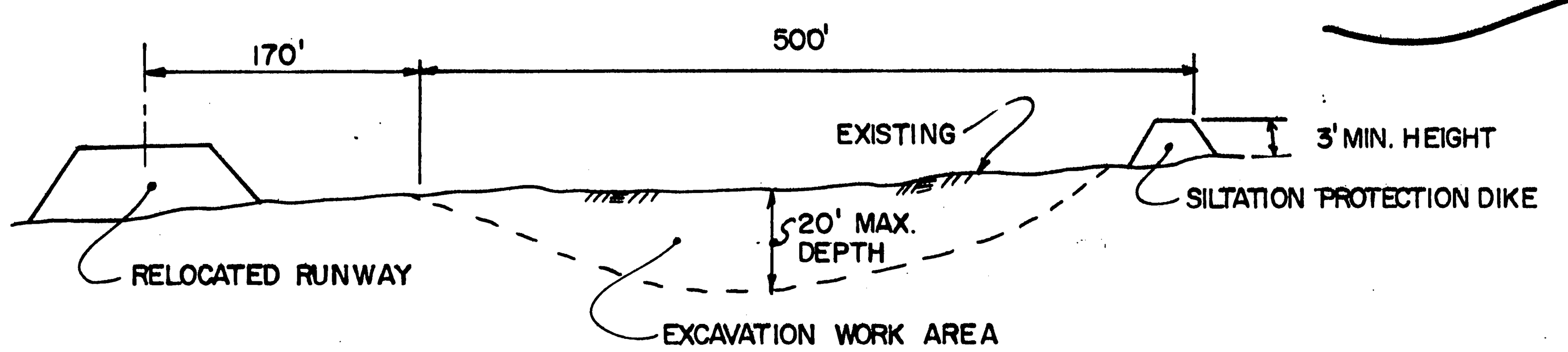
MATERIAL SITE NOTES

RIVER SOURCE

1. All work shall be protected from the river flow by a temporary siltation protection dike. The dike shall completely close off the borrow area & tie into th existing bank or the relocated runway fill.

2. In-water work shall be restricted & shall only be performed from Nov. 1st thru. March 31st.

3. The temporary dike shall be constructed of river sands & be entirely free of ice chunks & large organics such as tree trunks or stumps.



SECTION A-A

RIVER SOURCE M. S.

1000 750 500 250 0 500 1000 2000

SCALE

BY	DATE	DESCRIPTION OF CHANGE

RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

HAINES AIRPORT
MATERIAL SITES

APPROVED BY: DESIGN GROUP CHIEF DATE
RECOMMENDED BY: DESIGN ENGINEER, GROUP DATE
PREPARED BY: PROJECT MANAGER LEAD DESIGNER

DESIGNED BY: T.M.
DRAWN BY: R.S.
CHECKED BY: C.H.

SCALE: 1" = 700' ±
DATE:
SHEET 18 OF 39

ENGINEER'S STAMP

PIPE SUMMARY

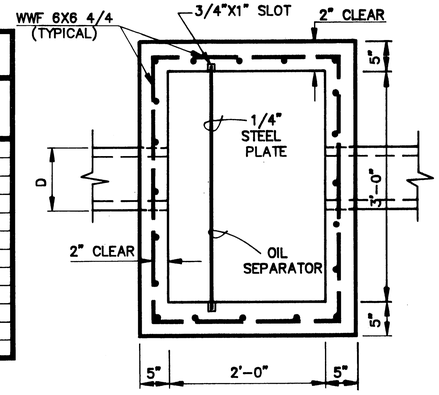
PIPE	FROM	TO	LENGTH 18"	24"		48"	60"	INVERT Inlet	Outlet	REMARKS
P-1	S-1	S-2	~~196'~~193					14.30	13.80	
P-2	S-2	"A"12+50, 235' RT.		160'				13.30	12.90	
P-3	S-3	S-4	~~196'~~193					14.90	13.80	
P-4	S-4	"A"15+00, 235' RT.		~~180'~~161				13.30	12.90	
P-5	S-5	S-6	~~196'~~193					14.90	13.80	
P-6	S-6	"A"18+05, 235' RT.		~~160'~~193				13.30	12.90	
P-7	S-7	"A"18+60, 260' RT.		250'				13.30	12.90	
P-8	S-8	"A"9+60, 160' RT.		90'110				13.30	12.90	
P-9	S-9	"M"~~10+70~~, 25' LT.	~~82'~~ 74					15.35	15.00	
P-10	S-10	"M"18+70, 24' LT.	~~70'~~ 72					15.35	15.00	
P-11	"A" 14+03, 26' RT.	"A"13+50,55' RT.				~~120'~~150				
P-12	"B"12+30 ℄					260'				SKEW 34° LEFT AHEAD
P-13	"C"13+20 ℄					~~150'~~120				INVERTS TO BE 1-FOOT BELOW EXIST. STREAM BED
P-14	"D"12+15 ℄					~~150'~~120				INVERTS TO BE 1-FOOT BELOW EXIST. STREAM BED
P-15	"M"15+13 26' RT.	"M"15+13, 24' LT.	~~50'~~52					14.58	14.00	CONNECT TO EXISTING STRUCTURE AT "A"18+13, RT. CONNECTION INCIDENTAL
P-16	"M"20+46, ℄					~~60'~~80				SKEW 45° RT. AHEAD
P-17	"Y"31+80					~~90'~~100				
P-18	S-20	"M" 15+76 25' LT.	87'					14.14	13.92	
P-19	S-21	"M" 12+75 30 LT.	60'					14.50	14.37	

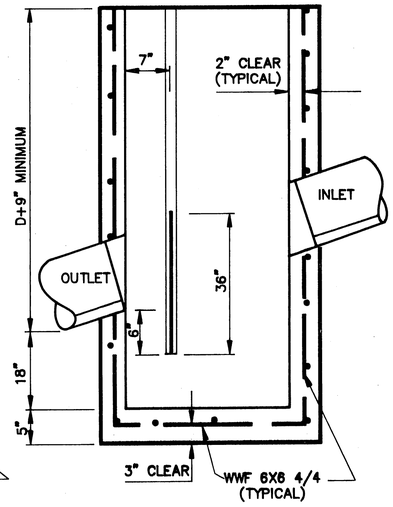
STRUCTURE SUMMARY

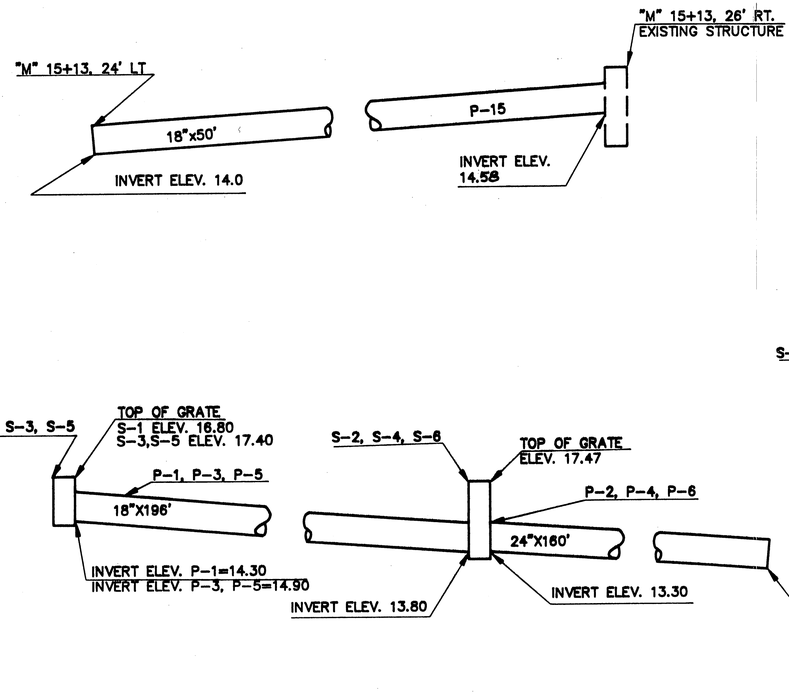
STRUCTURE NO.	STATION	TYPE	TOP OF GRATE ELEVATION	REMARKS
S-1	"A"12+50, 120'LT	A	16.80	
S-2	"A"12+50. 75'RT.	A	17.47	
S-3	"A"15+00, 120'LT.	A	17.40	
S-4	"A"15+00, 75'RT.	A	17.47	
S-5	"A"17+50, 120'LT.	A	17.40	
S-6	"A"17+50,75'RT.	A	17.47	
S-7	"A"20+00, 75'RT.	A	17.47	
S-8	"A"10+00, 75'RT.	A	17.47	
S-9	"M"16+70, 48'RT.	A	17.85	
S-10	"M"18+70, 48'RT.	A	17.85	
S-20	"M" 15+76 62'RT		17.03	
S-21	"M" 12+ 75 30'RT		16.33	ELEVATION ~ TOP OF CONCRETE

NOTES

1. CAST IN PLACE CONCRETE INLET BOX SHALL BE CLASS "W" CONCRETE.
2. CONCRETE INLET BOX DEPTH AND LOCATION SHALL BE SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
3. INLETS SHALL HAVE 18" SUMP.
4. CONCRETE INLET BOX SHALL BE PARALLEL TO APRON CENTERLINE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
5. INLET FRAME AND GRATE SHALL BE AIRPORT APPROVED; NEENAH R-3475 OR APPROVED EQUAL.







TYPE "A" INLET BOXES

AS-BUILT
B.A. 2-12-96

BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

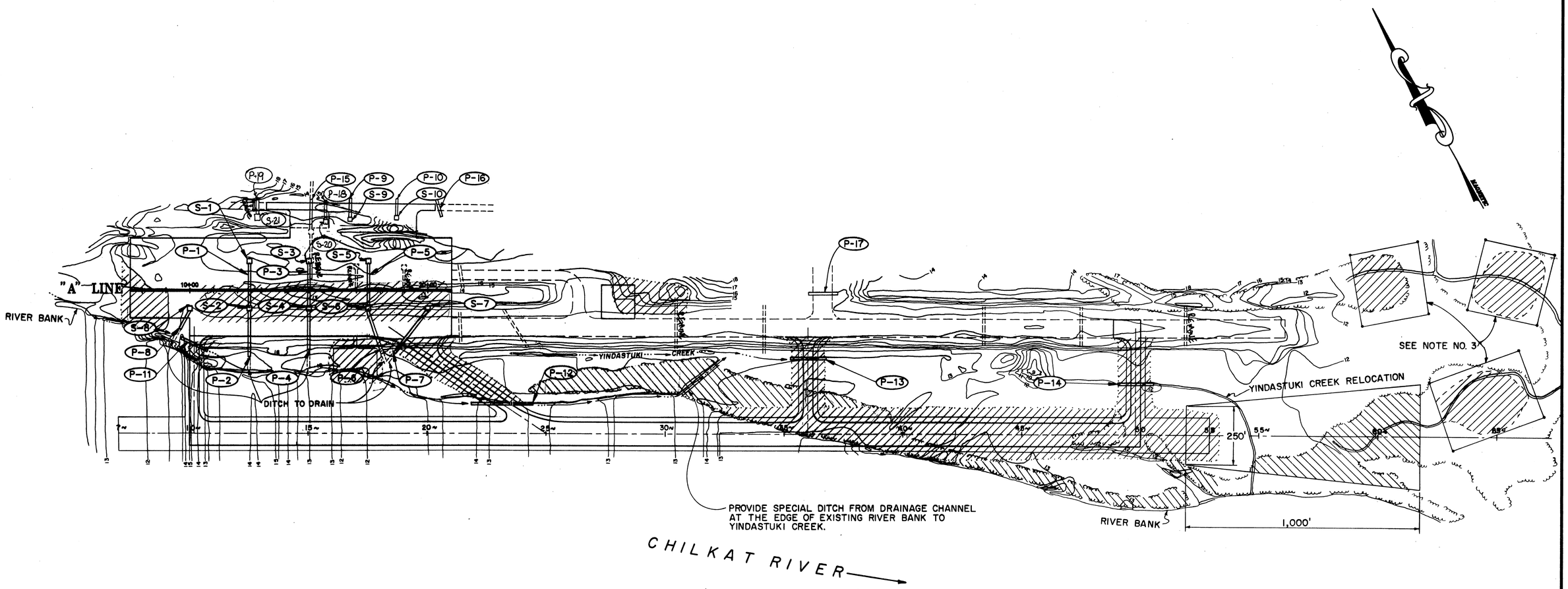
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

HAINES AIRPORT

DRAINAGE DETAILS

DESIGNED BY: T.W. MOORE	PROJECT No. 69523
DRAWN BY: AUTOCADD/CSA	DATE: AUGUST 1990
CHECKED BY: C. HAKARI	SHEET 19 OF 39

ENGINEER'S SEAL
STATE OF ALASKA 49th
Tracy W. Moore CE-4032
REGISTERED PROFESSIONAL ENGINEER



TREE LINE.

CLEARING.

CLEARING IN EXCAVATION & EMBANKMENT AREAS.

SEE SHEET 18 FOR PIPE AND STRUCTURE DIMENSIONS AND LOCATIONS.

NOTES :

1. ALL EXISTING CMP CROSSING THE TAXIWAY AND APRON, THAT ARE NOT INTENDED TO REMAIN, SHALL BE REMOVED.
2. SPECIAL DITCHING TO DRAIN NEW C.M.P.'S WILL BE PAID FOR AS UNCLASSIFIED EXCAVATION.
3. CLEARING FOR FISHERY PONDS WILL BE LIMITED TO THE STAKED EXCAVATION AREAS AND WASTE BERMS. TWO SITES NOT SHOWN ON THIS SHEET.
4. FROM STA. 38+00 TO STA. 51+00 THE CLEARING SHALL EXTEND TO THE EDGE OF THE RIVER BANK.

AS-BUILT
B.A. 2-12-96

GRAPHIC SCALE

(IN FEET)

BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

HAINES AIRPORT

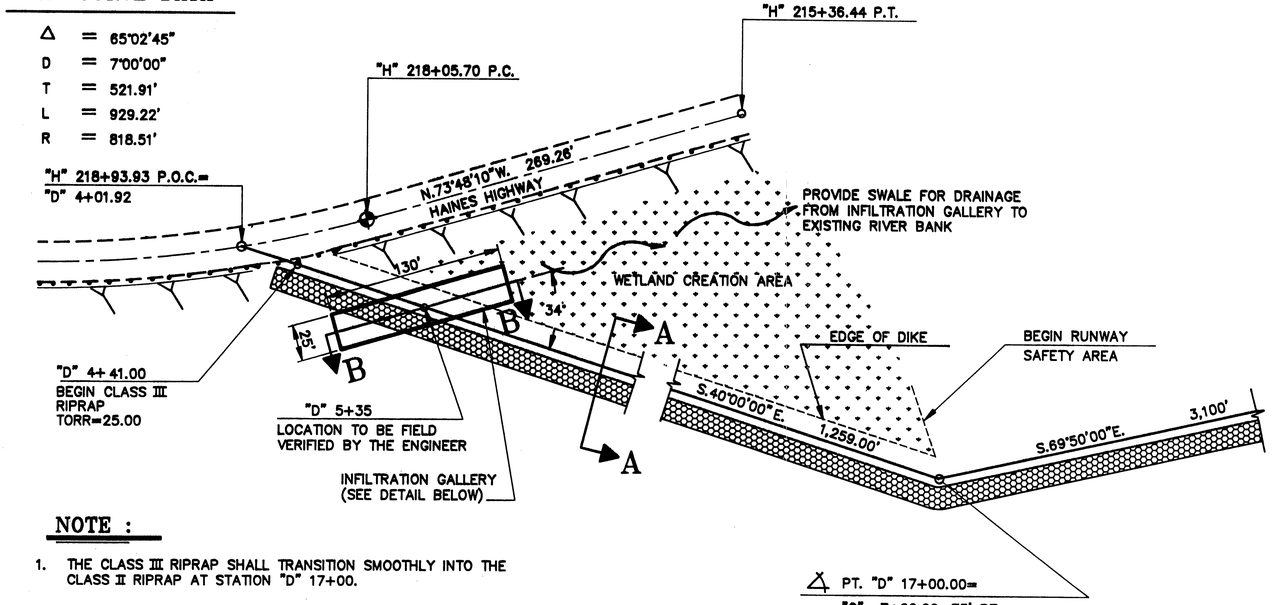
CLEARING AND DRAINAGE PLAN

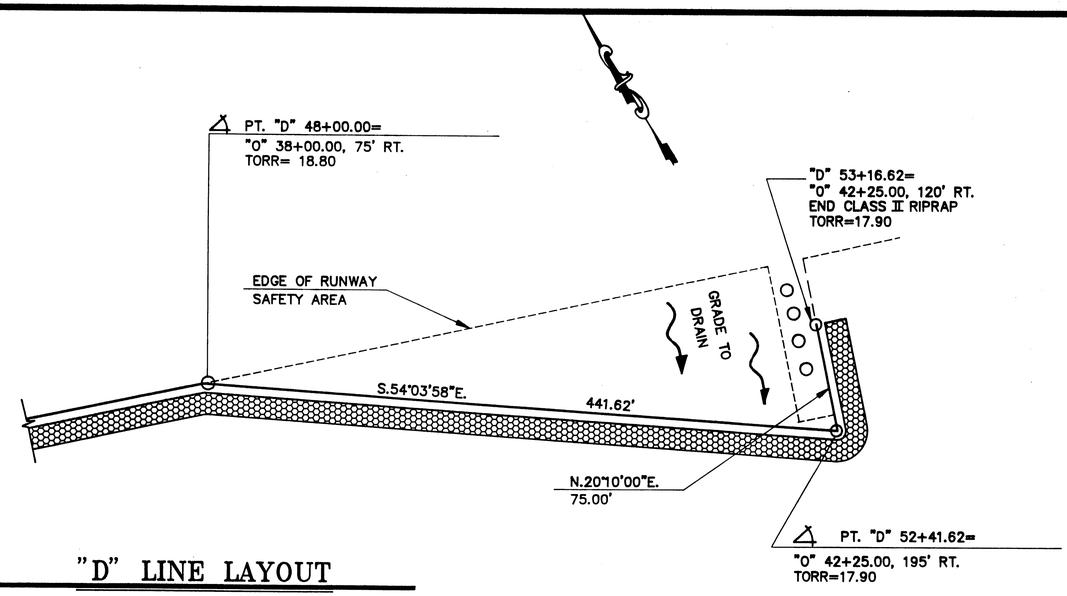
DESIGNED BY: C. HAKARI	PROJECT No. 69523
DRAWN BY: B.A. AutoCAD / B.W.B.	DATE: APRIL 1990
CHECKED BY: C. HAKARI	SHEET 20 OF 39

ENGINEER'S SEAL
STATE OF ALASKA
49th
Troy N. Moore
CE-4632
REGISTERED PROFESSIONAL ENGINEER

"H" CURVE DATA

Δ = 65°02'45"
D = 7°00'00"
T = 521.91'
L = 929.22'
R = 818.51'



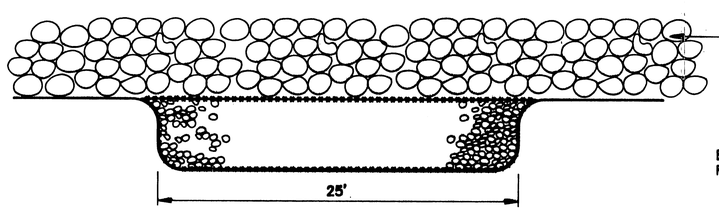


"D" LINE LAYOUT

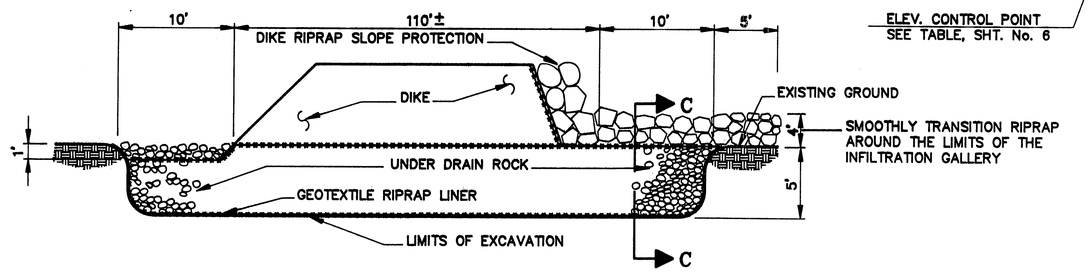
GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)

NOTE :

1. THE CLASS III RIPRAP SHALL TRANSITION SMOOTHLY INTO THE CLASS II RIPRAP AT STATION "D" 17+00.



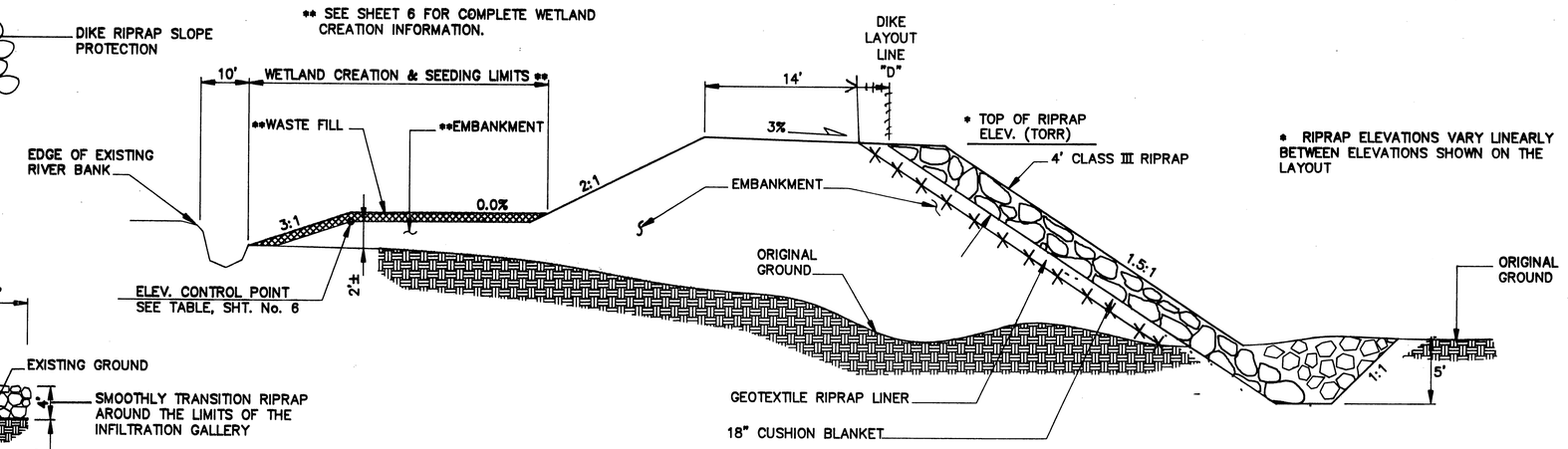
SECTION C-C



INFILTRATION GALLERY DETAIL

SECTION B-B

** SEE SHEET 6 FOR COMPLETE WETLAND CREATION INFORMATION.



* RIPRAP ELEVATIONS VARY LINEARLY BETWEEN ELEVATIONS SHOWN ON THE LAYOUT

SECTION A-A

"D" 4+41 TO "D" 17+00

AS-BUILT
B.A. 2-12-96

BY:	DATE:	DESCRIPTION OF CHANGE:

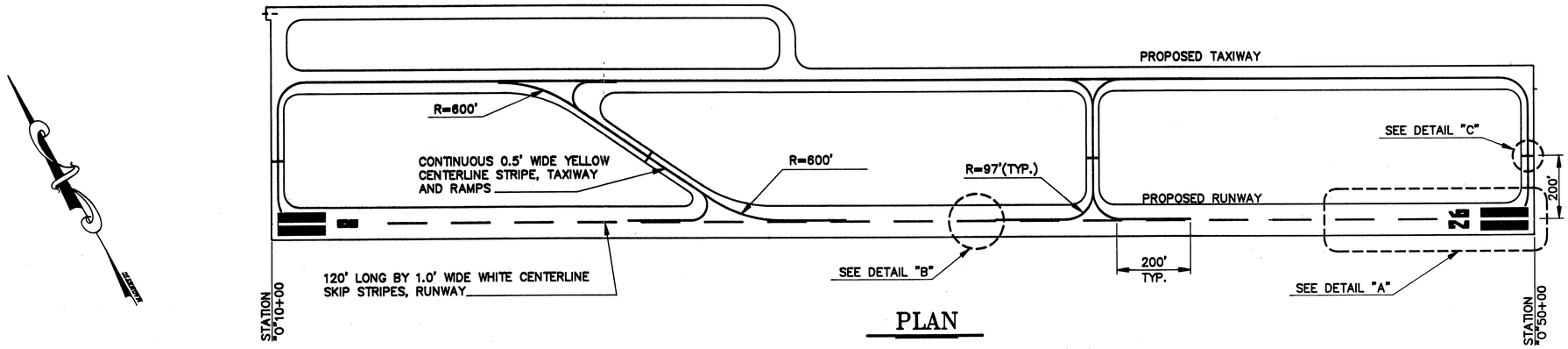
RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

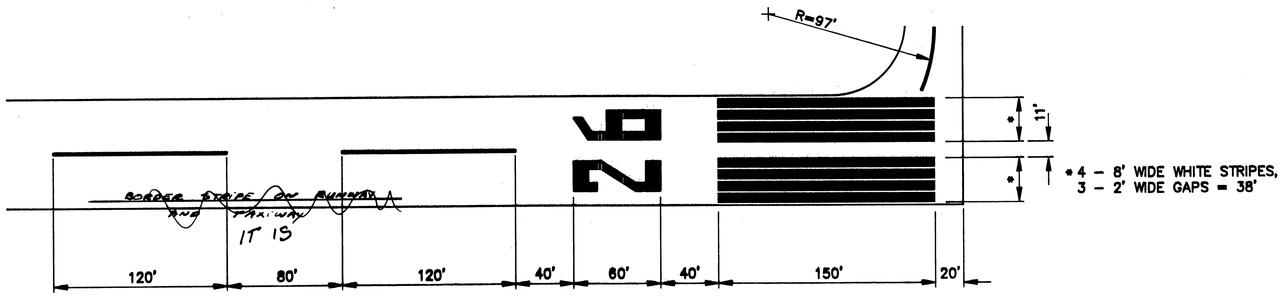
HAINES AIRPORT
DIKE & RIPRAP DETAILS

DESIGNED BY: C. CORREA	PROJECT No. 69523
DRAWN BY: AutoCAD / C.S.A.	DATE: AUGUST 1990
CHECKED BY: T.W. MOORE	SHEET 21 OF 39

ENGINEER'S SEAL
STATE OF ALASKA 49th
Tracy W. Moore CE-4032
REGISTERED PROFESSIONAL ENGINEER

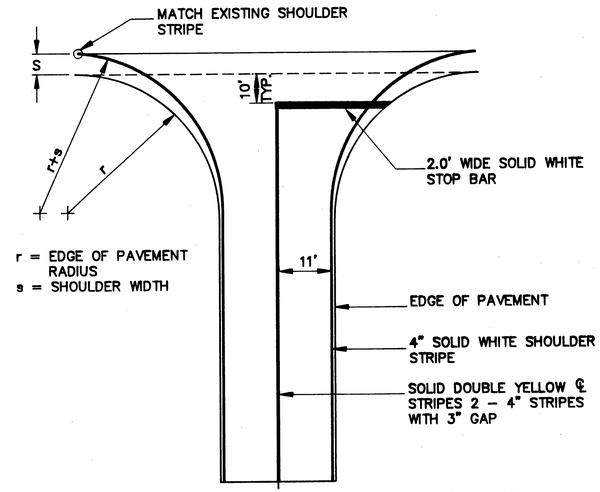


PLAN



DETAIL "A"

NOTE: WEST END OF RUNWAY IS SIMILAR, EXCEPT RUNWAY NUMBER IS DIFFERENT.



ACCESS ROAD STRIPING TYPICAL

ACCESS ROAD STRIPING REQUIRED:

"M" 9+00 TO "M" 25+79

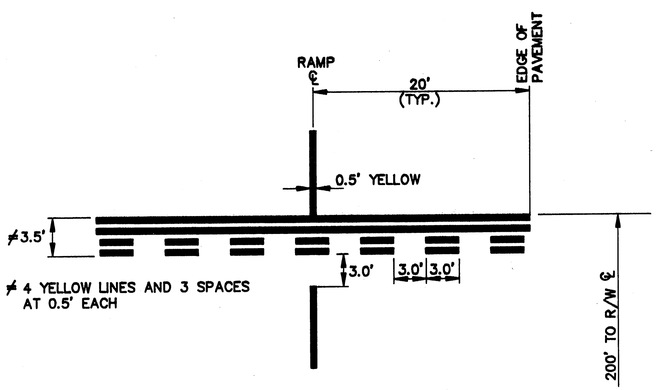
~~"S" 10+20 TO "S" 13+21~~

3 STOP BARS REQUIRED:

"M" 25+69, RT.

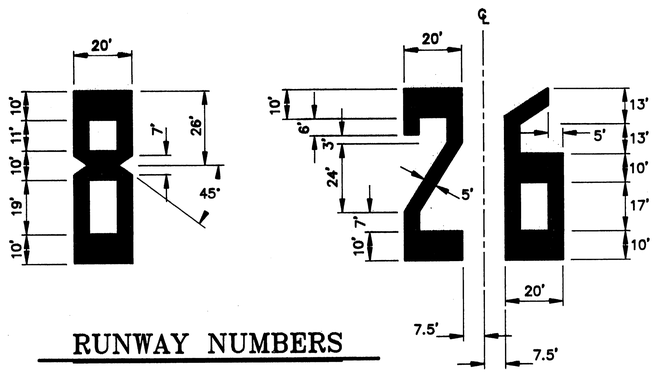
~~"S" 10+50, LT.~~

"M" 19+50, 16' RT.

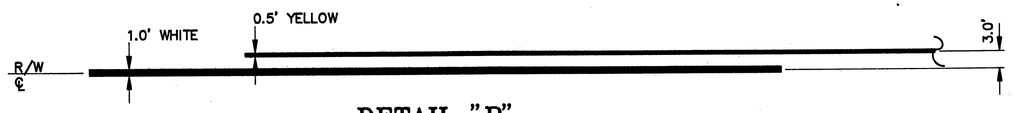


DETAIL "C"

TYPICAL TAXI–HOLDING POSITION MARKING (4 REQUIRED)



RUNWAY NUMBERS



DETAIL "B"

AS-BUILT
B.A. 2-12-96

BY:	DATE:	DESCRIPTION OF CHANGE:

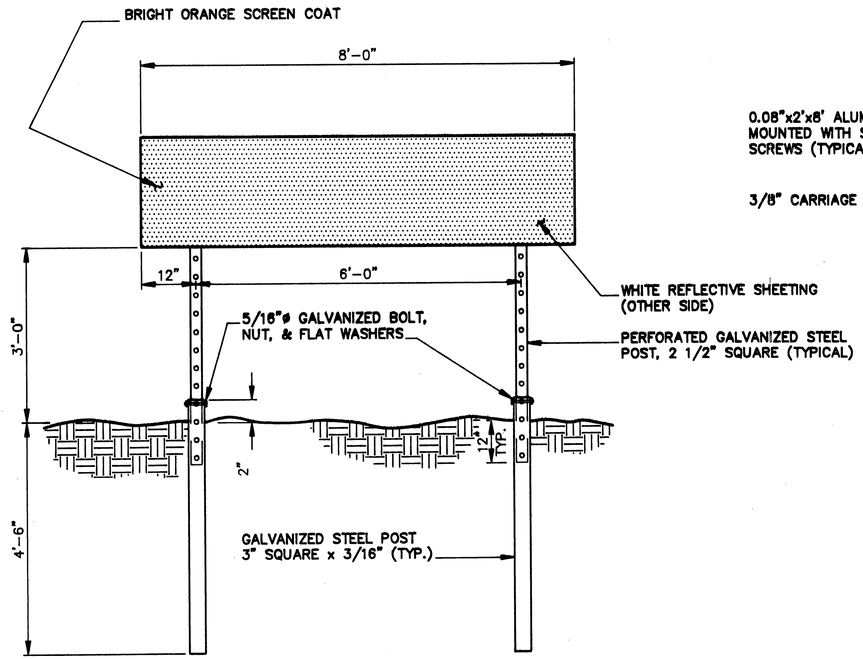
RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

HAINES AIRPORT
STRIPING PLAN

DESIGNED BY: T.W. MOORE	PROJECT No. 69523
DRAWN BY: AutoCAD / B.W.B.	DATE: AUGUST 1990
CHECKED BY: C. HAKARI	SHEET 22 OF 39

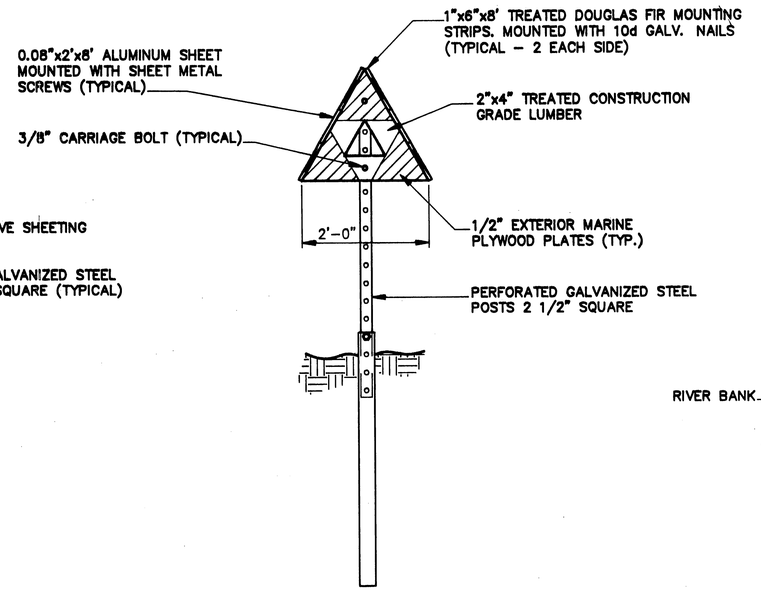
ENGINEER'S SEAL
STATE OF ALASKA 49th
Tracy W. Moore CE-4932
REGISTERED PROFESSIONAL ENGINEER



FRONT VIEW DETAIL

SEGMENTED CIRCLE MARKERS

NO SCALE



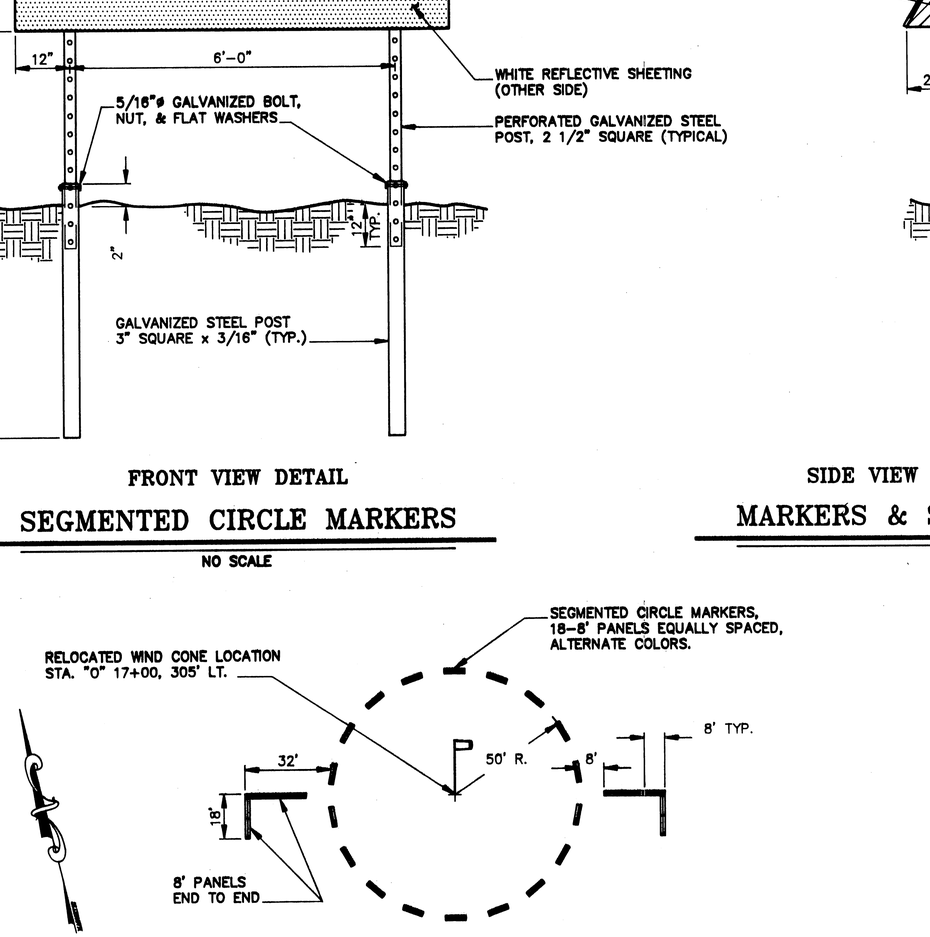
SIDE VIEW DETAIL, BOUNDARY

MARKERS & SEGMENTED CIRCLE

NO SCALE

SEGMENTED CIRCLE AND WINDCONE NOTES:

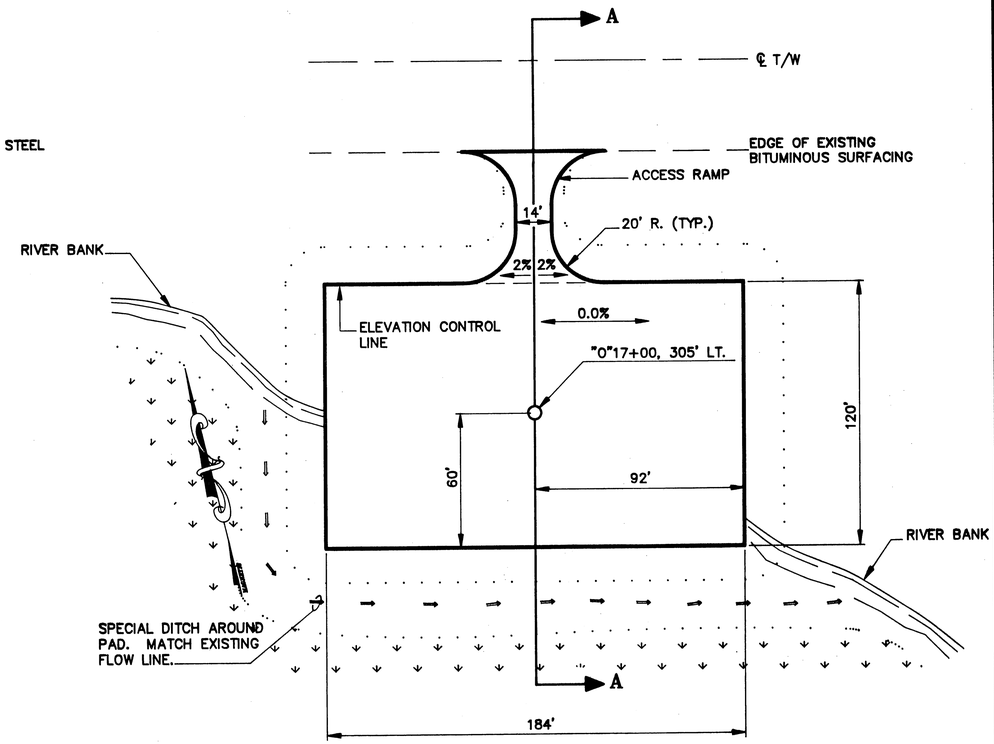
1. THE SEGMENTED CIRCLE TRIANGULAR MOUNTING FRAMES SHALL BE FASTENED TO THE STEEL POSTS WITH TWO 3/8"x5" GALVANIZED CARRIAGE BOLTS. FASTEN MOUNTING STRIPS TO 2"x4" FRAME WITH EXTERIOR CEMENT AND GALVANIZED NAILS. PREPUNCH ALUMINUM SHEETS ON 12" CENTERS, 3" FROM TOP TO BOTTOM. FASTEN TO MOUNTING STRIPS WITH 1/2" x #8 PAN HEAD COATED SHEET METAL SCREWS.
2. ALL WOOD USED SHALL BE PAINTED WITH NON-LEADED ENAMEL PAINT, COLOR BLACK.
3. EXISTING LIGHTED WINDCONE SHALL BE SALVAGED AND RELOCATED. PRIOR TO ERECTING, THE HARDWARE SHALL BE CLEANED AND SERVICED.



RELOCATED LIGHTED WINDCONE AND SEGMENTED CIRCLE DETAIL WITH TRAFFIC PATTERN INDICATORS

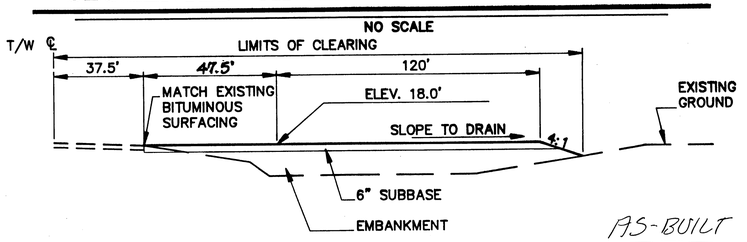
NO SCALE

STATION "0" 17+00, 305' LT.



SEGMENTED CIRCLE PAD & ACCESS PLAN

NO SCALE



SECTION A-A

NO SCALE

AS-BUILT
B.A. 2-13-96

ENGINEER'S SEAL
STATE OF ALASKA
49th
Tracy W. Moore
CE-4032
REGISTERED PROFESSIONAL ENGINEER

BY:	DATE:	DESCRIPTION OF CHANGE:

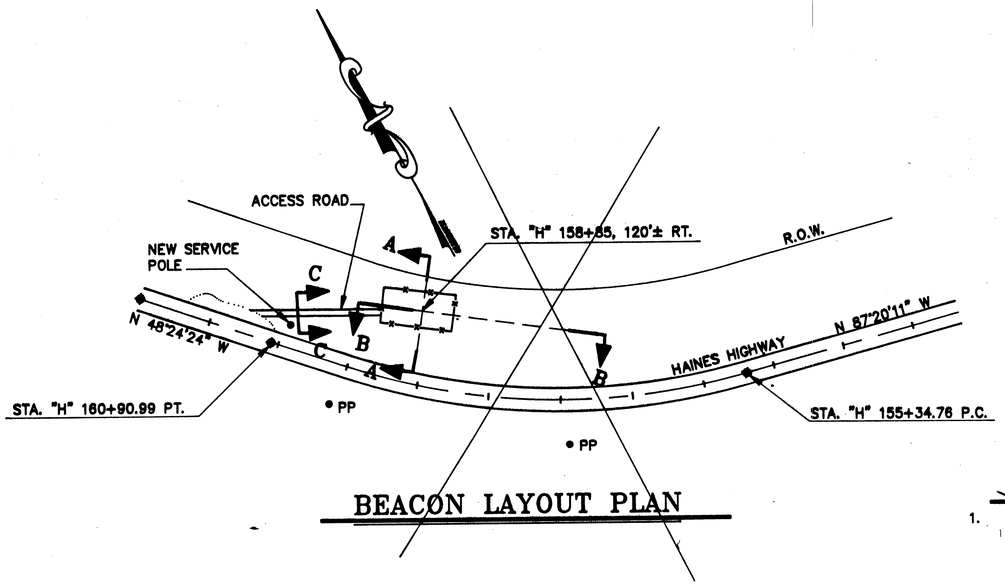
RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

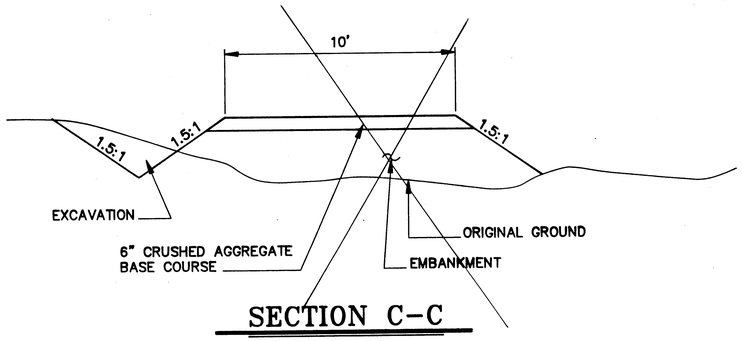
HAINES AIRPORT

SEGMENTED CIRCLE & WINDCONE DETAILS

DESIGNED BY: T.W. MOORE	PROJECT No. 69523
DRAWN BY: AutoCAD / B.W.B.	DATE: AUGUST 1990
CHECKED BY: C. HAKARI	SHEET 23 OF 39



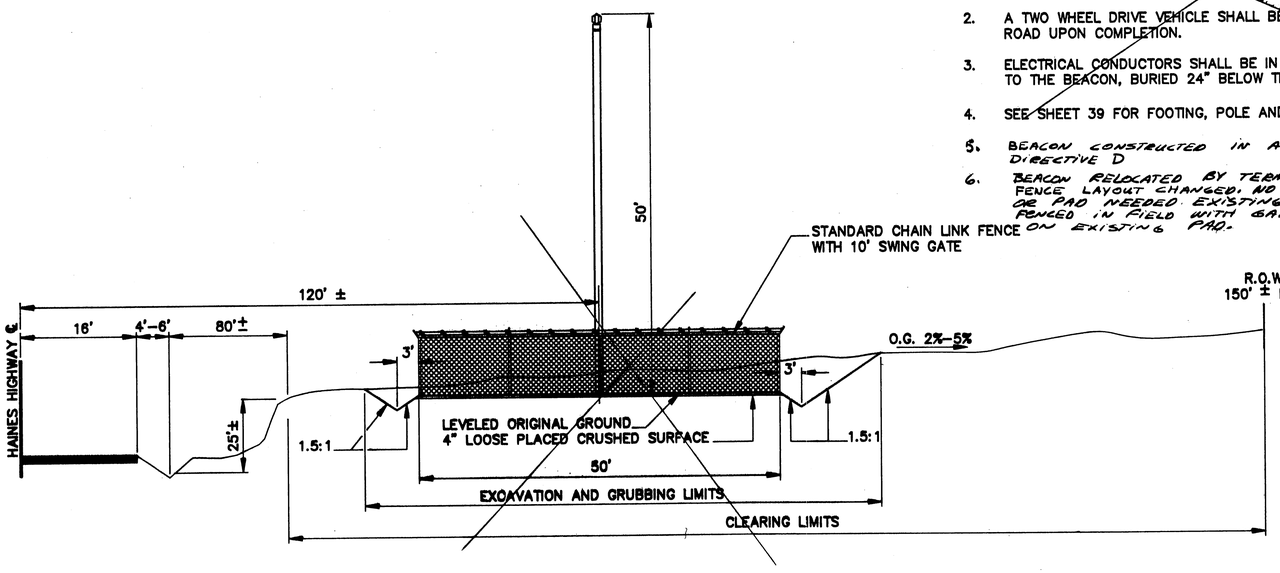
BEACON LAYOUT PLAN



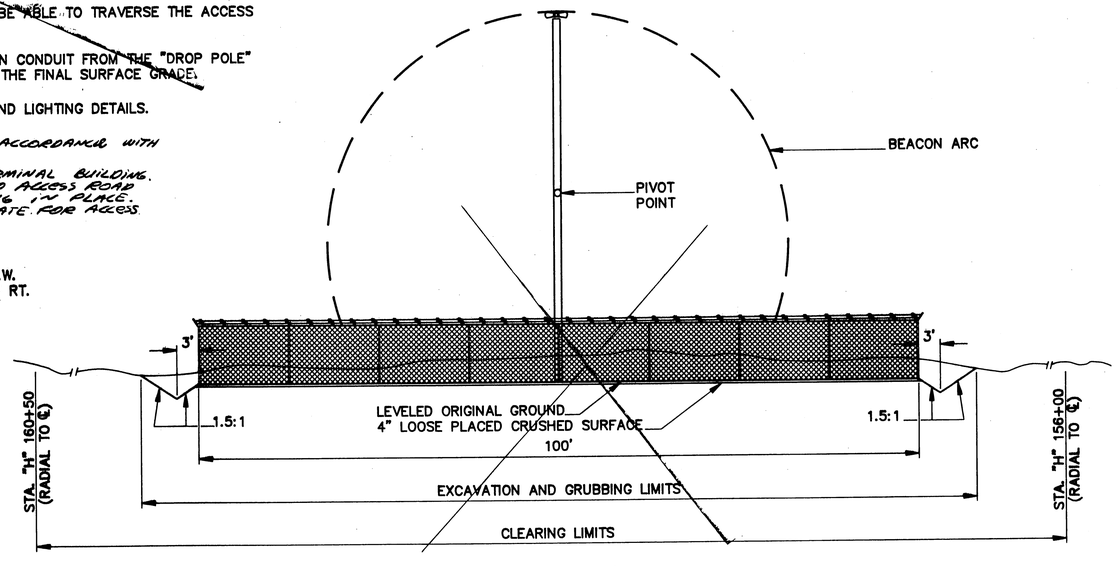
SECTION C-C

NOTES :

1. THE CONTRACTORS FINAL LOCATION OF THE:
   A) ACCESS FENCE GATE (10' SWING GATE)
   B) ACCESS ROAD
   C) ELECTRICAL SERVICE POLE
   SHALL BE APPROVED BY THE ENGINEER PRIOR TO COMMENCEMENT OF THE WORK. MAXIMUM GRADE 15%
2. A TWO WHEEL DRIVE VEHICLE SHALL BE ABLE TO TRAVERSE THE ACCESS ROAD UPON COMPLETION.
3. ELECTRICAL CONDUCTORS SHALL BE IN CONDUIT FROM THE "DROP POLE" TO THE BEACON, BURIED 24" BELOW THE FINAL SURFACE GRADE.
4. SEE SHEET 39 FOR FOOTING, POLE AND LIGHTING DETAILS.
5. BEACON CONSTRUCTED IN ACCORDANCE WITH DIRECTIVE D
6. BEACON RELOCATED BY TERMINAL BUILDING. FENCE LAYOUT CHANGED. NO ACCESS ROAD OR PAD NEEDED. EXISTING IN PLACE. FENCED IN FIELD WITH GATE FOR ACCESS ON EXISTING PAD.



SECTION A-A
(STA. "H" 158+85)



SECTION B-B

AS-BUILT
B.A. 2-13-96

11

BY:	DATE:	DESCRIPTION OF CHANGE:

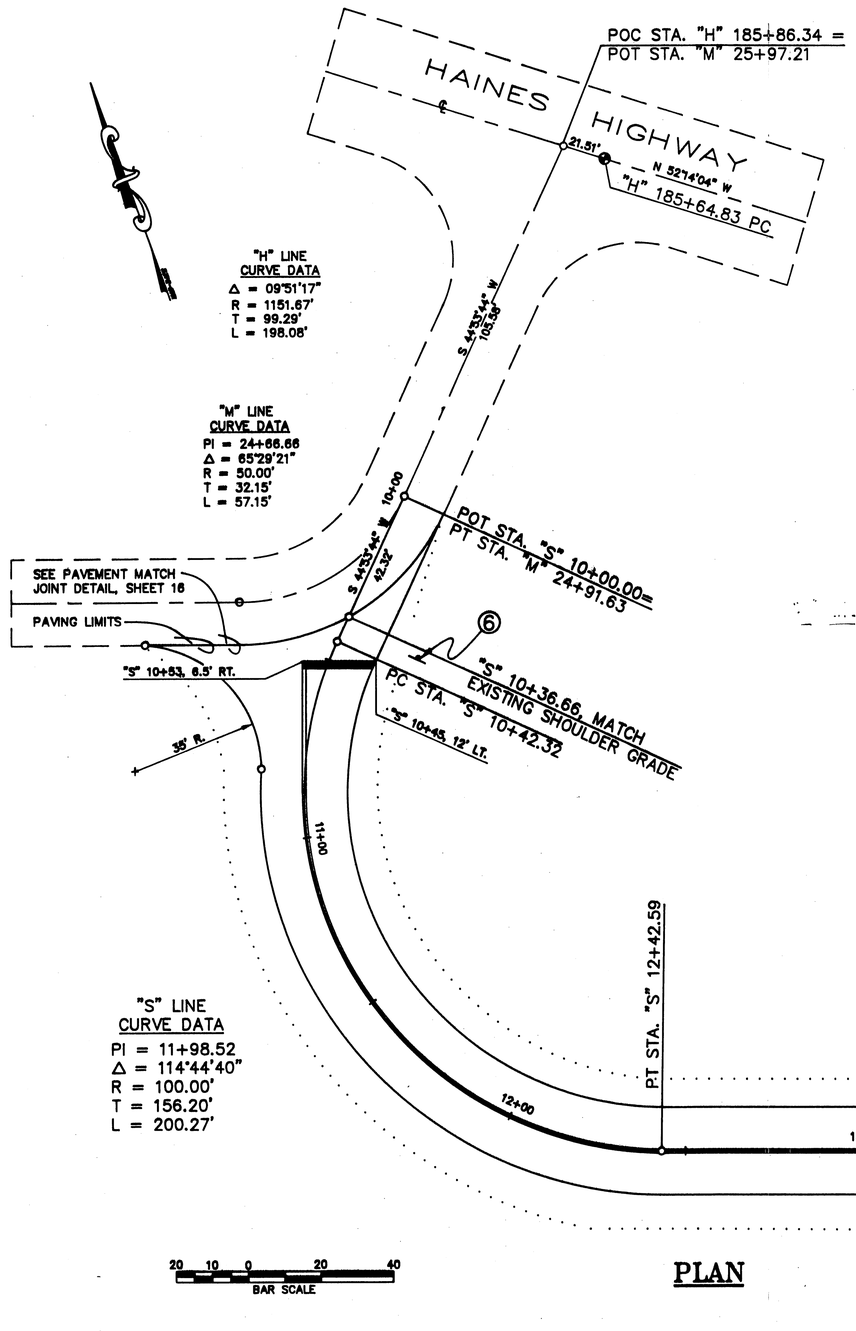
RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

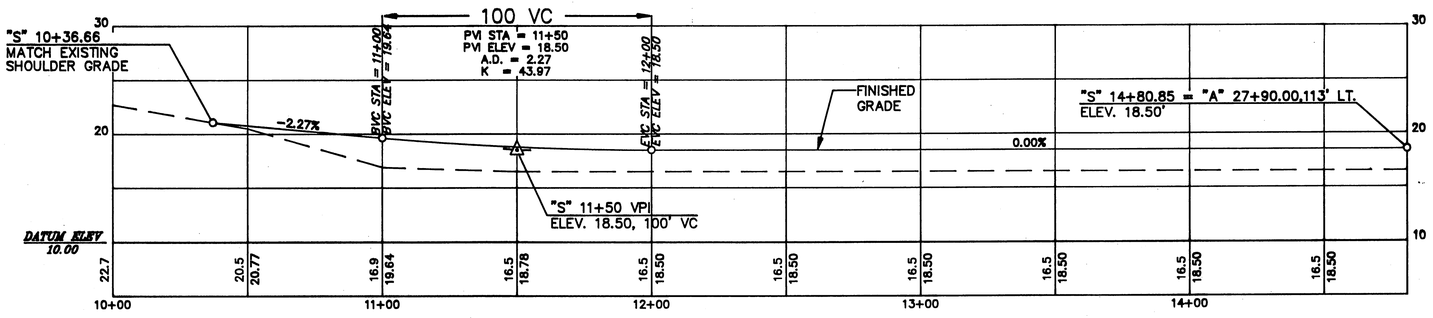
HAINES AIRPORT
AIRPORT BEACON DETAILS

DESIGNED BY: T.W. MOORE	PROJECT No. 69523
DRAWN BY: AutoCAD / B.W.B.	DATE: AUGUST 1990
CHECKED BY: T.W. MOORE	SHEET 24 OF 39

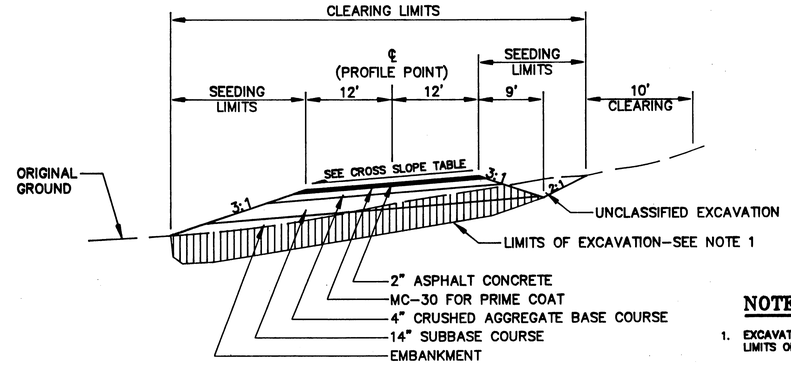
ENGINEER'S SEAL
STATE OF ALASKA 49th
Tracy W. Moore CE-4932
REGISTERED PROFESSIONAL ENGINEER



PLAN



PROFILE



TYPICAL SECTION

ACCESS ROAD "S" 10+19 TO "S" 14+00.85
AND
PARKING PAD "S" 14+00.85 TO "S" 14+80.85
SHALL HAVE SAME STRUCTURAL SECTION AND SIDE SLOPES

NOTES

1. EXCAVATION DEPTH VARIES AND WILL BE THE LIMITS OF ORGANIC SOILS.

"S" LINE CROSS SLOPE TABLE*		
STATION	LT.	RT.
"S" 10+79	MATCH MAIN ACCESS SHOULDER	
"S" 10+50	FLAT	FLAT
"S" 11+00	-4	+4
"S" 12+10	-4	+4
"S" 12+50	-2	+2
"S" 14+80.85	-2	+2

* CROSS SLOPES SHALL VARY LINEARLY BETWEEN THESE STATIONS

As Built
B.A. 2-13-96

BY:	DATE:	DESCRIPTION OF CHANGE:

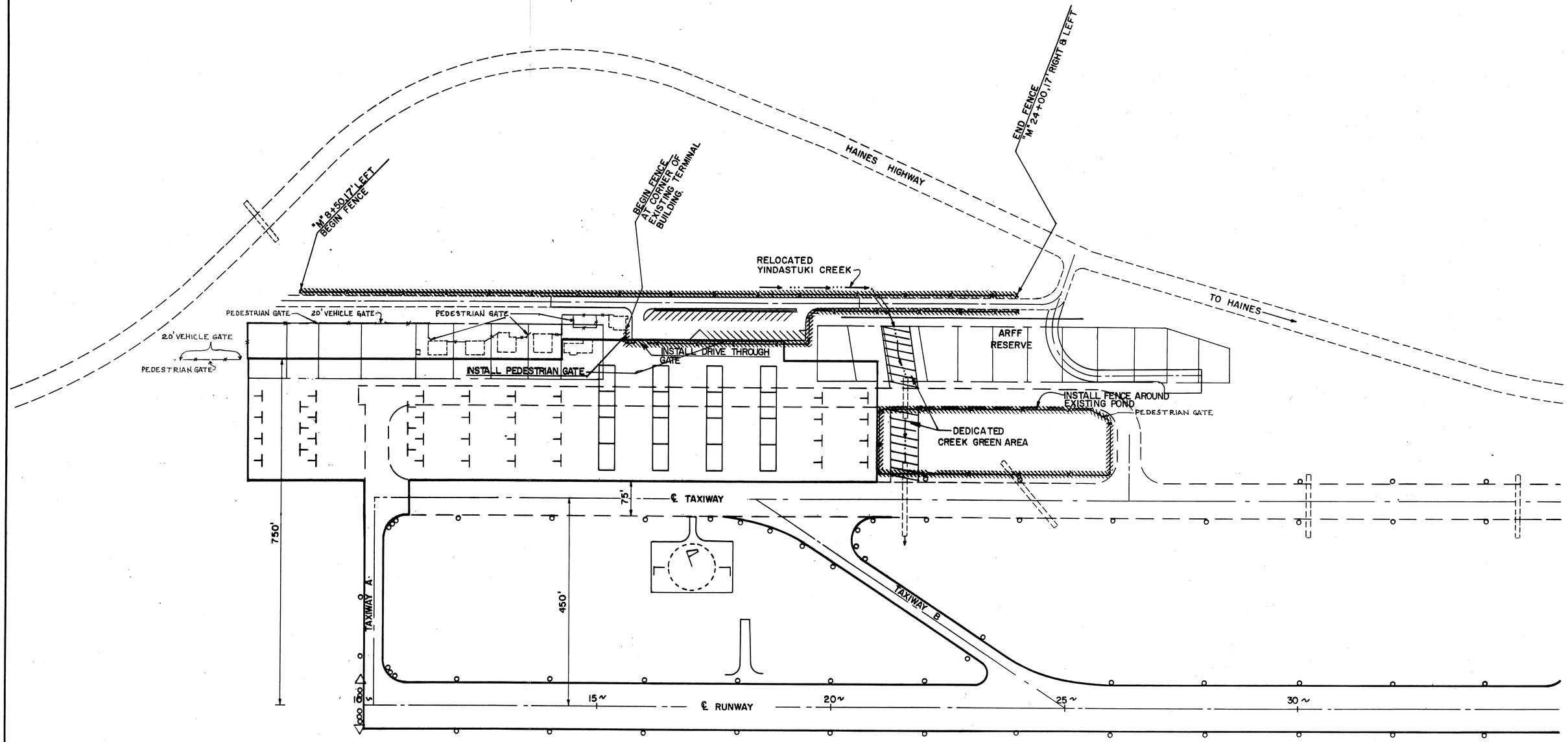
RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES.
SOUTHEAST REGION DESIGN & CONSTRUCTION

HAINES AIRPORT
ACCESS ROAD PLAN & PROFILE

DESIGNED BY: C. HAKARI	PROJECT No. 69523
DRAWN BY: AutoCAD / R.K.S.	DATE:
CHECKED BY: T.W. MOORE	SHEET 25 OF 39

ENGINEER'S SEAL
STATE OF ALASKA
49th
T.W. MOORE
CE-4932
REGISTERED



BY	DATE	DESCRIPTION OF CHANGE

RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

HAINES AIRPORT SECURITY FENCING

GENERAL LAYOUT

APPROVED BY: _____ DESIGN GROUP CHIEF _____ DATE
RECOMMENDED BY: _____ DESIGN ENGINEER, GROUP _____ DATE
PREPARED BY: _____ PROJECT MANAGER _____ LEAD DESIGNER

DESIGNED BY:
DRAWN BY: B.A.
CHECKED BY: C.H.
SCALE:
DATE:
SHEET 26 OF 39

ENGINEER'S STAMP
STATE OF ALASKA 49TH
Tracy W. Moore Jr.
CE #4932
REGISTERED PROFESSIONAL ENGINEER

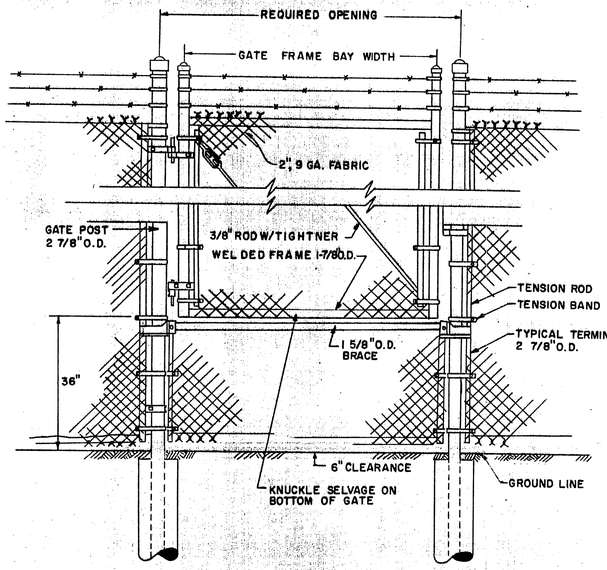
CHART # 1
SPECIFCATIONS FOR SINGLE GATES

A-1 SINGLE GATE OPENING	B-1 ROLLER POST SPACING	H-1 OVER ALL LENGTH 2 1/2 O.D. TOP AND BOTTOM	D-1 FABRIC SECTION OF FRAME	E-1 OPEN SECTION OF FRAME	K EXTENSION OF FRAME
6'-0"	4'-0"	11'-2"	6'-6"	4'-4"	4"
8'-0"	4'-0"	13'-2"	8'-6"	4'-4"	4"
10'-0"	5'-0"	16'-2"	10'-6"	5'-4"	4"
12'-0"	6'-0"	19'-2"	12'-6"	6'-4"	4"
14'-0"	7'-0"	22'-2"	14'-6"	7'-4"	4"
16'-0"	8'-0"	25'-2"	16'-6"	8'-4"	4"
18'-0"	9'-0"	28'-2"	18'-6"	9'-4"	4"
20'-0"	10'-0"	31'-2"	20'-6"	10'-4"	4"
24'-0"	12'-6"	36'-2"	24'-6"	12'-4"	4"

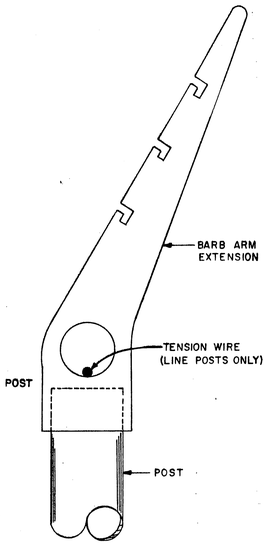
CHART # 2
SPECIFICATIONS GATE HEIGHTS

	F	L	J
FENCE HEIGHT	POST HEIGHT TO GRADE	FRAME HEIGHT	LENGTH 2" O.D. UPRIGHTS
6'	7'-6"	5'-5 3/4"	5'-1"
7'	8'-6"	6'-5 3/4"	6'-1"
8'	9'-6"	7'-5 3/4"	7'-1"
9'	10'-6"	8'-5 3/4"	8'-1"
10'	11'-6"	9'-5 3/4"	9'-1"
12'	13'-6"	11'-5 3/4"	11'-1"

NOTE:
ALL GATES INSTALLED UNDER THIS CONTRACT SHALL BE 8 FT. IN HEIGHT.

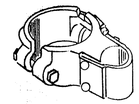


5'X4'
PEDESTRIAN GATE

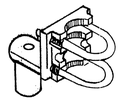


TYPICAL EYE-TOP
BARB-TOP EXTENSION

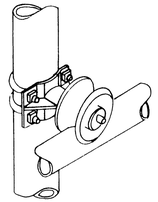
NOTES:
1. TYPICAL TOP FOR ALL LINE & PULL POSTS
2. TENSION WIRE TO BE THREADED THROUGH EYE-TOP, AS SHOWN, ON ALL POSTS.



INDUSTRIAL MALLEABLE HINGE
(BALL AND SOCKET TYPE)



OFFSET ADAPTER

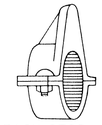


ROLLER ASSEMBLY
C-104

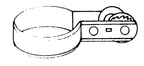
ACORN CAP
FOR GATE POST
(OR DOME CAP)

CLEVIS PIN FOR PADLOCK P-8

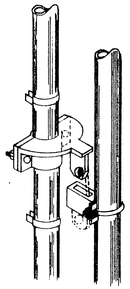
FRONT STOP
C-1



BACK STOP
C-2

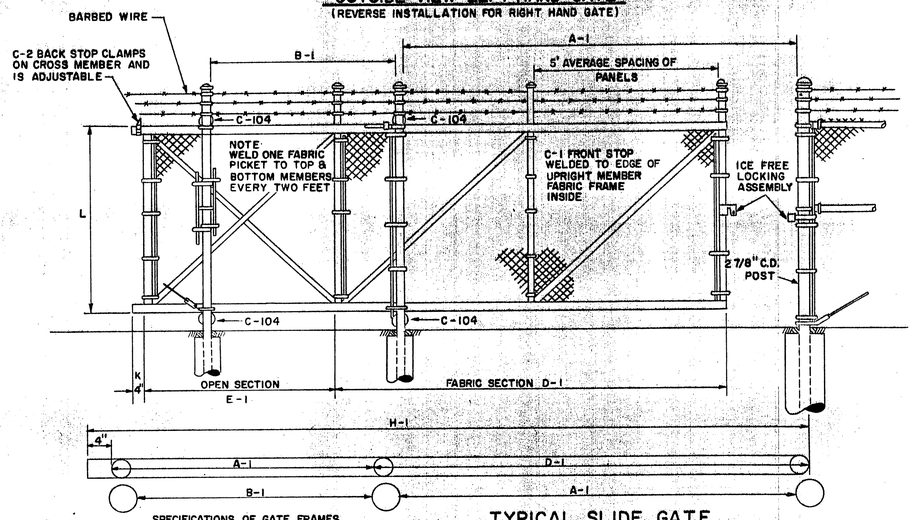


BARB WIRE BAND
WITH RACHET
NO. 60



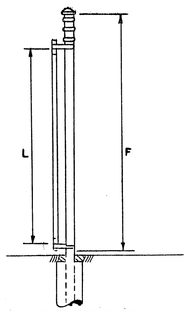
ICE FREE LOCKING ASSEMBLY DETAIL

OUTSIDE VIEW-LEFT HAND GATE
(REVERSE INSTALLATION FOR RIGHT HAND GATE)

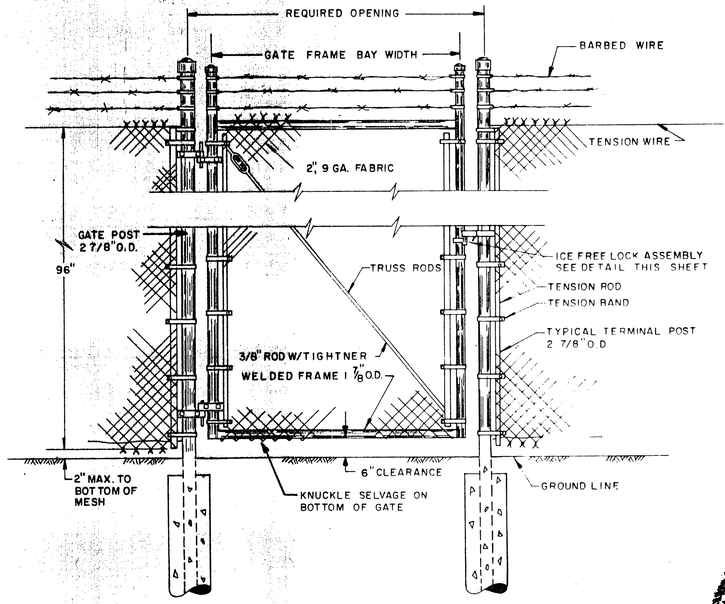


SPECIFICATIONS OF GATE FRAMES
TOP AND BOTTOM MEMBERS - 2-1/2" O.D. PIPE
UPRIGHT MEMBERS - 2" O.D. PIPE
HORIZONTAL AND DIAGONAL BRADS 1-5/8" O.D. PIPE
GATE FRAME MEMBERS SHALL BE SCHEDULE 40 PIPE

TYPICAL SLIDE GATE
NO SCALE



GATE HEIGHTS
NO SCALE



8'X4'
TYPICAL PEDESTRIAN GATE

NOTE:
1. FOR GATE POST HEIGHT AND GATE FRAME BAY HEIGHT SEE TABLE 2 SHEET 6 .

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

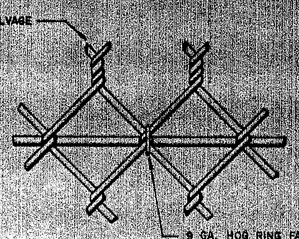
HAINES AIRPORT
PROJECT NO. 69523

GATE DETAILS

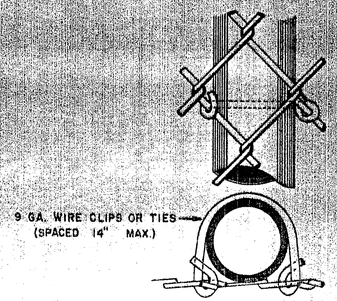
BY	DATE	CHANGE

REVISIONS

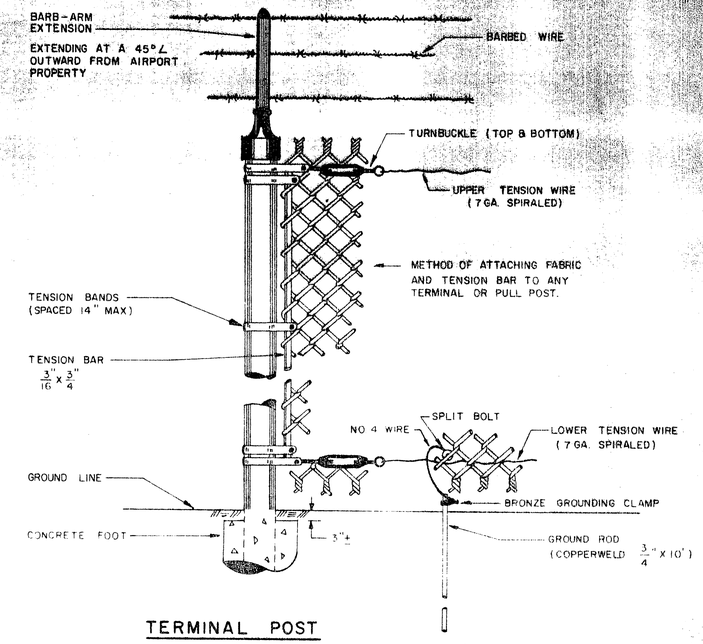
DESIGNED | DRAWN
CHECKED C.H. | DATE
SCALE: NO SCALE
SHEET 27 OF 39



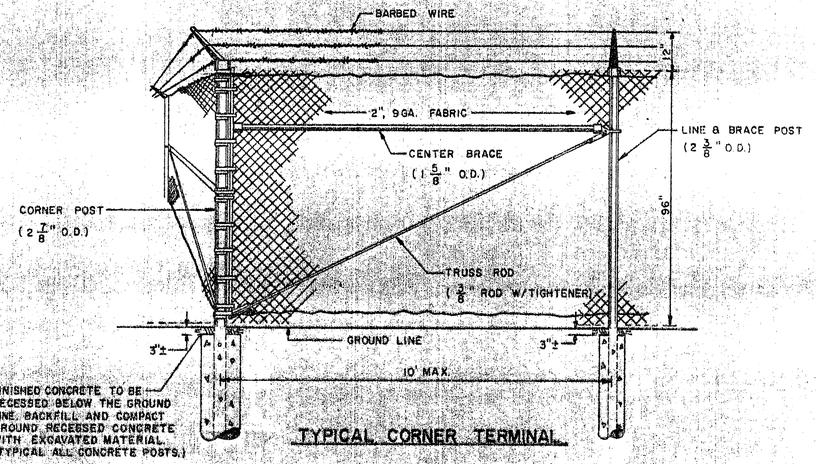
TYPICAL METHOD OF TYING FABRIC TO TENSION WIRE



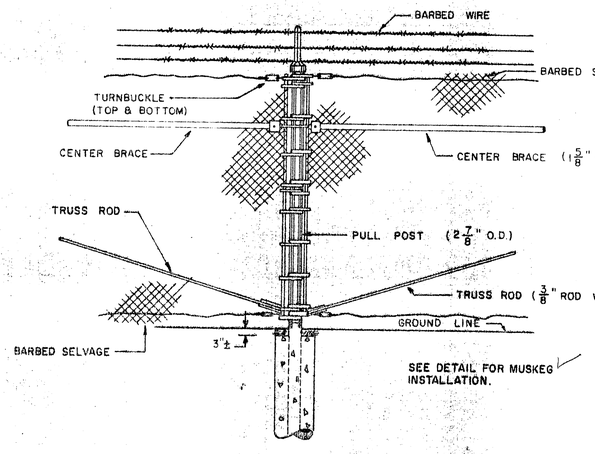
TYPICAL METHOD OF TYING FABRIC TO TUBULAR POSTS



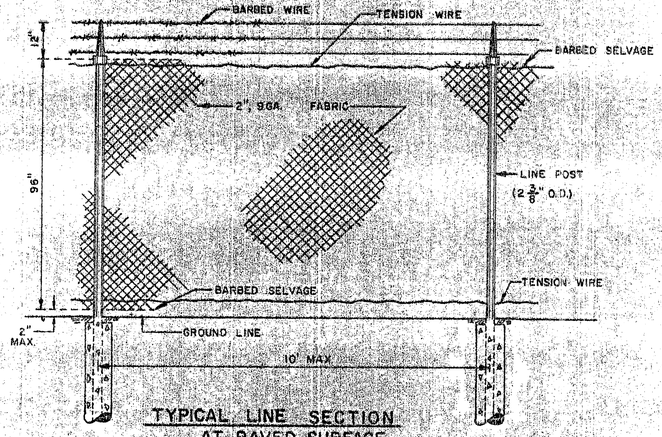
TERMINAL POST



TYPICAL CORNER TERMINAL



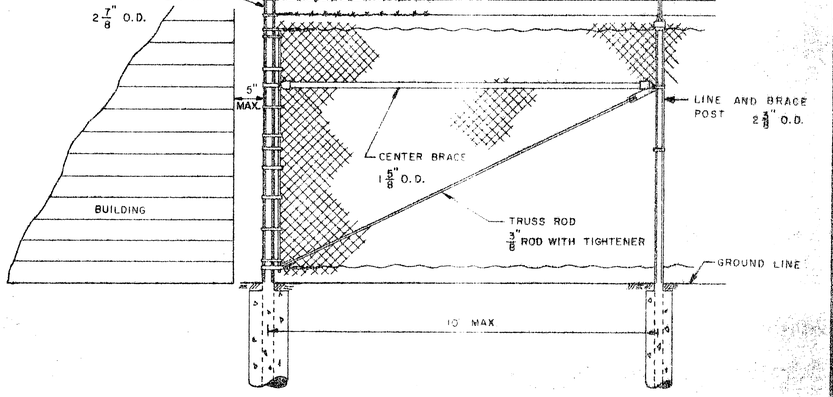
TYPICAL PULL POST



TYPICAL LINE SECTION AT PAVED SURFACE

-GENERAL NOTES-

1. MAXIMUM LINE SPACING BETWEEN PULL POSTS = 120'-0".
2. PULL POST DETAILS SHOWN REQUIRED AT LINE SPACING LOCATIONS NOTED ABOVE SLOPE CHANGES GREATER THAN 15° OR A 4:1 SLOPE, AND CHANGES IN HORIZONTAL DIRECTION (CORNERS).
3. CONTRACTOR RESPONSIBLE FOR SUPPLYING CORRECT HARDWARE.
4. PIPE BRACES AND TRUSS RODS SHALL BE ATTACHED TO POSTS BEFORE FENCE FABRIC IS DRAPED AND DRAWN TAUGHT.



TYPICAL FENCE TERMINUS

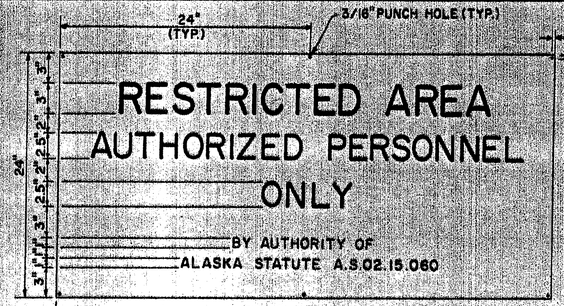
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

HAINES AIRPORT
PROJECT NO. 69523
SECURITY FENCING
CHAIN-LINK FENCE DETAILS

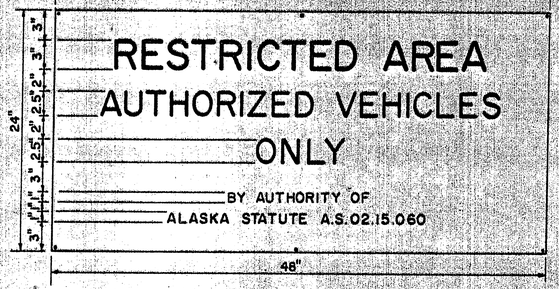
BY	DATE	CHANGE

REVISIONS

APPROVED
DESIGN GROUP LINEY
APPROVED
PROJECT MANAGER
DESIGNED
DRAWN
CHECKED C.H.
DATE
NONE
SHEET 28 39



GATE SIGN - PERSONNEL

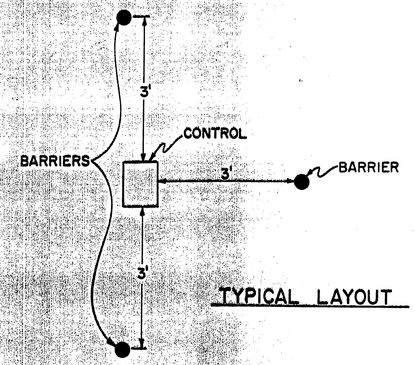


GATE SIGN - VEHICLES

NOTES:

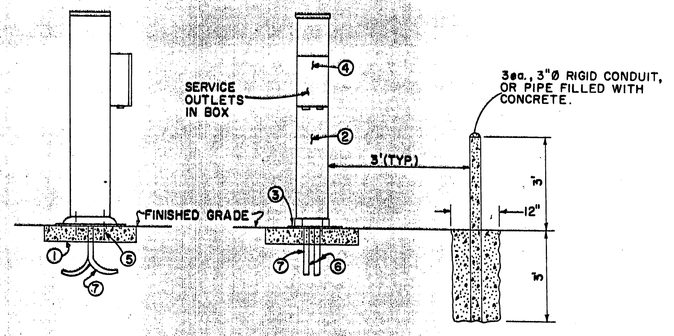
1. SIGN PLATES SHALL HAVE ~~RED~~ WHITE REFLECTIVE SHEETING WITH ~~WHITE~~ RED LETTERING.
2. SIGN PLATES SHALL BE PLACED ON THE FENCE IMMEDIATELY ADJACENT TO GATES INSTALLED UNDER THIS CONTRACT, 4' ABOVE THE GROUND, EXCEPT SLIDE GATES WHICH SHALL HAVE SIGNS ATTACHED IN CENTER OF GATES.
3. "AUTHORIZED VEHICLES" SIGNS SHALL BE USED ON GATES FOR VEHICULAR ACCESS. "AUTHORIZED PERSONNEL" SIGNS SHALL BE USED ON GATES FOR PERSONNEL ACCESS. BOTH SIGNS SHALL BE USED WHERE VEHICLE / PERSONNEL COMBINATIONS OCCUR.
4. ALL SIGNS SHALL BE ATTACHED TO FENCE WITH 9 GAGE WIRE.

BOUNDARY SIGN PLATE DETAIL



TYPICAL LAYOUT

SLIDE GATE CONTROL DETAIL



ELECTRICAL PEDESTAL

TYP. BARRIER

① 2'x 2'x 6" CONCRETE PAD.
② 8"x 10" PEDESTAL.
③ PEDESTAL BASE.
④ CIRCUIT BREAKER & RECEPTACLE.
⑤ MOUNT W/ 3/4" GALV. BOLTS & WASHERS.
⑥ 1-1/2" RIGID STEEL CONDUIT W/ 90° ELBOW FOR # 2-600V. CABLE.
⑦ 1-1/2" CONDUIT TO ELECTRIC GATE.

BY	DATE	DESCRIPTION OF CHANGE

RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

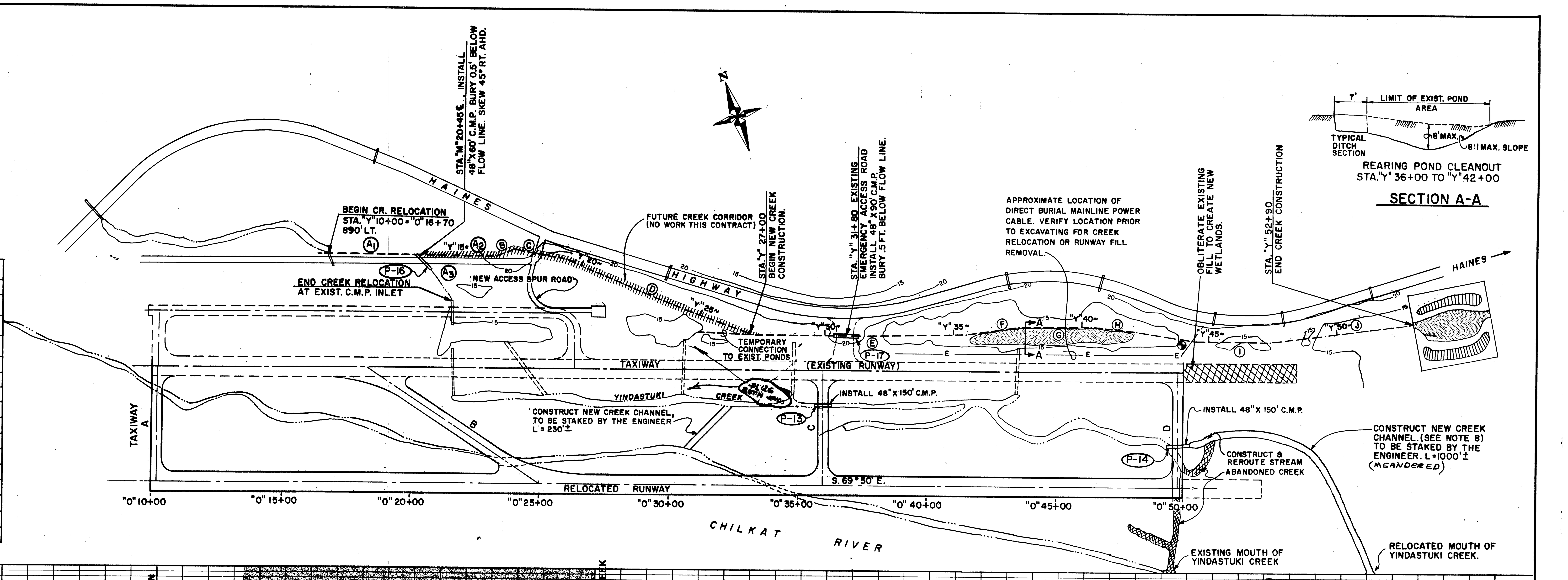
PROJECT NO. 69523
HAINES AIRPORT
SECURITY FENCING
SIGNS AND DETAILS

APPROVED BY: DESIGN GROUP CHIEF / DATE		DESIGNED BY:	SCALE: NONE
RECOMMENDED BY: DESIGN ENGINEER, GROUP ___ / DATE		DRAWN BY: B.A.	DATE:
PREPARED BY: PROJECT MANAGER / LEAD DESIGNER		CHECKED BY: C.H.	SHEET 29 OF 39

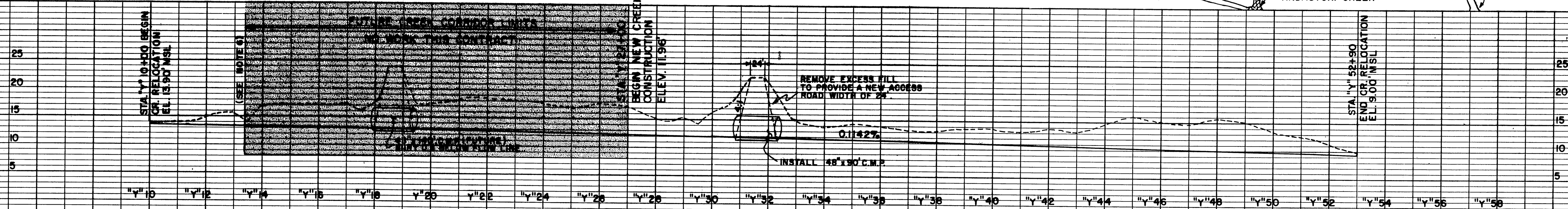
ENGINEER'S STAMP

STATE OF ALASKA 4913 REGISTERED PROFESSIONAL ENGINEER

29

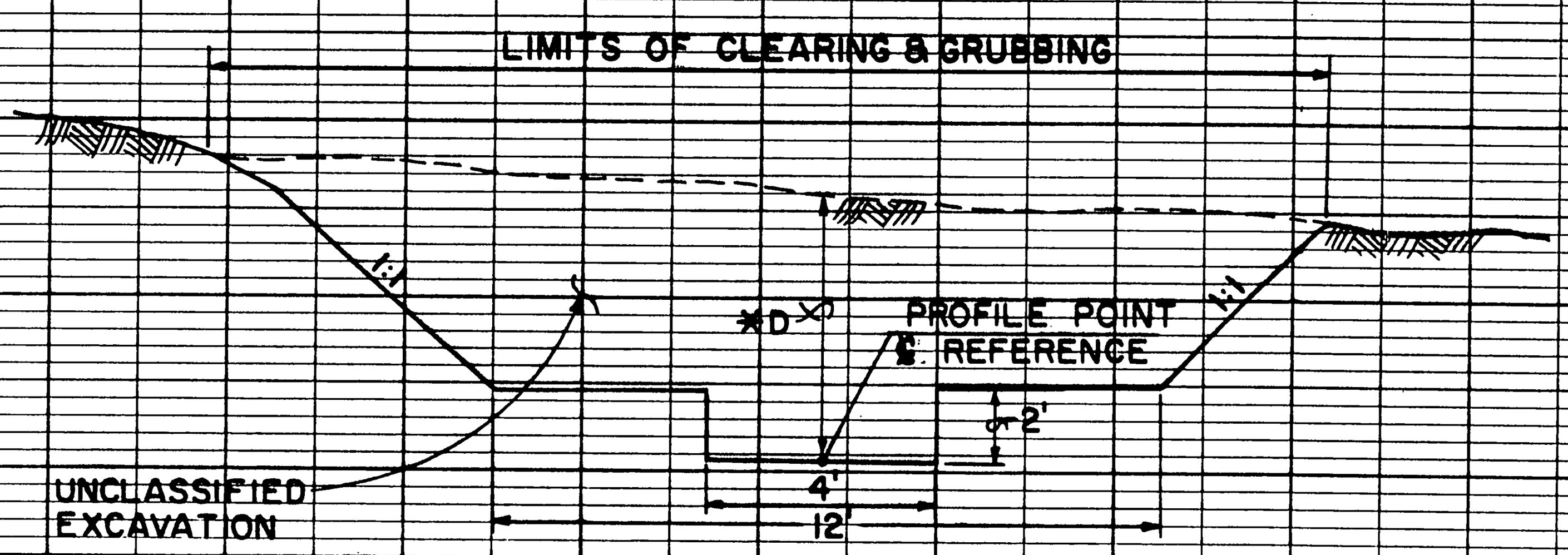


CREEK REALINEMENT		
	DISTANCE	BEARING
A1	350'±	S.70° E.
A2	300'±	S.70° E.
A3	200'±	S. 20° E.
B	80' ±	N.70° E.
C	200' ±	S. 60° E.
D	780' ±	S. 47° E.
E	830' ±	S. 70° E.
F	210' ±	S. 79° E.
G	280' ±	S. 70° E.
H	400' ±	S. 62° E.
I	300' ±	S. 69° E.
J	560' ±	S. 77° E.



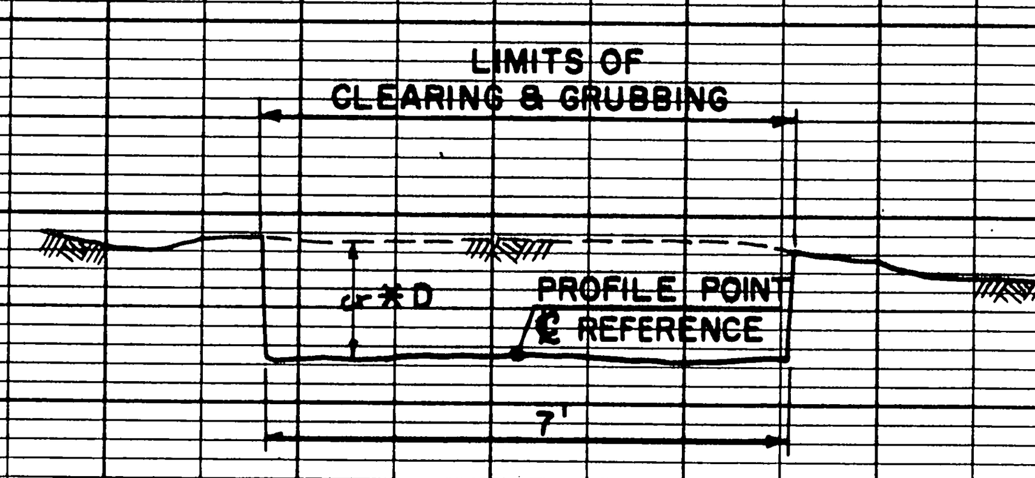
CREEK RELOCATION NOTES:

1. STATIONING BASED ON ACTUAL CREEK ALIGNMENT AS SHOWN ABOVE.
2. THE CREEK RELOCATION SHALL BE COMPLETED DURING THE WINTER WORK WINDOW. NOV. 1st. THRU MARCH 31st.
3. BEARING AND DISTANCES SHOWN ARE APPROXIMATE AND SUBJECT TO MINOR CHANGES IN THE FIELD.
4. 10' PLUGS SHALL BE LEFT AT THE END OF THE CREEK RELOCATION PROJECT WHILE EXCAVATION PROCEEDS. UPON COMPLETION OF ALL CREEK EXCAVATION, LOWER PLUGS SHALL BE REMOVED AT ENGINEER'S DIRECTION.
5. ALL CROSS-RUNWAY PIPES SHALL BE TEMPORARILY PLUGGED DURING CREEK EXCAVATION WORK.
6. FIELD VERIFY INVERT ELEVATION OF EXISTING TAXIWAY CROSSING A_3 AND STRAIGHT LINE GRADE TO LIMITS OF A_1 LINE TO MATCH PROPOSED GRADE LINE.
7. CLEARING AND GRUBBING MAY BE COMBINED WITH EXCAVATION. ALL WASTE EXCAVATION SHALL BE PLACED IN ACCORDANCE WITH SECTION 200 ON AREAS DESIGNATED TO BE SEEDED.
8. FOR THE LAST 300' OF THE RELOCATED CREEK, LOWER STREAM CHANNEL 0.5 FEET BELOW FLOW LINE.



TYPICAL CREEK SECTION

FOR *D GREATER THAN 3 FEET



TYPICAL CREEK SECTION

FOR *D LESS THAN 3 FEET

BY	DATE	DESCRIPTION OF CHANGE
RECORD OF REVISIONS		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

HAINES AIRPORT
YINDASTUKI CREEK RELOCATION

APPROVED BY: DESIGN GROUP CHIEF — DATE
RECOMMENDED BY: DESIGN ENGINEER, GROUP — DATE
PREPARED BY: PROJECT MANAGER — LEAD DESIGNER

DESIGNED BY: T.M.
DRAWN BY: W.D.A.
CHECKED BY: C.H.

HORIZ. SCALE:
VERT. SCALE:
DATE:

SHEET 30 OF 39

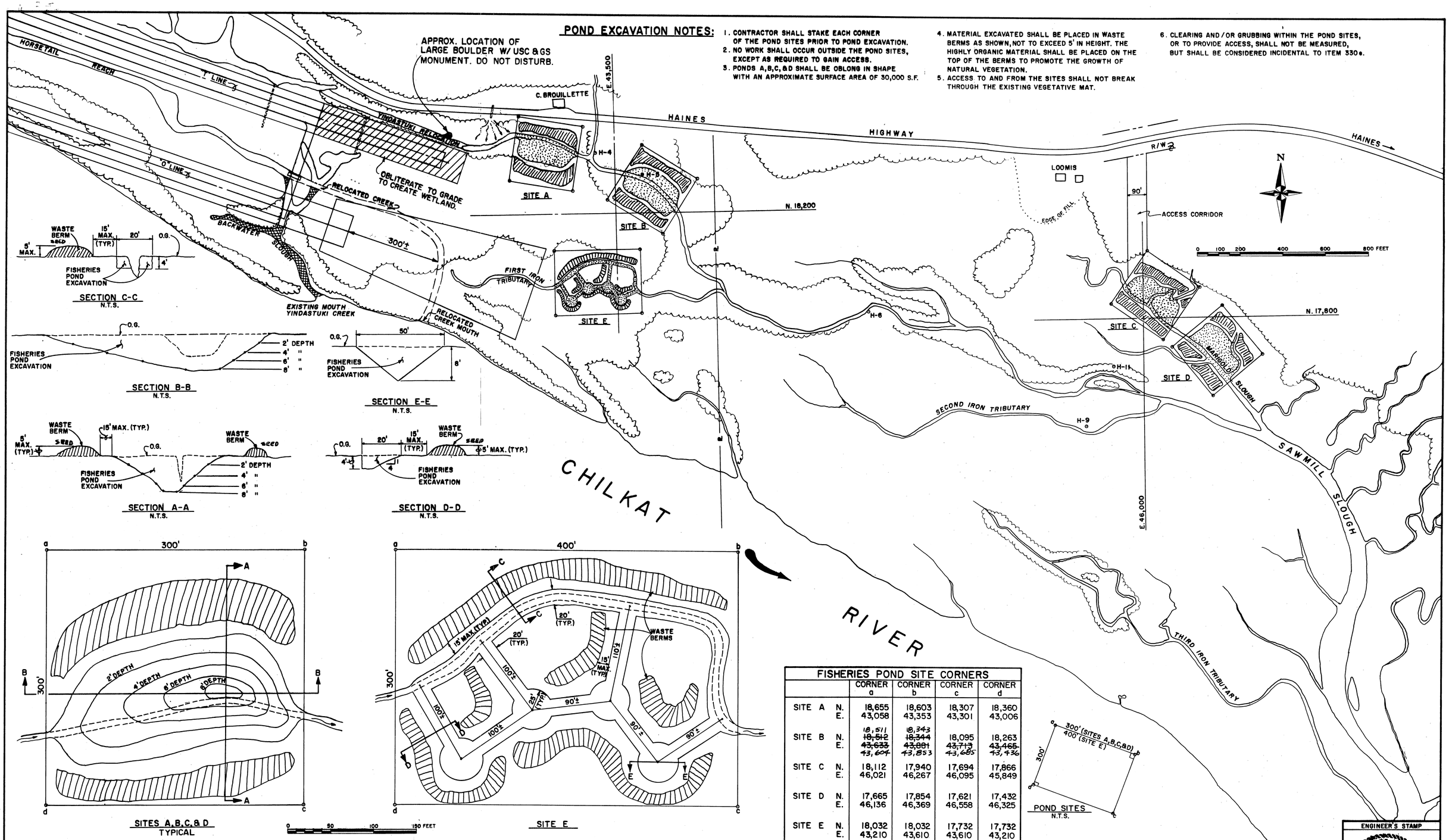
ENGINEER'S STAMP
STATE OF ALASKA 49TH
Tracy W. Moore
CE 6085

PLAN: SURVEYED / PLOTTED / ALIGNMENT CHECKED / RT. OF WAY CHECKED / NOTE BOOK / No. / BY / DATE

PROFILE: SURVEYED / PLOTTED / GRADES CHECKED / B. M.'s NOTED / STRUCTURE NOTATIONS CHECKED / NOTE BOOK / No. / BY / DATE

POND EXCAVATION NOTES:

1. CONTRACTOR SHALL STAKE EACH CORNER OF THE POND SITES PRIOR TO POND EXCAVATION.
2. NO WORK SHALL OCCUR OUTSIDE THE POND SITES, EXCEPT AS REQUIRED TO GAIN ACCESS.
3. PONDS A,B,C,&D SHALL BE OBLONG IN SHAPE WITH AN APPROXIMATE SURFACE AREA OF 30,000 S.F.
4. MATERIAL EXCAVATED SHALL BE PLACED IN WASTE BERMS AS SHOWN, NOT TO EXCEED 5' IN HEIGHT. THE HIGHLY ORGANIC MATERIAL SHALL BE PLACED ON THE TOP OF THE BERMS TO PROMOTE THE GROWTH OF NATURAL VEGETATION.
5. ACCESS TO AND FROM THE SITES SHALL NOT BREAK THROUGH THE EXISTING VEGETATIVE MAT.
6. CLEARING AND/OR GRUBBING WITHIN THE POND SITES, OR TO PROVIDE ACCESS, SHALL NOT BE MEASURED, BUT SHALL BE CONSIDERED INCIDENTAL TO ITEM 330e.



FISHERIES POND SITE CORNERS

		CORNER a	CORNER b	CORNER c	CORNER d
SITE A	N.	18,655	18,603	18,307	18,360
	E.	43,058	43,353	43,301	43,006
SITE B	N.	~~18,511~~ 18,512	~~18,343~~ 18,344	18,095	18,263
	E.	~~43,633~~ 43,604	~~43,081~~ 43,853	~~43,713~~ 43,685	~~43,465~~ 43,436
SITE C	N.	18,112	17,940	17,694	17,866
	E.	46,021	46,267	46,095	45,849
SITE D	N.	17,665	17,854	17,621	17,432
	E.	46,136	46,369	46,558	46,325
SITE E	N.	18,032	18,032	17,732	17,732
	E.	43,210	43,610	43,610	43,210

BY	DATE	DESCRIPTION OF CHANGE
		RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

HAINES AIRPORT
FISHERIES PONDS

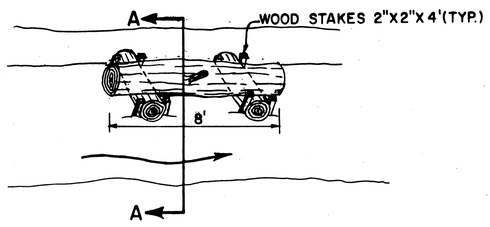
APPROVED BY: _____ DESIGN GROUP CHIEF _____ DATE
RECOMMENDED BY: _____ DESIGN ENGINEER, GROUP _____ DATE
PREPARED BY: _____ PROJECT MANAGER _____ LEAD DESIGNER

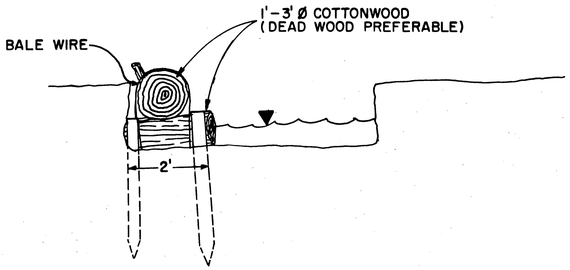
DESIGNED BY: T.M.
DRAWN BY: W.D.A.
CHECKED BY: C.H.
SCALE:
DATE: 1-25-90
SHEET 31 OF 39

ENGINEER'S STAMP
STATE OF ALASKA 49TH
Trevor W. Moore
CE-14532
REGISTERED PROFESSIONAL ENGINEER

AS SUPPLIED 11/2000

LARGE WOODY DEBRIS

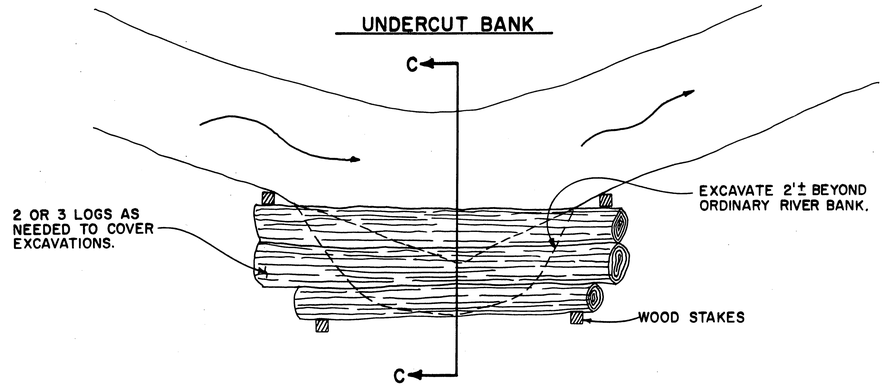


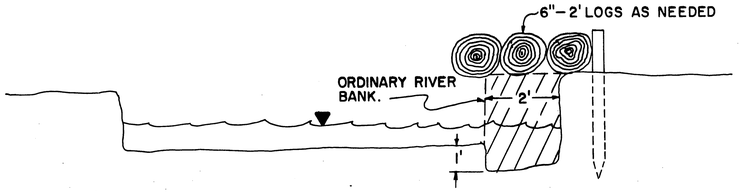


INSTALL EVERY 50' ON ALTERNATE SIDES OF CREEK.

SECTION A-A

UNDERCUT BANK

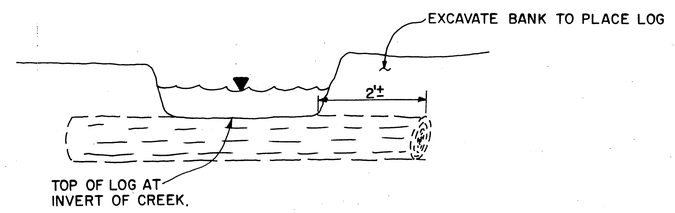




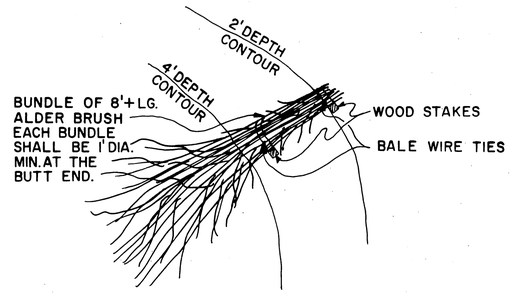
INSTALL AT EACH ANGLE POINT ON CREEK.

SECTION C-C

DETAIL 1
EROSION BARRIER

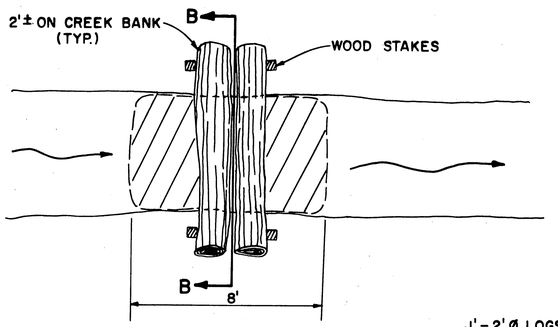


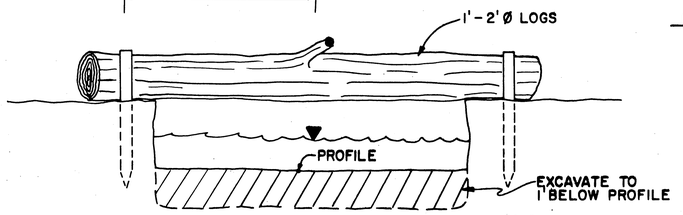
DETAIL 2
TEMPORARY COVER



SPACE 5 BUNDLES AROUND EACH POND.

OVERHANGING LOGS

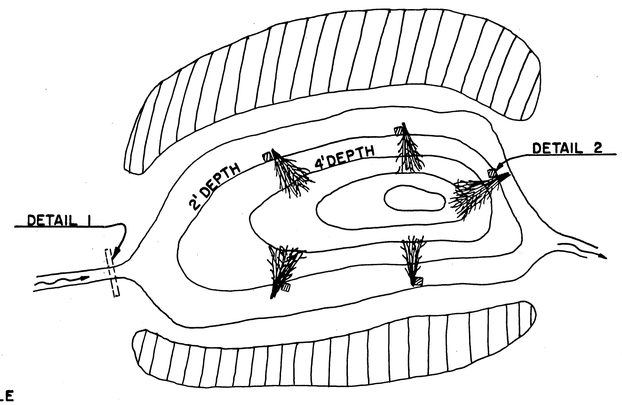




INSTALL EVERY 200' ON CREEK, BETWEEN LARGE WOODY DERBIS.

SECTION B-B

POND ENHANCEMENT (TYPICAL)



NOTES:

1. THE LARGE WOODY DEBRIS, UNDERCUT BANK, OVERHANG LOGS, AND EROSION BARRIER DETAILS SHALL BE USED ON ALL CREEK & DITCH RELOCATIONS / NEW CONSTRUCTIONS.
2. TEMPORARY COVER SHALL BE USED ON ALL FISHERY POND LOCATIONS.

BY	DATE	DESCRIPTION OF CHANGE
		RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

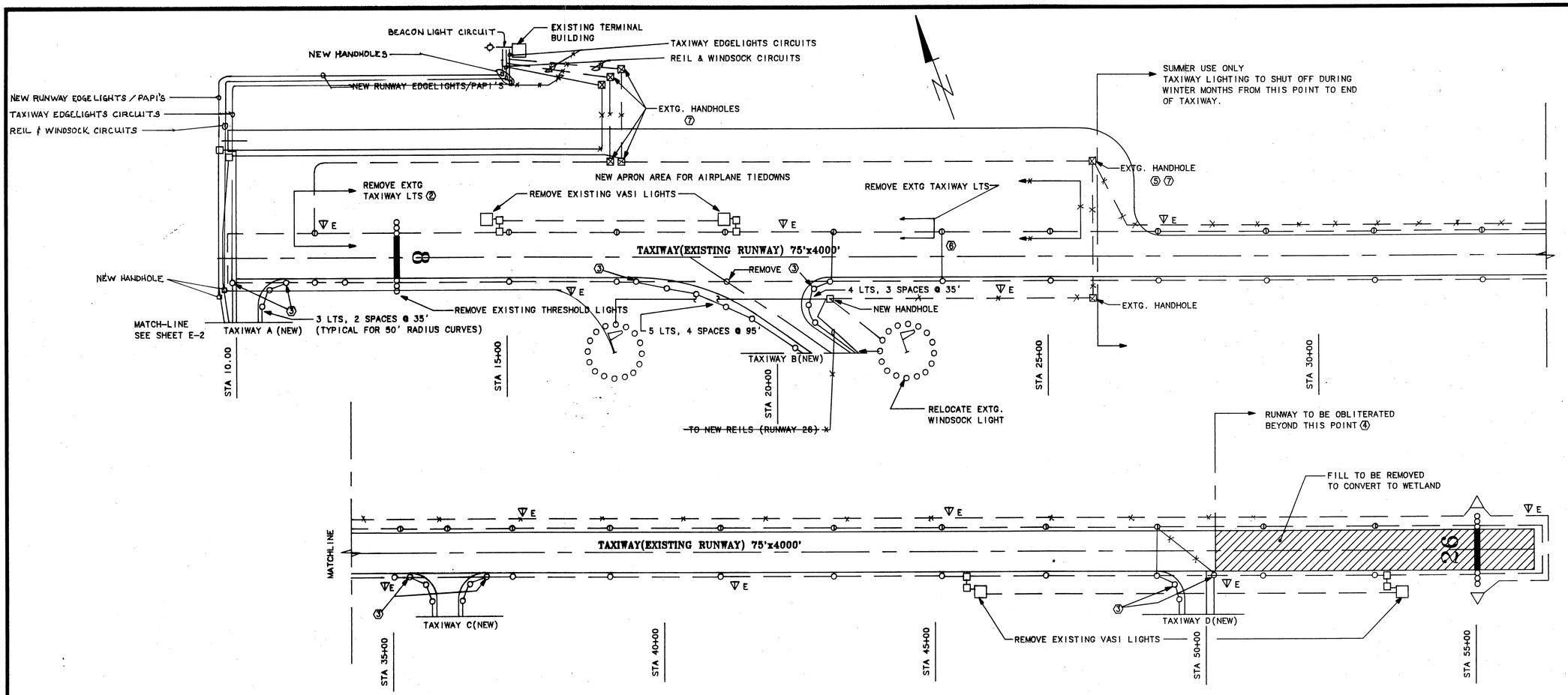
HAINES AIRPORT

YINDASTUKI CREEK ENHANCEMENT

APPROVED BY: _____ DESIGN GROUP CHIEF _____ DATE
RECOMMENDED BY: _____ DESIGN ENGINEER, GROUP ___ _____ DATE
PREPARED BY: _____ PROJECT MANAGER _____ LEAD DESIGNER

DESIGNED BY: T.M.
DRAWN BY: B.A.
CHECKED BY: C.H.
SCALE: NONE
DATE:
SHEET 32 OF 39

ENGINEER'S STAMP
STATE OF ALASKA
49TH
Tracy W. Moore
CE #9932
REGISTERED PROFESSIONAL ENGINEER



EXISTING RUNWAY

SCALE: 1"=100' 0' 50' 100' 200'

LEGEND

— —o— —	EXISTING CONDUIT WITH EXISTING RUNWAY EDGE LIGHTS
——o——	NEW CONDUIT WITH TAXIWAY EDGE LIGHT
——⊕——	NEW CONDUIT WITH RUNWAY EDGE LIGHT
◁ ooo-ooo ▷	REIL AND RUNWAY THRESHOLD LIGHTS
▽E	GROUND ROD (EXISTING)
▽	GROUND ROD
□	HANDHOLE
(1)	LIGHTED TAXIWAY/RUNWAY SIGN IDENTIFICATION NUMBER
B.C.	BARE CONDUCTOR

NOTES

(1) EXISTING RUNWAY IS TO BECOME TAXIWAY FOR NEW RUNWAY. REPLACE EXISTING RUNWAY EDGE LIGHT LENSES WITH BLUE LENSES MARKING NEW TAXIWAY.

(2) REMOVE EXISTING TAXIWAY LIGHTS IN NEW APRON AREA. USE EXISTING LIGHT BASES AS HANDHOLES. PROVIDE NEW STEEL COVER PLATES. REPLACE EXTG TAXIWAY LIGHTING CABLE FROM CONSTANT CURRENT REGULATOR TO FIRST TAXIWAY LIGHT BEYOND APRON AREA.

(3) NEW TAXIWAY LIGHTS TO MARK RAMP TO NEW RUNWAY. INTERCEPT EXISTING CONDUIT FOR POWER.

(4) REMOVE EXISTING RUNWAY, REIL, THRESHOLD AND VASI LIGHTS (INCLUDING BASES) MARKING EXISTING RUNWAY TO BE OBLITERATED AND TURN OVER TO DOT MAINTENANCE PERSONNEL.

(5) SPLICE INTO EXISTING REIL LIGHTS WIRING AT EXISTING HANDHOLE TO POWER NEW REIL LIGHTS. ROUTE NEW WIRING THROUGH EXISTING AND NEW CONDUITS AS SHOWN.

(6) CROSS EXISTING RUNWAY WITH NEW CONDUIT FOR CIRCUIT SELECTOR SWITCH WIRING. SEE WIRING DETAIL SHEET E-3.

(7) GRADE TO BE RAISED +/- 1 FT. ADJUST EXTG HANDHOLES TO MEET FINISHED GRADE.

(8) COBBLES AND BOULDERS ARE KNOWN TO EXIST IN THE EXISTING EMBANKMENT AREAS.

STATE OF ALASKA 49TH B. C. Height EE 4800 REGISTERED PROFESSIONAL ENGINEER

REV	DATE	ACTION	DESCRIPTION	BY	APVD

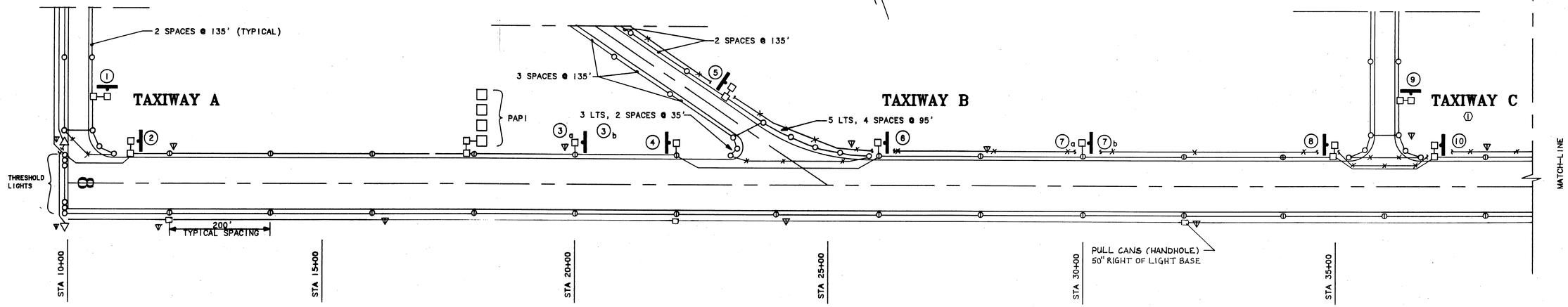
B.C. Height
Consulting Engineers
430 Fourth Street, Juneau, Alaska, (907) 586-6788

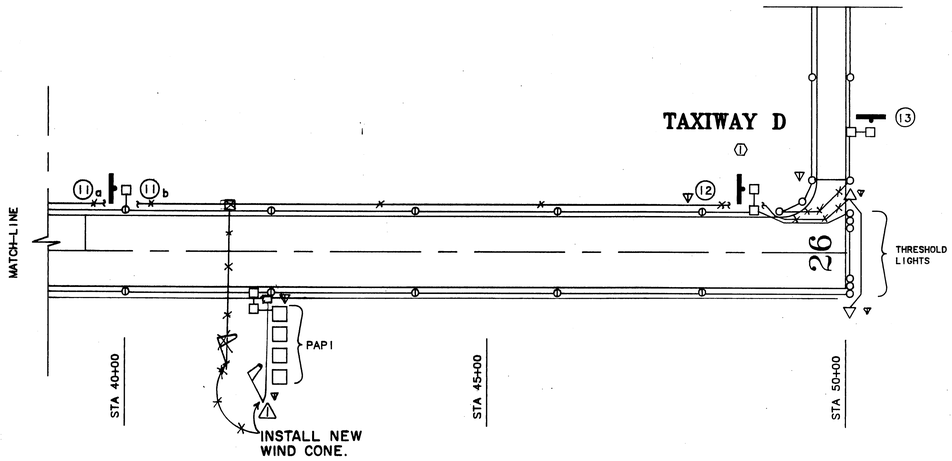
E-1

State of Alaska, DOT/PF
Haines Airport Runway Lighting
Haines, Alaska

EXISTING RUNWAY PLAN

PROJECT NUMBER 69523
Scale: AS NOTED
Date: APRIL 90
Drwn. PEL Dsgn. TSM Apvd. BCH
Sheet No SH. 33 OF 39





NEW RUNWAY

SCALE: 1"=100' 0 50' 100' 200'

NOTES

1. RAMPS C AND D ARE TO BE USED DURING SUMMER MONTHS ONLY. TAXIWAY LIGHTS FROM RAMP B EAST SHALL BE SHUT OFF BY THE CIRCUIT SELECTOR SWITCH DURING THE WINTER MONTHS.

STATE OF ALASKA 49TH STATE B. C. Haight EE 4800 REGISTERED PROFESSIONAL ENGINEER

REV	DATE	ACTION	DESCRIPTION	BY	APVD
1	8/90		ADDED NEW WIND CONE	T.M.	T.M.

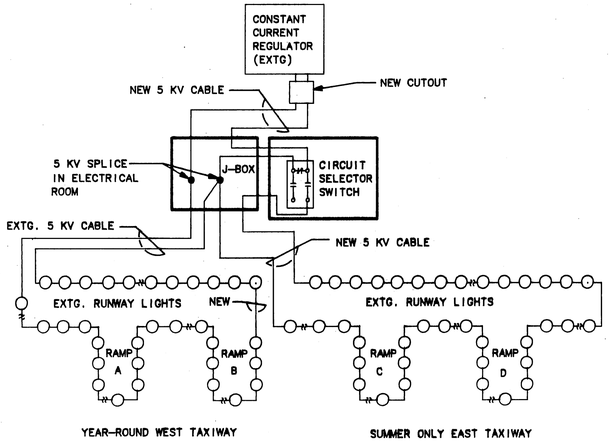
B.C. Haight
Consulting Engineers
430 Fourth Street, Juneau, Alaska, (907) 586-6766

E-2

State of Alaska, DOT/PF
Haines Airport Runway Lighting
Haines, Alaska

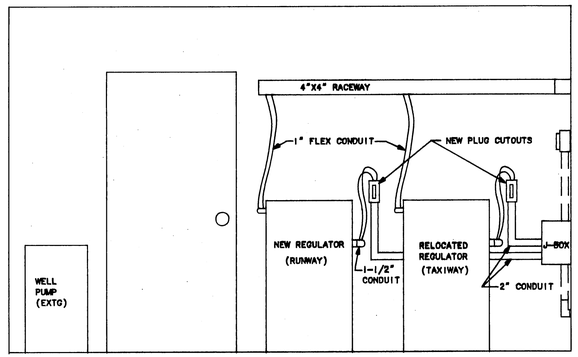
NEW RUNWAY PLAN

PROJECT NUMBER 69523
Scale: AS NOTED
Date: APRIL 90
Drwn. TSM Dsgn. TSM Apvd. BCH
Sheet No. SH. 34 OF 39



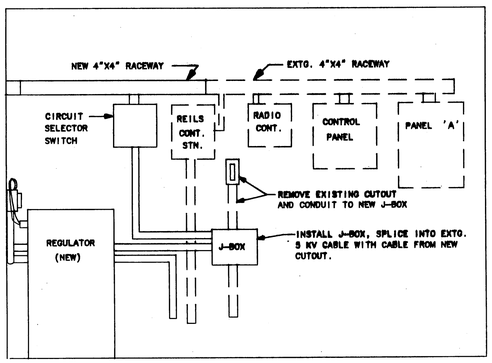
CIRCUIT SELECTOR SWITCH WIRING DETAIL

NO SCALE



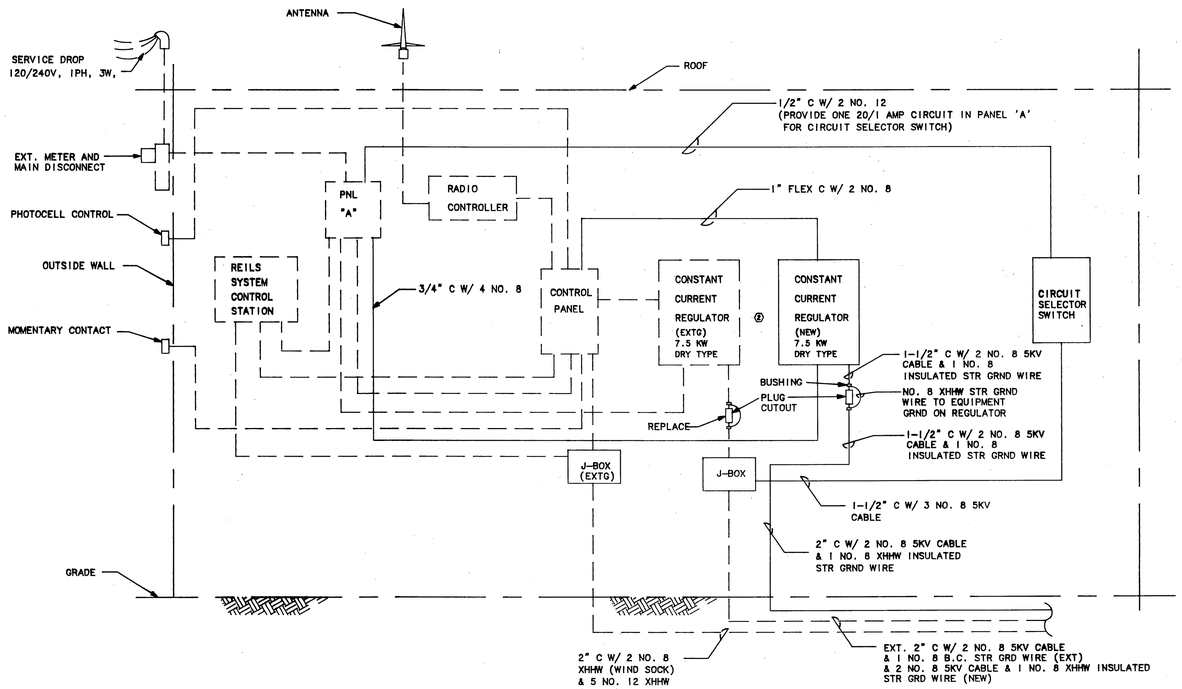
ELECTRICAL ROOM SOUTH ELEVATION

NO SCALE



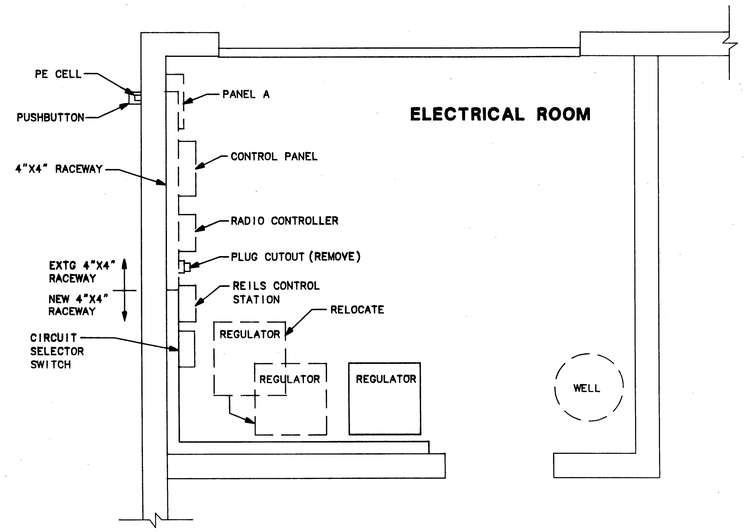
ELECTRICAL ROOM WEST ELEVATION

NO SCALE



SINGLE LINE DIAGRAM

NO SCALE



TERMINAL BUILDING - PARTIAL FLOOR PLAN

NO SCALE

N
(MAGNETIC)

NOTES

① DASHED LINE INDICATES EXISTING EQUIPMENT, SOLID LINE INDICATES NEW EQUIPMENT.

② NEW CONSTANT CURRENT REGULATOR SHALL MATCH EXISTING HEAVY DUTY, DRY TYPE, 7.5 KW REGULATOR.

REV	DATE	ACTION	DESCRIPTION	BY	APVD

B.C. Haight
Consulting Engineers
430 Fourth Street, Juneau, Alaska, (907) 586-6788

E-3

State of Alaska, DOT/PF
Haines Airport Runway Lighting

Haines, Alaska

DETAILS

PROJECT NUMBER 69523

Scale: AS NOTED

Date: APRIL 90

Drwn. TSM | Dsgn. TSM | Apvd. BCH

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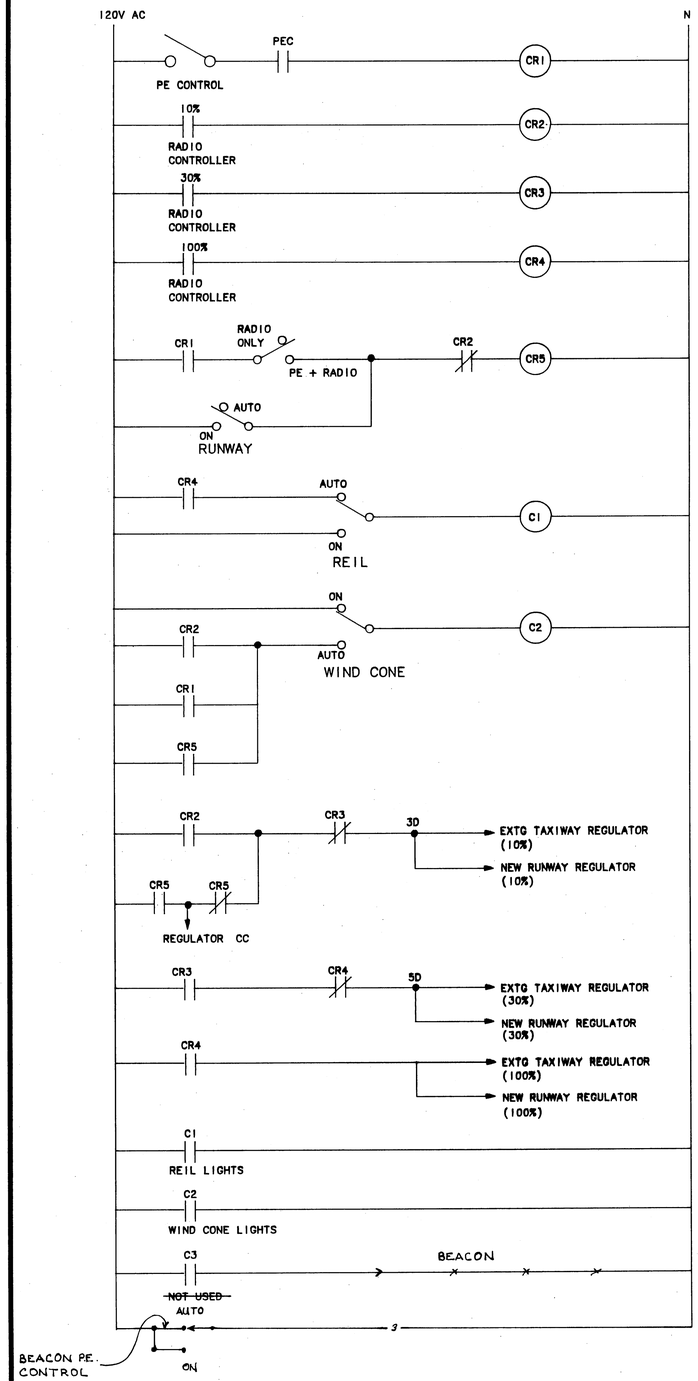
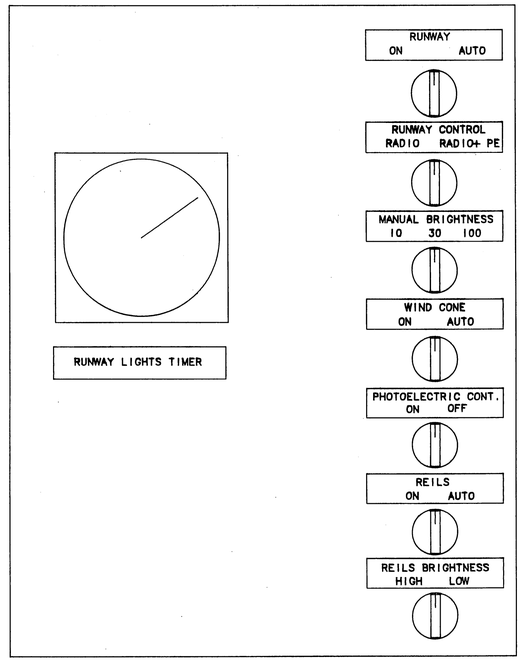
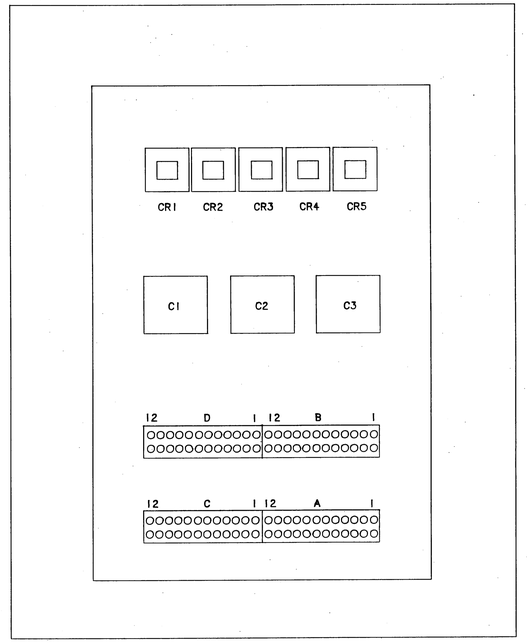


AIRPORT LIGHTING CONTROLS LADDER DIAGRAM

NO SCALE



COVER LAYOUT



INTERIOR LAYOUT

EXISTING AIRPORT LIGHTING CONTROLS

NO SCALE

STATE OF ALASKA 49TH
B.C. Height
EE 4800
REGISTERED PROFESSIONAL ENGINEER

REV	DATE	ACTION	DESCRIPTION	BY	APVD

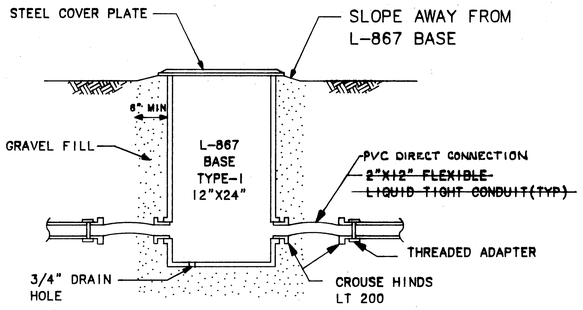
B.C. Height
Consulting Engineers
430 Fourth Street, Juneau, Alaska, (907) 586-6766

E-4

State of Alaska, DOT/PF
Haines Airport Runway Lighting
Haines, Alaska

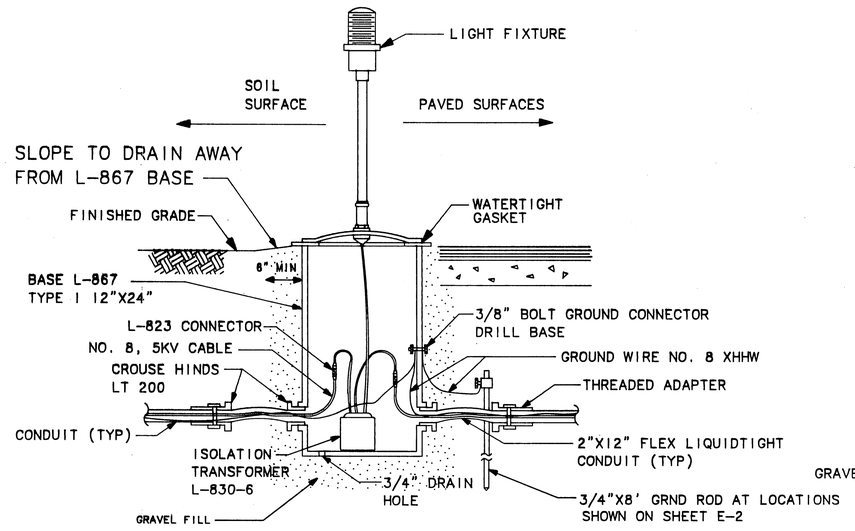
DETAILS

PROJECT NUMBER 69523
Scale: AS NOTED
Date: APRIL 90
Drwn. TSM Dsgn. TSM Apvd. BCH
SH. 36 OF 39



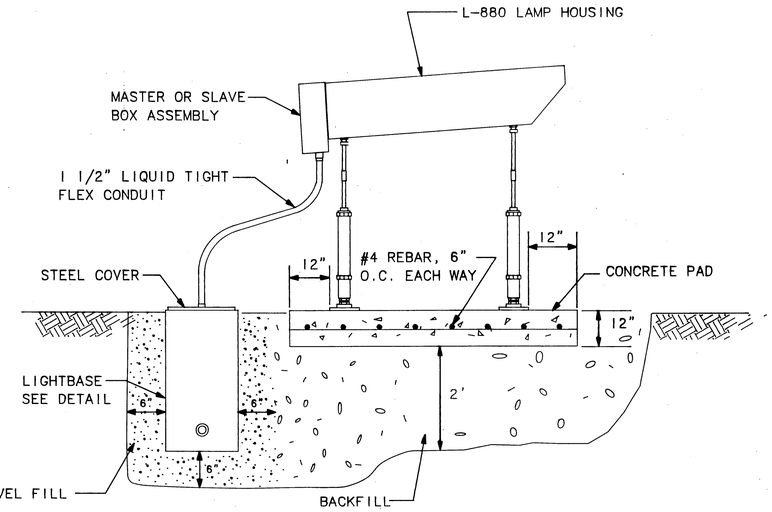
DETAIL
HANDHOLE

NO SCALE



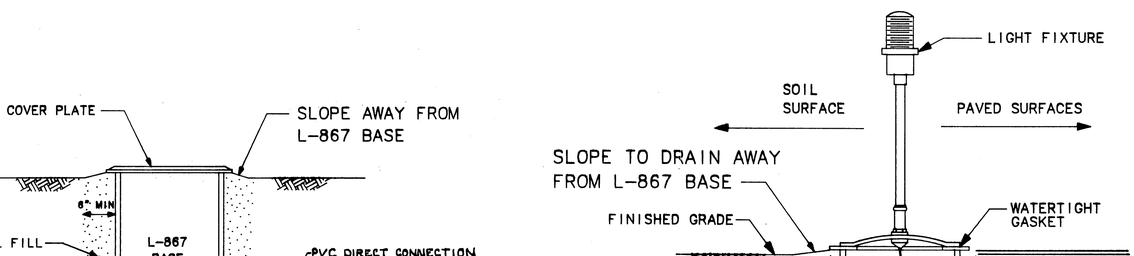
DETAIL
RUNWAY OR TAXIWAY EDGE LIGHT OR THRESHOLD LIGHT

NO SCALE



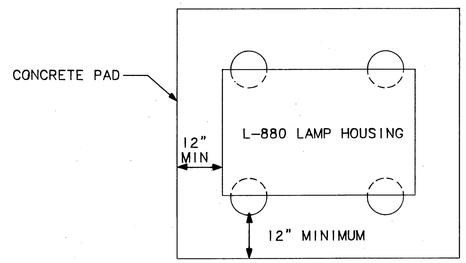
DETAIL
PAPI LIGHT

NO SCALE



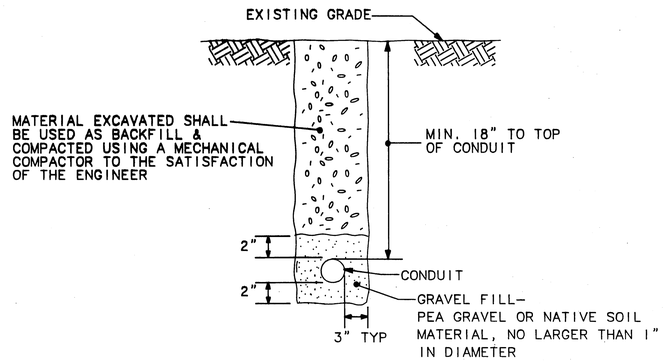
DETAIL
CONDUIT INSTALLATION

NO SCALE



PLAN VIEW
PAPI LIGHT

NO SCALE



CONDUIT TRENCH DETAIL

NO SCALE

STATE OF ALASKA
49TH
B. C. Haight
EE 4800
REGISTERED PROFESSIONAL ENGINEER

REV	DATE	ACTION	DESCRIPTION	BY	APVD

B.C. Haight
Consulting Engineers
430 Fourth Street, Juneau, Alaska, (907) 586-6788

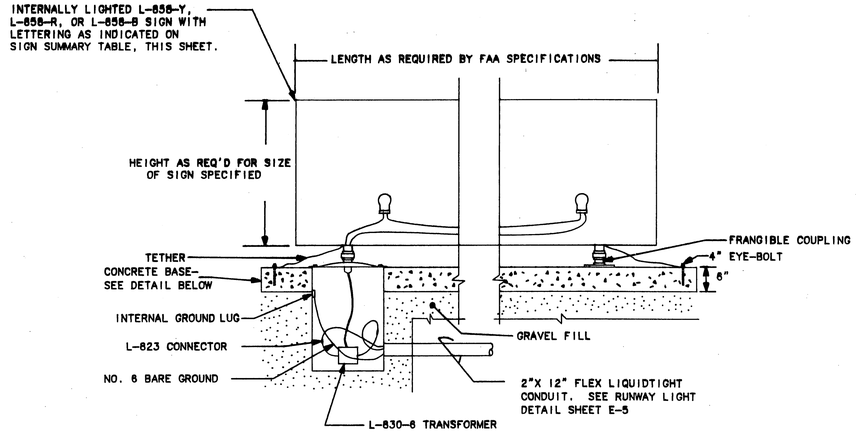
E-5

State of Alaska, DOT/PF
Haines Airport Runway Lighting
Haines, Alaska

DETAILS

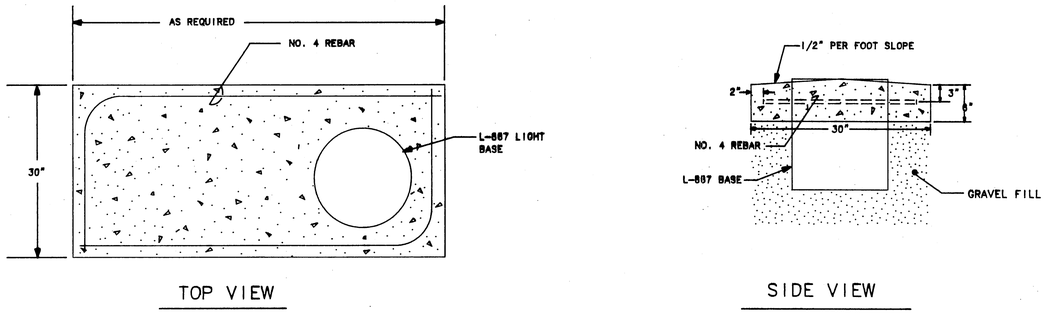
PROJECT NUMBER	Scale: AS NOTED	
69523	Date: APRIL 90	
Drwn. TSM	Dsgn. TSM	Apvd. BCH

SH. 37 OF 39



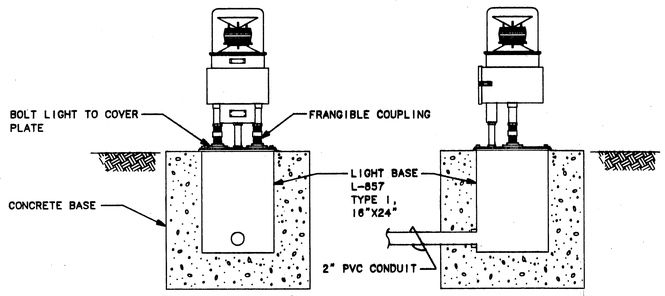
LIGHTED SIGN DETAIL

NO SCALE



CONCRETE BASE DETAILS

NO SCALE



RUNWAY END IDENTIFIER LIGHT DETAILS

NO SCALE

SIGN SUMMARY

SIGN NO.	LEGEND	SIGN FACE SIZE	LETTER SIZE & COLOR	BACKGROUND COLOR	TYPE ①	LEGEND DIRECTION	STATION	RNWY ℄ OFFSET	REMARKS
①	26-8	60 x 18	12" WHITE	RED	M	NORTH	10+50	150'	INSTALL PARALLEL TO T/W HOLD LINE
②	A	30 X 18	12" BLACK	YELLOW	I	WEST	10+90	50'	
③ a	3	42 X 30	25" WHITE	BLACK	I	EAST	20+00	65'	
③ b	I	42 X 30	25" WHITE	BLACK	I	WEST	20+00	65'	
④	B	30 X 18	12" BLACK	YELLOW	I	EAST	24+30	50'	
⑤	26-8	60 x 18	12" WHITE	RED	M	SOUTH	25+30	150'	INSTALL PARALLEL TO T/W HOLD LINE
⑥	B	30 X 18	12" BLACK	YELLOW	I	WEST	25+70	50'	
⑦ a	2	42 X 30	25" WHITE	BLACK	I	EAST	30+00	65'	
⑦ b	2	42 X 30	25" WHITE	BLACK	I	WEST	30+00	65'	
⑧	C	30 X 18	12" BLACK	YELLOW	I	EAST	34+30	50'	
⑨	26-8	60 x 18	12" WHITE	RED	M	SOUTH	35+30	150'	INSTALL PARALLEL TO T/W HOLD LINE
⑩	C	30 X 18	12" BLACK	YELLOW	I	WEST	35+70	50'	
⑪ a	I	42 X 30	25" WHITE	BLACK	I	EAST	40+00	65'	
⑪ b	3	42 X 30	25" WHITE	BLACK	I	WEST	40+00	65'	
⑫	D	30 X 18	12" BLACK	YELLOW	I	EAST	49+10	50'	
⑬	26-8	60 x 18	12" WHITE	RED	M	SOUTH	50+10	150'	INSTALL PARALLEL TO T/W HOLD LINE

① M = MANDATORY
I = INFORMATIONAL

STATE OF ALASKA 49TH STATE
B. C. Height
EE 4800
REGISTERED PROFESSIONAL ENGINEER

REV	DATE	ACTION	DESCRIPTION	BY	APVD

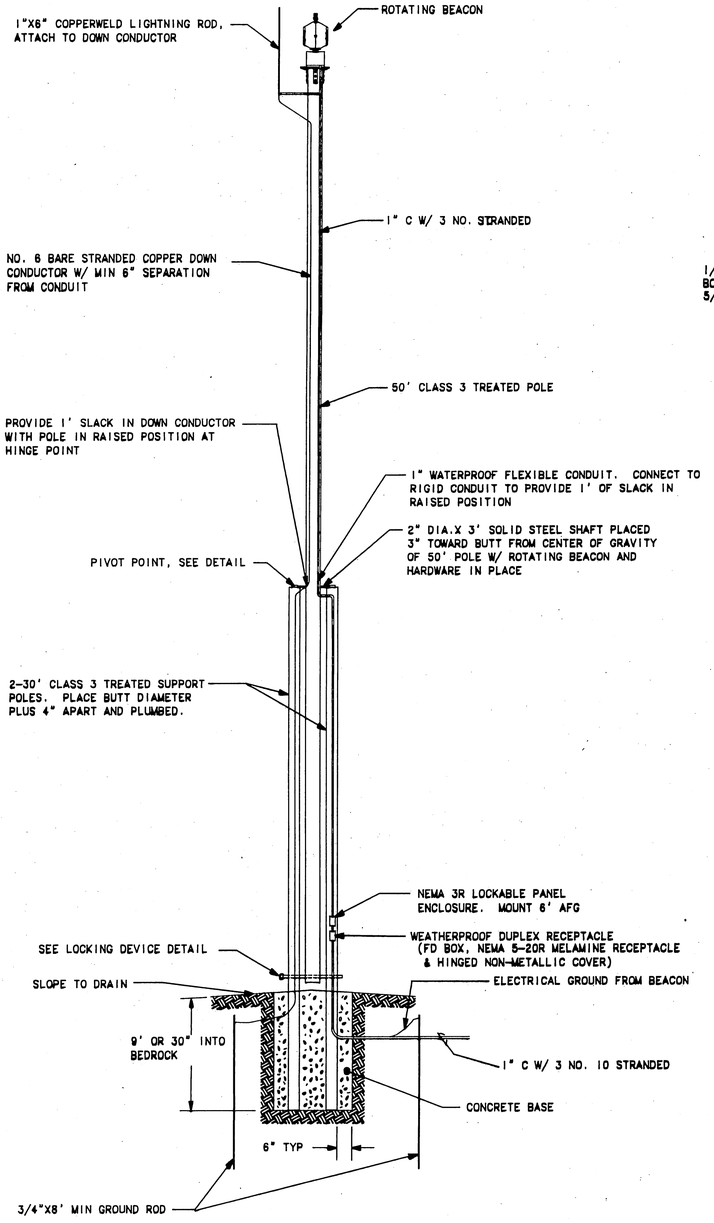
B.C. Height
Consulting Engineers
430 Fourth Street, Juneau, Alaska, (907) 586-8788

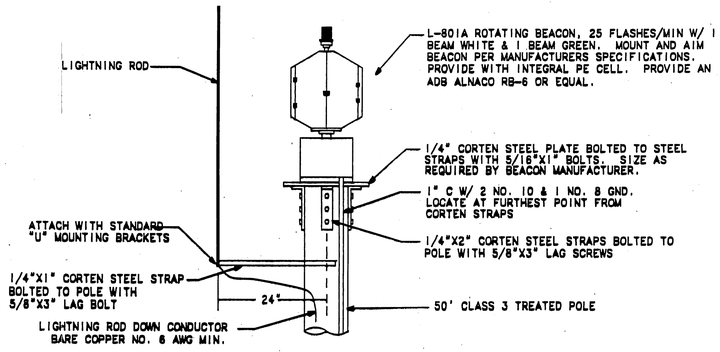
E-6

State of Alaska, DOT/PF
Haines Airport Runway Lighting
Haines, Alaska

DETAILS

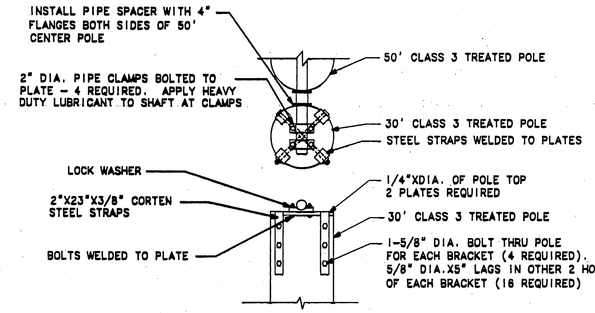
PROJECT NUMBER 69523
Scale: AS NOTED
Date: APRIL 80
Drwn. TSM | Dsgn. TSM | Apvd. BCH
SH. 38 OF 39





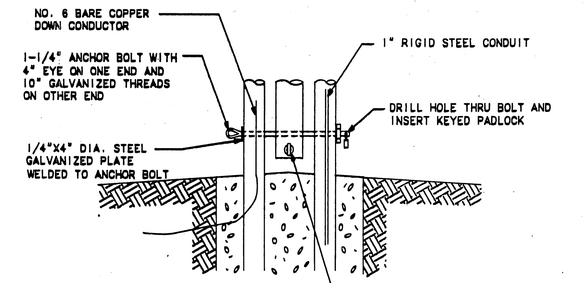
ROTATING BEACON AND MOUNTING BRACKET DETAIL

NO SCALE



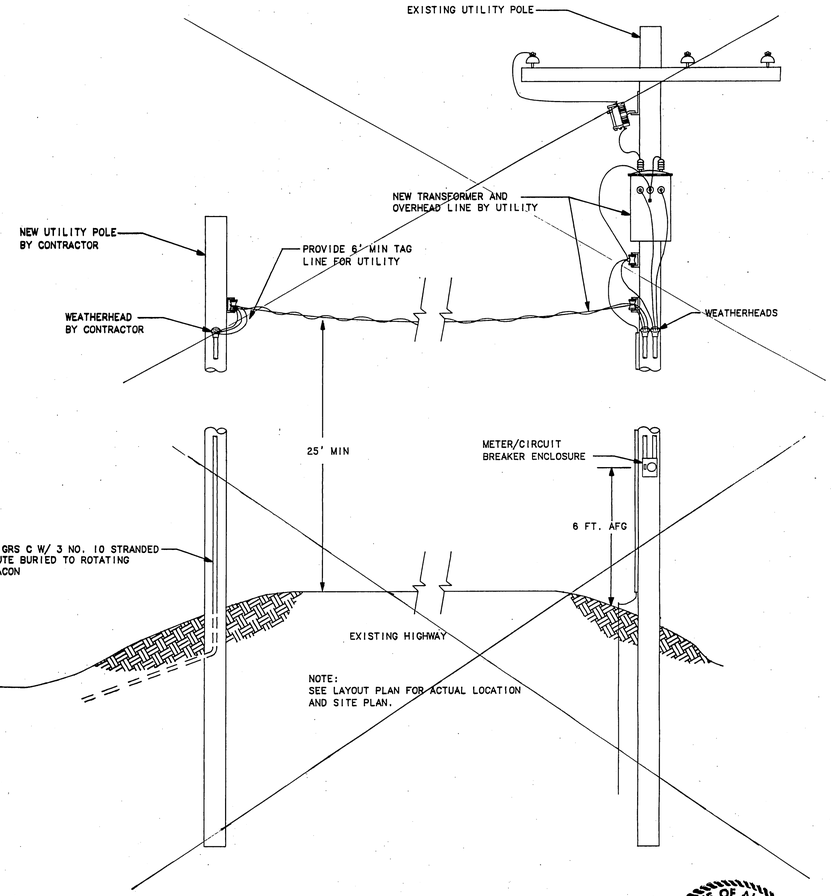
PIVOT DETAIL

NO SCALE



LOCKING DEVICE DETAIL

NO SCALE

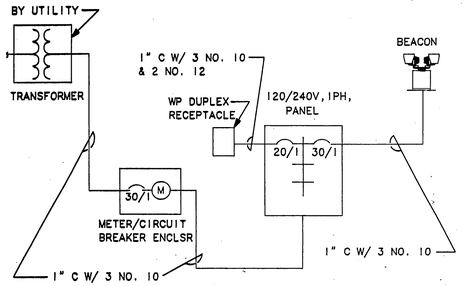


ELECTRICAL SERVICE UNDERGROUND ORIGINATING AT AIRPORT TERMINAL

SERVICE DROP DETAIL

SEE SHEET 33

NO SCALE



BEACON SINGLE LINE DIAGRAM

NO SCALE

NOTES

① EQUALLY SPACE 24 VERTICLE AND 24 HORIZONTAL #4 REBAR IN CONCRETE FOUNDATION. CLEAR DISTANCE FOR REBAR SHALL BE 4" TOP AND BOTTOM AND 3" SIDE.

② SEE LAYOUT PLAN FOR ACTUAL LOCATION AND SITE PLAN.

③ ALTERNATE SUPPORT TOWER MAY BE SUBSTITUTED FOR THE ONE SHOWN PROVIDED IT MEETS THE DESIGN LOADING CRITERIA FOR A 100 MPH WIND LOADING.

STATE OF ALASKA 49TH B. C. Haight EE 4800 REGISTERED PROFESSIONAL ENGINEER

REV	DATE	ACTION	DESCRIPTION	BY	APVD

B.C. Haight
Consulting Engineers
430 Fourth Street, Juneau, Alaska, (907) 586-9788

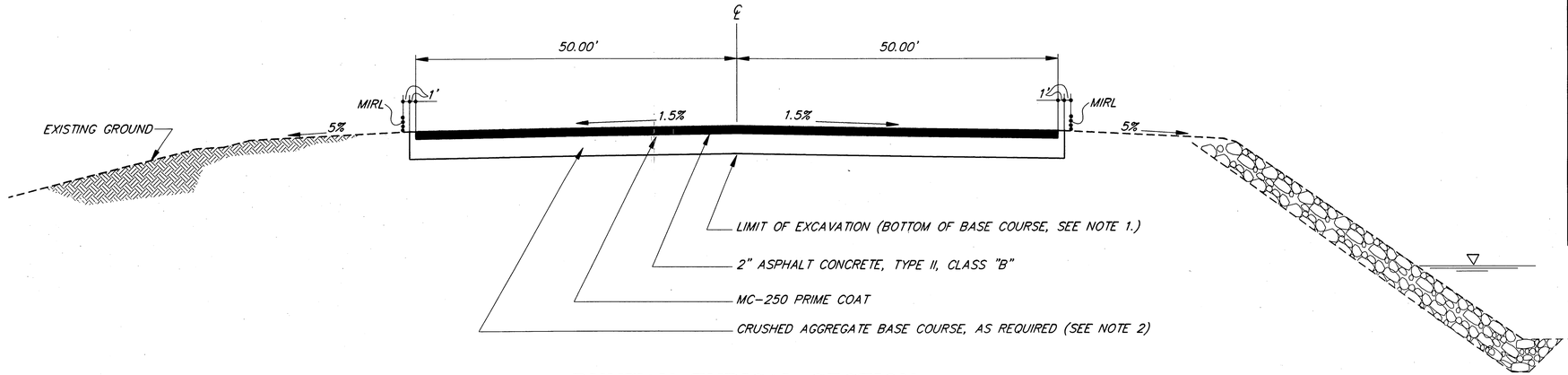
E-7

State of Alaska, DOT/PF
Haines Airport Runway Lighting
Haines, Alaska

ROTATING BEACON DETAILS

PROJECT NUMBER	Scale: AS NOTED
69523	Date: APRIL 90
Drwn. TSM Dsgn. TSM	Apvd. BCH

SH. 39 OF 39



RUNWAY TYPICAL SECTION

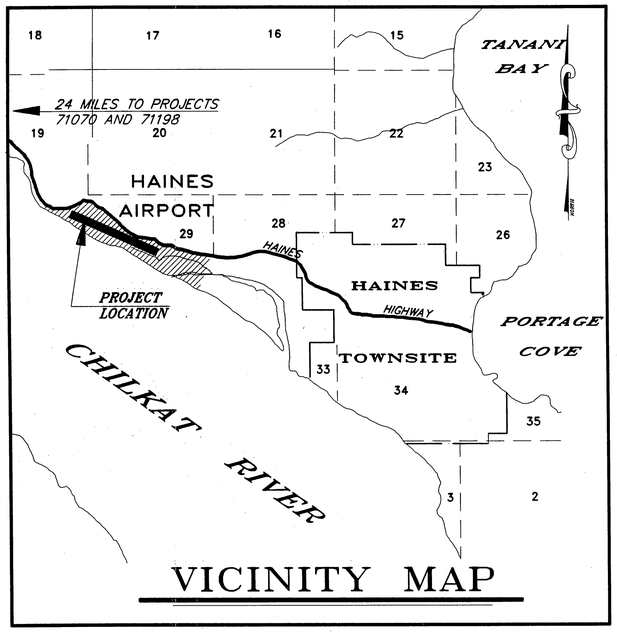
STA. "0" 13+00 TO STA. "0" 17+00

ESTIMATE OF QUANTITIES

ITEM NO.	ITEM	UNIT	QUANT.
120(1)	DBE ADJUSTMENT	CS	ALL REQ'D.
203(12)	EXCAVATION & COMPACTION	LS	ALL REQ'D.
201(3A)	CLEARING & GRUBBING	ACRE	0.269
301(1)	CRUSHED AGGREGATE BASE COURSE	TON	~~700~~ 468.7
202(2)	REMOVAL OF PAVEMENT	SY	1,844
401(1)	ASPHALT CONCRETE, TYPE II CLASS "B"	TON	~~570~~ 781.2
401(2)	PBA-3 ASPHALT CEMENT	TON	~~32~~ 0
403(3)	MC-250 LIQUID ASPHALT FOR PRIME COAT	TON	~~3.5~~ 2.45
203(3)	UNCLASSIFIED EXCAVATION	CY	~~202~~
203(11)	EMBANKMENT	CY	337
640(1)	MOBILIZATION AND DEMOBILIZATION	LS	ALL REQ'D.
642(1a)	CONSTRUCTION SURVEYING (AIRPORT)	LS	ALL REQ'D.
670(3)	PAINTED AIRPORT MARKINGS	LS	ALL REQ'D.
304(2)	SUBBASE GRADING "C"	CY	498
401(2A)	AC-5 ASPHALT CEMENT	TON	37.66

GENERAL NOTES

1. THE EXISTING 8" TO 10" OF CRUSHED BASE COURSE SHALL BE REMOVED AND STOCKPILED FOR USE IN THE REPAIR AREA AFTER THE EMBANKMENT HAS BE RECOMPACTED IN ACCORDANCE WITH SECTION 203.
2. ADDITIONAL BASE COURSE, IF REQUIRED, SHALL BE USED TO FILL THE AREA THAT HAS SETTLED. ALL BASE COURSE WORK SHALL CONFORM TO THE SPECIFICATIONS.
3. THE VERTICAL AND HORIZONTAL CONTROL SHALL BE A STRAIGHT LINE FROM THE EXISTING CUT EDGES OF ASPHALT CONCRETE. THE RUNWAY WAS CONSTRUCTED AT A UNIFORM LONGINTUDINAL GRADE OF -0.0870%.
4. AIRPORT CONSTRUCTION PLANS ARE AVAILABLE FOR REVIEW BY CONTACTING GREG BROWNING AT THE HAINES CONSTRUCTION OFFICE, PHONE NO. 1-(907) 766-2887.



VICINITY MAP

615(1)	STANDARD SIGNS	SF	4
616(4)	THAW WIRE INSTALLATION	LS	ALL REQ'D
640(1A)	ADDITIONAL MOBILIZATION & DEMOB.	LS	ALL REQ'D
642(1B)	ADDITIONAL CONSTRUCTION SURVEYING	LS	ALL REQ'D
670(1A)	PAINTED AIRPORT MARKINGS	LS	ALL REQ'D
670(1B)	ADD'L PAINTED TRAFFIC MARKINGS	LS	ALL REQ'D
603(19-21)	21" x 15" PIPE ARCH	LF	30

AS-BUILT
B.A. 2-8-96

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

ENGINEER'S SEAL
STATE OF ALASKA 49th
TRACY W. MOORE
CE-4932
REGISTERED PROFESSIONAL ENGINEER

BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

HAINES — ALASKA

HAINES AIRPORT
A.I.P. NO. 3-02-0112-03, 69523

RUNWAY PAVEMENT REPAIR

DESIGNED BY:	C. HAKARI	PROJECT NO.	
DRAWN BY:	C. ANDERSON	DATE:	JAN. 1993
CHECKED BY:	T.W. MOORE	SHEET HA1 OF 1	

P:\HNS\24\DR\RUNWAY 1=10