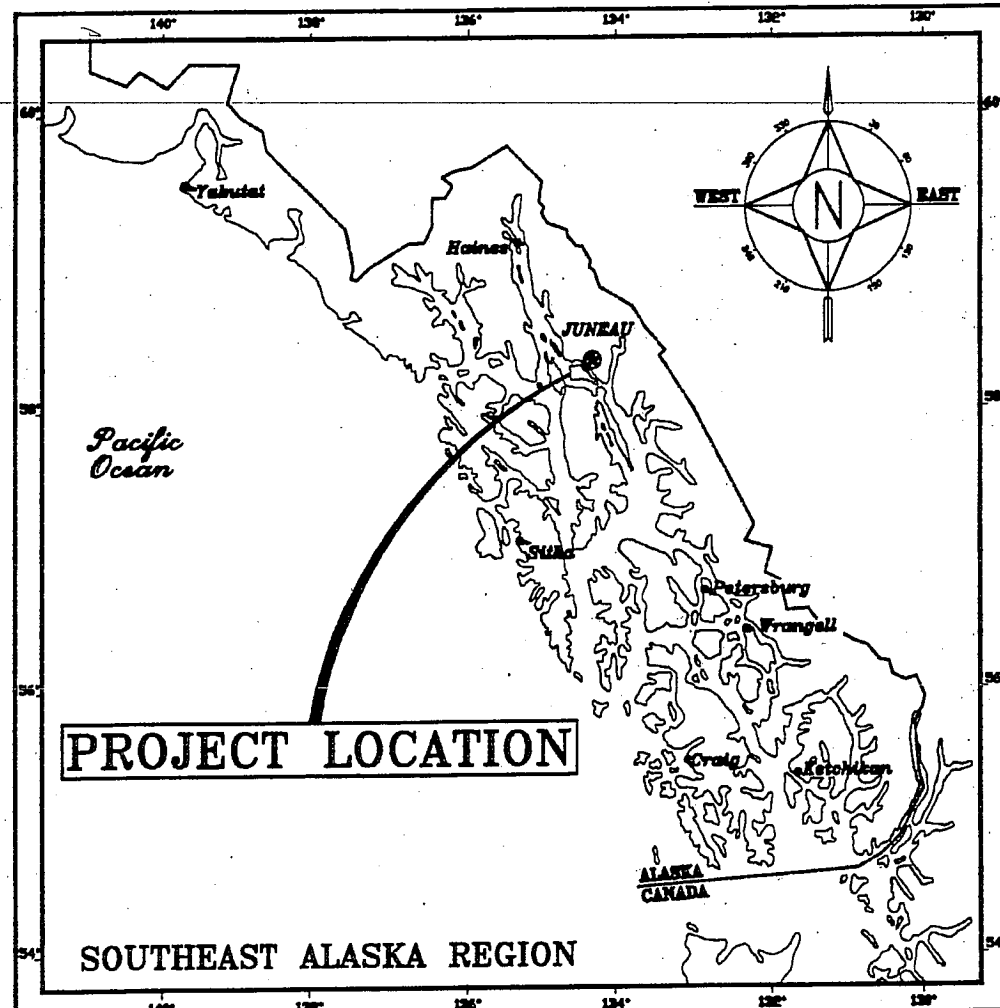




STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND
PUBLIC FACILITIES
SOUTHEASTERN REGION
DESIGN AND CONSTRUCTION DIVISION

JNU-NORTH DOUGLAS
HIGHWAY EXTENSION
SURVEY

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET, CONTROL DIAGRAM & SURVEY NOTES
2-12	PLAN & PROFILE DRAWINGS
12	MONUMENT COORDINATE SUMMARY
13	MIDDLE CREEK BRIDGE SITE SURVEY

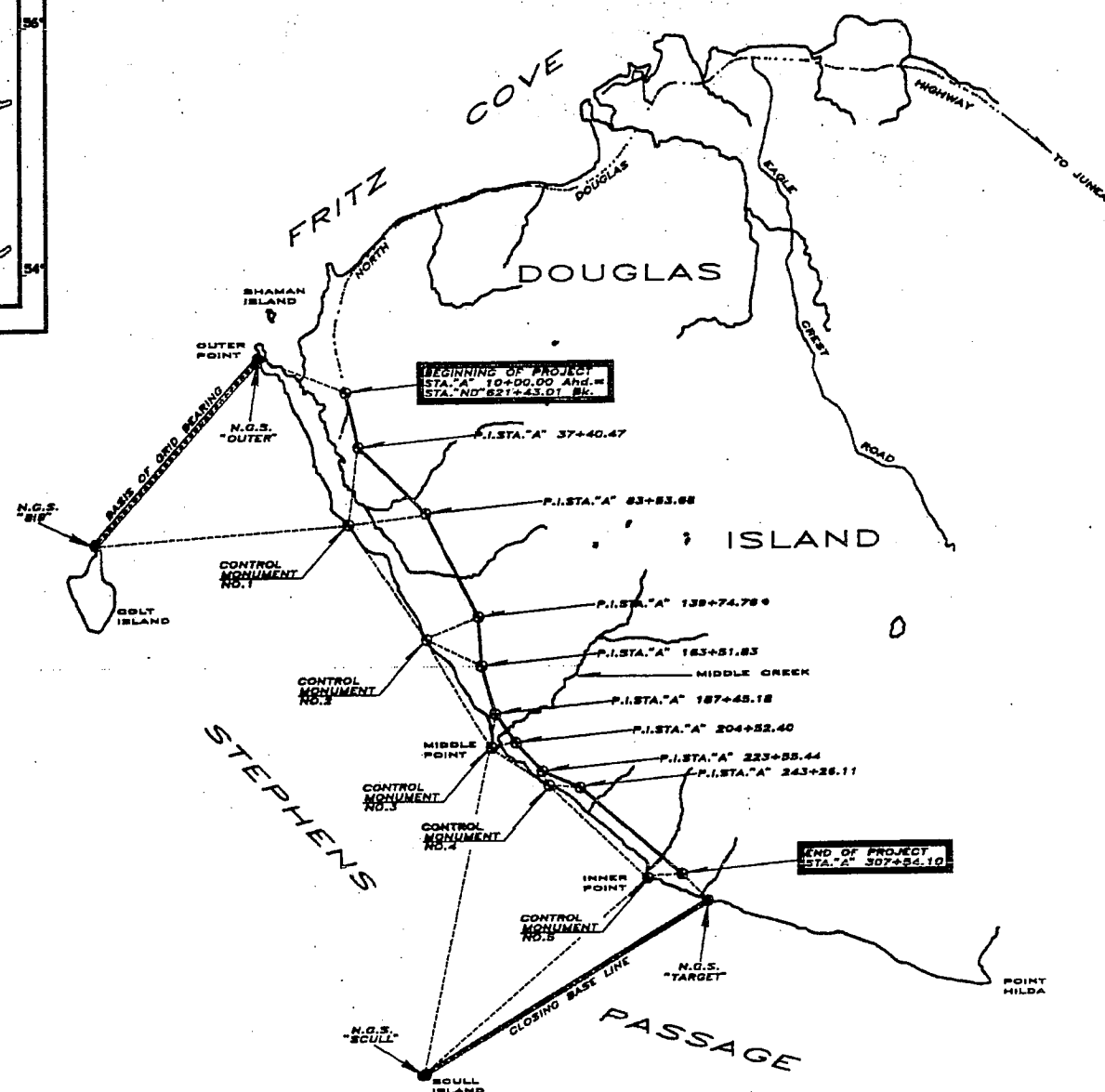
Note:
R/M Survey
Recorded as plat
92-58RS

SURVEY CONTROL NOTES

1. THE BASIS OF HORIZONTAL SURVEY CONTROL WAS THE LINE-OF-SIGHT BETWEEN N.G.S. MONUMENT (FORMERLY U.S.C. & G.S.) STATIONS "BIB" AND "OUTER".
2. A CONTROL TRAVERSE WAS RUN SOUTHEASTERLY TO N.G.S. MONUMENT STATIONS "SCULL" AND "TARGET". THIS CLOSURE WAS USED AS A "CHECK BASE".
3. THE BASIS OF HORIZONTAL COORDINATES (AK. STATE PLANE, ZONE 1) WAS N.G.S. STATION "BIB", CLOSING TO N.G.S. STATION "SCULL".
4. ALL BEARINGS SHOWN REFER TO THE ALASKA STATE PLANE COORDINATE SYSTEM, ZONE 1, GRID BEARINGS.
5. ALL DISTANCES ARE TRUE, HORIZONTAL SURVEY DISTANCE EXPRESSED IN FEET, TENTHS AND HUNDRETHS OF FEET.
6. THE SCALE FACTOR TO CONVERT TRUE (GROUND-MEASURED) DISTANCES TO ALASKA STATE PLANE GRID DISTANCE IS: 0.999919.
7. THE BASIS OF THE VERTICAL SURVEY DATUM WAS A SERIES OF TIDAL OBSERVATIONS MADE AT THE COVE SOUTH OF "OUTER POINT". THE "AUKE BAY" TIDAL DATUM WAS USED WHICH REFLECTS THE FOLLOWING ELEVATION BASIS:

AUKE BAY - STEPHENS PASSAGE 1980 DATUM	
MEAN HIGHER HIGH WATER (MHHW)	15.85'
MEAN HIGH WATER (MHW)	14.85'
HALF TIDE LEVEL	8.20'
MEAN LOW WATER (MLW)	1.55'
MEAN LOWER LOW WATER (MLLW)	0.00'
EXTREME HIGH WATER=22.0' / EXTREME LOW WATER=-6.0'	

8. ELEVATIONS WERE CARRIED THROUGH THE PROJECT BY A SURVEYED LOOP SERIES CONSISTING OF TRIGONOMETRIC AND DIFFERENTIAL LEVELING.
9. A TIDAL "CHECK BASE" WAS ESTABLISHED AT R&M CONTROL MONUMENT NO. 5, NEAR THE PROJECT TERMINUS. THIS "CHECK BASE" WAS ALSO A SERIES OF TIDAL OBSERVATIONS.



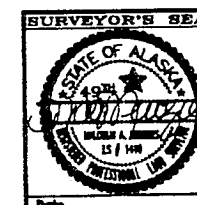
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND
PUBLIC FACILITIES
SOUTHEASTERN REGION DESIGN SECTION

APPROVED

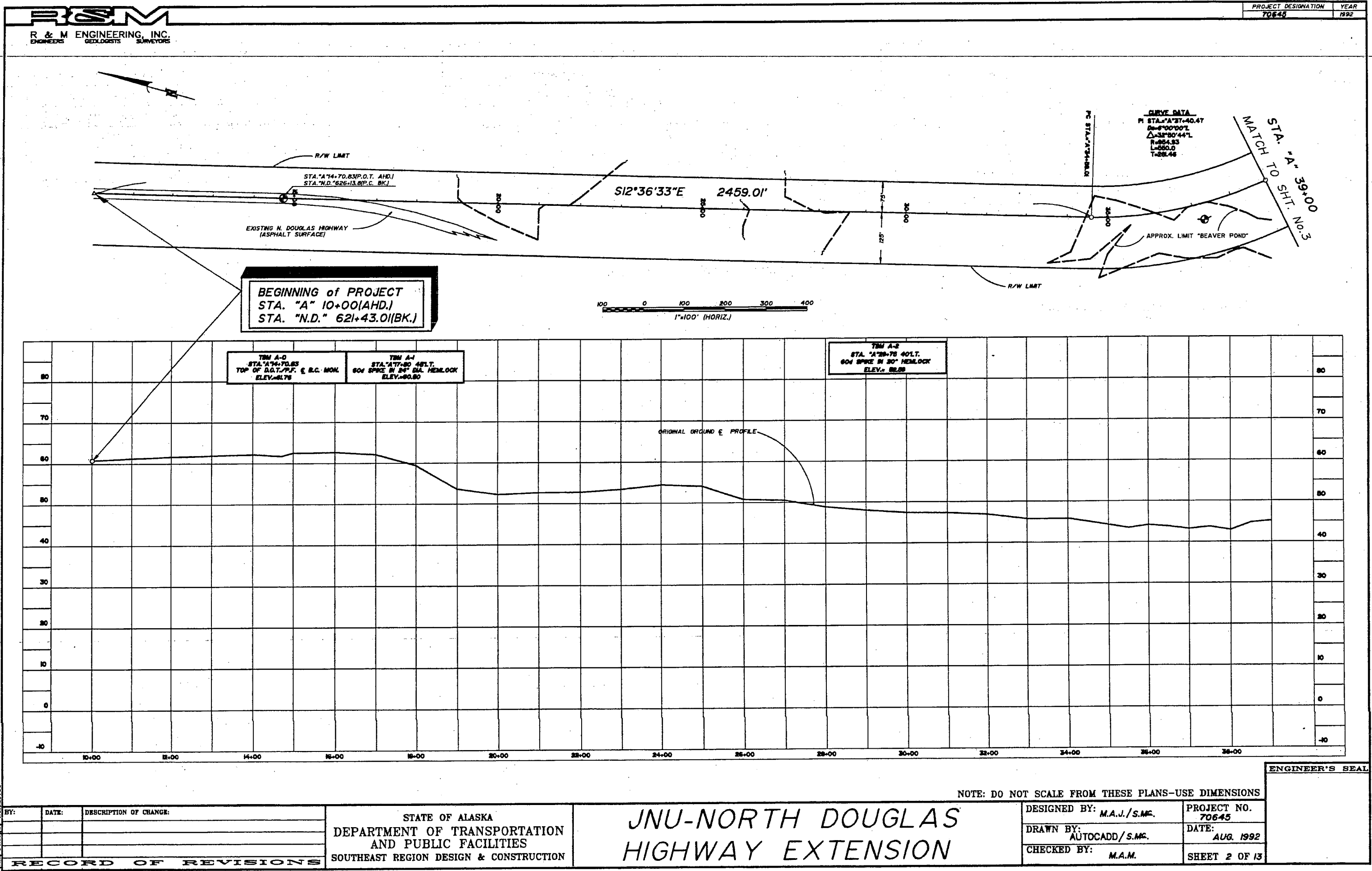
S.E. Region Engineering Manager

APPROVED

Director, S.E. Region Design & Construction



PROJECT NUMBER	70645
DATE	AUG., 1992
SHEET	1 OF 13



R & M ENGINEERING, INC.
ENGINEERS GEOLOGISTS SURVEYORS

BEGINNING of PROJECT
STA. "A" 10+00(AHD.)
STA. "N.D." 621+43.01(BK.)

1"=100' (HORIZ.)

CURVE DATA
P STA. 34+00.47
B=4°00'00" L
Δ=32°50'44" L
R=954.93
L=550.0
T=288.46

TBM A-0
STA. 14+70.83
TOP OF D.G.T./P.F. & B.C. MON.
ELEV. 61.75

TBM A-1
STA. 17+80 481.T.
604 SPIKE IN 30" DIA. HEMLOCK
ELEV. 60.80

TBM A-2
STA. 29+75 401.T.
604 SPIKE IN 30" HEMLOCK
ELEV. 61.55

ORIGINAL GROUND & PROFILE

NOTE: DO NOT SCALE FROM THESE PLANS—USE DIMENSIONS

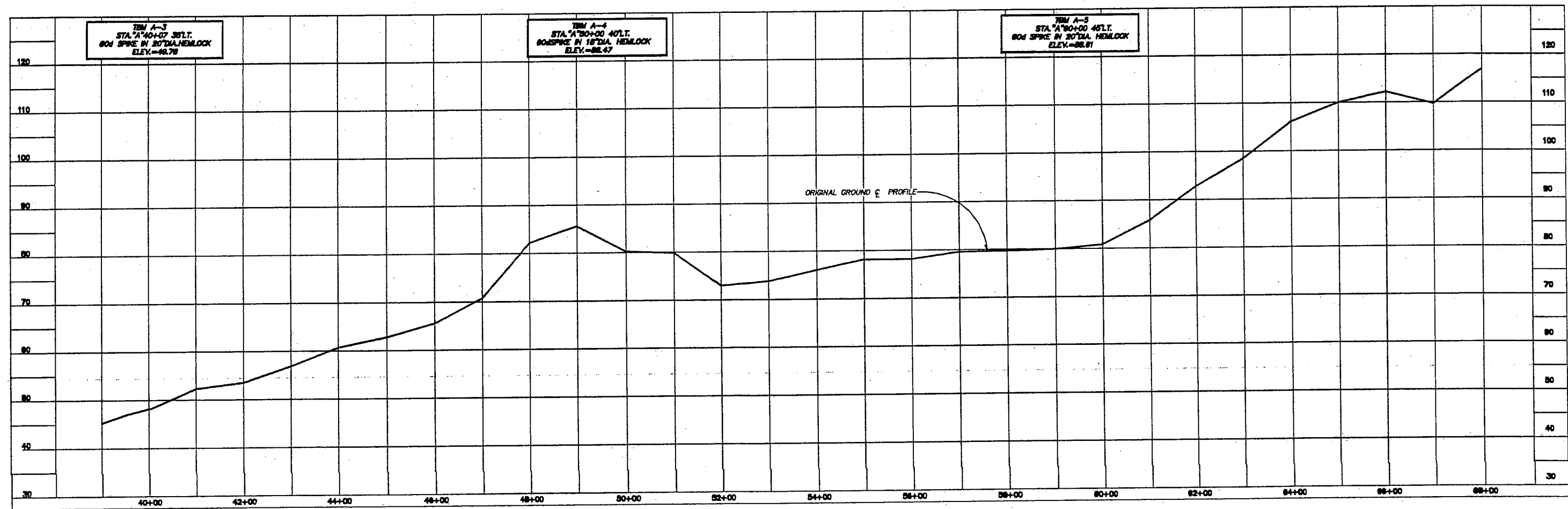
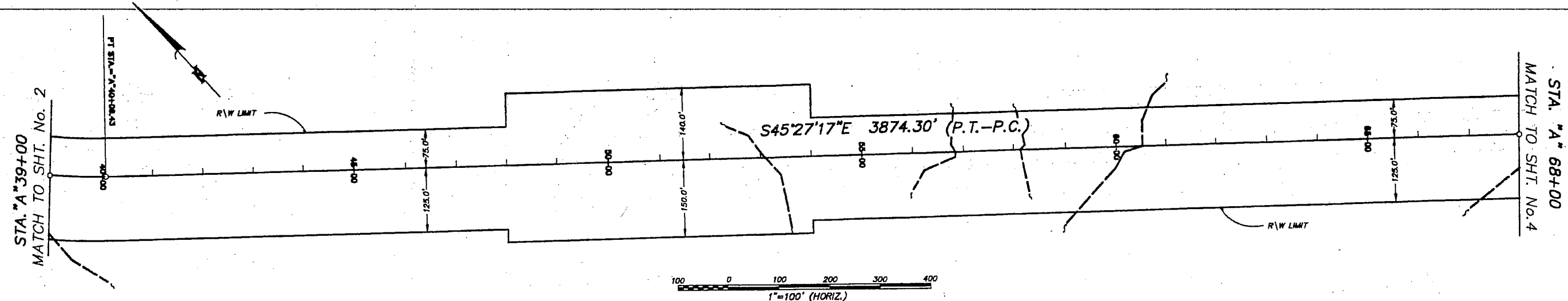
BY:	DATE:	DESCRIPTION OF CHANGE:

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

JNU-NORTH DOUGLAS HIGHWAY EXTENSION

DESIGNED BY: M.A.J./S.M.C.	PROJECT NO. 70645
DRAWN BY: AUTOCADD/S.M.C.	DATE: AUG. 1992
CHECKED BY: M.A.M.	SHEET 2 OF 13

ENGINEER'S SEAL



NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

BY:	DATE:	DESCRIPTION OF CHANGE:

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

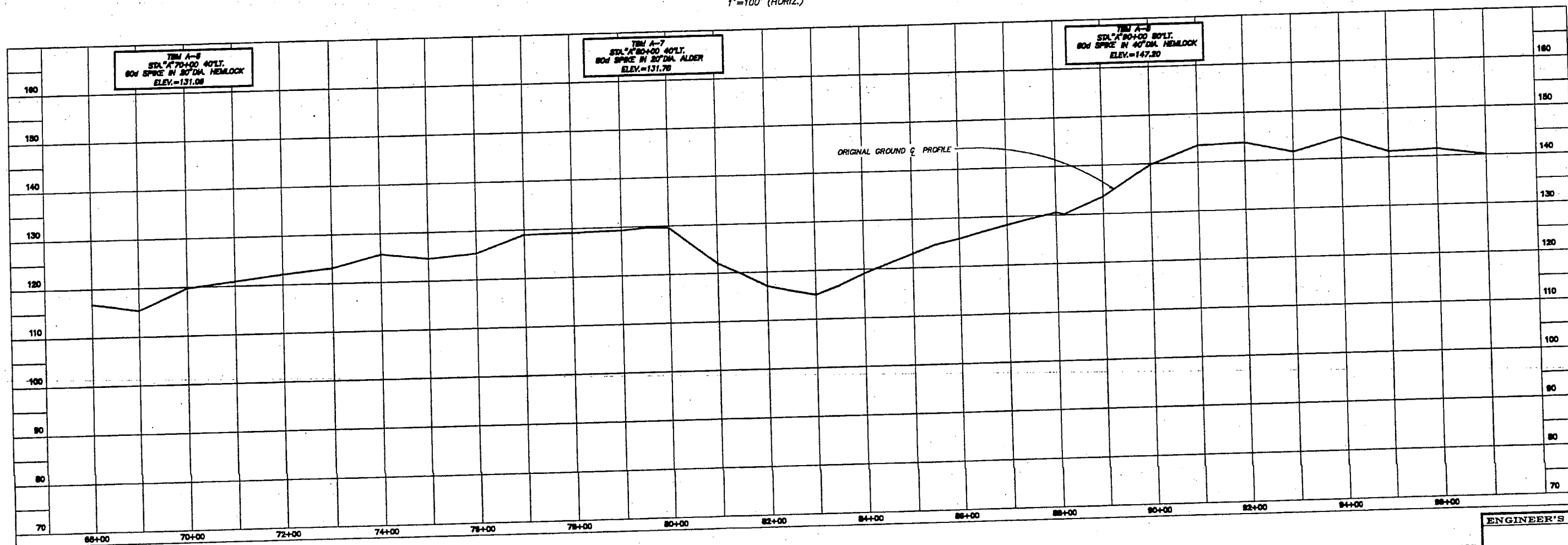
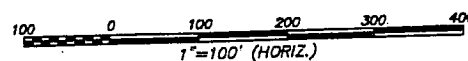
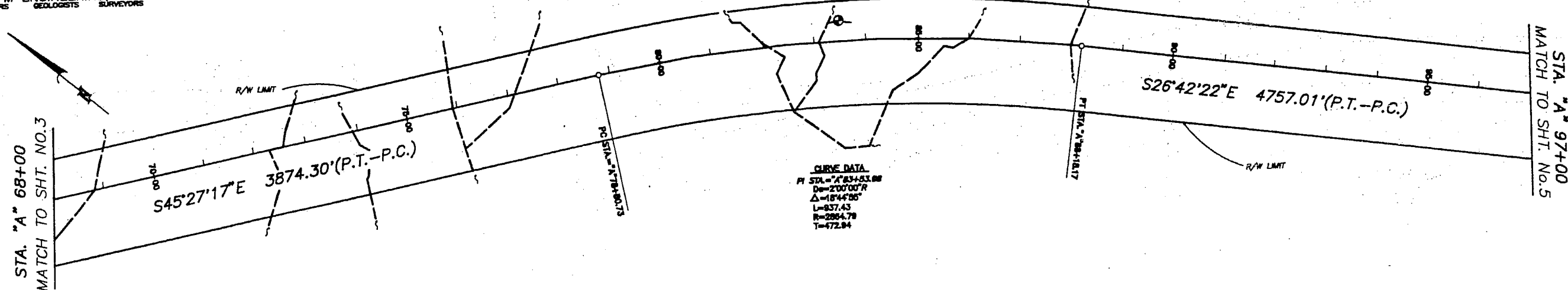
JNU-NORTH DOUGLAS HIGHWAY EXTENSION

DESIGNED BY: M.A.J./S.M.C.	PROJECT NO. 70645
DRAWN BY: AUTOCADD/S.M.C.	DATE: AUG. 1992
CHECKED BY: M.A.M.	SHEET 3 OF 13

ENGINEER'S SEAL

RAM PROJECT No. 921706

R&M
ENGINEERS GEOLOGISTS SURVEYORS



NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

BY:	DATE:	DESCRIPTION OF CHANGE:

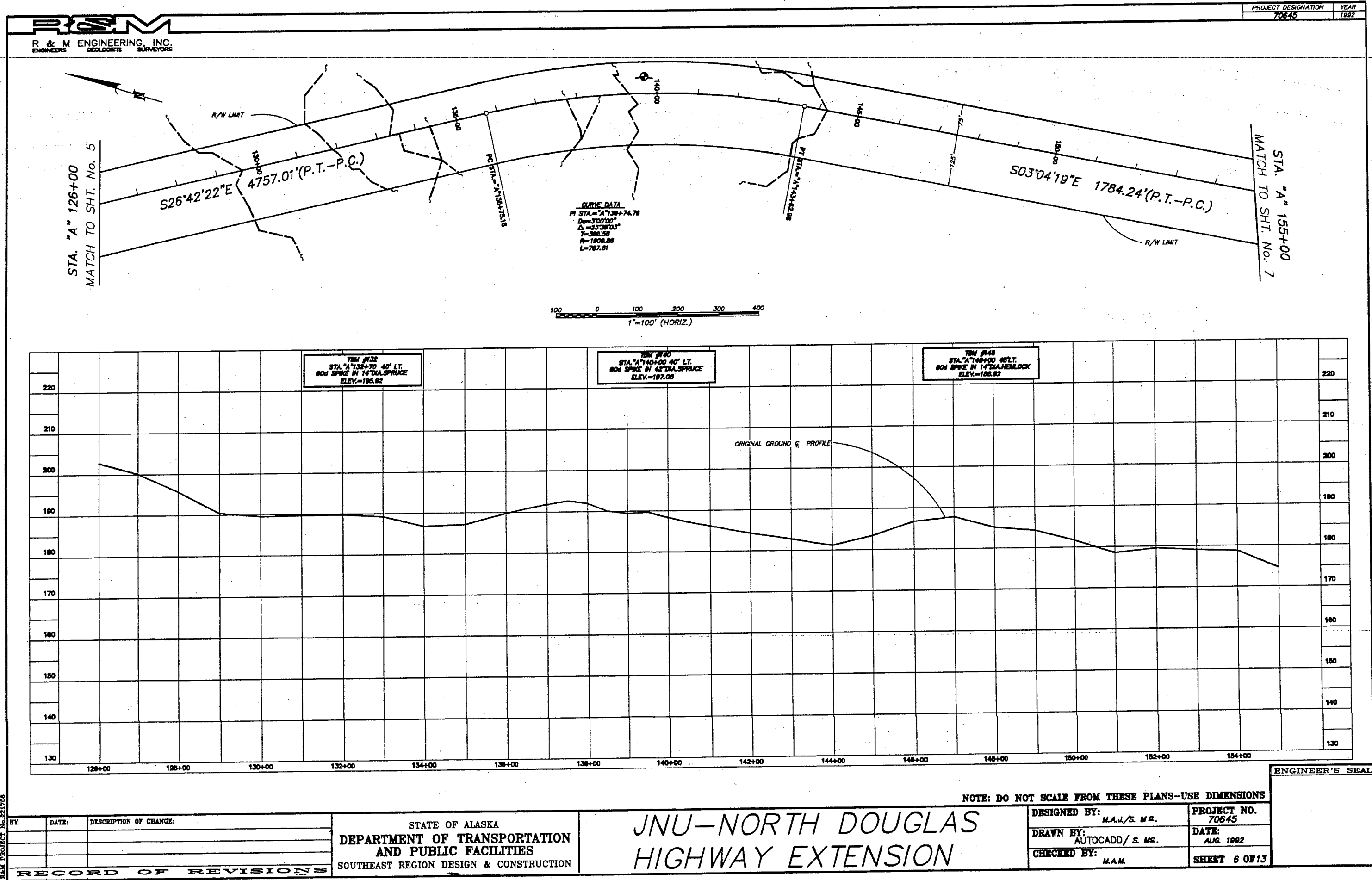
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

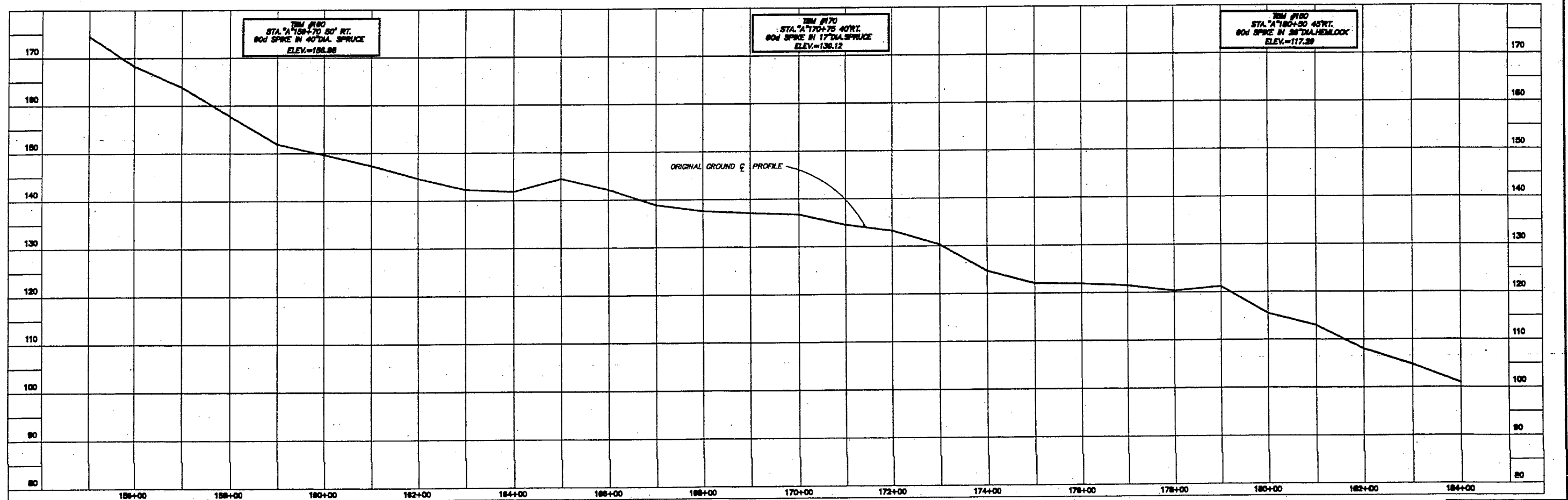
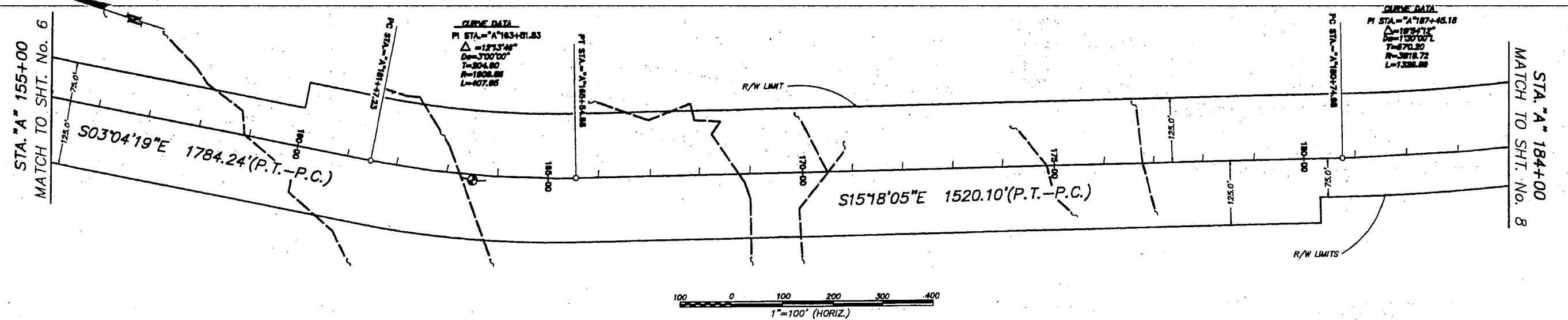
JNU-NORTH DOUGLAS
HIGHWAY EXTENSION

DESIGNED BY:	M.A.J./S. M.R.	PROJECT NO.	70645
DRAWN BY:	AUTOCADD/ S. M.R.	DATE:	AUG. 1992
CHECKED BY:	M.A.M.	SHEET	4 OF 13

ENGINEER'S SEAL

R&M PROJECT No. 921706





NOTE: DO NOT SCALE FROM THESE PLANS—USE DIMENSIONS

BY:	DATE:	DESCRIPTION OF CHANGE:

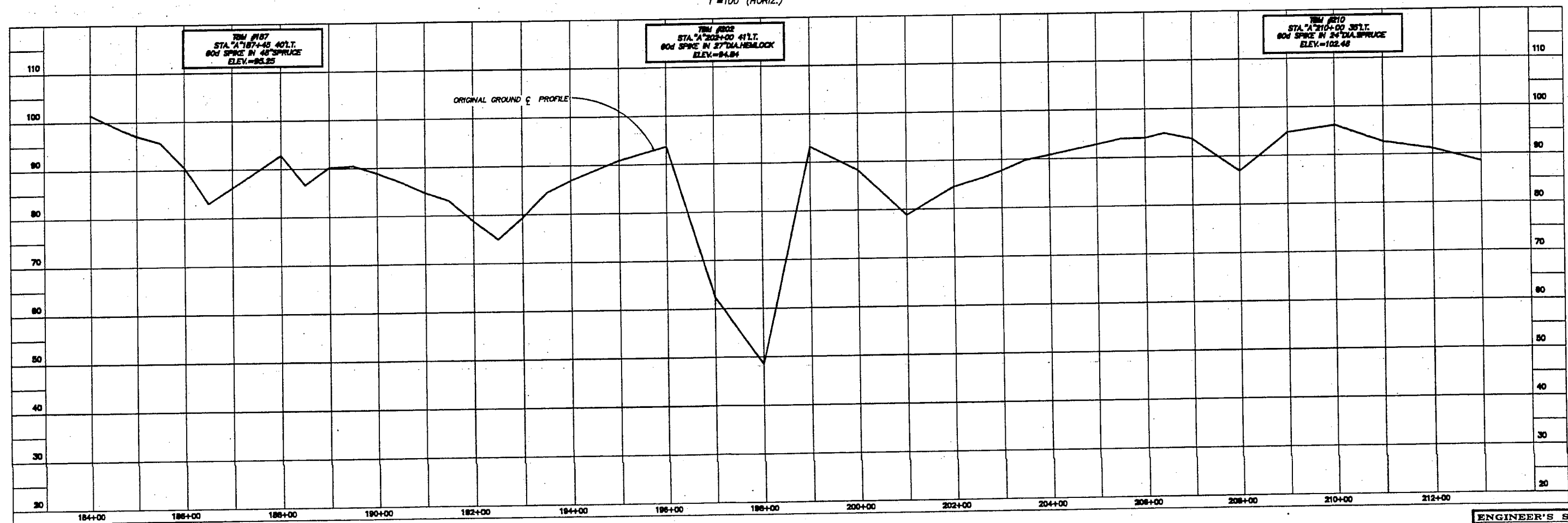
RECORD OF REVISIONS

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

JNU-NORTH DOUGLAS
HIGHWAY EXTENSION

DESIGNED BY: M.A.L./S.M.G.	PROJECT NO. - 70645
DRAWN BY: AUTOCADD / S.M.G.	DATE: AUG 1992
CHECKED BY: M.A.M.	SHEET 7 OF 13

ENGINEER'S SEAL



BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

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

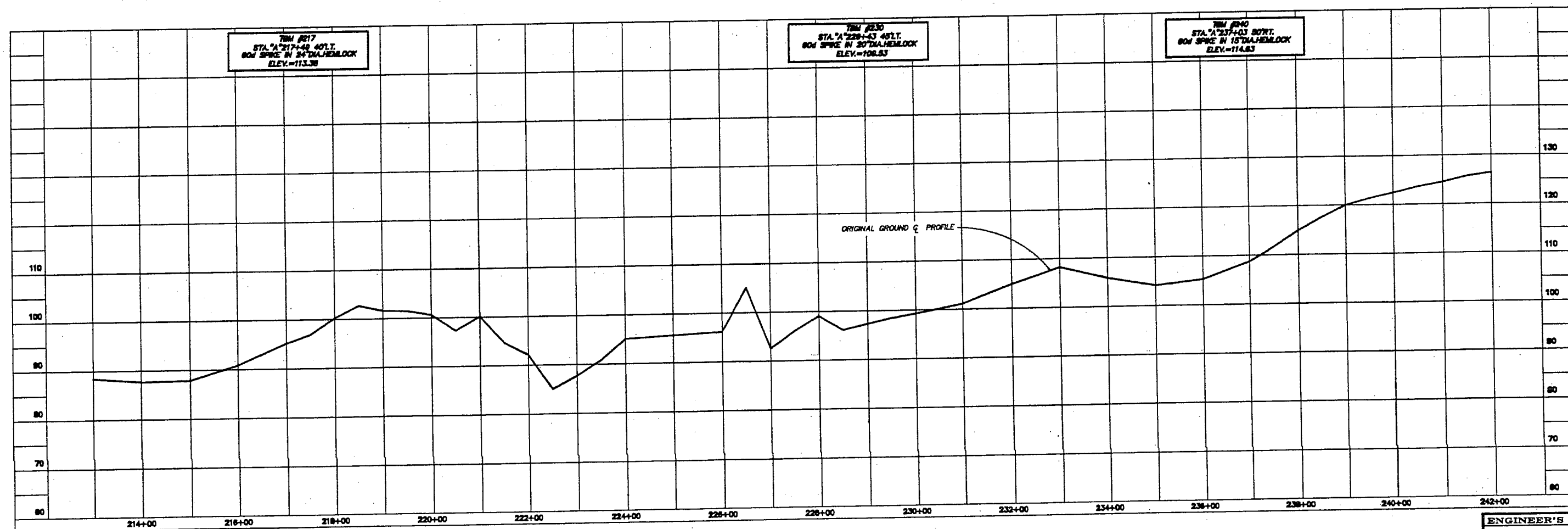
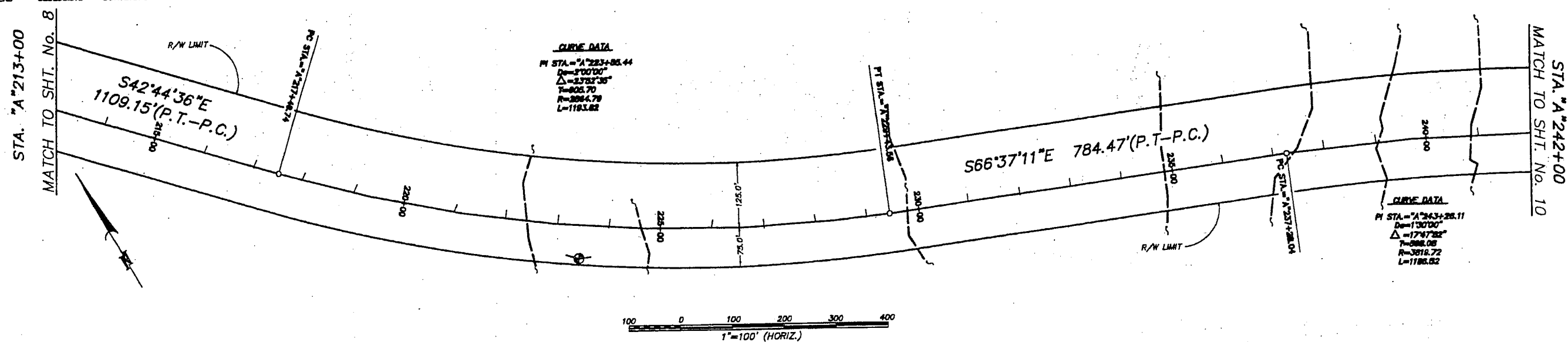
*JNU-NORTH DOUGLAS
HIGHWAY EXTENSION*

DESIGNED BY:	M.A.J./S. M.E.
DRAWN BY:	AUTOCADD/ S. M.E.
CHECKED BY:	M.A.M.

PROJECT NO.	70645
DATE:	AUG. 1992
SHEET 8 OF 13	

ENGINEER'S SEAL

R&M
R & M ENGINEERING, INC.
ENGINEERS GEOLOGISTS SURVEYORS



NOTE: DO NOT SCALE FROM THESE PLANS—USE DIMENSIONS

BY:	DATE:	DESCRIPTION OF CHANGE:

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

**JNU-NORTH DOUGLAS
HIGHWAY EXTENSION**

DESIGNED BY:	M.A.J./S. M.E.	PROJECT NO.	70645
DRAWN BY:	AUTOCADD/ S. M.E.	DATE:	AUG. 1992
CHECKED BY:	M.A.M.	SHEET	9 OF 13

ENGINEER'S SEAL

R & M ENGINEERING, INC.
ENGINEERS GEOLOGISTS SURVEYORS

STA. "A" 242+00
MATCH TO SHT. No. 9

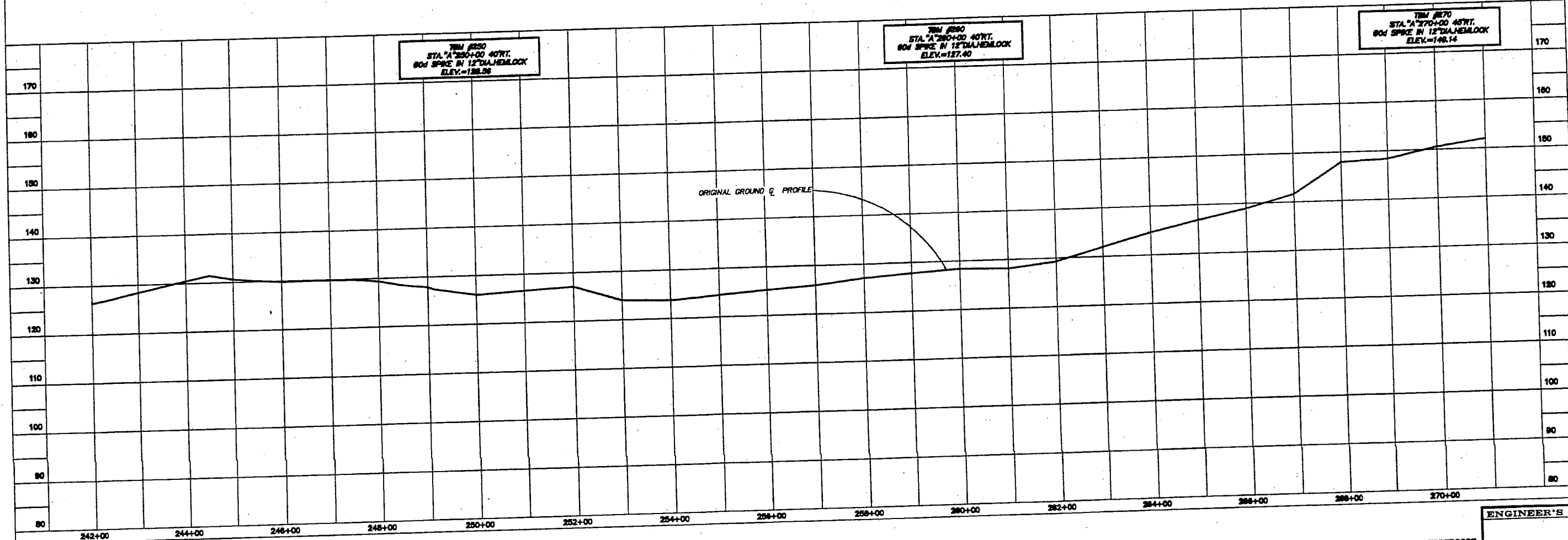
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Δ=17°47'32"
T=688.08
R=3818.72
L=1188.82

S48°49'19"E 5839.55'(P.T. - "E.O.P.")

PT STA. "A" 248+14.58

1"=100' (HORIZ.)

STA. "A" 271+00
MATCH TO SHT. No. 11



NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

BY:	DATE:	DESCRIPTION OF CHANGE:

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

JNU-NORTH DOUGLAS
HIGHWAY EXTENSION

DESIGNED BY: M.A.J./S. M.E.
DRAWN BY: AUTOCADD/ S. M.E.
CHECKED BY: M.A.M.

PROJECT NO.
70645
DATE:
AUG. 1992
SHEET 10 OF 13

ENGINEER'S SEAL

R&M PROJECT No. 921706

R & M ENGINEERING, INC.
ENGINEERS GEOLOGISTS SURVEYORS

STA. "A" 271+00
MATCH TO SHT. No. 10

R/W LIMIT

S48°49'19"E 5839.55'(P.T. - "E.O.P")

STA. "A" 300+00
MATCH TO SHT. No. 12

100 0 100 200 300 400
1"=100' (HORIZ.)

TRM #280
STA. "A" 280+00 30WT.
604 SPIKE IN 22" DIAL HENLOCK
ELEV. = 185.50

TRM #280
STA. "A" 280+00 50WT.
604 SPIKE IN 42" DIAL SPRUCE
ELEV. = 185.16

ORIGINAL GROUND & PROFILE

ENGINEER'S SEAL

NOTE: DO NOT SCALE FROM THESE PLANS—USE DIMENSIONS

BY:	DATE:	DESCRIPTION OF CHANGE:

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

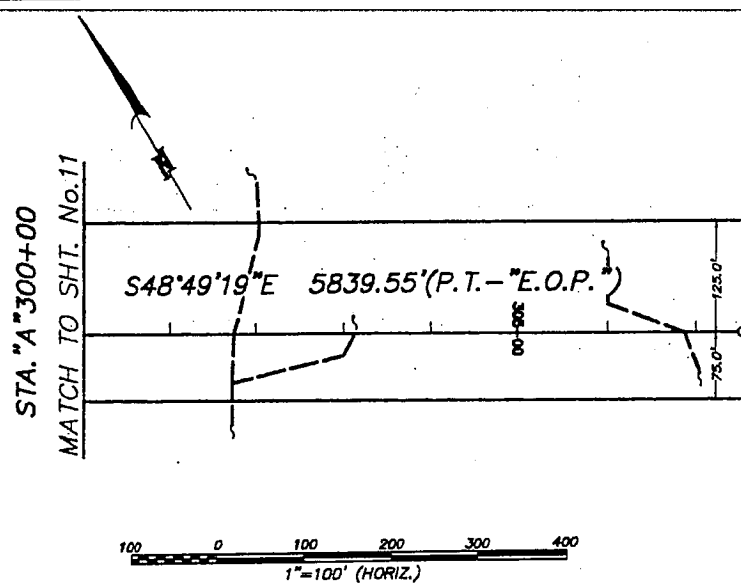
JNU-NORTH DOUGLAS
HIGHWAY EXTENSION

DESIGNED BY: M.A.J./S. M.C.
DRAWN BY: AUTOCADD/S. M.C.
CHECKED BY: M.A.M.

PROJECT NO.
70645
DATE:
AUG. 1992
SHEET 11 OF 13

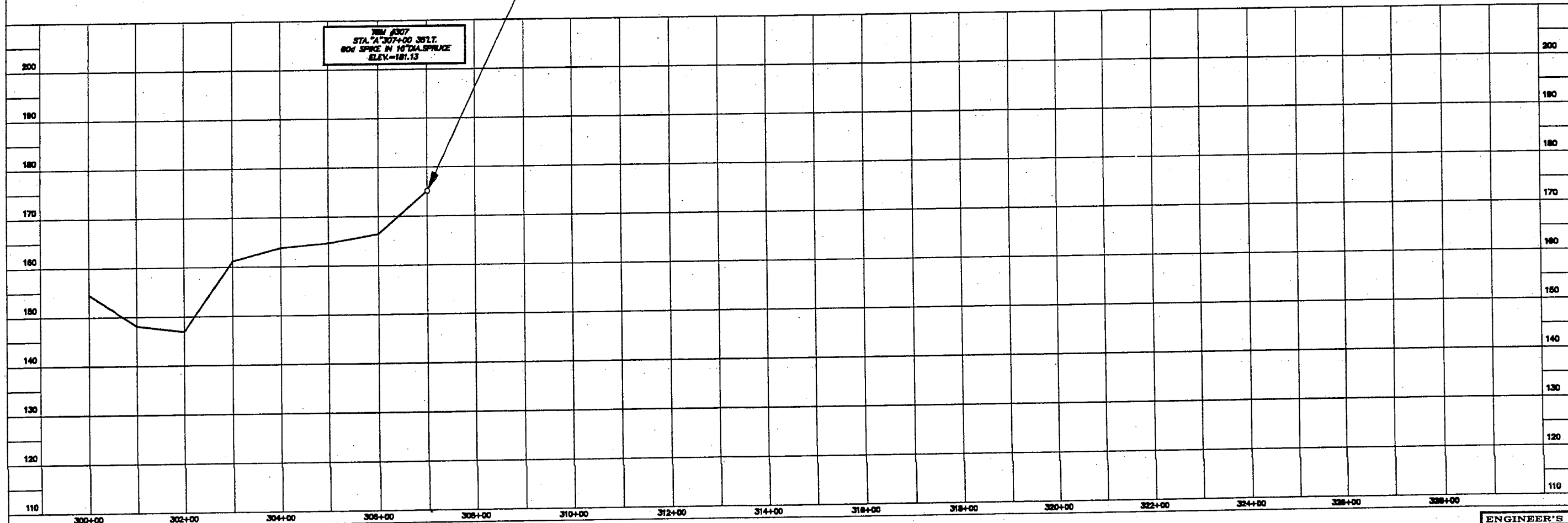
R&M PROJECT No. 921706

R & M ENGINEERING, INC.
ENGINEERS GEODISTS SURVEYORS



END of PROJECT
STA. "A" 307+54.10 P.C.

STATION &/or CONTROL MONUMENT DESIGNATION	ALASKA STATE PLANE COORDINATES (ZONE 1)		DESCRIPTION of MONUMENT
	NORTH (Y)	EAST (X)	
"A" 10+00 (B.O.P.)	2381954.42	2493571.97	FD. PAK NAIL (RESET W/PAK W/BRASS WASHER "1410-S")
"A" 37+40.47 (P.I.)	2359280.26	2494170.16	SET 5/8"X30" R-BAR W/3"DIA. ALUM. CAP ("1410-S")
"A" 83+53.68 (P.I.)	2356033.61	2497488.76	SET 5/8"X36" ALUM. ROD & DRV. PT. W/3"DIA. ALUM. CAP ("1410-S")
"A" 139+74.78 (P.I.)	2351005.02	2499998.55	"
"A" 163+51.83 (P.I.)	2348620.22	2500126.54	"
"A" 187+45.18 (P.I.)	2346310.40	2500758.49	"
"A" 204+2.40 (P.I.)	2344804.51	2501750.41	"
"A" 223+55.44 (P.I.)	2343506.62	2503042.30	"
"A" 243+26.11 (P.I.)	2342717.69	2504867.15	"
"A" 307+54.10 (E.O.P.)	2338479.49	2509712.15	"
CONTROL MONUMENT #1	2355538.82	2493657.12	SET 5/8"X30" R-BAR W/3"DIA. ALUM. CAP ("1410-S")
CONTROL MONUMENT #2	2349912.18	2497450.96	"
CONTROL MONUMENT #3	2344880.56	2500577.68	"
CONTROL MONUMENT #4	2342823.06	2503338.43	"
CONTROL MONUMENT #5	2338292.92	2508058.31	"
N.G.S. "OUTER"	2363655.31	2489357.22	FD. STD. B.C. MONUMENT AS DESCRIBED BY N.G.S.
N.G.S. "BIG"	2354752.88	2481384.73	"
N.G.S. "SMALL"	2328813.85	2497133.82	"
N.G.S. "TARGET"	2337168.62	2510938.73	"



NOTE: DO NOT SCALE FROM THESE PLANS—USE DIMENSIONS

BY:	DATE:	DESCRIPTION OF CHANGE:

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
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SOUTHEAST REGION DESIGN & CONSTRUCTION

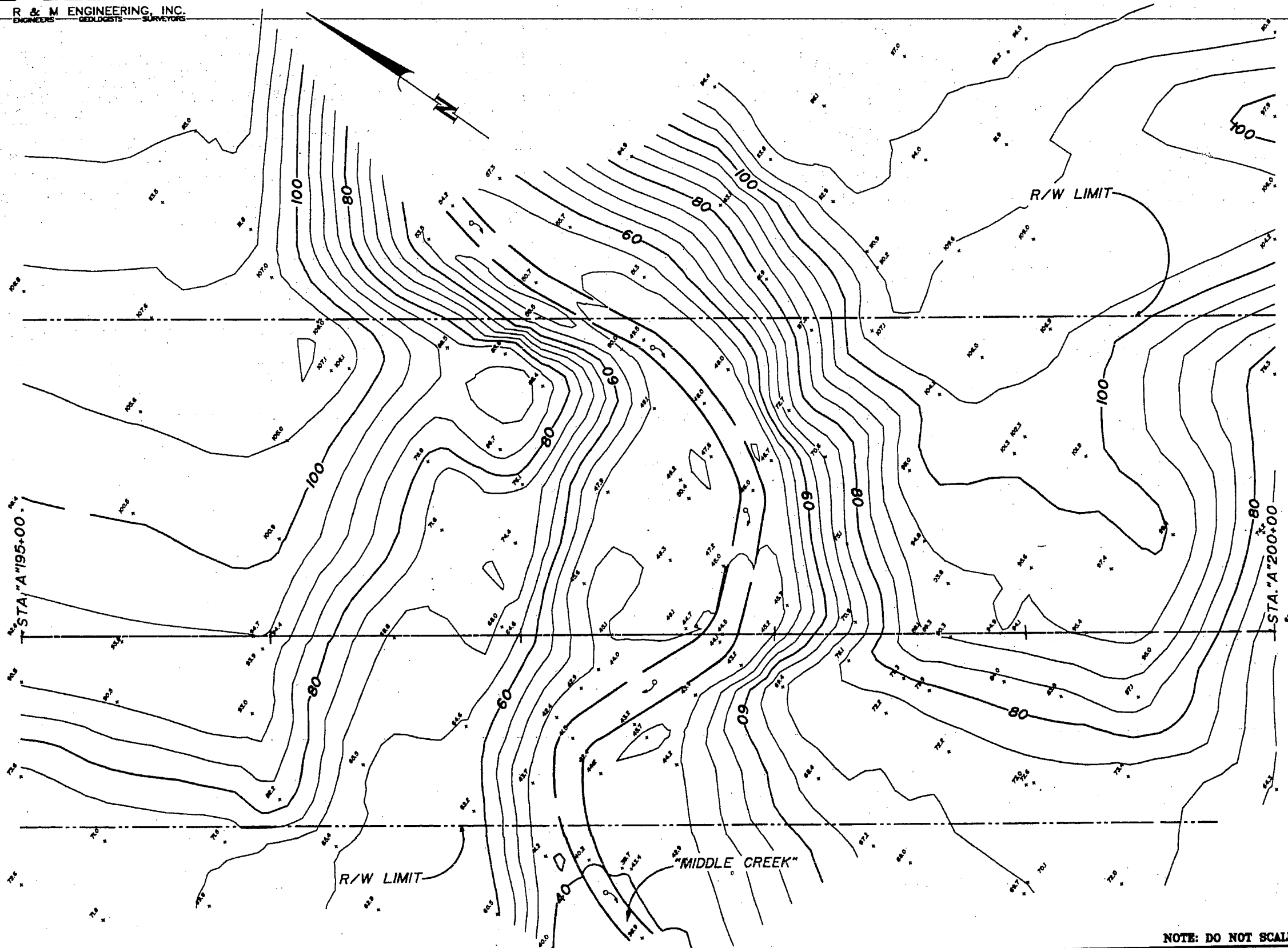
JNU-NORTH DOUGLAS HIGHWAY EXTENSION

DESIGNED BY: M.A.J./S. M.E.	PROJECT NO. 70645
DRAWN BY: AUTOCADD/ S. M.E.	DATE: AUG. 1992
CHECKED BY: M.A.M.	SHEET 12 OF 13

ENGINEER'S SEAL

RAM PROJECT No. 921706

R & M ENGINEERING, INC.
ENGINEERS GEOLGISTS SURVEYORS



--SYMBOLS--

- INDICATES SPOT ELEVATION
- INDICATES FLOW DIRECTION
- - - INDICATES PROFILE CENTERLINE
- INDICATES RIGHT OF WAY BERRY.

NOTE: CONTOUR INTERVAL = 5'



SURVEYOR'S SEAL

NOTE: DO NOT SCALE FROM THESE PLANS—USE DIMENSIONS

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

JNU-N.DOUGLAS HIGHWAY EXTENSION
TOPOGRAPHIC SURVEY
"MIDDLE CREEK" BRIDGE SITE SURVEY(STA."A"195+00-STA."A"200+00)

DESIGNED BY:	S. MC.	PROJECT NO.	70645
DRAWN BY:	AUTOCADD/ S. MC.	DATE:	AUG. 1992
CHECKED BY:	M.A.M.	SHEET	13 OF 13