FED. ROAD DIST. NO.	STATE	SN-FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
5	COLO.	46-B(1)	1	

COLORADO
STATE HIGHWAY DEPARTMENT

PLAN AND PROFILE OF PROPOSED
SN-FEDERAL AID PROJECT NO. 46-B(1)
STATE HIGHWAY NO. 83

DOUGLAS COUNTY

INDEX OF SHEETS

1. Title Sheet
2. Typical Section and Summary of Quantities.
3. Standard Methods for Superelevation and Widening of Curves M-1-B
4. Typical Side Approach Roads - Roadway Construction Traffic Signs M-2-B

SCALES ON ORIGINAL TRACINGS

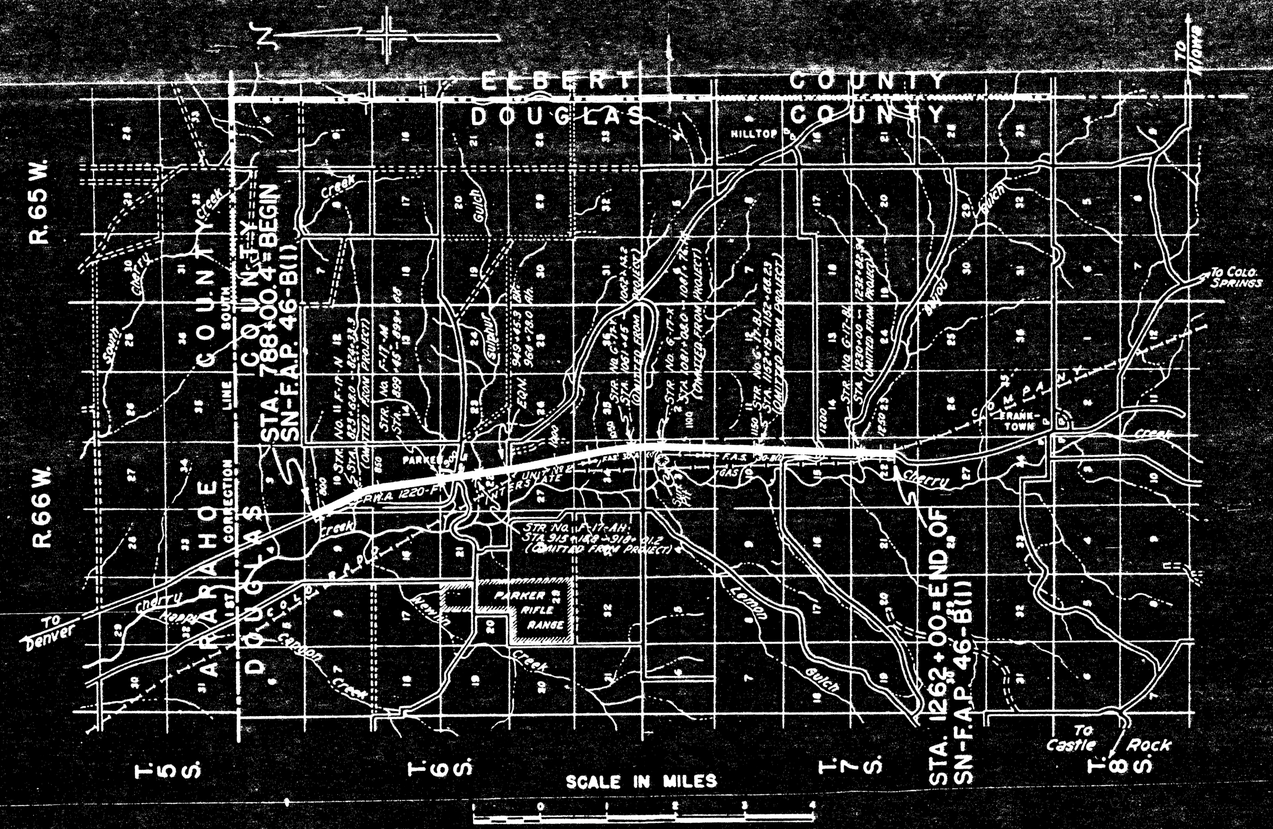
ON PLAN, 1 IN. = 100 FT.
ON PROFILE 1 IN. = 100 FT. HORIZONTAL
1 IN. = 10 FT. VERTICAL

GRADE LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD

GROSS LENGTH OF PROJECT 45,866.9 FT. = 8.686 MI.
NET LENGTH OF PROJECT 45,030.3 FT. = 8.528 MI.

LENGTH OF PROJECT

STA. TO STA.	ROADWAY	DOUBLE C.B.C. STA. 899+
788+00.4 — 823+68.0	3,567.6 ft.	
STR. F-17-N	OMITTED	
823+68.0 — 824+33.33	FROM PROJ.	
824+33.33 — 899+45.0	7,511.7 ft.	
STR. F-17-M		
899+45.0 — 899+68.0		23.0 ft.
899+68.0 — 915+18.8	1,550.8 ft.	
STR. F-17-AH	OMITTED	
915+18.8 — 918+01.2	FROM PROJ.	
918+01.2 — 1061+45.0	12,811.1 ft.	
STR. G-17-Y	OMITTED	
1061+45.0 — 1062+14.2	FROM PROJ.	
1062+14.2 — 1081+08.0	1,893.8 ft.	
STR. G-17-X	OMITTED	
1081+08.0 — 1081+76.2	FROM PROJ.	
1081+76.2 — 1152+19.0	7,042.8 ft.	
STR. G-17-BJ	OMITTED	
1152+19.0 — 1152+88.23	FROM PROJ.	
1152+88.23 — 1230+00.0	7,711.8 ft.	
STR. G L7-BL	OMITTED	
1230+00.0 — 1232+82.34	FROM PROJ.	
1232+82.34 — 1262+00.0	2,917.7 ft.	
TOTAL	45,007.3 ft. (8.524 Mi.)	23.0 ft. (0.004 Mi.)



NOTE:
It is recommended that prospective bidders on this project go over the plan details with one of the following field Representatives of this Department:

E.E. Montgomery - Div. Engineer - Denver, Colo.
B.T. Miller - Res. " " " "

RECOMMENDED FOR APPROVAL
ASSISTANT ENGINEER — DATE 6-23-41

APPROVED
STATE HIGHWAY ENGINEER — DATE

RECOMMENDED FOR APPROVAL
DISTRICT ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

RECOMMENDED FOR APPROVAL
CHIEF, WESTERN REGION
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

APPROVED
COMMISSIONER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

FED. ROAD DIST. NO.	STATE	SHEET NO.	TOTAL SHEETS
13	COLO.	20	

FAP 46 B11

NOTE:

All poles encroaching on Right of Way are to be moved by the Owners.

Fencing, Right of Way Markers and Timber Guard Posts (approximately) are Tabulated on Sheet No. 5.

Grades and Alignment as shown hereon are subject to modification during construction only after approval of the Denver Office.

SW ¼ Sec. 10 T6S R66W

NE ¼ Sec. 9 T6S R66W

S 23°57' E

BEGIN P.W.A. PROJECT 1220-F UNIT NO. 2 =

EQUA. { P.O.T. 786+91.7 BACK & P-536-B=
P.O.T. 788+00.4 AHEAD P.W.A. 1220-F UNIT NO. 2

PLATE I - PLAN-PROFILE

FED. ROAD DIST. NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	F-17-2 UNIT 2	21	

SW¼ Sec. 10 T6S R66W

NW¼ Sec. 15 T6S R66W

823+00 to 824+00 — Reqd. 75 Cu. Yds. Embank. for Road Approaches Lt. & Rt. Also Reqd. 18 L.F. 42" C.M.P. Storm Drain Lt.

842+50 — Reqd. 45 Cu. Yds. Embank. for Road Approaches Lt. & Rt.

844+50 to 847+50 — Reqd. 15 Cu. Yds. Excav. for Intercepting Ditches Lt.

Channel Change

S 23°-37° E

S 06°-51° E

Gulch

823+68½ to 824+33½ — Reqd. Bridge and 6500 Cu. Yds. Excav. for Channel Change as per details on Sheets Nº 4, 5, 6 & 7. (Material from Channel Change to be used to Fill Old Channel and Dyke New Channel)

Δ 17°06' Rt.
D 1°00'
R 5729.6'
L 1710.0'
Rt. 37.30'
E 64.6'

844+50 — Reqd. 10'-4"x5'-3" Conc. Box Culvert (Type 10-T) and 120 Cu. Yds. Excav. for Inlet and Outlet Channels.

847+22 — Reqd. 30" x 5'-4" C.M.P. Cross Culvert.

Structure Notes for Bridge — Sta. 823+68½ to Sta. 824+33½ Structure Nº F-17-N

Present Structure
Span — 1 @ 15'-0" (F-17-Q)
Clear Roadway — 12'-0"
Clear Waterway — 300 Sq. Ft.
Type of Superstructure — Timber
Type of Substructure — Timber Pile Bents
Roadway Surface — Gravel
Remarks — To Be Removed
Other Data
Drainage Area — 3.7 Sq. Miles
Velocity Under Bridge — Varies
Elevations of —
Maximum High Water
Low Water — 5788
Normal Stage — 5788 Stream Bed — 5785
Drift — Light Scour — None

Proposed Structure
Position Relative to Present Structure — 60' West
Span — 1 @ 60'-0"
Clear Roadway — 32'-0"
Clear Waterway — 1920 Sq. Ft.
Type of Superstructure — Steel Stringer
Type of Substructure — Concrete Cantilever Abutments
Foundation — Bedrock
Roadway Surface — 8" Reinforced Concrete Slab
Remarks — To Replace Bridge Nº F-17-Q
Waterway Structures on Same Stream
Location — F-17-Q. See Above
Waterway — Sufficient
Velocity During Floods

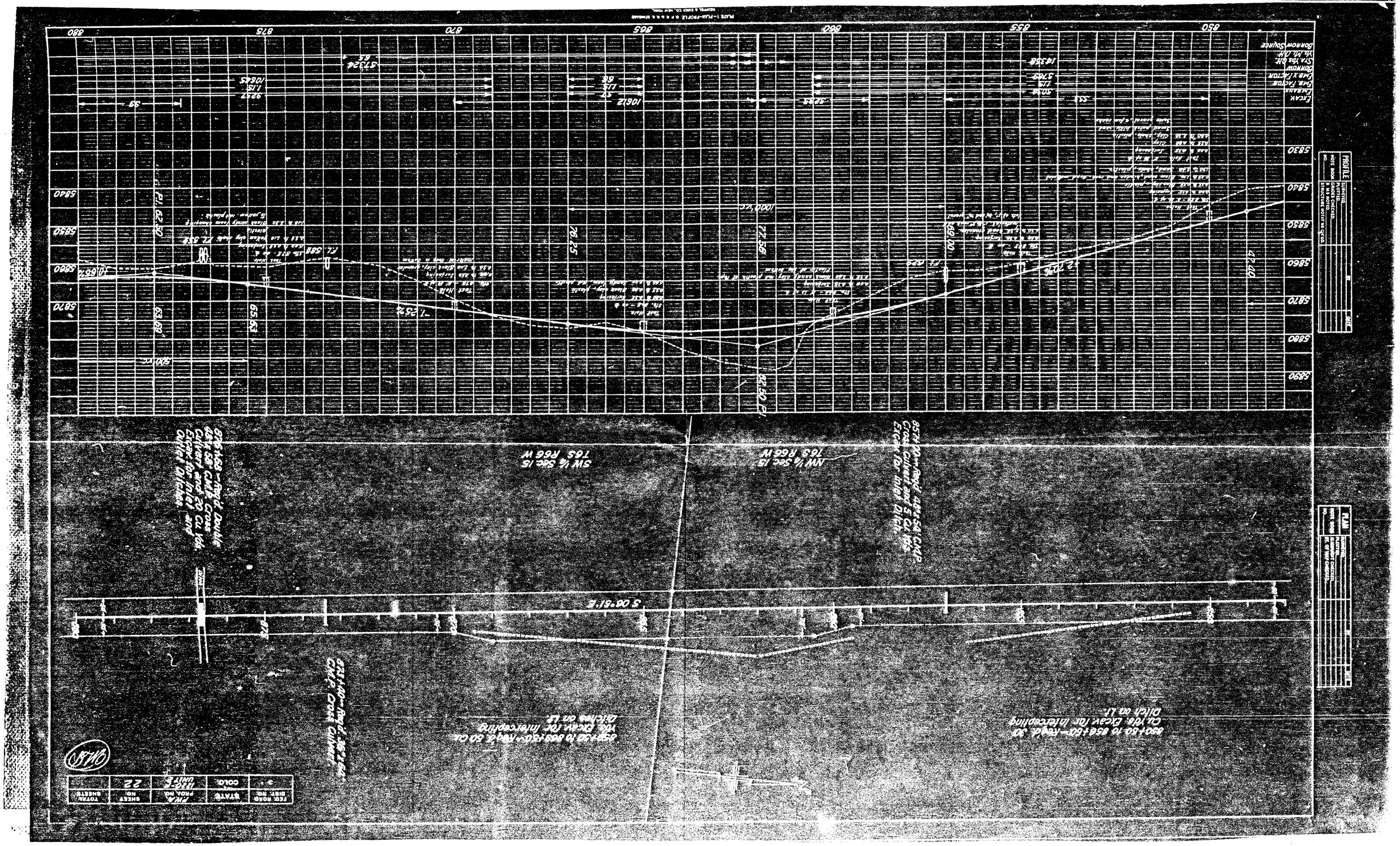
PROFILE

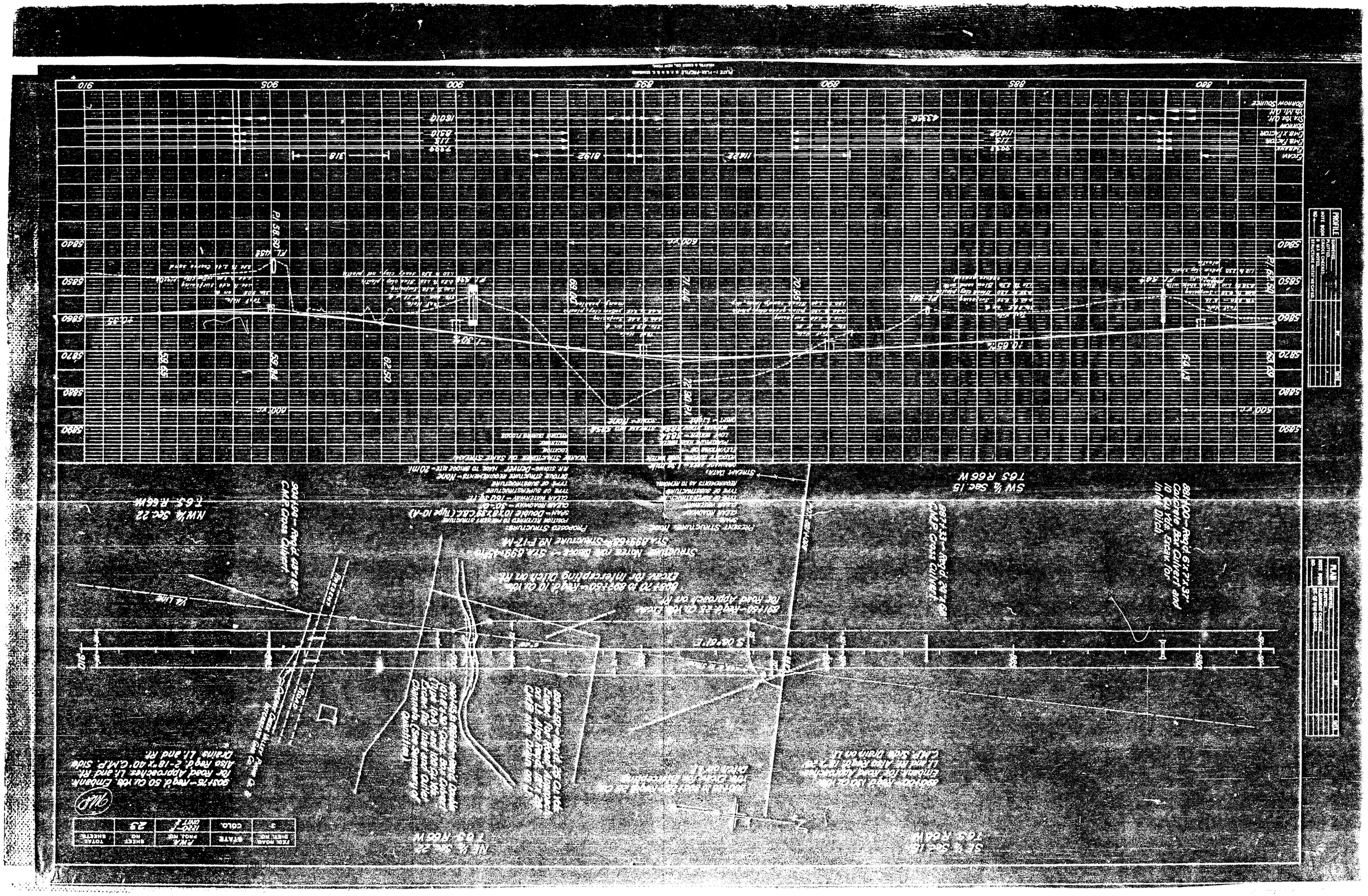
Surveyed
Plotted
Grades Checked
Note Book No.
H.W. Noted
Structure Notes Given

PLAN

Surveyed
Plotted
Traverse Checked
Note Book No.
H.W. Noted

| | | |


PROFILE
SURVEYED
PLOTTED
DRAWN
CHECKED
QUANTITIES COMPUTED
STRUCTURE LAYOUT NO.
SHEET
PLAN
SURVEYED
PLOTTED
DRAWN
CHECKED
QUANTITIES COMPUTED
STRUCTURE LAYOUT NO.
SHEET
PLATE 1—PLAN-PROFILE
ELEVATED
STREAMS
EASTMAN & EBER CO., NEW YORK
LINEAR FACTOR
TIME FACTOR
DONNOW
CA YDS DIF.
VELOCITY
DONNOW SQUARE
1000 V.C.
S 00°31' E
NW ¼ Sec. 15
T6S R66W
SW ¼ Sec. 15
T6S R66W
6574 Ft. Single Span Steel Girder Bridge, 48 Ft. Roadway, 30° Skew, Concrete Slab Abutments, Concrete Wing Walls, Concrete Floor, Steel Railing
Excavation for Bridge Abutments
Excavation for Channel Change
Excavation for Bridge Abutments
Excavation for Channel Change
Excavation for Bridge Abutments
Excavation for Channel Change


PROFILE
NOTE: ROW CHANGES CHECKED IN FIELD. NOTE MISSING MONUMENTS
SW ¼ Sec 15 T6S R66W
NE ¼ Sec 22 T 6S R66W
NW¼ Sec 22 T 6S R66W
SE ¼ Sec 16 T6S R66W
Irrig. Ditch
Concrete Box Culvert 10' L. 1 Vert. Area for
Gravel Road
Cmbnmt.
Grade Factor
Shrinkage
Sta Yds Of
Yds Mtl. Of
Borrow Source
Sta. 898+00 — Proj. ø 42" R.C.P. Culv.
Sta. 898+33 — Proj. 6'x2'-3" R.C.B. Culv.
Sta. 898+00 — Proj. 6'x2'-3" R.C.B. Culv.
Sta. 898+33 — Proj. ø 42" R.C.P

PILING LENGTHS CHANGED PER W.O. 3997 T. AOC 7-17-39

FED. ROAD DIST. NO.	STATE	PWA PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	1220-F UNIT 2	24	

NE ¼ Sec. 22
T6S R66W

SE ¼ Sec. 22
T6S R66W

TOWN OF ENGLEWOOD
DOUGLAS COUNTY

SW ¼ Sec. 22
T6S R66W

915+188 to 918+00 — Reqd. Bridge as per details on Sheets Nos. 8, 9 and 10... Also Reqd. 16,113 Cu. Yds. Uncl. Excav. for Channel Improvement Lt. and Rt. (Material to be used as Borrow and included for Payment in Profile Quantities.)

923+50 — Reqd. 40 Cu. Yds. Embank. for Road Approaches Lt. and Rt.

923+25 to 923+25 — Reqd. 10 Cu. Yds. Excav. for Drain Ditches Lt. and Rt.

924+25 — Move 2-Sheds on Lt.

928+00 — Reqd. 38°7.46' C.M.P. Cross Culvert and 8 Cu. Yds. Excav. for Outlet Ditch.

928+50 to 929+30 — Reqd. 200 Cu. Yds. Embank. for Road Approach Lt.

930+50 to 930+50 — Reqd. 50 Cu. Yds. Excav. for Intercepting Ditches on Lt.

918+50 to 923+25 — Reqd. 30 Cu. Yds. Excav. for Intercepting Ditch on Rt.

S 06°51' E

EVANS STREET

JOHNSON STREET

ENGLEWOOD PARKWAY

MOUNTAIN STATES TELEPHONE & TELEGRAPH CO.
PRESENT WIRE
CHERRY CREEK VALLEY PHONE CO.

STRUCTURE NOTES FOR BRIDGE — STA. 915+188 TO STA. 918+01.2 STRUCTURE No. F-17-AH

PRESENT STRUCTURE:
SPAN = 98.35'-0" (F-17-R)
CLEAR ROADWAY = 20.0'

PROPOSED STRUCTURE:
POSITION REFERRED TO PRESENT STRUCTURE: 400' West
SKEW = 72°40'-0"

Excav.
Embank.
Emb. Factor
Emb. x Factor
Borrow
Sta. Yds. B.H.
Yds. M.A. Diff.
Borrow Source — Channel Improvement

PLATE I — PLAN-PROFILE

TEN YEAR DIST. NO.	STATE	FED. PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	COLO.	HSP-F-UNIT-F	25	

940+90 ~ Reqd. 380 Cu. Yds. Embank. for Road Approaches Lt. & Rt. Also Reqd. 18" x 30" C.M.P. Side Drain on Lt.

941+00 ~ Reqd. 36" C.M.P. Cross Culvert

941+55 ~ Reqd. 30" C.M.P. Cross Culvert and 5 Cu. Yds. Excav. for Inlet Ditch

944+80 ~ Reqd. 500 Cu. Yds. Embank. in Fills Also Reqd. 18" x 30" C.M.P. Side Drain on Rt.

P.C. 944+22.2

Rt. 22.2°

945+25 ~ Reqd. 36" C.M.P. Cross Culvert and 5 Cu. Yds. Excav. for Inlet Ditch and Rip-Rap

Δ 2°19'
D 0°38'
T 43.71
L 87.39
R 144.60

Pt. of Intersect. Back

Pt. of Intersect. Ahead

948+00 to 974+00 ~ Reqd. 55 Cu. Yds. Excav. for Intercepting Ditches on Lt.

973+20 ~ Reqd. 130 Cu. Yds. Excav. for Road Approaches on Lt. side Rt. (Excav. on Lt. to be used as Embank. on Rt.) Also Reqd. 18" x 26" C.M.P. Side Drain on Lt.

979+00 ~ Reqd. 18" x 26" C.M.P. Cross Culvert & 5 Cu. Yds. Excav. for Inlet Ditch

Remove 18" x 24" C.M.P. Culvert Rt.

941+20 ~ Remove 18" x 24" C.M.P. Culvert Rt.

S 06°51' E

S 09°10' E

Mountain States Telephone & Telegraph Co.

Cherry Creek-Valley Power & Interstate Gas Co.

Irrigation Ditch

Wood Bridge

Fence

Barn

Corral

Pt. 947+13 Back

Rt. 962+43 Ahead

947+28 ~ Reqd. 36" C.M.P. Cross Culvert and 5 Cu. Yds. Excav. for Inlet and Outlet Ditches

Sta. 962+40 Back

Sta. 962+40 Ahead

EQUATION

SE¼ Sec. 22 T6S. R66W

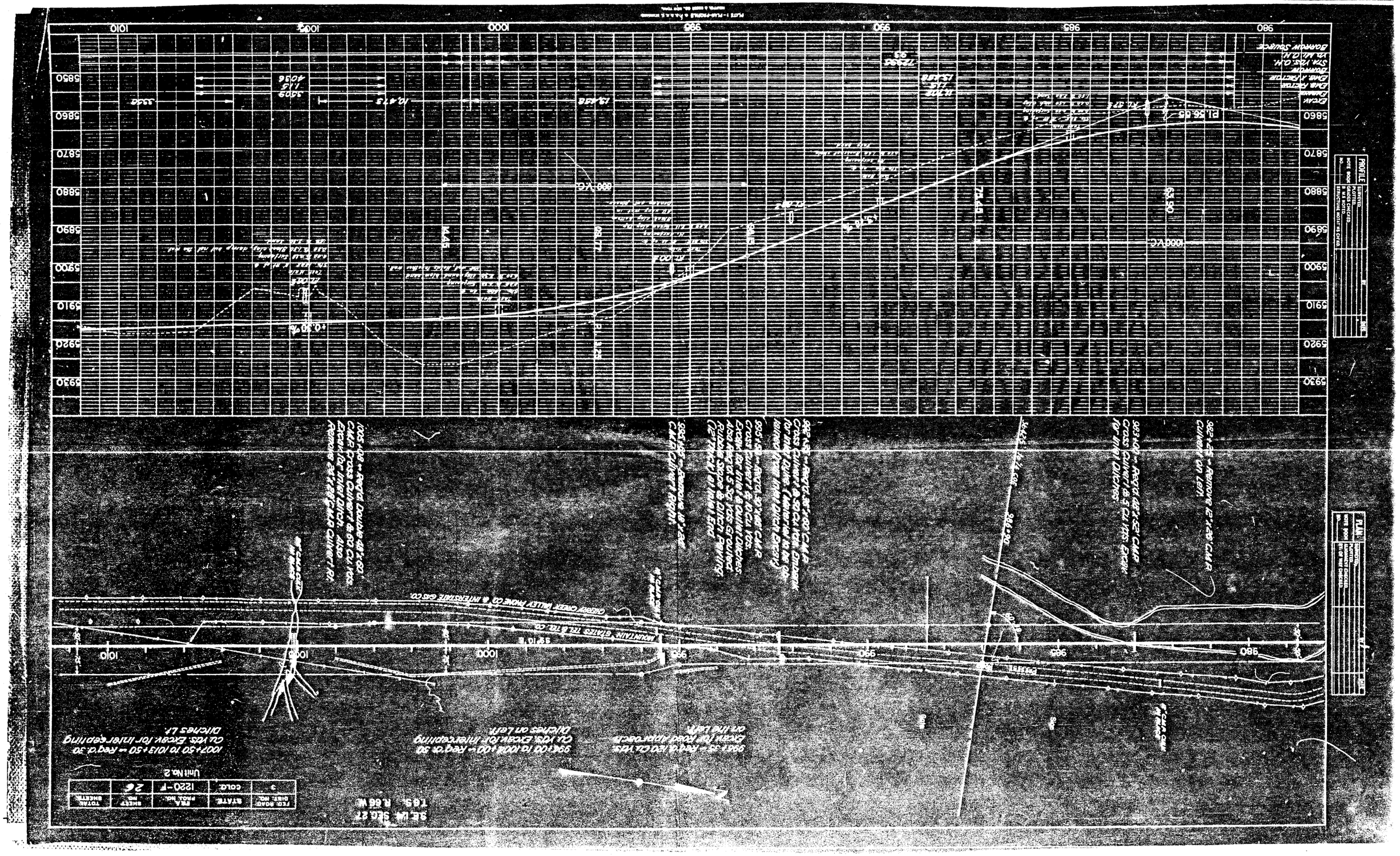
NE¼ Sec. 27 T6S. R66W

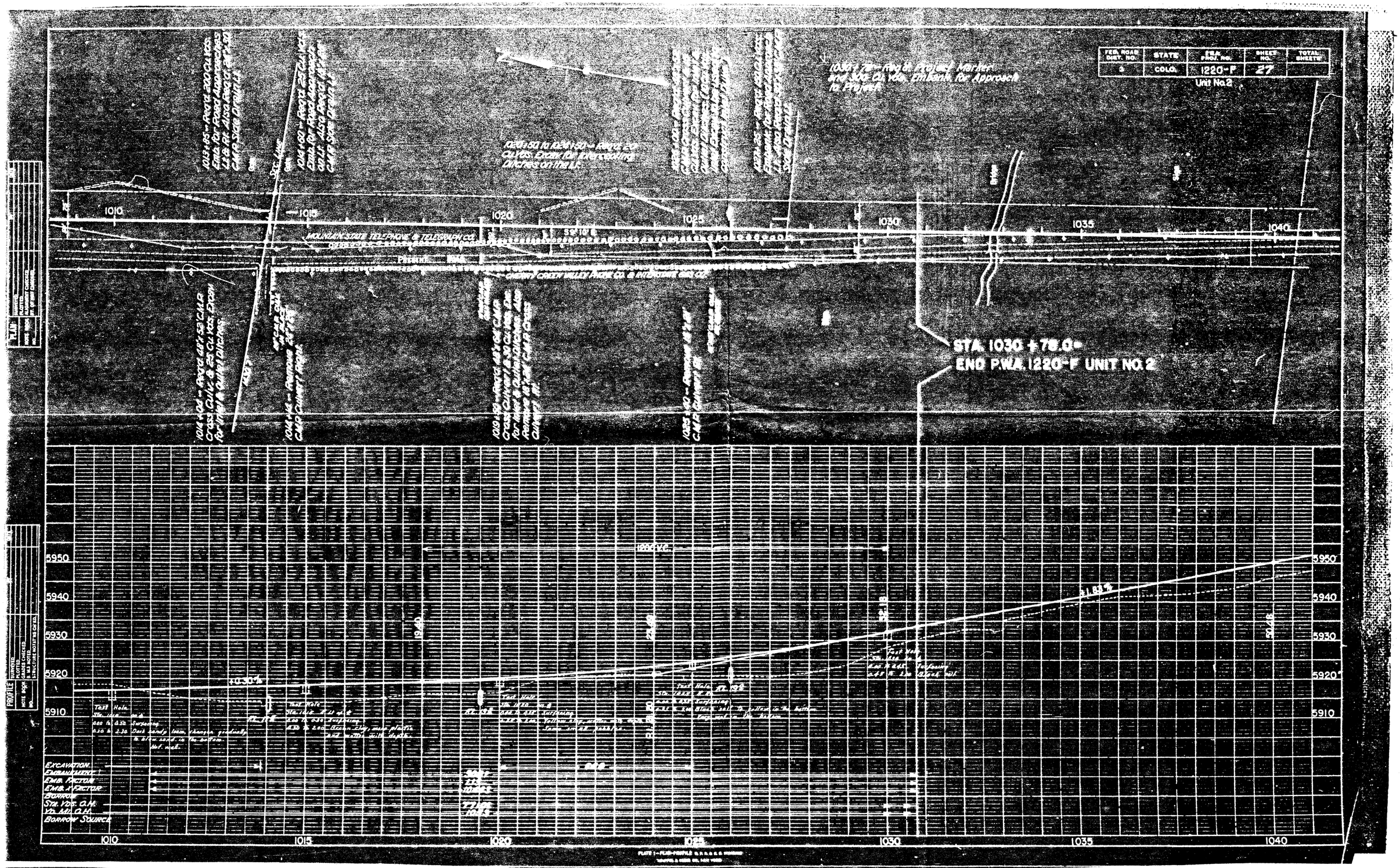
PROFILE
SURVEYED
PLOTTED
NOTE BOOK
NO.
GRADES CHECKED
S. B.S. NOTED
STRUCTURE NOTES PLOTTED

	940	945	965	970	975	980
Excav.		2172		5620	6015	
Embank.		1835				
Emb. Factor		1.15				
Emb. x Factor		2172				
Borrow			1937			
Sta. Yds. O.H.		429		6197	24810	
Yds. M. O.H.						
Borrow Source						

5890 5880 5870 5860 5850

Plate 1 — Plan-Profile of U.S. & S.H. Standard
Scales: H. 1 Inch = 100 Ft., V. 1 Inch = 10 Ft.


PROFILE
980
985
990
995
1000
1005
1010
5850
5860
5870
5880
5890
5900
5910
5920
5930
PLAN
Unit No. 2
TYPE ROAD
STATE
COLOR
220-V
2 ϕ
TOTAL
Cream
Dark Yellow
Dark Green
Brown
Yellow
Orange
Red
Blue
Purple
Black
Gray
White
Brown
Yellow
Green
Red
Blue
Purple
Black
Gray
White
Cream
Dark Yellow
Dark Green
Brown
Yellow
Orange



FED. ROAD DIST. NO. 3
STATE COLO.
F.A.P. PROJ. NO. 1220-F
SHEET NO. 27
TOTAL SHEETS
Unit No. 2
1030+78 - Reg'd. Project Marker and 300 Cu. Yds. Embank. for Approach to Project
1010
1015
1020
1025
1030
1035
1040
MOUNTAIN-STATE TELEPHONE & TELEGRAPH CO.
STA. 1030 + 78.0=
END P.W.A. 1220-F UNIT NO. 2
5950
5940
5930
5920
5910
EXCAVATION
EMBANKMENT
EMB. FACTOR
EMB. & FACTOR
BORROW
STA. YDS. O.H.
YD. MI. O.H.
BORROW SOURCE