

FEDERAL ROAD DIVISION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	C 27-0102-09	1	

INDEX OF SHEETS

- SHEET NO. 1 SKETCH MAP, TITLE PAGE AND TABULATION OF LENGTH AND DESIGN DATA.
2 TYPICAL SECTION, GENERAL NOTES AND SUMMARY OF APPROXIMATE QUANTITIES.
3 TIMBER GUARD POSTS, RIGHT OF WAY MARKERS AND FENCING REQUIREMENTS.
4 SURFACING PLAN, SUB-BASE PLAN AND SKETCH MAP OF PIT LOCATIONS.
5 LIST OF STRUCTURES.
6 STANDARD SIDE APPROACH ROADS, FLARING, CUT SLOPE TREATMENT & WIDENING AT BRIDGES & AT CREST OF GRADES.
7 STANDARD MARKER POSTS.
8 STANDARD CATTLE GUARD, 10 FT. ROADWAY.
9 STANDARD TIMBER GUARD POSTS.
10 STANDARD WIRE FENCE WITH METAL POSTS.
11 STANDARD ROADWAY CONSTRUCTION TRAFFIC SIGNS.
12 STANDARD TYPES OF DITCHES AND CONSTRUCTION METHODS.
13-23 ALIGNMENT PLAN AND PROFILE.
24 SUMMARY OF EARTHWORK QUANTITIES.
25-77 CROSS SECTIONS.

M-2-EM
M-7-C
M-15-B
M-19-D
M-27-C
M-29-A
M-107-C

COLORADO DEPARTMENT OF HIGHWAYS

PLAN AND PROFILE OF PROPOSED STATE PROJECT NO. C 27-0102-09 STATE HIGHWAY NO. 102

WASHINGTON COUNTY

SCALES OF ORIGINAL DRAWINGS
ON PLAN, 1 IN. = 100 FT.
ON PROFILE, 1 IN. = 10 FT. VERTICAL
GRADE LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD
GROSS LENGTH OF PROJECT } 31,769.5 FT. = 6.017 MI.
NET LENGTH OF PROJECT

STA. 2748+50 BEGIN C 27-0102-09
END OF FAP 351-1(1)

STA. 3066+19.5 END C 27-0102-09

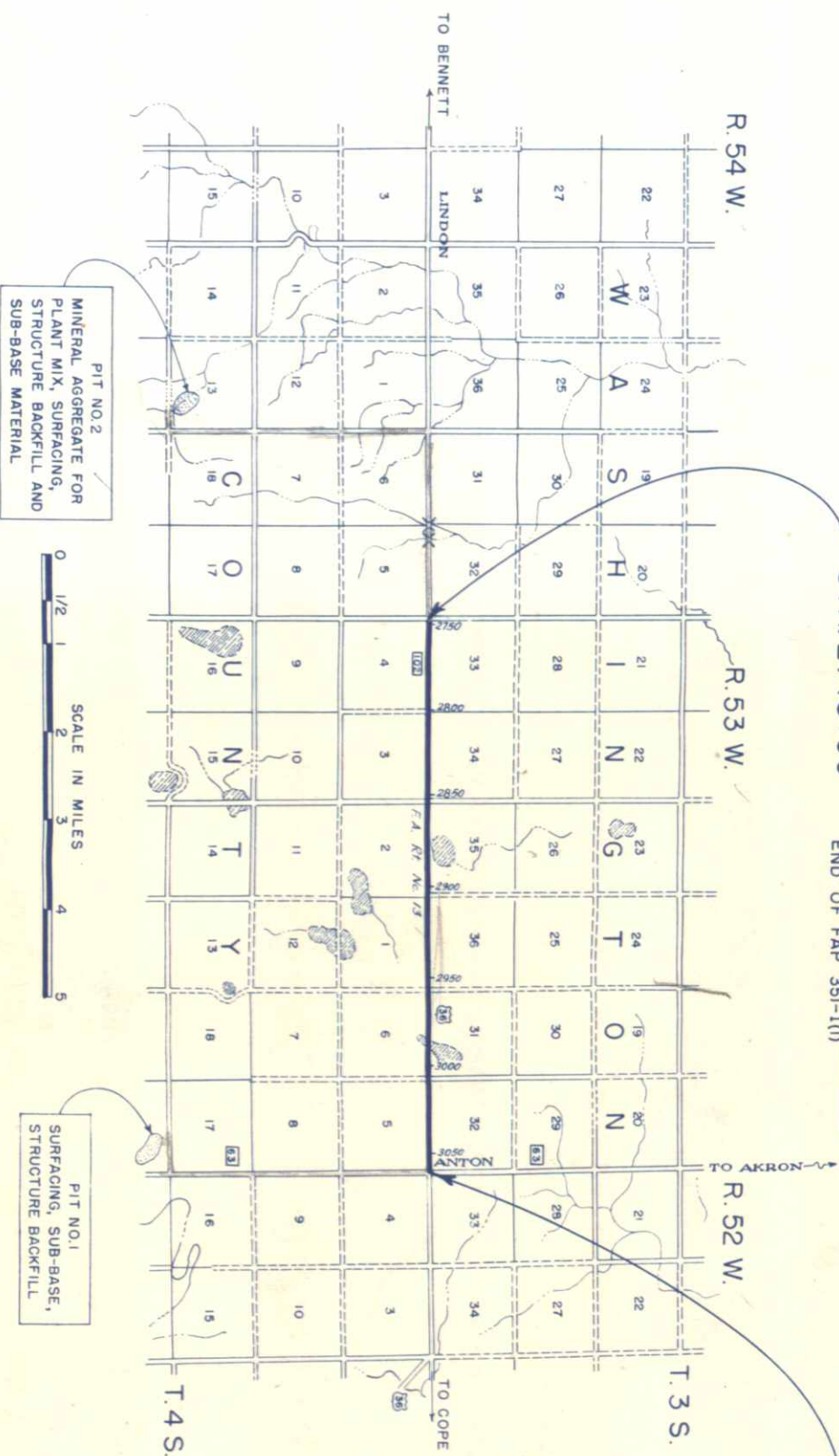
CONSTR. ENGR'S. COPY

CONVENTIONAL SIGNS

CENTER LINE
RIGHT OF WAY LINE
TOWNSHIP OR RANGE LINE
LAND LINES
BARBED WIRE FENCE
COMBINATION WIRE FENCE
TELEPHONE & TELEGRAPH LINES
POWER LINE
PRESENT ROAD (From Sheets)

TABULATION OF LENGTH & DESIGN DATA

STATION	ROADWAY LIN. FT.
2748+50 BEGIN C 27-0102-09 END OF FAP 351-1(1)	31,769.5
3066+19.5 END C 27-0102-09	
TOTAL	31,769.5
SUMMARY	LIN. FT. 31,769.5 MILES 6.017
PROJECT TOTAL-ROADWAY	
DESIGN DATA	
MAXIMUM DEGREE OF CURVE	0°
MAXIMUM GRADE	3.80%
MINIMUM NPSD-HORIZONTAL	>1300'
MINIMUM NPSD-VERTICAL	600'
MAXIMUM DESIGN SPEED	70 MPH



PIT NO. 2
MINERAL AGGREGATE FOR
PLANT MIX, SURFACING,
STRUCTURE BACKFILL AND
SUB-BASE MATERIAL

SCALE IN MILES
0 1/2 1 2 3 4 5

PIT NO. 1
SURFACING, SUB-BASE,
STRUCTURE BACKFILL

N

AS CONSTRUCTED PLANS
RETURN TO DIST. 4 DESIGN

NOTICE TO BIDDERS
IT IS RECOMMENDED THAT BIDDERS ON THIS PROJECT GO
OVER THE PLAN DETAILS WITH ONE OF THE FOLLOWING FIELD
REPRESENTATIVES OF THIS DEPARTMENT:
E. W. Oviatt Construction Engineer
Greely, Colo.
W. D. Howe Resident Engineer
Home Telephone 78-W Brush, Colo.

APPROVED:
Michael J. Williams 1-6-55
CHIEF ENGINEER
COLORADO
DEPARTMENT OF HIGHWAYS



NOTE:
Alignment and Grades as shown are subject to modification during construction after approval by the Denver Office.
Soil data shown on the plans is obtained from best available testing laboratory information. This information is shown for the convenience of the Contractor and the Department does not guarantee the accuracy of these tests. If materials not conforming to the data on the plans are encountered during construction the grading plan shown on the plans will be modified where necessary to secure dense, stable embankments. Fencing Requirement, R.O.W. Markers and Timber Guard Posts are tabulated on Sheet No. 3.
All county road approaches shall be constructed with 3-center curve alignment on the spandrels of the following radii: 150, 50 and 150 feet.

2748+50 " Road approach to project
2748+50 " Road project marker (State Forces)

All Telephone Poles on this Survey Owned by:
AIRLINE TELEPHONE ASSOCIATION
Anton, Colorado.



S.W. 1/4, Sec. 33
T. 3 S., R. 53 W.

FED. ROAD DIST. NO.	9	DIST.	COLO.	PROJ. NO.	C 27-0102-09	SHEET NO.	13	TOTAL SHEETS
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STA. 2748+50 BEGIN C 27-0102-09
END OF FAP 351-1(1)

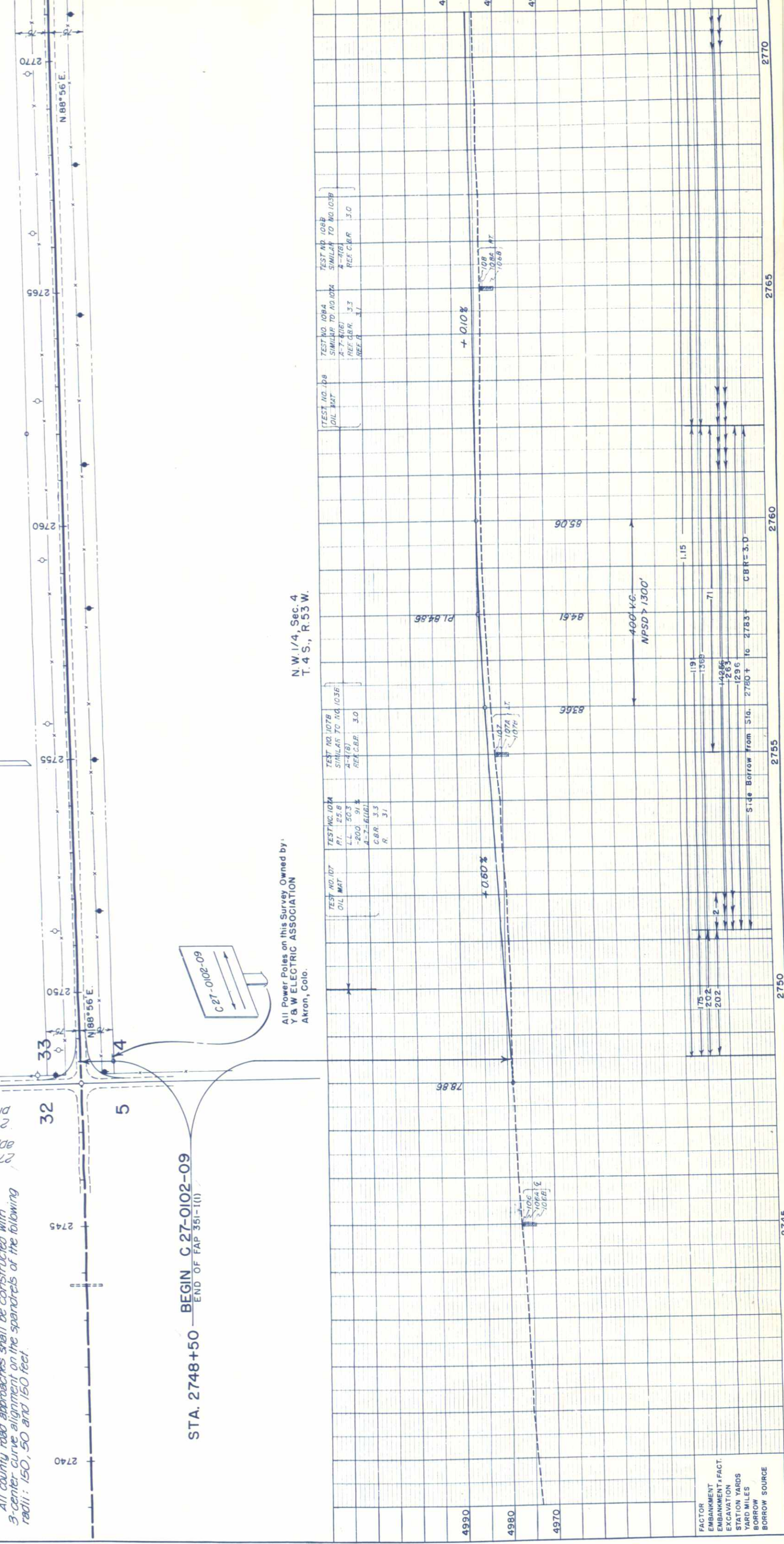
All Power Poles on this Survey Owned by:
Y & W ELECTRIC ASSOCIATION
Akron, Colo.

N.W. 1/4, Sec. 4
T. 4 S., R. 53 W.

PLAN	DATE	4-5-54
NOTED	BY	J.T. Huston
PLOTTED	BY	R.C.P.
ALIGNED CHECKED	BY	M.T.H.
RT. OF WAY CHECKED	BY	

PROFILE	DATE	4-5-54
NOTED	BY	J.T. Huston
PLOTTED	BY	R.C.P.
GRADES CHECKED	BY	A.B.B.
STRUCTURE NOTATIONS CHECKED	BY	

FACTOR
EMBANKMENT
EXCAVATION
STATION YARDS
YARD MILES
BORROW SOURCE



S.W. 1/4, Sec. 33
T. 3 S., R. 53 W.

S.E. 1/4, Sec. 33

COLORADO DEPARTMENT OF HIGHWAYS
Form C.D.H. 134
April 1962

PLA.	SURVEYED.	BY	DATE
NO. 2022	PLOTTED.	J. F. Huston	4-54
	ALIGNMENT CHECKED	R. C. P.	4-54
	RT. OF WAY CHECKED	J. J. H.	4-54

PROFILE	SURVEYED.	BY	DATE
NOTE BOOK	PLOTTED.	J. F. Huston	4-54
NO. 18019	GRADES CHECKED	R. C. P.	4-54
	II. M.S. NOTED	L. B. B.	5-54
	STRUCTURE NOTATIONS CHKD.		

N.W. 1/4, Sec. 4
T. 4 S., R. 53 W.

N.E. 1/4, Sec. 4

P.I. 2783+21.6
 $\Delta = 0^\circ 14' \text{ Lt.}$

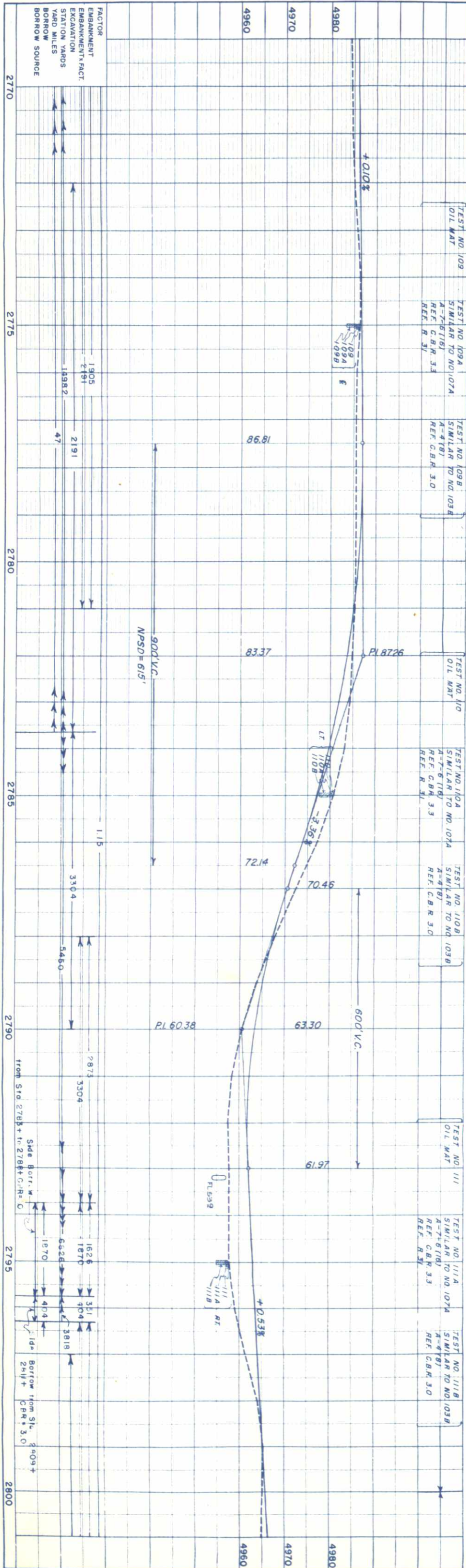


2791+78' Remove
2'x2'x40' WBC

2793+21' Req'd
36"x 70' cross
culvert. Remove
36"x 38' CMP

2797+50' Req'd
18"x 30' side drain
& road approach, Lt.

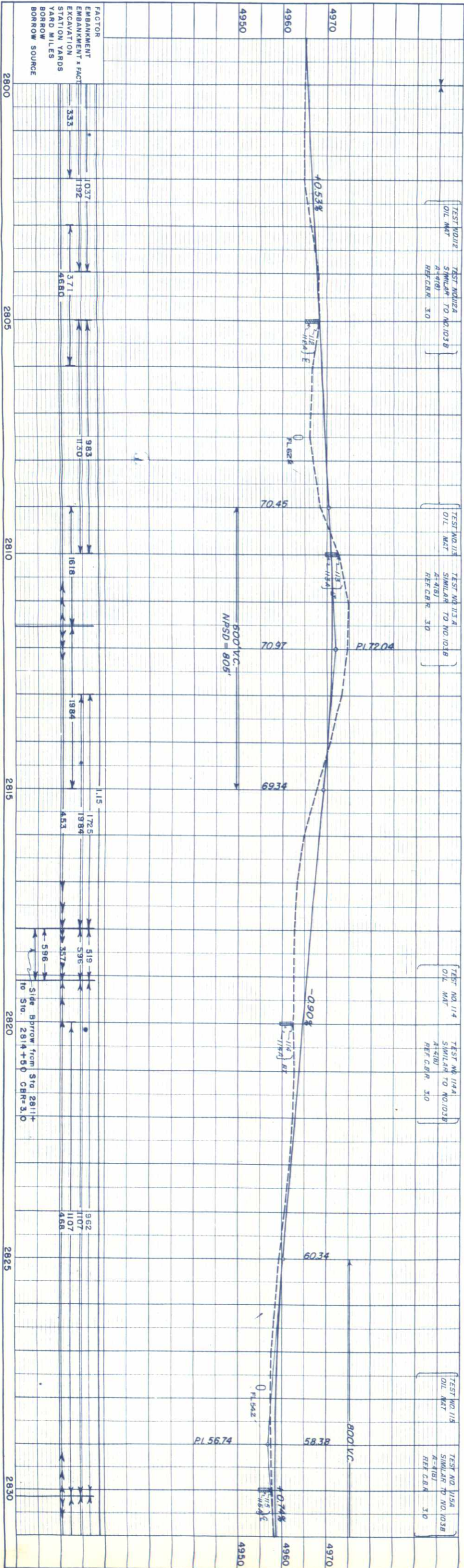
FEED ROAD DIST. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	C 27-0102-09	14	



PROFILE	SURVEYED	BY	DATE
NOTE BOOK	GRADES CHECKED	J. J. Huston	4-34
NO. 18019	B. M. NOTED	R. C. B.	4-34
	STRUCTURE NOTATIONS CHKD.	L. B. B.	5-34

PLAN	DESIGNED	BY	DATE
NOTE BOOK	PLOTTED	J. J. Huston	4-34
NO. 18022	ALIGNMENT CHECKED	R. C. B.	4-34
	RT. OF WAY CHECKED	J. J. H.	5-34

COLORADO DEPARTMENT OF HIGHWAYS
Form C.D.H. 134
April 1932



N.W. 1/4, Sec. 3
T. 4 S., R. 53 W.

N.E. 1/4, Sec. 3

2801+10" Req'd
18'x48' side drain, Rt.
Road approach, Rt. & Lt.
Remove 18'x24' CMP, Rt.

2807+22" Remove 2'x2'x40'
WBC

2807+50" Req'd 24'x68'
cross culvert. Remove
24'x44' CMP

2811+00" Req'd road
approach, Rt.

2827+75" Req'd
24'x60' cross
culvert, ditches
Remove 18'x32'
CMP

FED. ROAD DIST. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	C 27-0102-09	15	

S.E. 1/4, Sec. 34

S.W. 1/4, Sec. 35
T. 3 S., R. 53 W.

PLAN	BY	DATE
CONVEYED	L.V. Huston	4-3-54
TESTED	R.C.P.	4-3-54
NOTED	J.V.H.	5-3-54
NO. 18020	OF WAY CHECKED	

PROFILE	BY	DATE
SURVEYED	L.V. Huston	4-3-54
PLOTTED	R.C.P.	4-3-54
GRADES CHECKED	L.A.B.	5-3-54
NO. 18019	STRUCTURE NOTATIONS CHECKED	



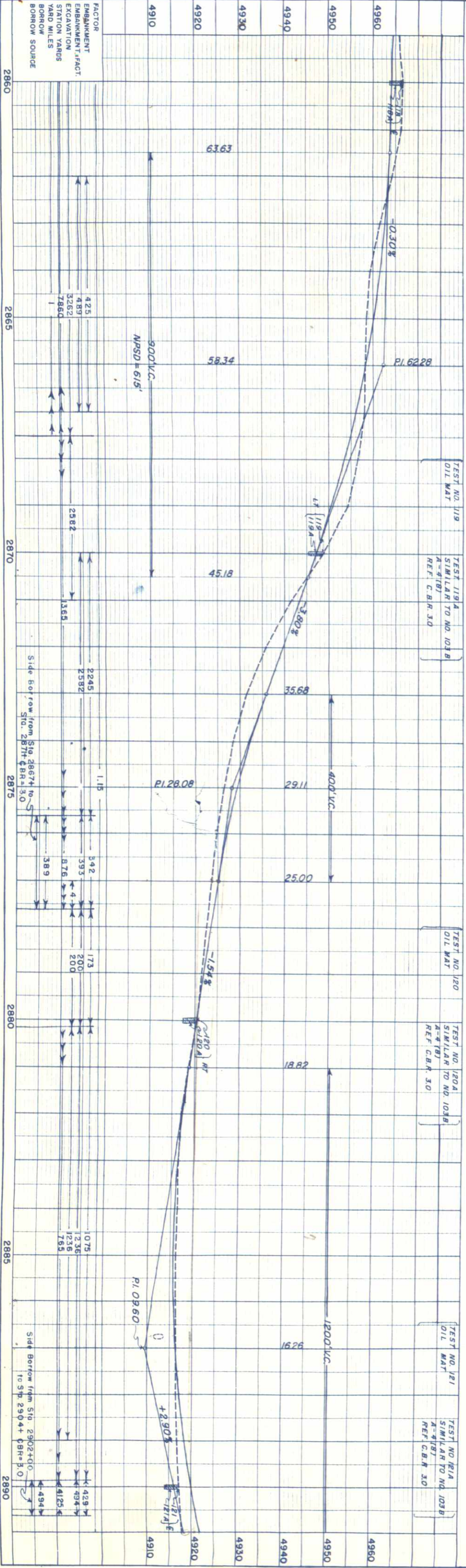
FED. ROAD DIST. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	C 27-0102-09	17	

S.E. 1/4, Sec. 35

2886+74.4 Extend
24"x42" CMP cross
culvert 14' Lt.

N.W. 1/4, Sec. 2
T. 4 S., R. 53 W.

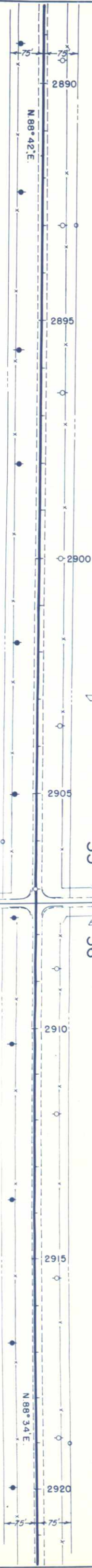
N.E. 1/4, Sec. 2



S.E. 1/4, Sec. 35
T. 3 S., R. 53 W.

FED. ROAD DIST. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	C 27-0102-09	18	

S.W. 1/4, Sec. 36

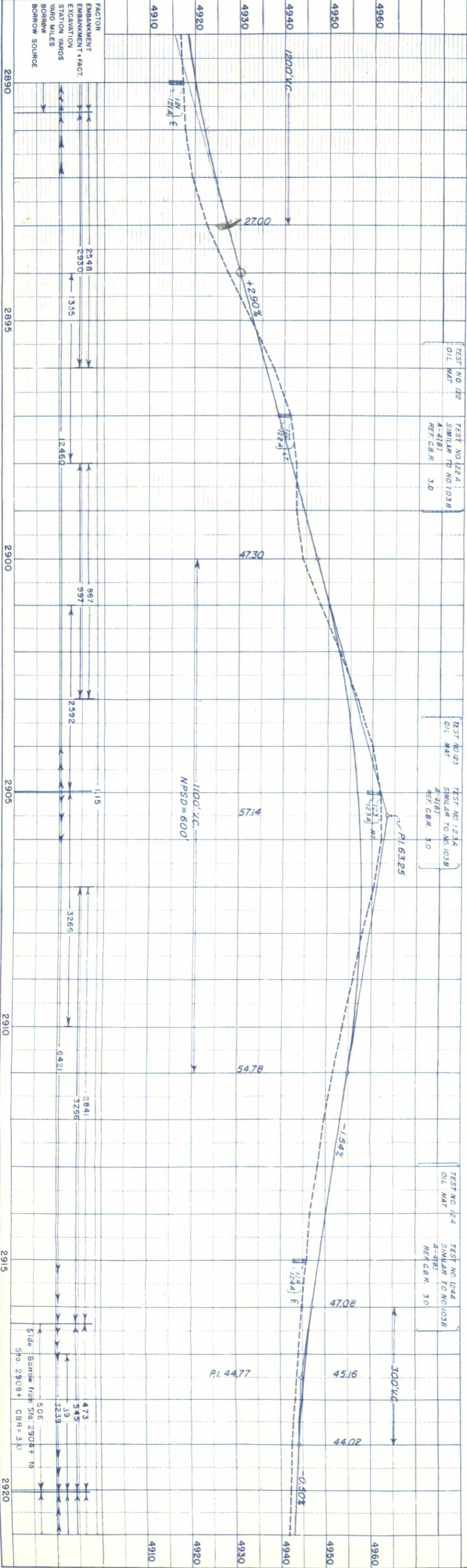


PL	BY	DATE
PL	BY	DATE
NOTE BOOK	ALIGNED CHECKED	
NO. 18020	RT. OF WAY CHECKED	

N.E. 1/4, Sec. 2
T. 4 S., R. 53 W.

N.W. 1/4, Sec. 1

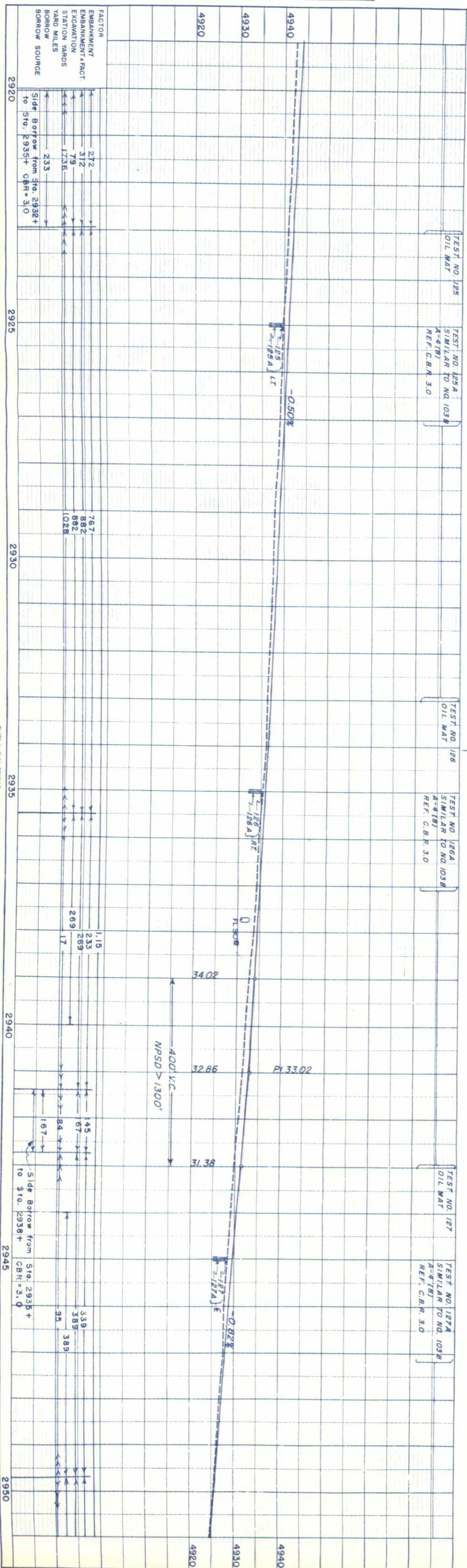
PROFILE	BY	DATE
SURVEYED	BY	DATE
NOTE BOOK	GRADES CHECKED	
NO. 18019	B. M.S. NOTED	
	STRUCTURE NOTATIONS CHECKED	



PROFILE	SURVEYED	BY	DATE
	PLOTTED	J. J. Huston	5-5
NOTE BOOK	GRADES CHECKED	R.C.P.	5-5
NO. 18019	B. M.'S NOTED	L.B.B.	5-5
	STRUCTURE NOTATIONS CHECKED		



N.E. 1/4, Sec. 1



S.E. 1/4, Sec. 36
T. 3 S., R. 53 W.

S.W. 1/4, Sec. 31
T. 3 S., R. 52 W.

FED. ROAD DIST. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	C 27-0102-09	20	

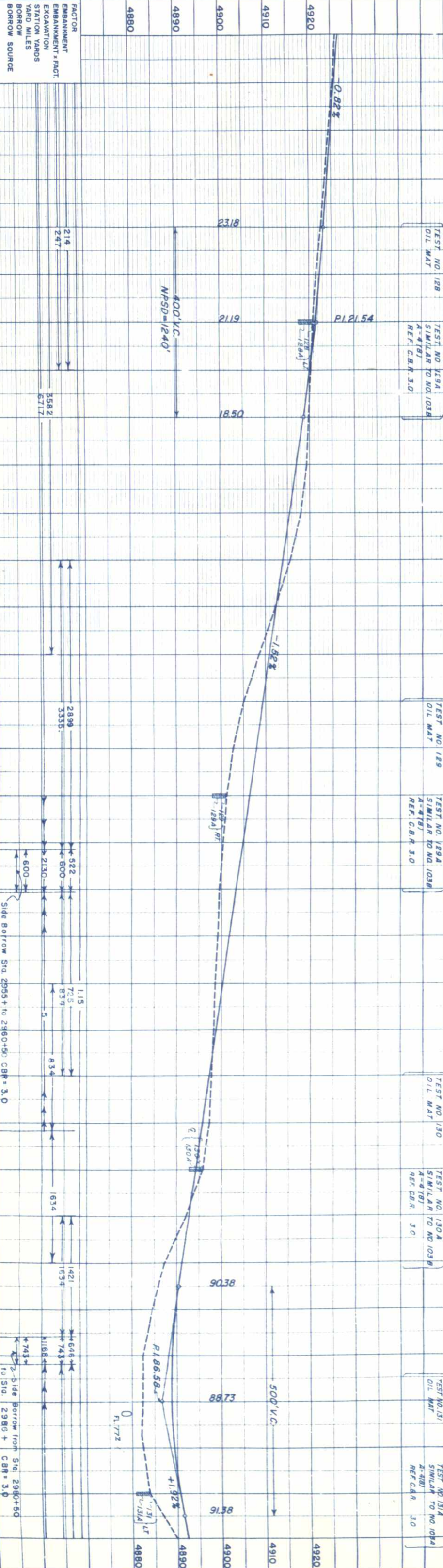
COLORADO DEPARTMENT OF HIGHWAYS
Form C.D.H. 104
April 1952

PL	SURVEYED	BY	DATE
	PLOTTED	L. F. Huston	4-5-54
NOTE BOOK NO. 18020	ALIGNMENT CHECKED	L. F. Huston	4-5-54
	RT. OF WAY CHECKED	L. F. Huston	4-5-54

PROFILE	SURVEYED	BY	DATE
	PLOTTED	L. F. Huston	4-5-54
NOTE BOOK NO. 18020	GRADES CHECKED	L. F. Huston	4-5-54
	STRUCTURE NOTATION CHKD.	L. F. Huston	4-5-54

NE 1/4, Sec. 1
T. 4 S., R. 53 W.

NW 1/4, Sec. 6
T. 4 S., R. 52 W.



R. 53 W.

R. 52 W.

2960+40' Req'd 18"x 60' side drain, Lt. Road approach, Rt. & Lt. Remove 18"x 20' CMP, Lt.

2978+25' Req'd 36"x 84' cross culvert. Remove 36"x 48' CMP.

2978+73' Remove 18"x 40' CMP

PLATE 1 - PLAN PROFILE OF ROAD & ELEVATION

S.W. 1/4, Sec. 31
T. 3 S., R. 52 W.

S.E. 1/4, Sec. 31

FED. ROAD DIST. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	C 27-0102-09	21	

COLORADO DEPARTMENT OF HIGHWAYS
Form C.D.H. 134
April 1962

PLAN	ED.	BY	DATE
NOTE BOOK	ALIGNMENT CHECKED	J. J. Huston	4-54
NO. 18020	RT. OF WAY CHECKED	R. C. P.	4-54
		J. J. H.	5-54

PROFILE	ED.	BY	DATE
NOTE BOOK	GRADES CHECKED	J. J. Huston	4-54
NO. 18019	8 M.S. NOTED	R. C. P.	5-54
	STRUCTURE NOTATIONS CHKD.	L. B. B.	5-54

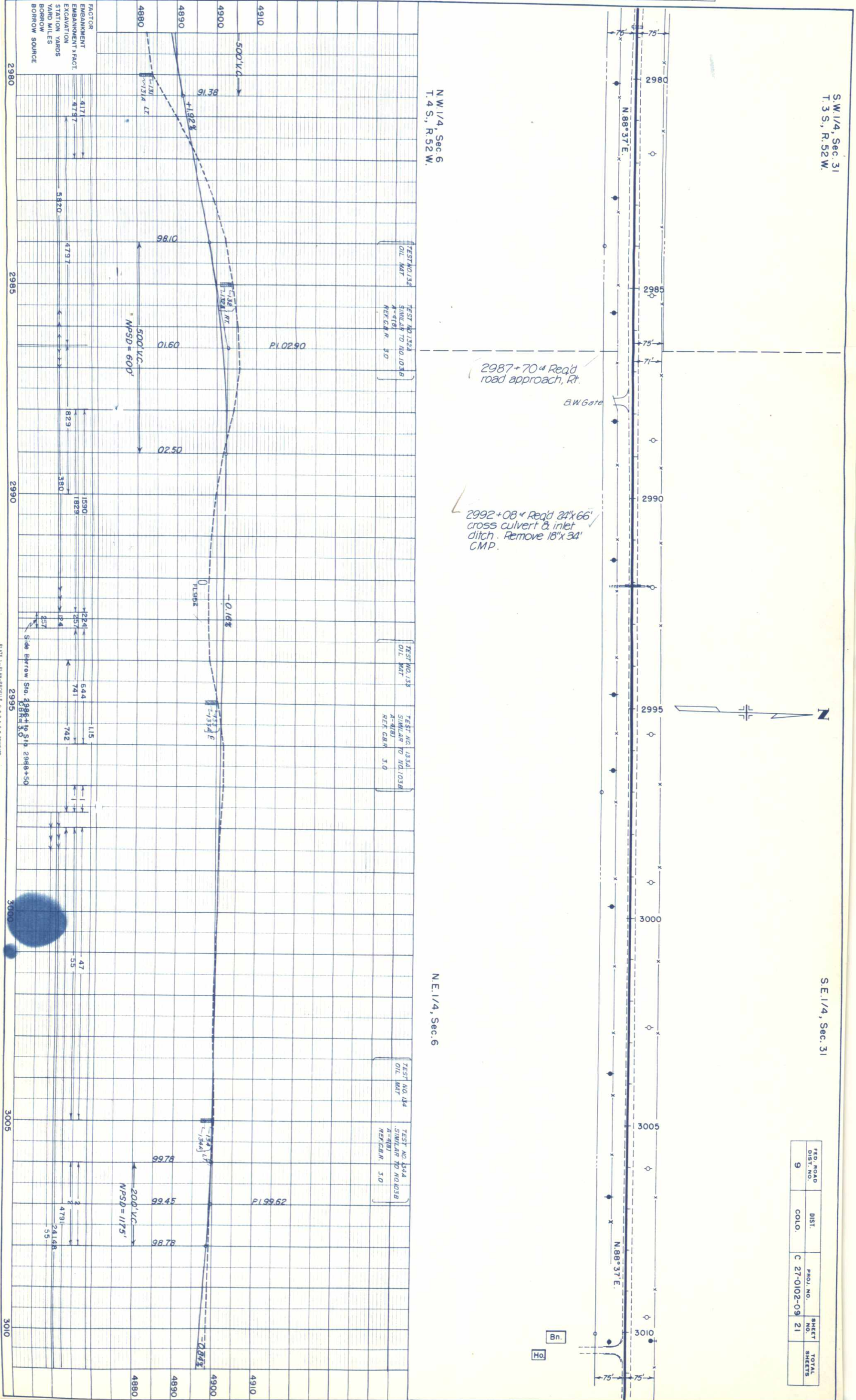


PLATE 1 - PLAN-PROFILE OF ROAD SECTION

S.E. 1/4, Sec. 31
T. 3 S., R. 52 W.

S.W. 1/4, Sec. 32

FED. ROAD DIST. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	C 27-0102-09	22	

REV. 1-13-55 R.O.W. — T.M.C.

PLAN	DATE	BY	DATE	BY
NO. 180221	4-54	J.T. Huston	4-54	J.T. Huston
NOTE BOOK	4-54	J.T. Huston	4-54	J.T. Huston
ALIGNED CHECKED	4-54	J.T. Huston	4-54	J.T. Huston
RT. OF WAY CHECKED	4-54	J.T. Huston	4-54	J.T. Huston
PLOTTED	4-54	J.T. Huston	4-54	J.T. Huston
SURVEYED	4-54	J.T. Huston	4-54	J.T. Huston

PROFILE	DATE	BY	DATE	BY
NO. 18019	4-54	J.T. Huston	4-54	J.T. Huston
NOTE BOOK	4-54	J.T. Huston	4-54	J.T. Huston
GRADES CHECKED	4-54	J.T. Huston	4-54	J.T. Huston
PLOTTED	4-54	J.T. Huston	4-54	J.T. Huston
SURVEYED	4-54	J.T. Huston	4-54	J.T. Huston

3010+40' Road approach, Rt.
3013+36' Road 18"x42" side drain, Lt.
Road approach, Rt. & Lt. Remove & rebuild cattle guard, Rt.
5'x8' Cattle Guard

3027+80' Extend 24"x40" C.M.P. cross culvert, 10' Lt. & 12' Rt.

3030+80' Road approach, Rt.

N.E. 1/4, Sec. 6
T. 4 S., R. 52 W.

N.W. 1/4, Sec. 5

FACTOR
EMBANKMENT
EXCAVATION
STATION YARDS
YARD MILES
BORROW SOURCE

4116
4734

4116
6788
7806
8404
363
7764
Side Borrow From Sta. 3000+50 To Sta. 3010+50
CBR = 3.0

-0.84%

2.13%
2.13%

2.13%
2.13%

2.13%
2.13%

72.7'

4900

4890

4880

4870

3010

3015

3020

3025

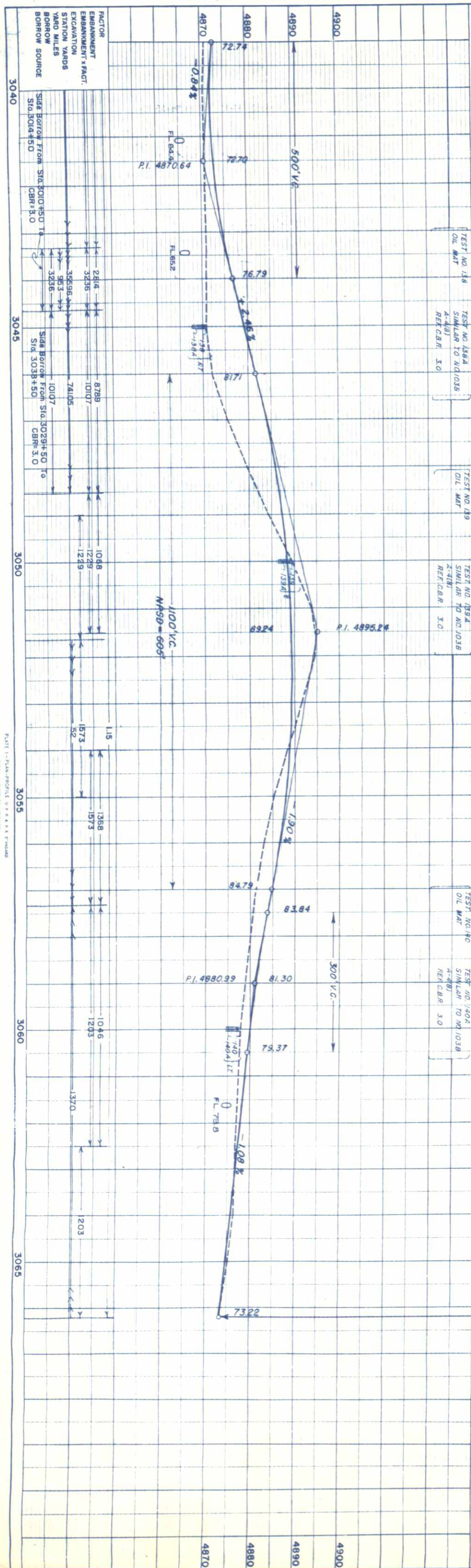
3030

3035

3040

PLAN	SURVEYED	J.J. Huston	4-54
	PLOTTED	R.C.P.	4-54
NOTE BOOK NO. 0020	ALIGNMENT CHECKED	J.J.H.	5-54
	RT. OF WAY CHECKED		

S.E. 1/4, Sec. 32
T. 3 S., R. 52 W.



N.E. 1/4, Sec. 5
T. 4 S., R. 52 W.

3041+09 w Relay
24"x40' CMP &
extend 28', outlet
ditch

3043+45" Relay
24"x 40' CMP &
extend 38' ditches

3041+45 & Req'd
road approach, Rt.

3047+25'
 Remove 15' x 22' conc.
 pipe, Rt.

3051+604 Req'd 18"x26'
side drain & road
approach, Lt.

3052+90 & Req'd
road approach, Lt.

3053+50 # Req'd road approach, Rt.

3050+20.4 Req'd 18"x 26' ✓
side drain & road approach,
Rt

3053+88 ~ Req'd 18"x26' ✓
side drain & road approach,
W Gate Lt.

3057+00 ~ Req'd 18"x28" side drain & road approach, Lt.

3059+50" Req'd
18" x 26' side drain
& road approach, Lt.

3060+20' Req'd 18"x28'
side drain & road appr.-Lt.
Remove 18"x20' C.M.P. Lt.

3066+19.5" Req'd
project marker, Lt.
(State Forces)

Truck Scales

— To Akron —

3

3060+70' Req'd
18"x 28' side drain &
road approach, Lt.
Remove 18"x 20'
CMP, Lt.

3066 + 19.5 = Req'd
approach to project

3061+60' Req'd 24"x60' cross
culvert & inlet ditch. Remove
24"x40' CMP.

3062+50 " Reg'd road approach, Rt.

3064+25" Reg'd road

FED. ROAD DIST. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	C 27-0102-09	23	