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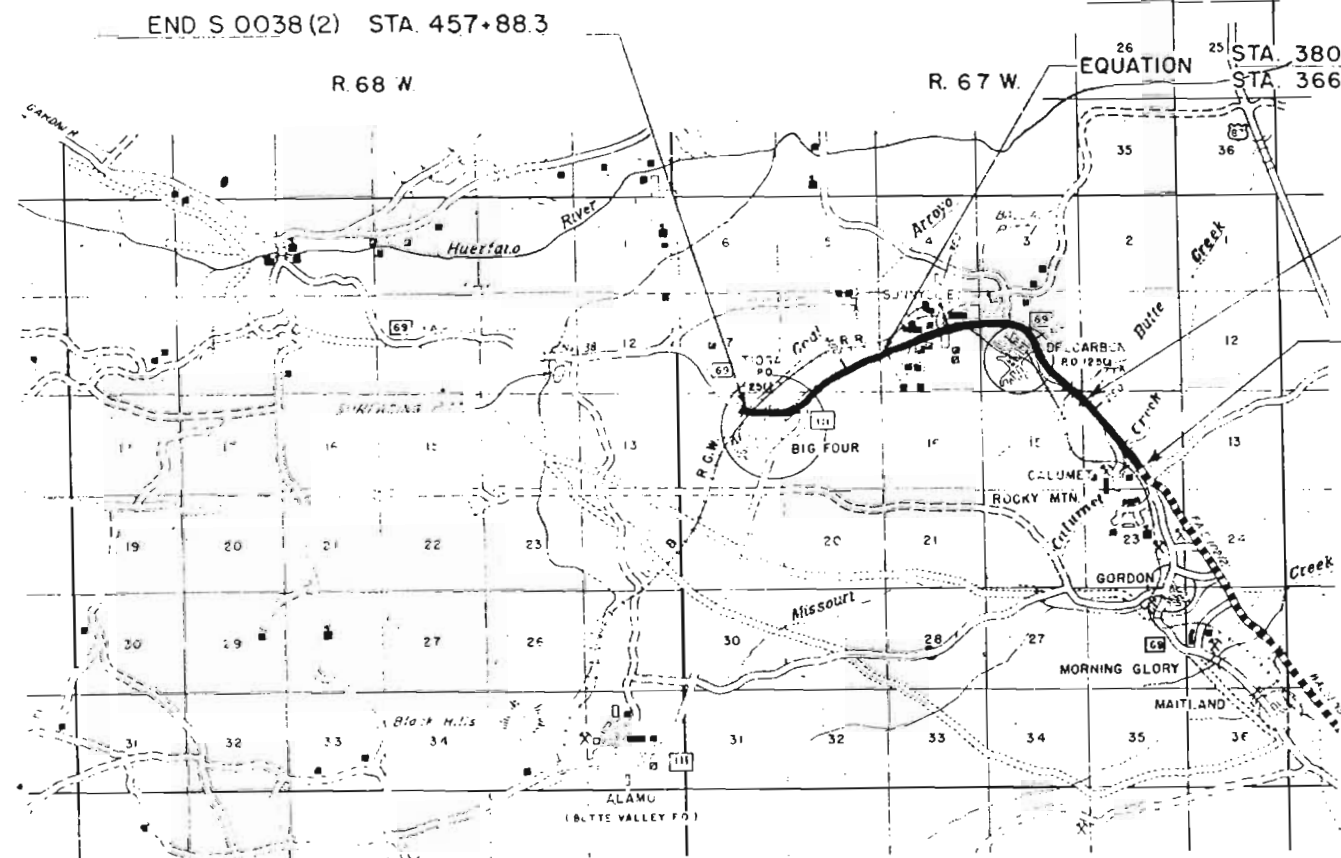
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COLORADO STATE HIGHWAY DEPARTMENT PLAN AND PROFILE OF PROPOSED FEDERAL AID SECONDARY PROJECT NO. S 0038 (2) STATE HIGHWAY NO. 69 HUERFANO COUNTY

SCALES ON ORIGINAL TRACINGS

OR. PLAN 1" = 100 FT.
HORIZ. 1" = 100 FT.
VERT. 1" = 20 FT.
26,252.1 FT. = 4.971 Miles



CONVENTIONAL SIGNS

CENTER LINE
RIGHT OF WAY LINE
COUNTY LINE
TOWNSHIP OR RANGE LINE
SECTION LINE
QUARTER SECTION LINE
CITY LIMITS
PROPERTY OR TRACT LINE
RAILROAD
BARBED WIRE FENCE
TELEPH. & TELEG. LINE
POWER LINE
PRESENT ROAD (Plan Sheets)

NOTE

It is recommended that bidders on this Project go over the plan details with one of the following field representatives of this Department.

Chas. Shumate District Engineer
Pueblo, Colorado
J. A. Solmonson Division Engineer
Pueblo, Colorado
L. C. Bower Resident Engineer
Box 35
Trinidad, Colorado

STA. 249+96.5 Bk.
STA. 250+00.0 Ah.

STA. 209+00 BEGIN S 0038
END SP 16-69-504
800' Extension of S 102 (2)

RECOMMENDED FOR APPROVAL
J. A. Solmonson
DATE 7-6-48

APPROVED
Mark L. Walters
DATE 7-9-48

RECOMMENDED FOR SPECIAL DATE
DISTRICT ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL ROAD AGENCY

APPROVED
DATE

SCALE - MILES

Rev. Fencing Reg. 8/6/48 T.M.C.
Add. Note 8-25-48 T.C.R. Rev. 8-26-48 J.S.M.

SURFACING PLAN

It is estimated that material for Gravel Surfacing for the Project is available in the vicinity of the pits indicated in the following tabulation. Estimated quantities involved in this operation are shown below.

No alteration of the Surfacing Plan as here outlined will be allowed without written permission from the Department.

MATERIAL TO BE PLACED	SOURCE	QUANTITY		OVERHAUL	
		AVAIL-ABLE	TONS USED		TON MILES
			GRADING C	GRADING B	
0+00 - 249+96.5 Bk.	Pit No. 1	Ample	1065	2499	6213
0+00 Ah - 380+12.9 Bk.	11,880 ft. from		3383	7938	14255
0+45.0 Ah - 457+88.3	Sta. 457+88.3		2377	5577	5029
Road Approaches	in S.E. 1/4, Sec. 11, T.27S., R.68W.			723	2704
TOTALS			* 6825	16717	* 32497

for future Construction

BALLAST TABULATION

It is estimated that ballast material for the Project is available in the vicinity of the pits indicated in the following tabulation. Estimated quantities involved in this operation are shown below.

No alteration of the Ballast material Plan as here outlined will be allowed without written permission from the Department.

MATERIAL TO BE PLACED	SOURCE	THICKNESS		QUANTITY			OVERHAUL
		CURVE USED	REQ'D INCHES	AVAIL- ABLE TONS	TONS USED		TON MILES
					CLASS 1	CLASS 2	
0+00 - 249+96.5 Bk.	10 miles North	b	8"	45,000	5981		4269
0+00 Ah - 267+20	of Walsenburg	D	8"		2511		409
17+20 - 315+00	N.W. 1/4 Sec. 10	D	8"		6979		Free Haul
17+00 - 362+80	T.27S., R.67W.	D	8"		6979		Free Haul
2+80 - 380+12.9 Bk.	500 ft. from	D	8"		2530		415
0+45.6 Ah - 376+00	Sta. 315+00	D	8"		1393		593
TOTALS					26,373		5,676

Structure backfill material class 1 is estimated to be obtained from Ballast material pit NW 1/4, Sec. 10, T.27S., R.67W.

FENCING REQUIREMENTS

STATION	SIDE	REMOVE	REMOVE & REBUILD	BUILD B.W.	GATES
		LIN. FT.		LIN. FT.	B.W. DRV.
216+00 - 231+30	Rt.	1538		1530	
231+40 - 261+76	Rt.	3036		3036	
262+04 - 270+00	Rt.	715		796	
270+70 - 285+20	Rt.			1450	
281+30	Lt.	140			
281+75 - 282+70	Lt.	95			
285+00	Lt.	100			
TOTALS		5624		6812	

TABULATION OF LENGTH & DESIGN DATA

STATION	ROADWAY	BRIDGES	
	LIN. FT.	LIN. FT.	LOADING
209+00 End SP 16-69-504 (800' Ext. of S 102(2)) Begin S 0038(2)	4,096.5		
249+96.5 Bk. } Equation			
250+00.0 Ah. }	13,012.9		
380+12.9 Bk. } Equation			
366+45.6 Ah. }	2,142.7		
457+88.3 End S 0038(2)			
TOTAL		26,252.1	
SUMMARY		LIN. FT.	MILES
S 0038(2) Roadway		26,252.1	4.971
Total S 0038(2)		26,252.1	4.971
DESIGN DATA			
Maximum Degree of Curve		6°00'	
Maximum Grade		6.00%	
Minimum N.P.S.D. - Horizontal		450 Ft.	
Minimum N.P.S.D. - Vertical		430 Ft.	
Maximum Design Speed		50 M.P.H.	

RIGHT OF WAY MARKERS

STATION	SIDE	NO.
230+50	Rt.	1
231+00	Rt. & Lt.	2
232+00	Rt.	1
232+50	Rt.	1
253+00	Rt. & Lt.	2
265+00	Lt.	1
266+00	Lt.	1
269+50	Rt.	1
270+00	Rt.	1
271+00	Rt.	1
271+50	Rt. & Lt.	2
272+50	Lt.	1
304+00	Rt. & Lt.	2
331+00	Rt. & Lt.	2
360+00	Rt. & Lt.	2
376+00 Ah.	Rt. & Lt.	2
411+00	Rt. & Lt.	2
442+75	Rt. & Lt.	2
453+00	Lt.	1
453+50	Lt.	1
455+00	Lt.	1
455+50	Lt.	1
TOTAL		31

GUARD POSTS

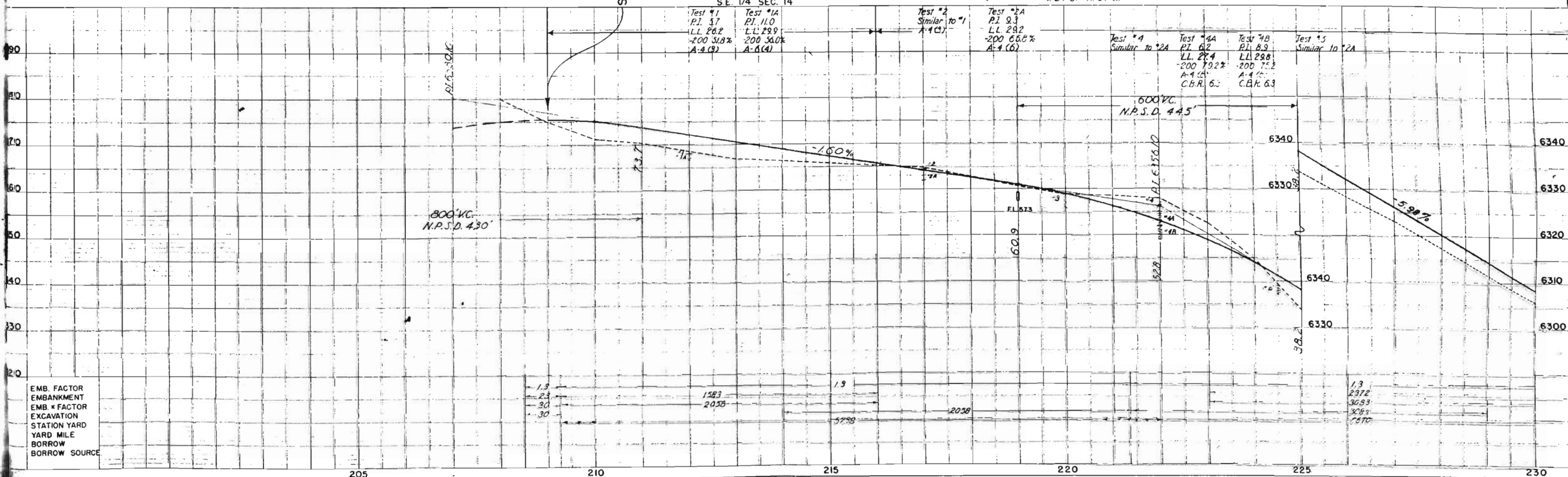
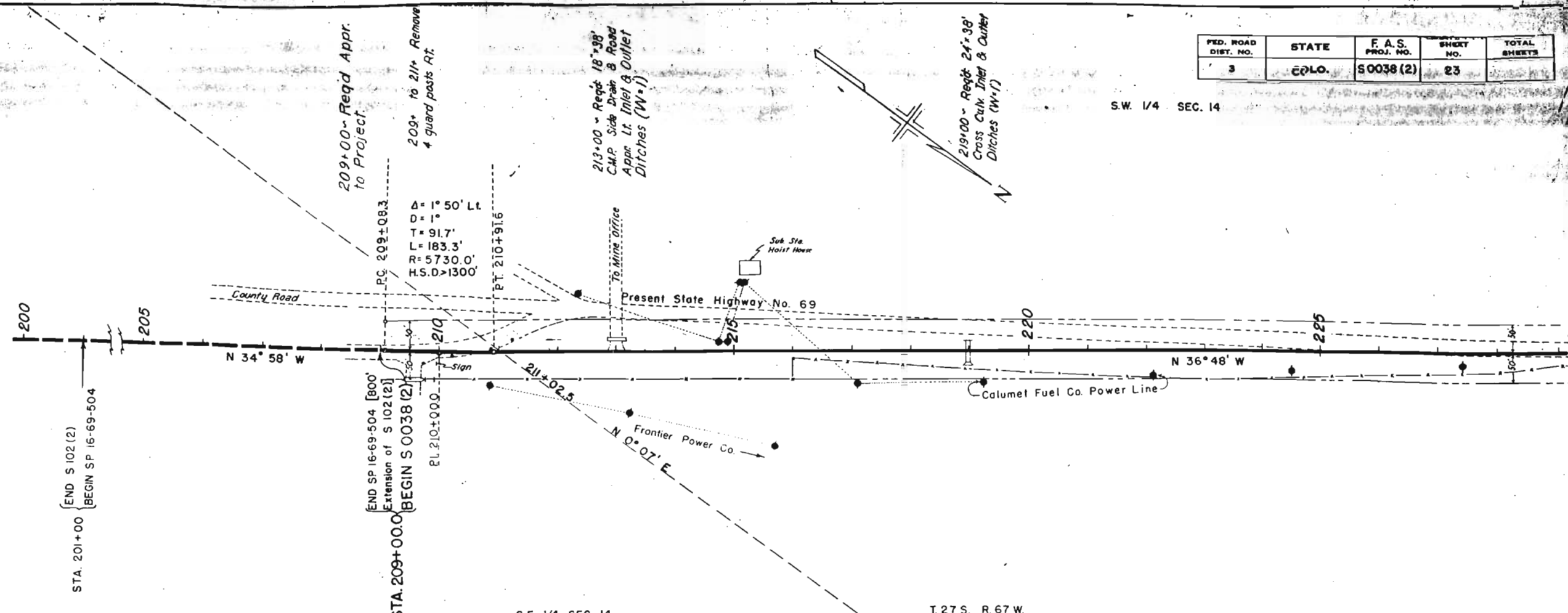
STATION	SPACING	SIDE	NO.
219+00	C.M.P.	Rt. & Lt.	2
230+50 - 233+50	50'	Rt.	7
246+00	50'	Rt. & Lt.	2
267+50 - 270+00	50'	Rt.	6
283+75 - 284+25	50'	Lt.	2
310+00	C.M.P.	Lt.	1
322+85	C.M.P.	Lt.	1
330+00	C.M.P.	Lt.	1
335+42	C.M.P.	Lt.	1
350+60	C.M.P.	Rt. & Lt.	2
363+54	C.M.P.	Lt.	1
372+30	C.M.P.	Lt.	1
369+50 - 371+00	50'	Lt.	4
370+00 - 371+00	50'	Rt.	3
372+20	C.M.P.	Rt.	1
377+00	C.M.P.	Rt.	1
388+50 - 389+50	50'	Rt. & Lt.	6
418+00	C.M.P.	Lt.	1
448+68	C.M.P.	Lt.	1
452+50 - 455+00	50'	Lt.	6
452+50 - 453+00	50'	Rt.	2
TOTAL			52

FED. ROAD DIST. NO.	STATE	F.A.S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	S0038 (2)	23	

S.W. 1/4 SEC. 14

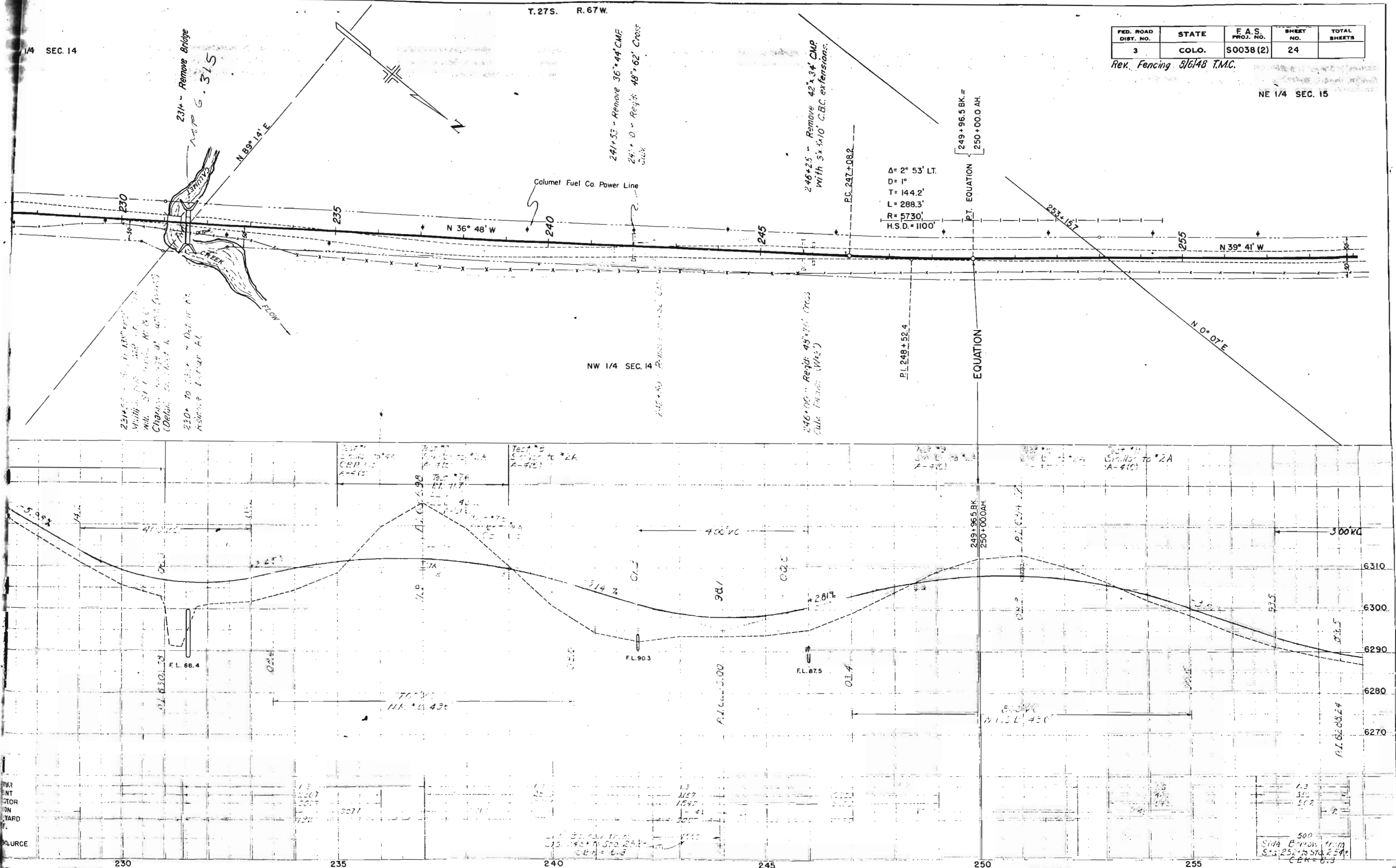
NOTE:

Alignment and grades as shown are subject to modification during construction, after approval by the Denver Office.
 All poles encroaching on construction are to be moved by the owners at their expense.
 The 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 of conforming to the data on the plans are encountered during construction, necessary modifications of the grading plan shown on the plans will be made to secure dense, stable embankment.



Rev. Fencing 3/6/48 T.M.C.

NE 1/4 SEC. 15



FED. ROAD DIST. NO.	STATE	F.A.S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	S0038(2)	25	

Rev. Fencing 8/6/48 T.M.C.

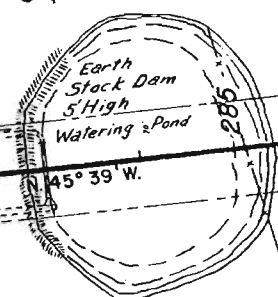
1539.67 50°07'23"W
TO 1/4 COR. 289+77.3

283+00 ~ Req'd: 48" x 58"
Cross Culv. Inlet & Outlet
Ditches (W-2)

281+75 ~ Req'd: 48" x 58"
Ditch to R.R. (W-2)

283+ ~ Req'd: 48" x 58"
Ditch to R.R.

$\Delta = 5^\circ 58' \text{ Lt}$
 $D = 1^\circ$
 $T = 298.6$
 $L = 596.7$
 $R = 5730.0$
 $M.S.D. = 1080'$



T. 27 S. R. 67 W.

261+90 ~ Remove 9' x 7' Timber
Cattle Guard, Road Lyle
& 16' Cattle Guard Rt. (SH. M-16-A)

267+ to 270+ ~ Req'd:
Diversion Channel Lt. (W-12)
with Riprap slope protection

269+ to 271+ ~ Detour Rt.
Remove Detour Rt.

270+ ~ Remove Bridge

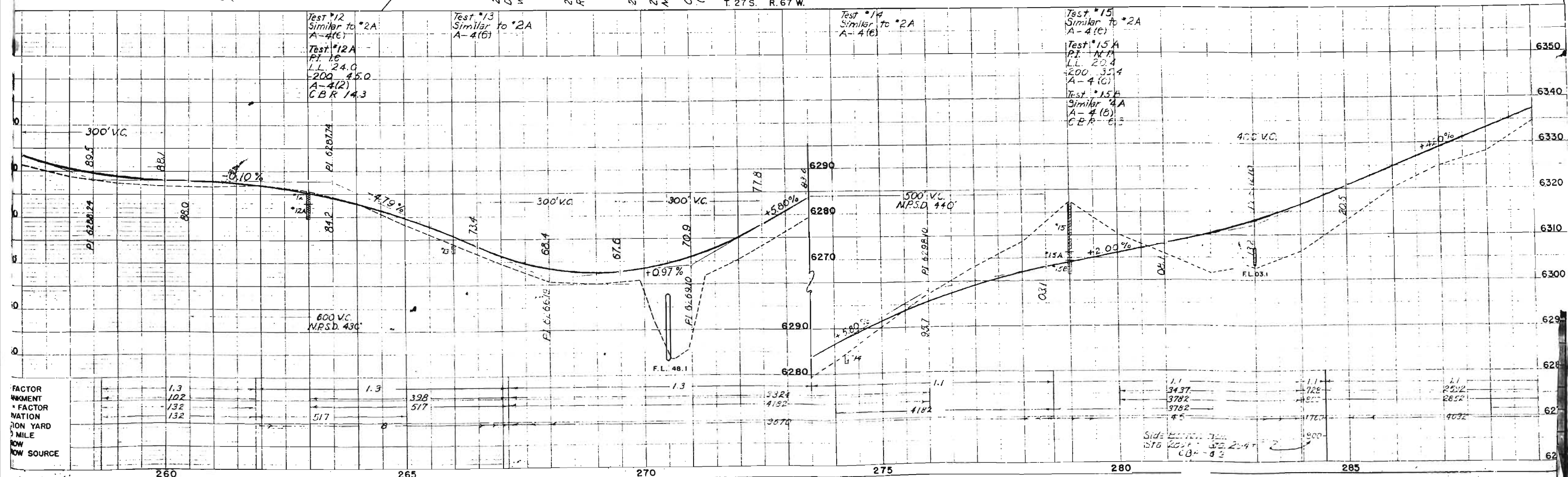
270+50 ~ Req'd: 174" x 62"
Multiple plat. G.M.E. with
S.D. Howls, Rt. & Lt.
Channel Change at outlet (W-12)
(Details on Sheet No. 7)

Test #12
Similar to #2A
A-4(6)
Test #12A
PI. 1.6
LL 24.0
200 45.0
A-4(2)
CBR 14.3

Test #13
Similar to #2A
A-4(6)

Test #14
Similar to #2A
A-4(6)

Test #15
Similar to #2A
A-4(6)
Test #15A
PI. 1.6
LL 20.4
200 35.4
A-4(6)
Test #15B
Similar to #2A
A-4(6)
CBR 6.5



SW 1/4 SEC. 10

N.W. 1/4 SEC. 10

FED. ROAD DIST. NO.	STATE	F.A.S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	S 0038(2)	26	

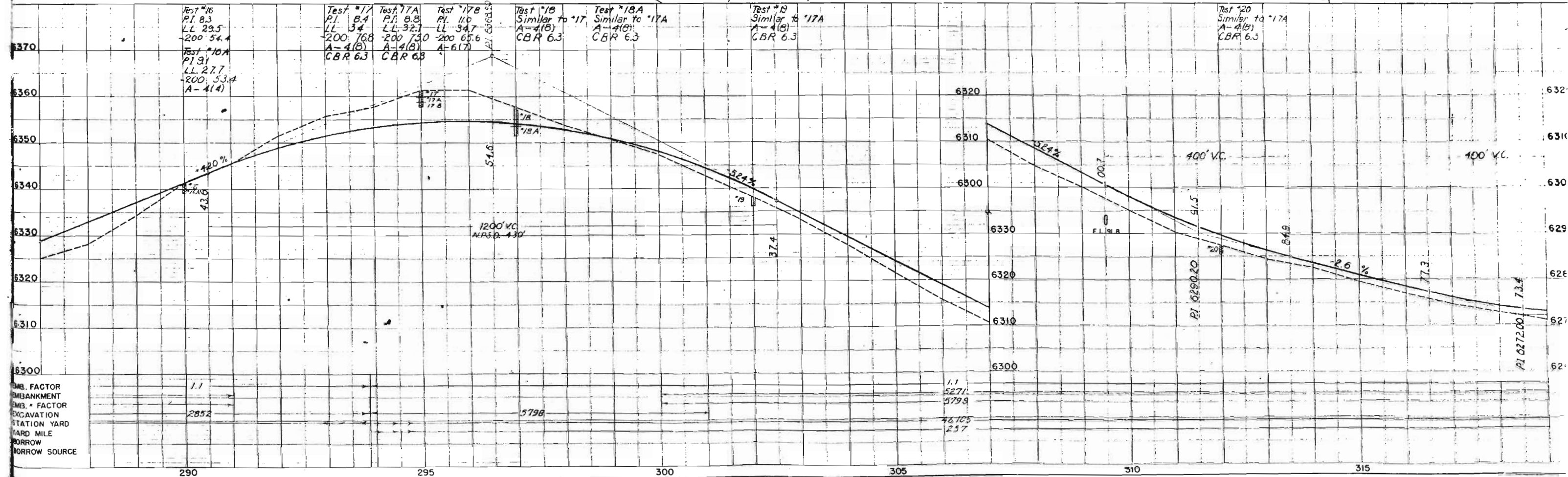
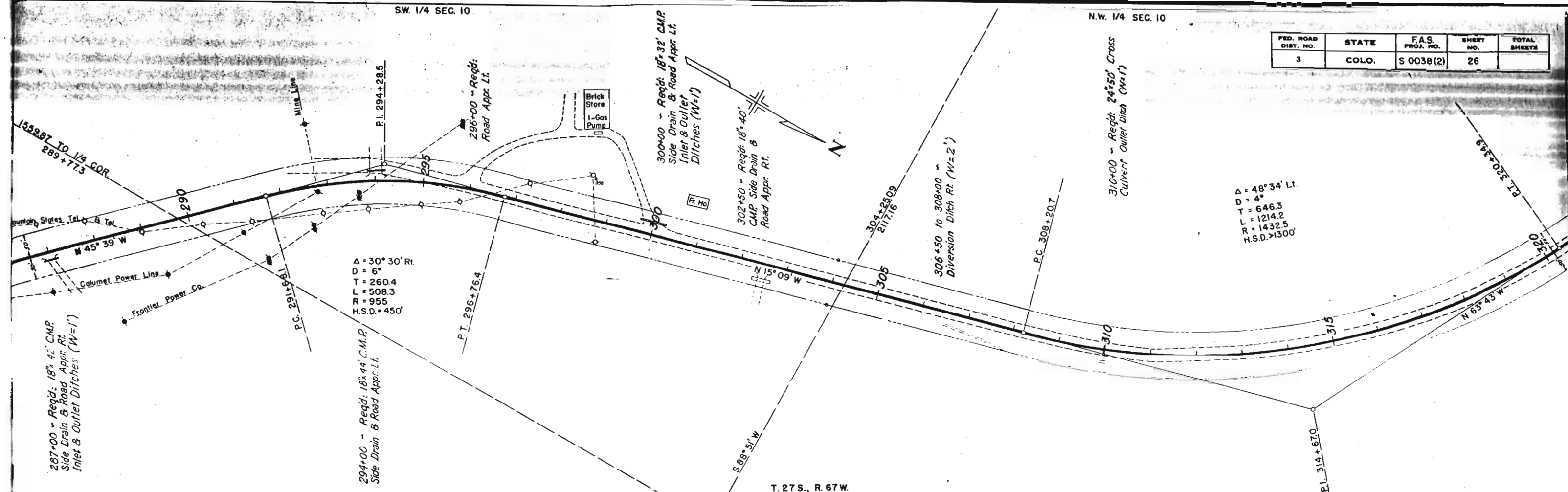


PLATE 3-PLAN-PROFILE S. F. R. STANDARD

ENGINEER: BRETHERTON CO., CHICAGO, ILL.
DRAWN BY: BRETHERTON CO., CHICAGO, ILL.

FED. ROAD DIST. NO.	STATE	F.A.S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	S 0038 (2)	27	

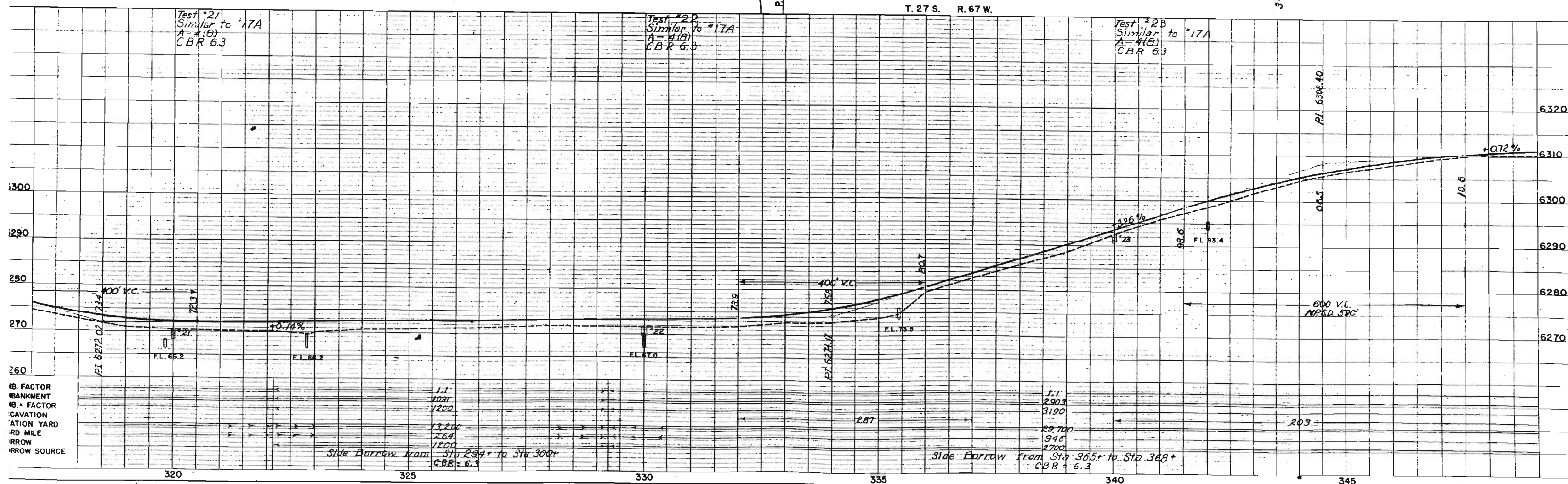
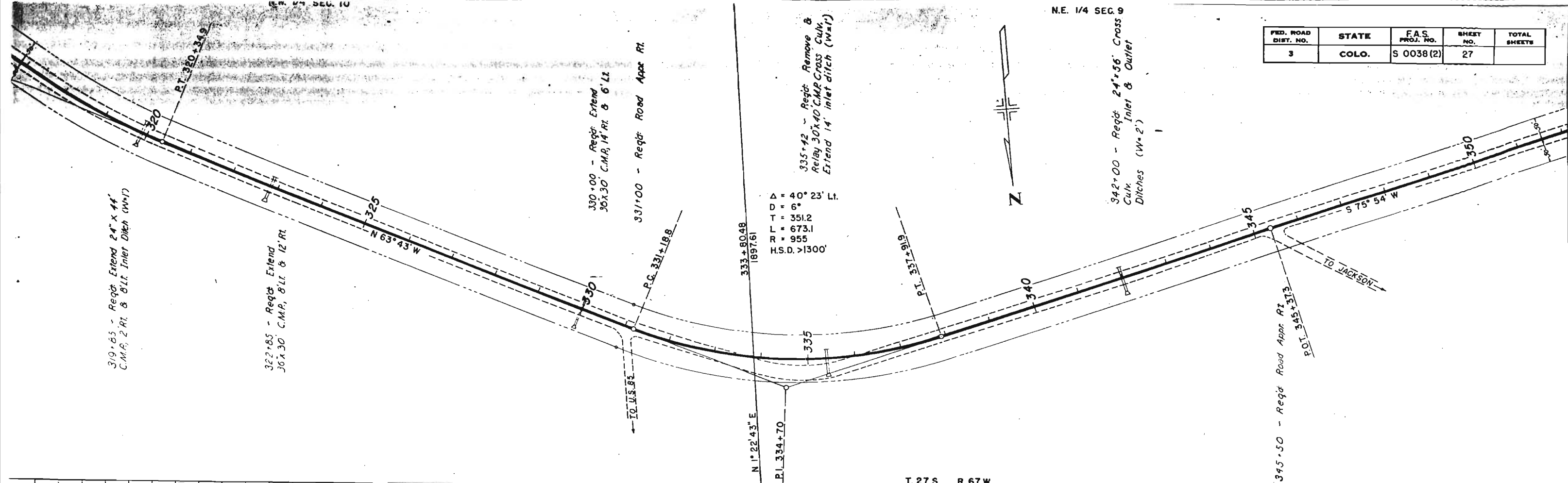


PLATE 1-PLAN-PROFILE S. P. H. STANDARD

FED. ROAD DIST. NO.	STATE	FAS. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	S 0038(2)	28	

Rev. Ground Line and Grade 8/6/48 T.M.C.

$\Delta = 14^\circ 34' L$
 $D = 4^\circ$
 $T = 183.1'$
 $L = 364.2'$
 $R = 1432.5'$
 $HSD > 1300'$

377+65 ~ Remove
 Shocco House Lt.

377+00 ~ Regd. Road Appr.
 & 16'x48 Side Drain Lt.

374+60 ~ Remove
 Frame House Lt.

P.C. 372+66.9 ~ Regd. Extend
 48'x48 CMP Cross Cully 8' Lt. & Inlet
 Ditch (W=2') No apron

FORCE ACCOUNT
 Regd. for R.R. Crossing Sta. 364+
 2 RR ReflectORIZED Cross Buck Signs
 Remove present R.R. signs.

T. 27S, R. 67W

N 1° 41' W
 3956.06
 361+36.89

363+54 ~ Regd. 4'x4' CMP Cross Cully
 Regd. 4'x4' CMP Cross Cully

P.O.T. 364+42.6

RR 18" CMP

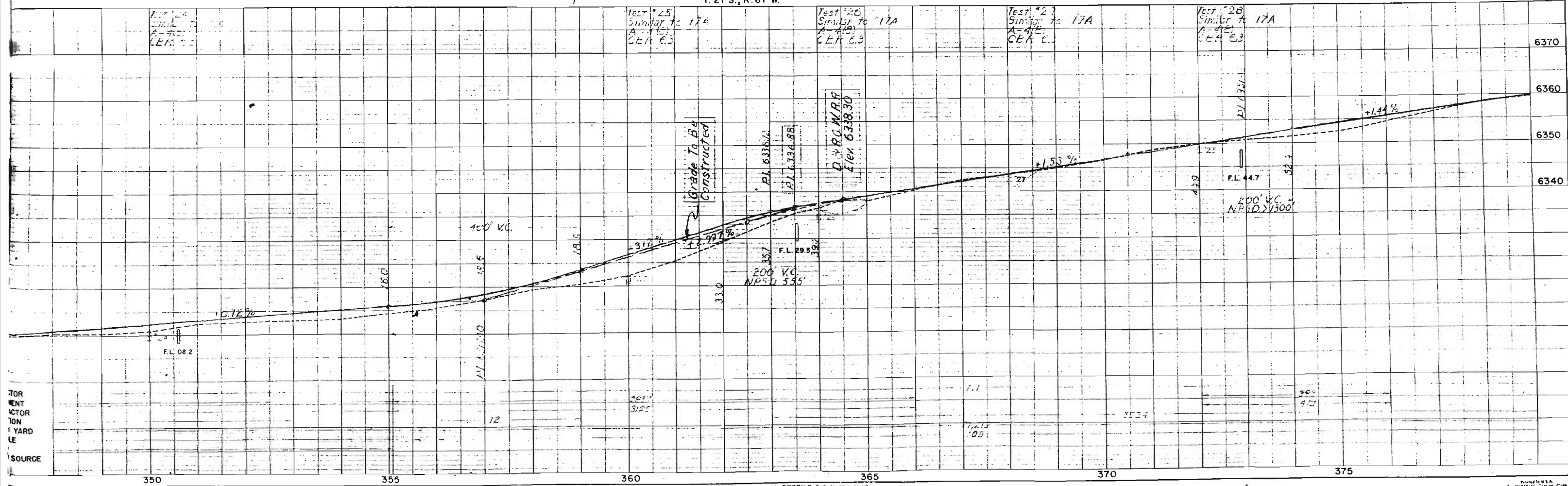
R.R. Sign

Tel. Service Line

S 75° 54' W

Mine Cave in

350+60 ~ Regd. Remove & Relay
 36'x30' CMP Cross Cully Extend 10'
 Ditches (W=2')



378+90 ~ Move Station House Lt.
(Right of Way Item)

379+25 ~ Req'd: Road Appr. Rt.
P.O.T. 380+12.9 Bk. =
366+45.6 Ah.
367+ ~ to 368+ ~ Remove
Concrete Foundation Rt.

369+00 ~ Req'd: Road
Appr. & 18"x38" Side Drain Rt.
Concrete Found
1'x120'
228 Lin. Ft.

369+50 ~ Remove & Reset
Appr. & ditches (W=1')
4 Mail Boxes Rt.

370+62 ~ Req'd: Extend 36"
x44" Cross Culm. 12' Lt. &
16' Rt. Ditches (W=2')

372+ ~ Remove Mine Entry
Timbers & Replace with 84"
x46" C.M.P. Std. M-115BX Hhls.
Pl. Place 1' of emb. m.s. 1/2"
bottom of C.M.P.

376+25 ~ Remove Concrete
Foundation Lt.

374+50 ~ Req'd: Road Appr.
& 18"x48" Side Drain Lt.

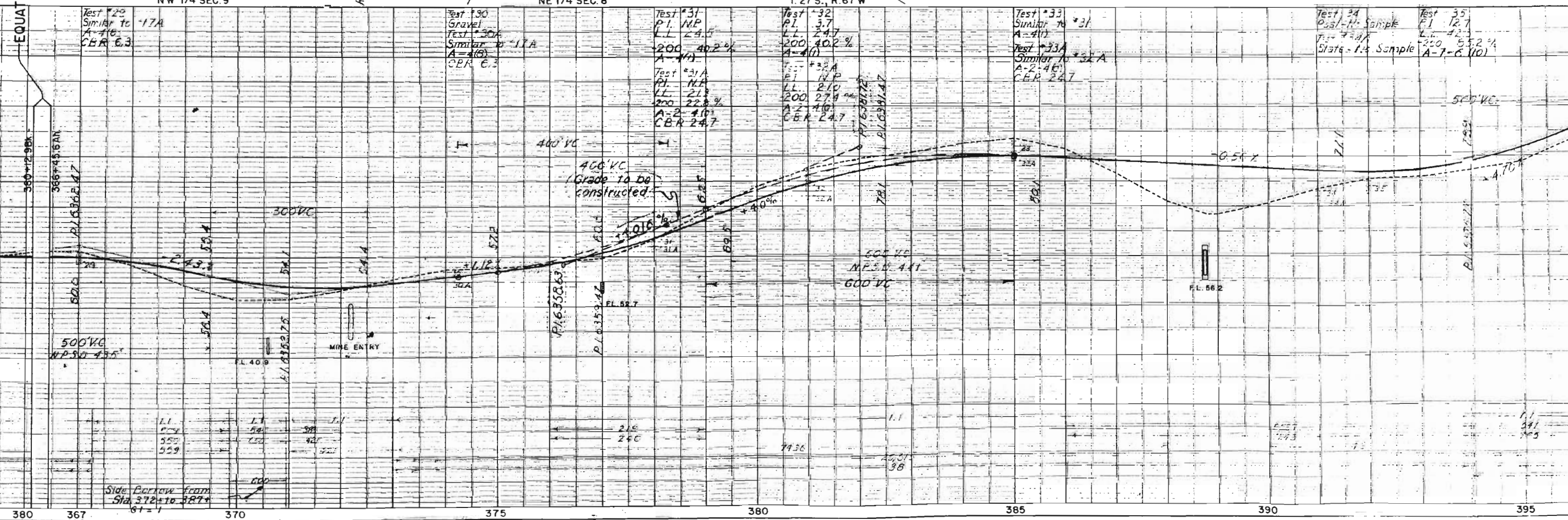
377+00 ~ Req'd: Extend 30"x38"
C.M.P. 12' Lt. Ditches (W=1') No Apron

388+75 ~ Req'd: Extend 5'x36"
C.B.C. with 60" C.M.P. 24' Lt. & 22' Rt.
Type G Hdwts. & inlet ditch (W=3)
(Details on Sheet No. 9)

FED. ROAD DIST. NO.	STATE	F.A.S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	S0038(2)	29	

Rev. Grade Sta 376+25 to Sta 382+00 8/6/48 I.M.C.

$\Delta = 8^{\circ} 42' \text{ L.I.}$
 $D = 2^{\circ}$
 $T = 218.0'$
 $L = 435.0'$
 $R = 2865.0'$
 $H.S.D. = 760'$



SE 1/4 SEC. 8

NW 1/4 SEC. 17

FED. ROAD DIST. NO.	STATE	F.A.S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	S 0038(2)	30	

396+31 ~ Req'd Extend 24' x 44'
CMP 26' LI & 26' RT & Inlet & Outlet Ditches (W=1')

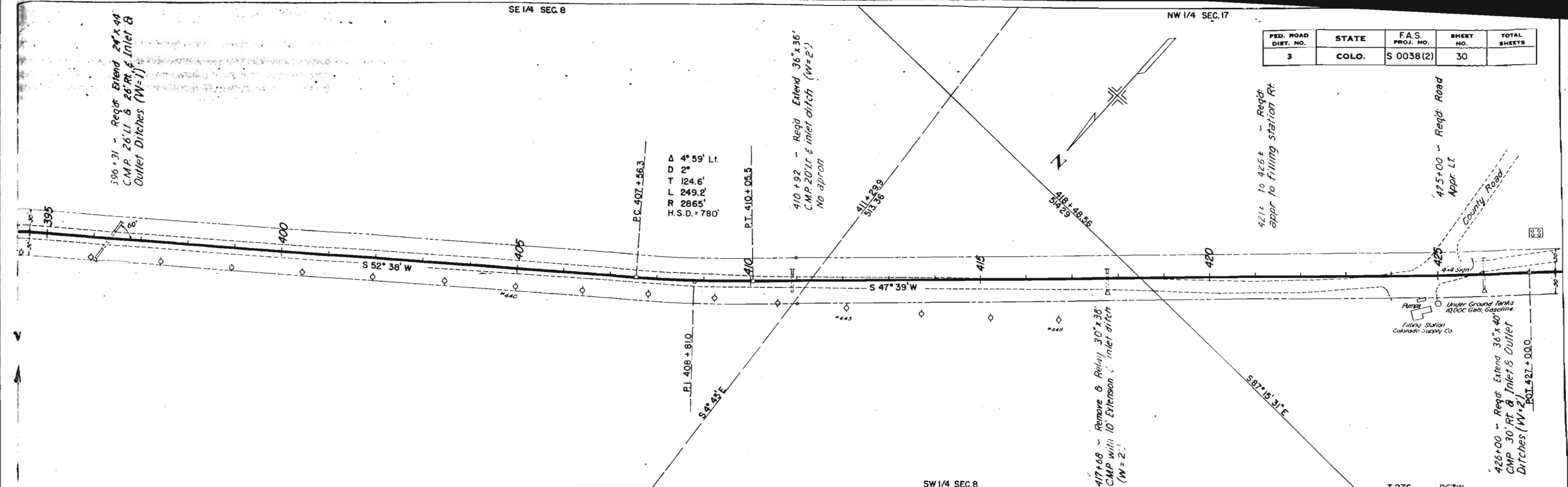
Δ 4° 59' Lt.
D 2°
T 124.6'
L 249.2'
R 2865'
H.S.D. = 780'

410+92 ~ Req'd Extend 36' x 36'
CMP 20' LI & Inlet ditch (W=2')
No apron

421+10 426+ ~ Req'd
appr to filling station Rt.

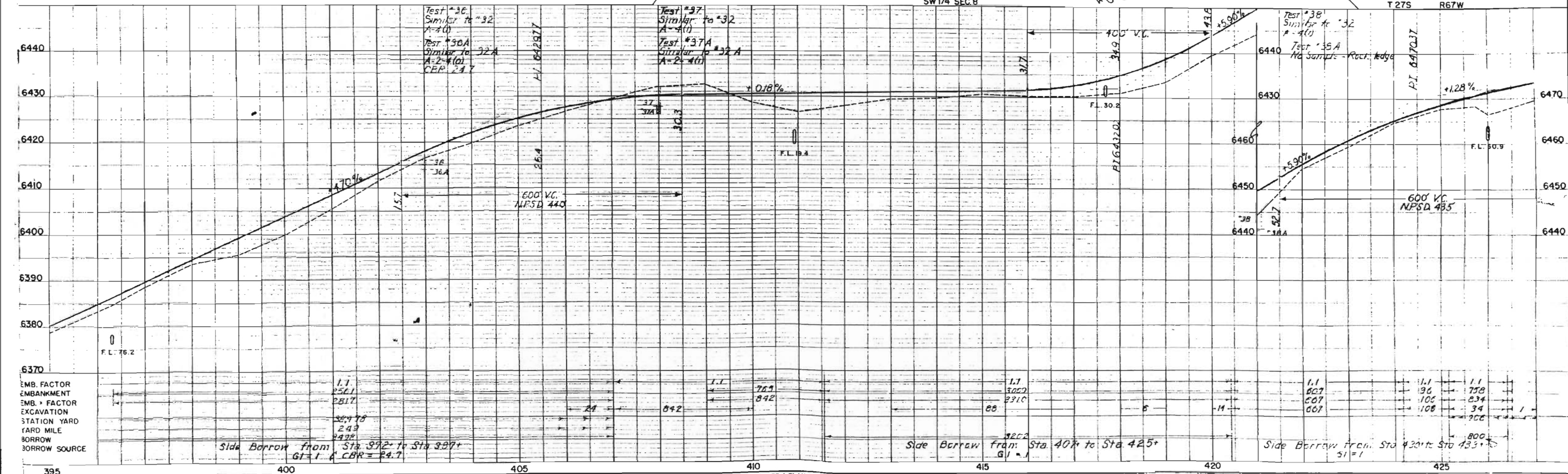
425+00 ~ Req'd Road
Apr. Lt.

426+00 ~ Req'd Extend 36' x 40'
CMP 30' RT & Inlet & Outlet
Ditches (W=2')



SW 1/4 SEC. 8

T 27S R 67W



EMB. FACTOR
EMBANKMENT
EMB. FACTOR
EXCAVATION
STATION YARD
YARD MILE
BORROW
BORROW SOURCE

Side Borrow from Sta 392 to Sta 397
G1 = 1 CBR = 24.7

Side Borrow from Sta 407 to Sta 425

Side Borrow from Sta 430 to Sta 433
G1 = 1

PLATE I-PLAN-PROFILE S. P. R. STANDARD
EUGENE METERING CO., Chicago-New York

Printed in U.S.A.
On Imperial Paper (11")

57-EE3 ~ Reg'd: Approach to Project & Proj's: Marker (To be furnished & installed by State Forces)

