

UNIT
No. 2

INDEX OF SHEETS

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20. TYPICAL SECTION AND SUMMARY OF QUANTITIES
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6. DETAILS OF MULTIPLATE CMP CULVERT, STA. 60+
7. DETAILS OF MULTIPLATE CMP CULVERT, STA. 135+
8. MULTIPLE PLATE CMP CULVERT DETAILS
9. STANDARD MARKER POSTS
10. STANDARD METHODS FOR SUPERELEVATION & WIDENING OF CURVES
11. TYPICAL SIDE APPROACH ROADS
12. STANDARD ROADWAY CONSTRUCTION TRAFFIC SIGNS
13. CONTOUR INTERCEPTING & DRAINAGE DITCHES
- 24-29. PLAN & PROFILE (UNIT 1)
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- 176-324. CROSS SECTIONS (UNIT 1)
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325. SUMMARY OF EARTHWORK QUANTITIES (UNIT 1 & UNIT 2)

COLORADO

STATE HIGHWAY DEPARTMENT

PLAN AND PROFILE OF PROPOSED FEDERAL AID PROJECT NO. 300-G (I)

STATE HIGHWAY NO. 19

SAN JUAN COUNTY

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	300-G(I)	1	

Revised 8-16-41 F.J.P.
Rev. 11-1-45 E.A.R.
Rev. 1-14-46 E.L.K.

Rev. 1-17-46 E.L.K.

CONVENTIONAL SIGNS

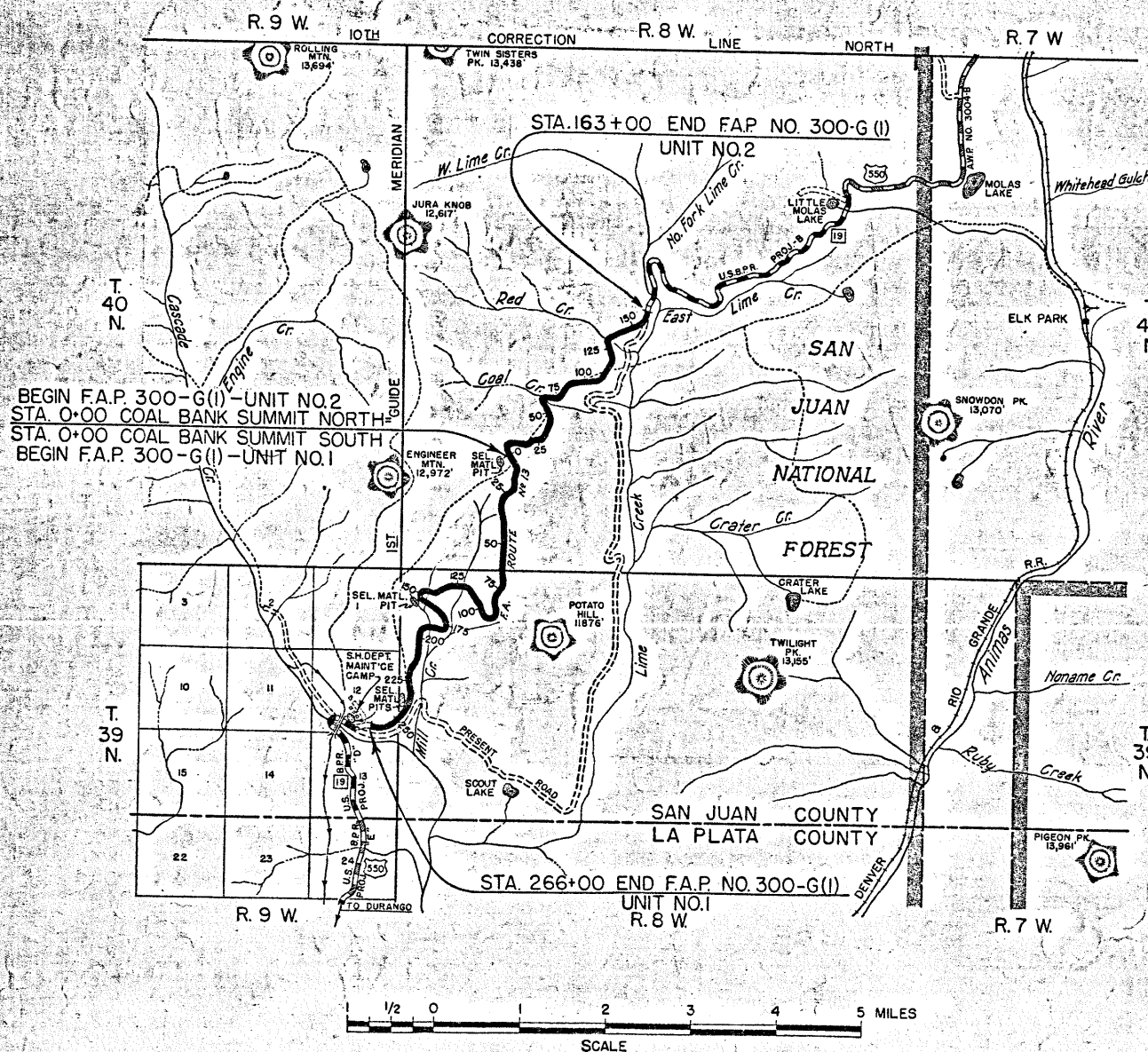
CENTER LINE OF SURVEY ———— 160
RIGHT OF WAY LINES ————
COUNTY LINE ————
TOWNSHIP OR RANGE LINE ————
SECTION LINES ————
ONE-QUARTER SECTION LINES ————
WIRE FENCES ————
SNOW FENCES ————
POLE LINE ————
PRESENT ROAD ————

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

UNIT-1	GROSS LENGTH OF PROJECT	26,597.3 FEET=5.037 MILES	42,919.6 FEET=8.128 MILE
UNIT-2	GROSS LENGTH OF PROJECT	16,322.3 FEET=3.091 MILES	



NOTE

IT IS RECOMMENDED THAT BIDDERS ON THIS PROJECT GO OVER THE PLAN DETAILS WITH ONE OF THE FOLLOWING FIELD REPRESENTATIVES OF THIS DEPARTMENT.
W. J. WALSH ASST. DIVISION ENGINEER DURANGO
J. E. CASEY RESIDENT ENGINEER DURANGO

RECOMMENDED FOR APPROVAL

[Signature]
ASSISTANT ENGINEER DATE
5-21-41

APPROVED

[Signature]
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	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	300-G(1)	14	

Rev. for Unit #1-8-16-41-H.J.S. UNIT #1
Rev. 11-1-45 E.A.R. Earthwork data.
Rev. 1-17-46 E.L.K. Sheet No

NOTES:
Alignment and grade shown on these plans was subject to adjustment during construction after approval by the Denver Office.

All poles encroaching on construction were moved by owners.

FORCE ACCOUNT
Benching fill slopes was done as directed by the Engineer.

Sta. 0+00- Project Marker.
Installed by State Forces.

(FORCE ACCOUNT- WORK BY POWER CO FORCES)(Not included in Project)
Sta. 2+... Moved Power Line.

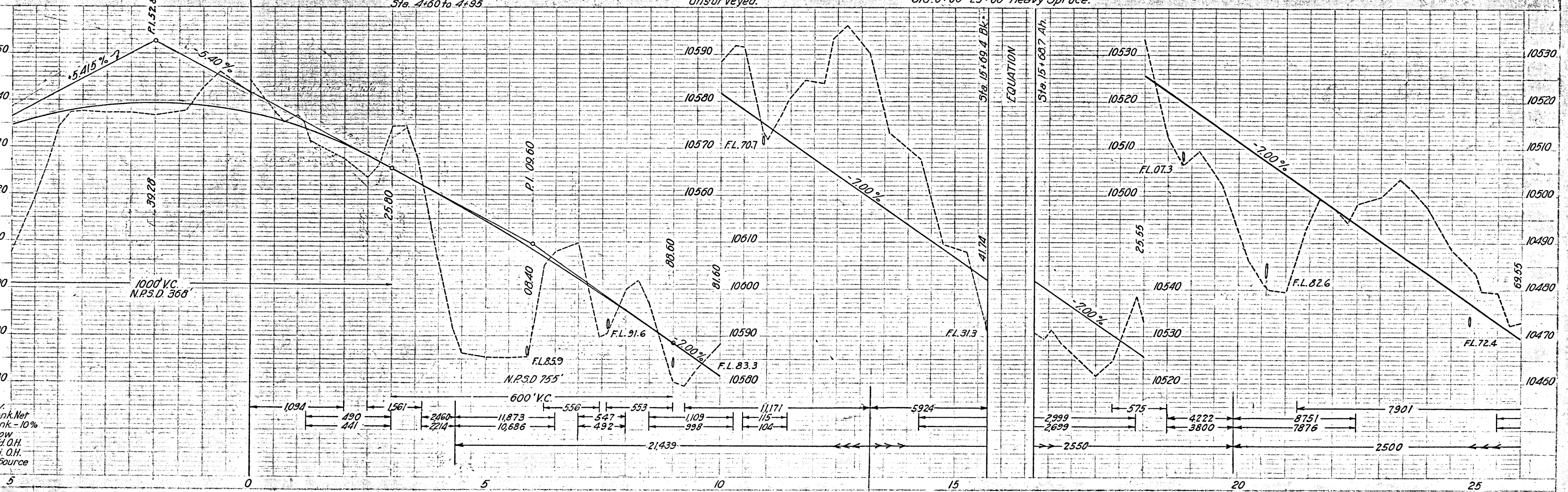
0+00-1+00- Intercepting
Ditch Lt.- 91 cu.yds. unclas.
ditch excav.

BEGIN- F.A.P. NO. 300-G(1)- UNIT NO. 1
STA. 0+00- COAL BANK SUMMIT SOUTH
STA. 0+00- COAL BANK SUMMIT NORTH
BEGIN- F.A.P. NO. 300-G(1)- UNIT NO. 2

TYPICAL SECTION DRAIN DITCH
Sta. 4+60 to 4+95

T. 40N. R. 8W.
Unsurveyed.

CLEARING & GRUBBING
Sta. 0+00- 25+00- Heavy Spruce.



Sta. 28+75 — 24" x 48' C.M.P. Cr. Culv. & 37 Cu. Yds. Uncl. Excav. for Inlet.

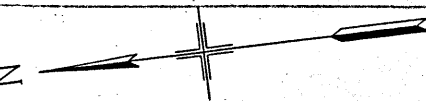
Sta. 32+80 — 24" x 48' C.M.P. Cr. Culv. & 21 Cu. Yds. Uncl. Ditch Excav. for Inlet.

Sta. 35+15 — 36" x 110' C.M.P. Cr. Culv.

Sta. 38+80 — 24" x 66' C.M.P. Cr. Culv. & 70 Cu. Yds. Uncl. Excav. for Inlet. Also 2 Cu. Yds. Uncl. Ditch Excav. for Outlet Ditch.

Sta. 41+50 — 24" x 70' C.M.P. Cr. Culv. 1 Cu. Yd. Uncl. Ditch Excav. for Inlet

Sta. 43+45 — 36" x 86' C.M.P. Cr. Culv.



T. 40N. R. 5W.
Unsurveyed.

Sta. 47+80 — 24" x 48' C.M.P. Cr. Culv. & 39 Cu. Yds. Uncl. Excav. for Inlet.

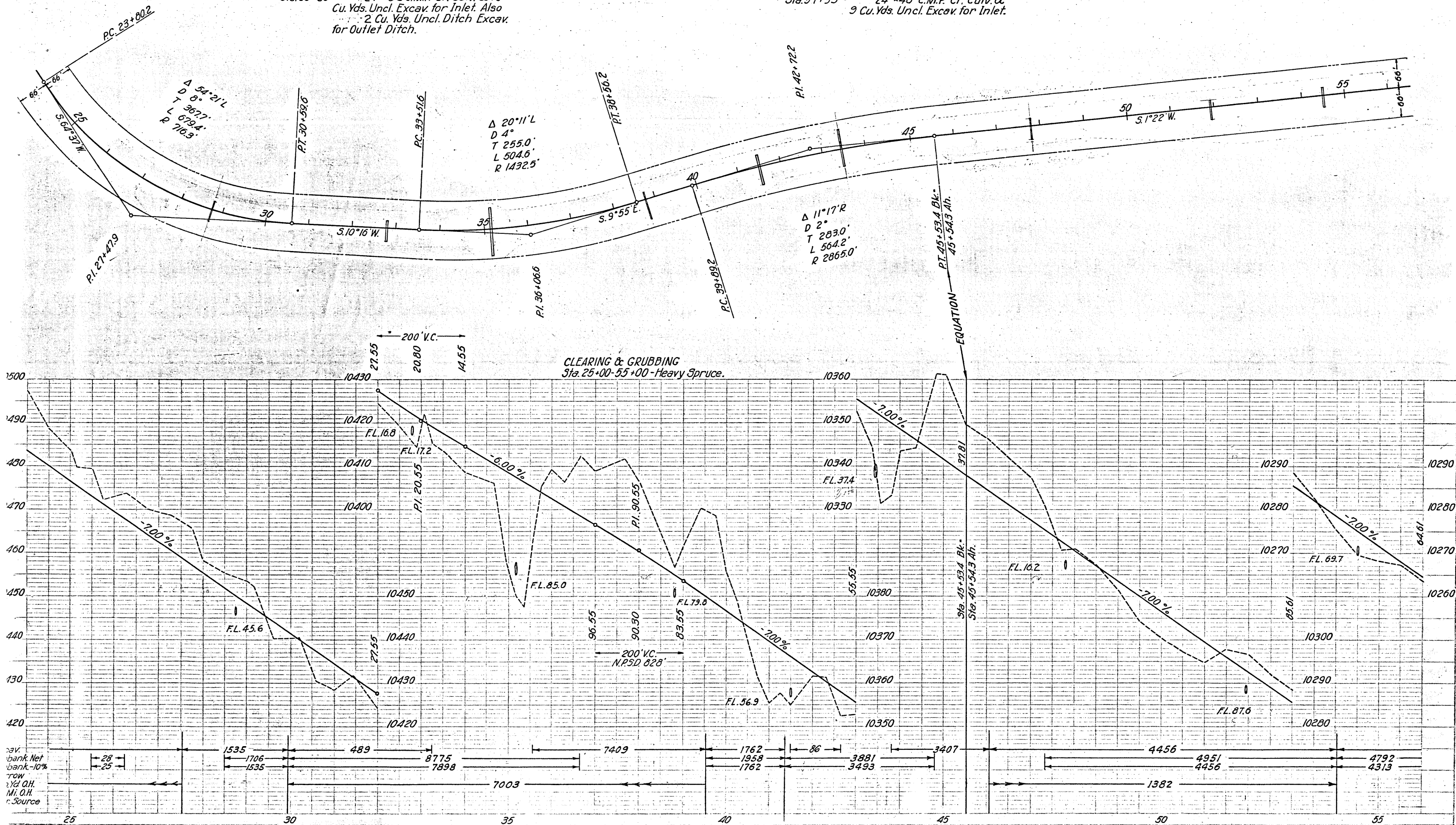
Sta. 51+95 — 24" x 46' C.M.P. Cr. Culv. & 9 Cu. Yds. Uncl. Excav. for Inlet.

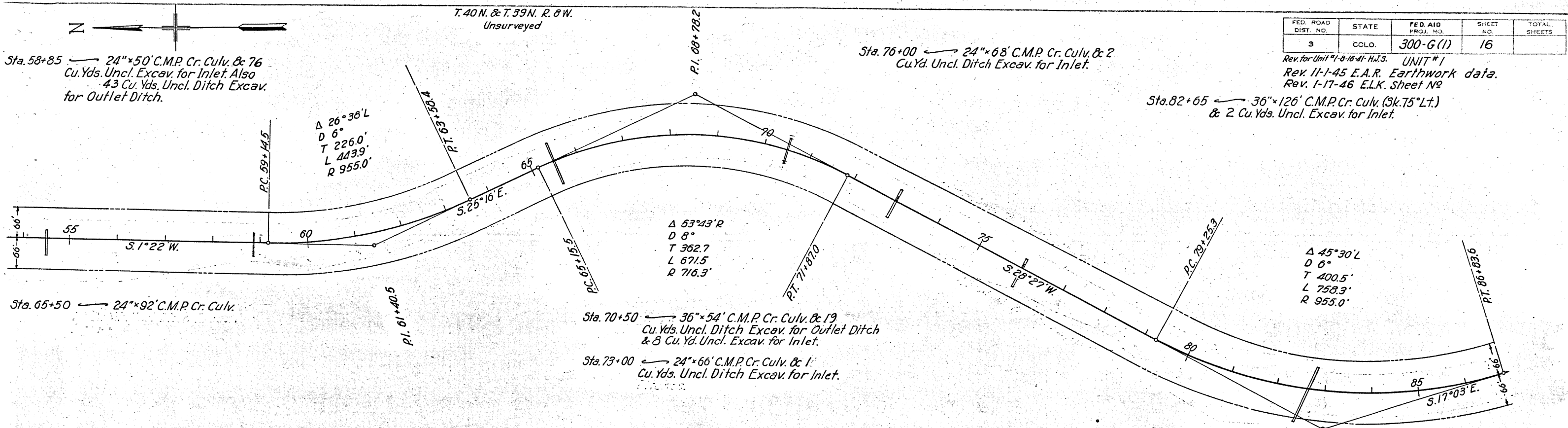
Sta. 54+50 — 24" x 46' C.M.P. Cr. Culv. & 14 Cu. Yds. Uncl. Excav. for Inlet.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLD.	300-G(1)	15	

UNIT # 1 Rev. for Unit # 1-8-16-41-Hd.3.

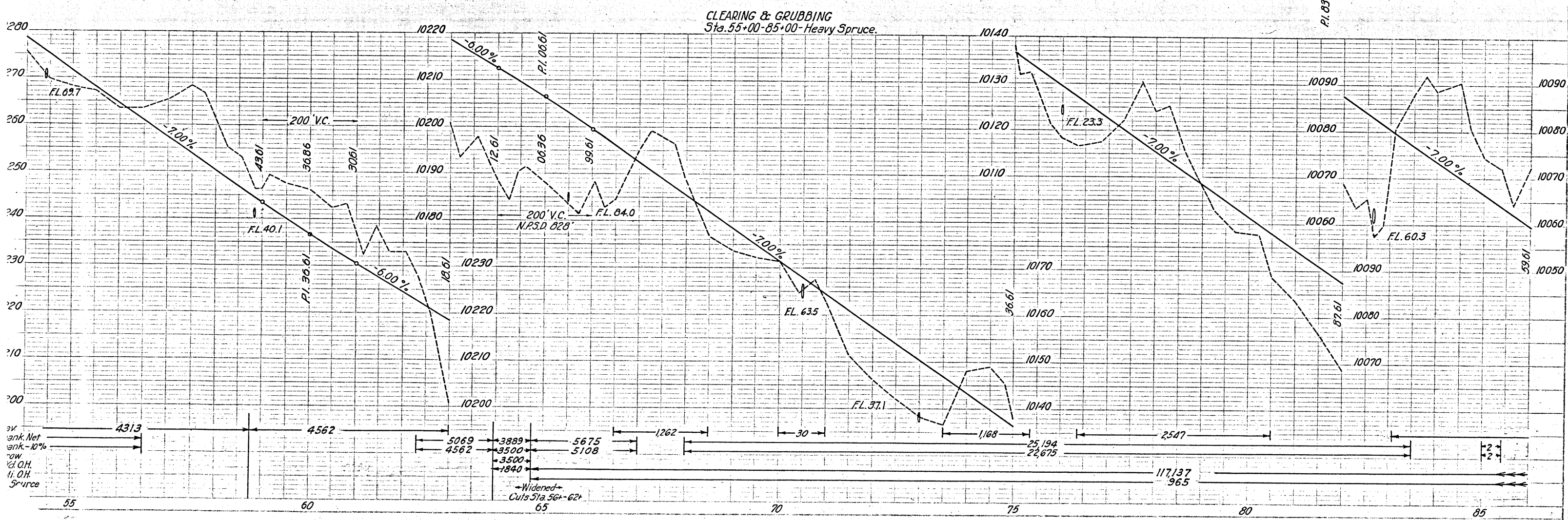
Rev. 11-1-45 E.A.R. Earthwork data.
Rev. 1-17-46 ELK. Sheet No.



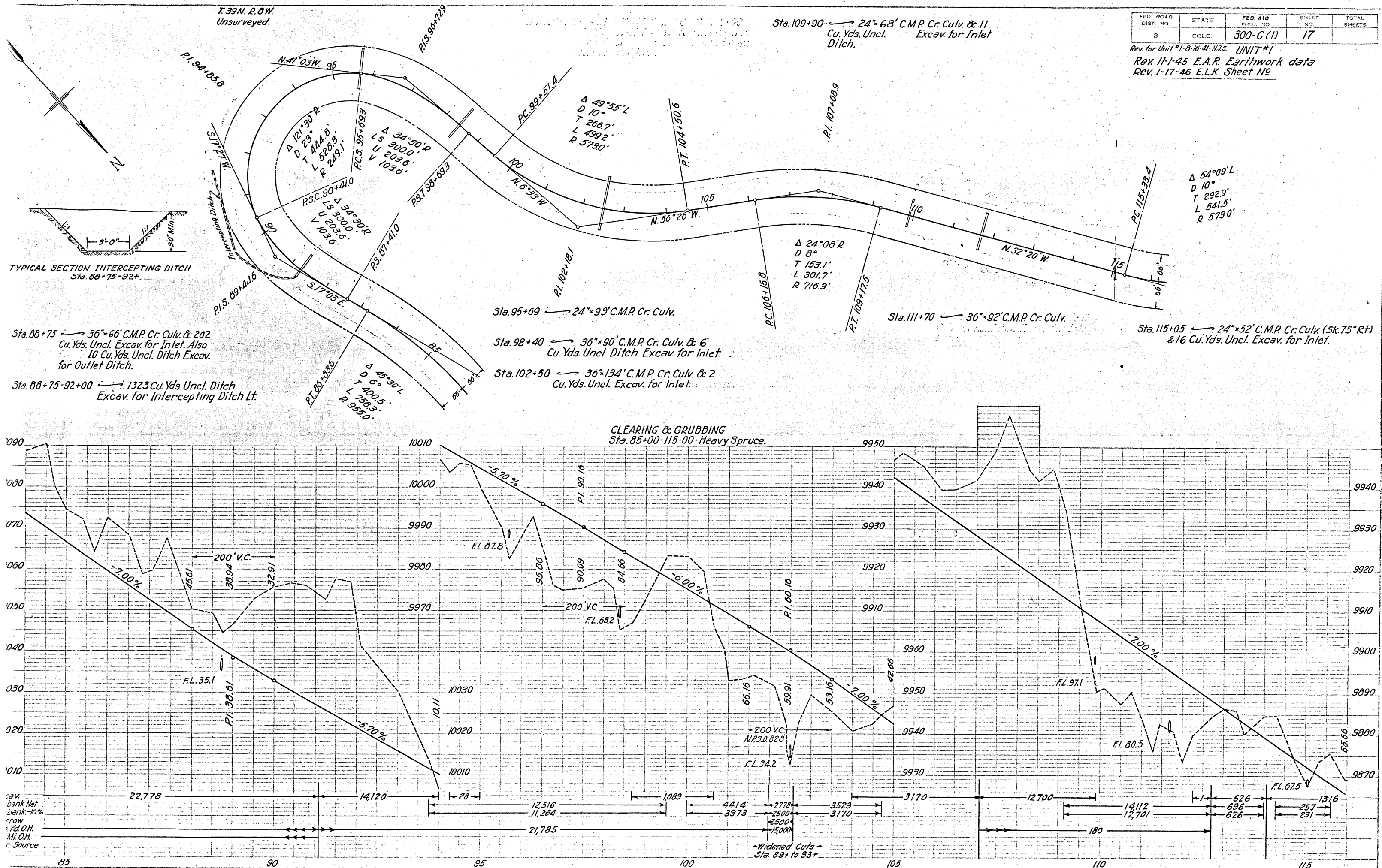


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	300-G(1)	16	

Rev. for Unit #1-8-16-41- H.J.S. UNIT #1
Rev. 11-1-45 E.A.R. Earthwork data.
Rev. 1-17-46 ELK. Sheet No



Rev. for Unit #1-8-16-41 H.I.S. UNIT #1
Rev. 11-1-45 E.A.R. Earthwork data
Rev. 1-17-46 E.L.K. Sheet No



T. 39N. R. 8W.
Unsurveyed.

Sta. 125+85 → 24"×96' C.M.P. Cr. Culv. & 1
Cu. Yds. Uncl. Ditch Excav. for Inlet.

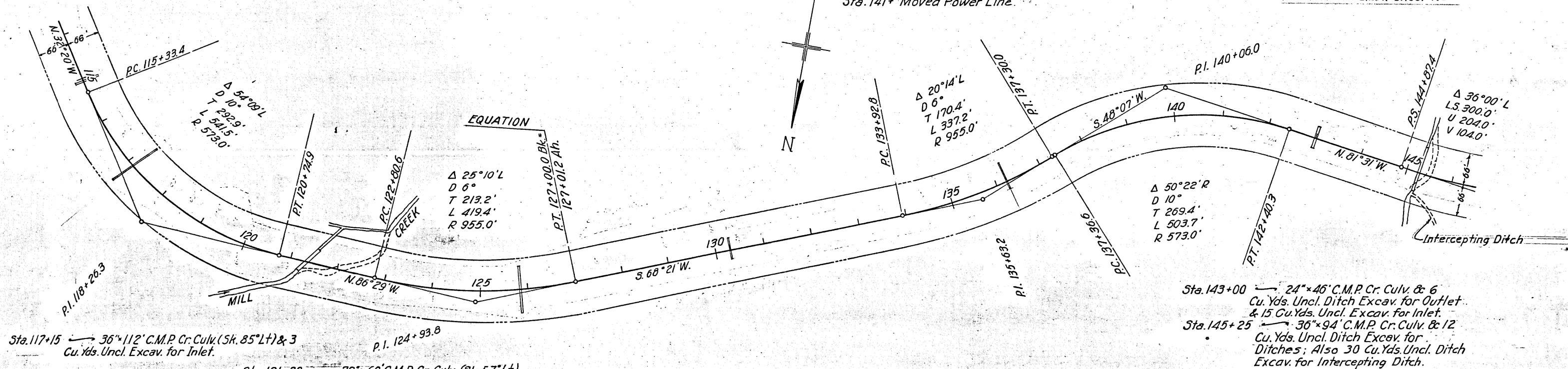
Sta. 130+30 → 24"×44' C.M.P. Cr. Culv. &
3 Cu. Yds. Uncl. Excav. for Inlet.

Sta. 136+25 → 24"×60' C.M.P. Cr. Culv. & 7
Cu. Yds. Uncl. Excav. for Inlet.

(FORCE ACCOUNT-WORK BY POWER CO. FORCES) (Not included in Project.)
Sta. 141+ Moved Power Line.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	300-G(1)	18	

Rev. for Unit #1-8-16-41-HZS. UNIT #1
Rev. 11-1-45 E.A.R. Earthwork data.
Rev. 1-17-46 E.L.K. Sheet No

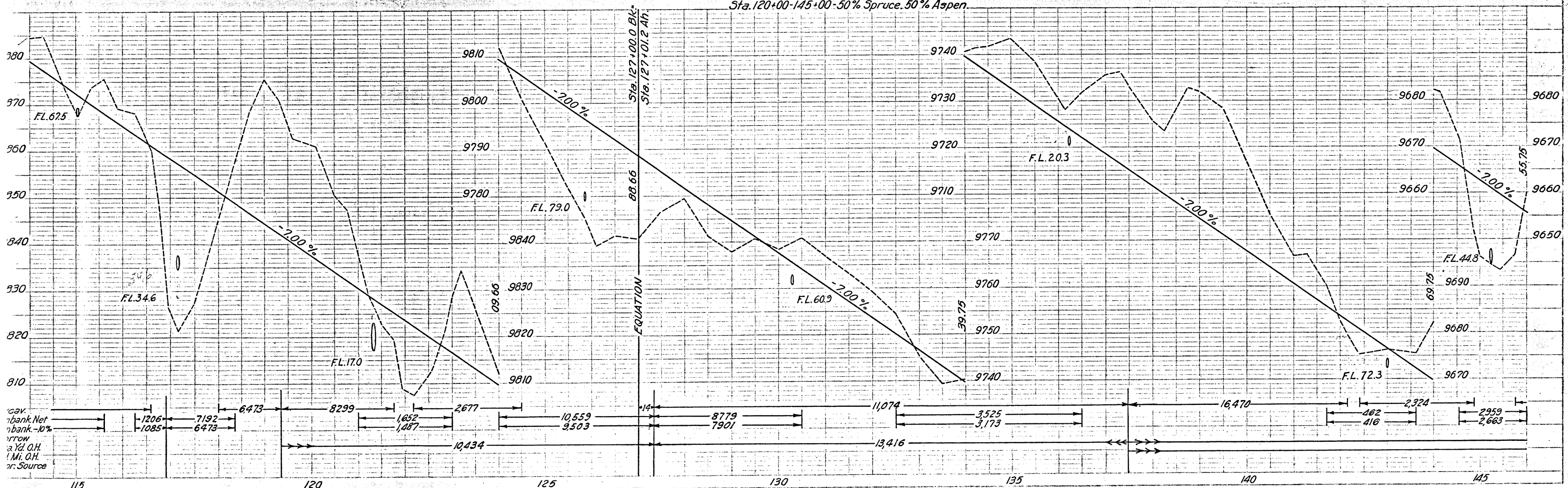


Sta. 117+15 → 36"×112' C.M.P. Cr. Culv. (Sk. 85° Lt.) & 3
Cu. Yds. Uncl. Excav. for Inlet.

Sta. 121+33 → 72"×60' C.M.P. Cr. Culv. (Sk. 57° Lt.)
& Dry Rubble Sl. Pav. (Def. Sht. #4) - 64 Sq. Yds.
& 688 Cu. Yds. Uncl. Ditch Excav. for Outlet
Ditch; Also 51 Cu. Yds. Uncl. Ditch Excav. for Sl. Paving.

Sta. 143+00 → 24"×46' C.M.P. Cr. Culv. & 6
Cu. Yds. Uncl. Ditch Excav. for Outlet
& 15 Cu. Yds. Uncl. Excav. for Inlet.
Sta. 145+25 → 36"×94' C.M.P. Cr. Culv. & 12
Cu. Yds. Uncl. Ditch Excav. for
Ditches; Also 30 Cu. Yds. Uncl. Ditch
Excav. for Intersecting Ditch.

CLEARING & GRUBBING
Sta. 115+00-120+00-Heavy Spruce.
Sta. 120+00-145+00-50% Spruce, 50% Aspen.



Township Unsurveyed. Section Lines Shown are Projected.

Sta. 145+ - 146+ - 158 Cu. Yds. Uncl. Ditch Excav. for Inlet Ditch to 6" Perf. Underdrain.

(FORCE ACCOUNT- WORK BY POWER CO. FORCES.) (Not included in Project.)
Sta. 158+ - Moved Power Line.

N.W. 1/4, S.E. 1/4, Sec. 6
T. 39 N. R. 8 W.

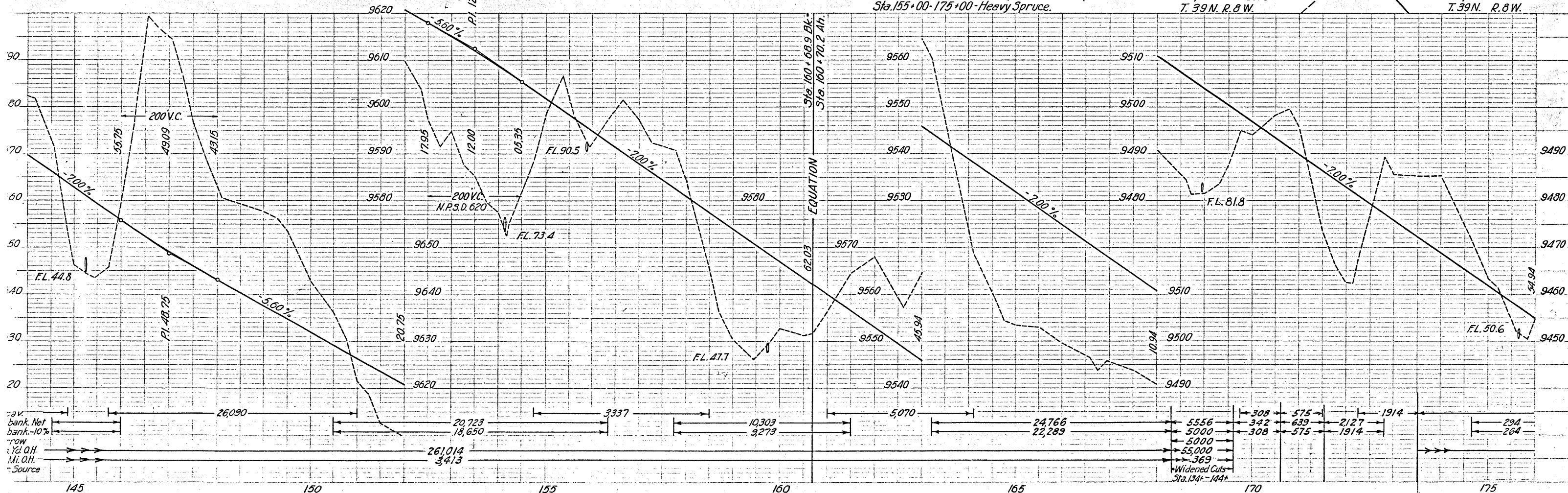
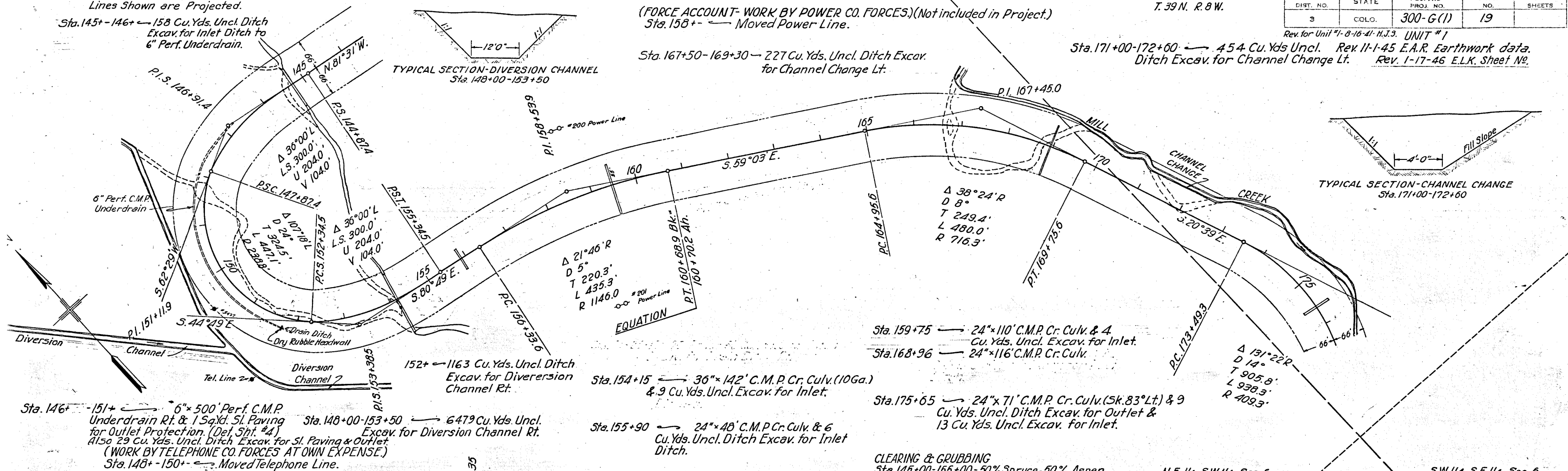
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	300-G(1)	19	

Rev. for Unit #1- 8-16-41 H.J.3. UNIT #1

Sta. 171+00-172+60 - 454 Cu. Yds. Uncl. Ditch Excav. for Channel Change Lt. Rev. 11-1-45 E.A.R. Earthwork data. Rev. 1-17-46 E.L.K. Sheet No.

TYPICAL SECTION-DIVERSION CHANNEL
Sta. 148+00-153+50

TYPICAL SECTION-CHANNEL CHANGE
Sta. 171+00-172+60



N.W. 1/4, S.E. 1/4, Sec. 6.
T. 39 N. R. 8 W.

S.W. 1/4, S.E. 1/4, Sec. 6
T. 39 N. R. 8 W.

Township Unsurveyed. Section
Lines Shown are Projected
(FORCE ACCOUNT- WORK BY POWER CO. FORCES)
Sta. 191+ - Req'd. - Move Power Line.

(No Fed. Aid)

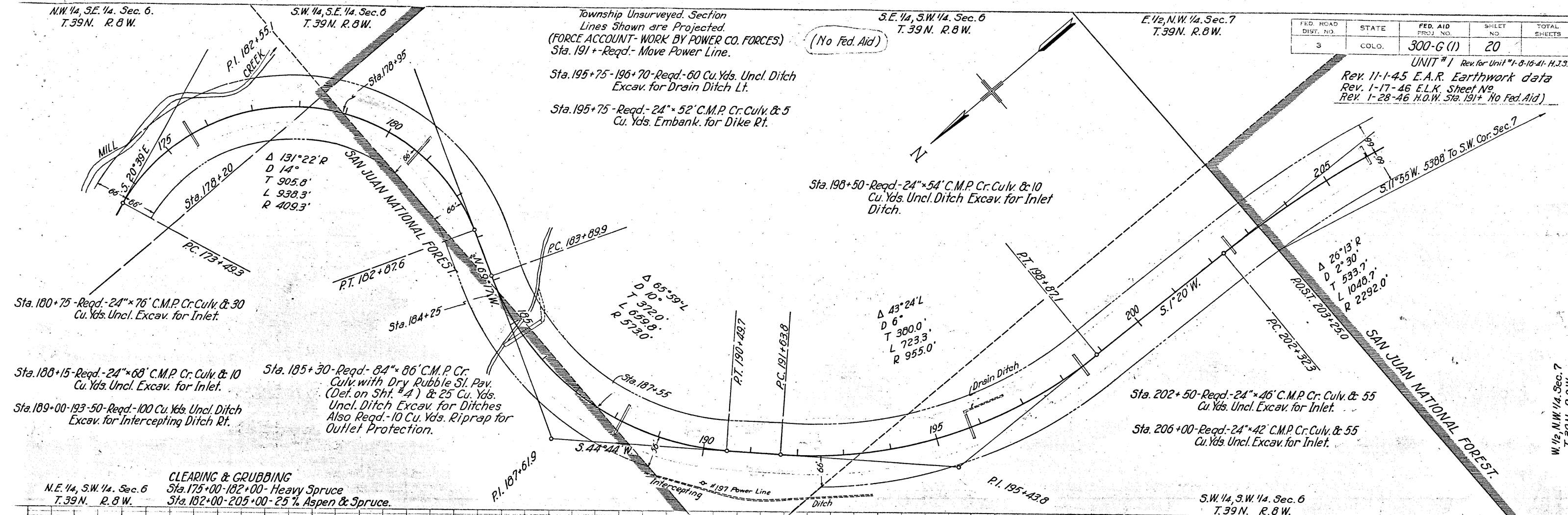
S.E. 1/4, S.W. 1/4, Sec. 6
T. 39 N. R. 8 W.

E. 1/2, N.W. 1/4, Sec. 7
T. 39 N. R. 8 W.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	300-G (1)	20	

UNIT # 1 Rev. for Unit # 1-8-16-41- H. J. 3.

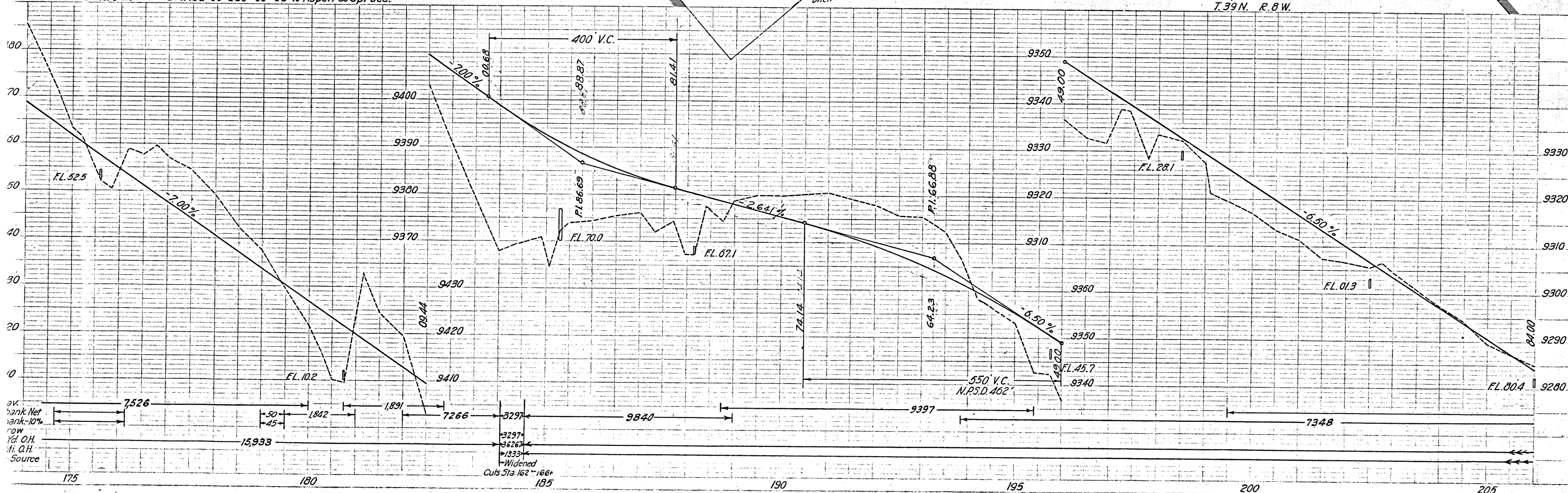
Rev. 11-1-45 E.A.R. Earthwork data
Rev. 1-17-46 E.L.K. Sheet No.
Rev. 1-28-46 H.O.W. Sta. 191+ (No Fed. Aid)



N.E. 1/4, S.W. 1/4, Sec. 6
T. 39 N. R. 8 W.

CLEARING & GRUBBING
Sta. 175+00-182+00- Heavy Spruce
Sta. 182+00-205+00- 25% Aspen & Spruce.

S.W. 1/4, S.W. 1/4, Sec. 6
T. 39 N. R. 8 W.



E. 1/2, N.W. 1/4, Sec. 7
T. 39N. R. 8W.

W. 1/2, N.W. 1/4, Sec. 7
T. 39N. R. 8W.

Township Unserved. Section
Lines Shown are Projected.

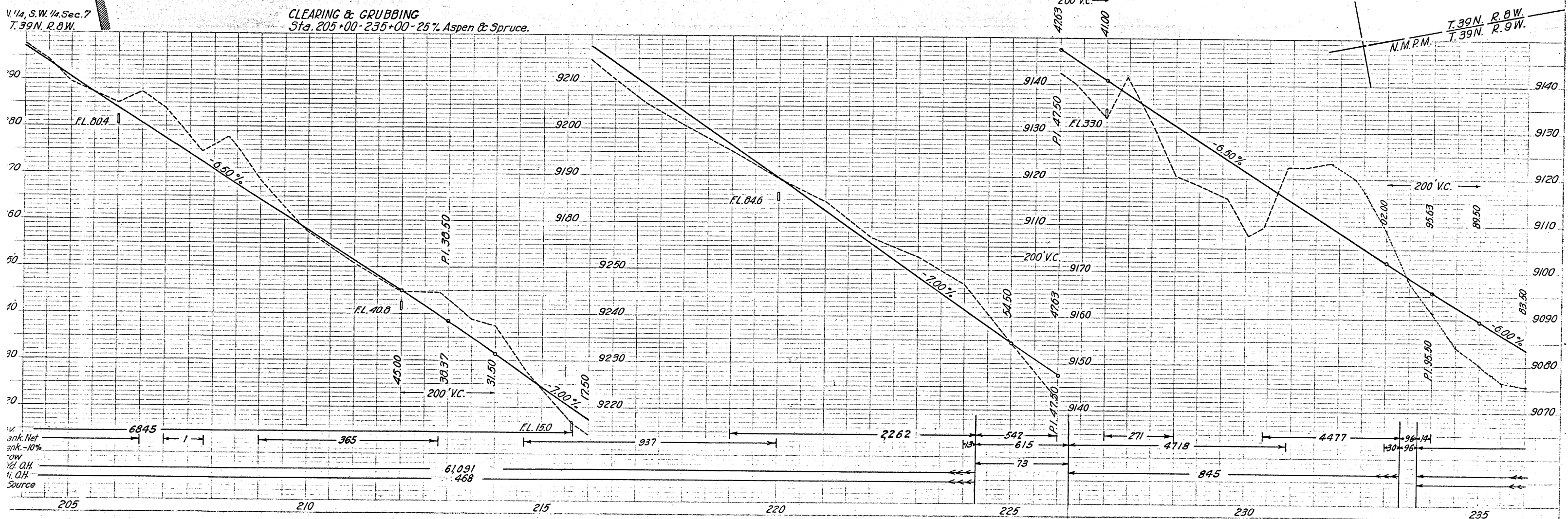
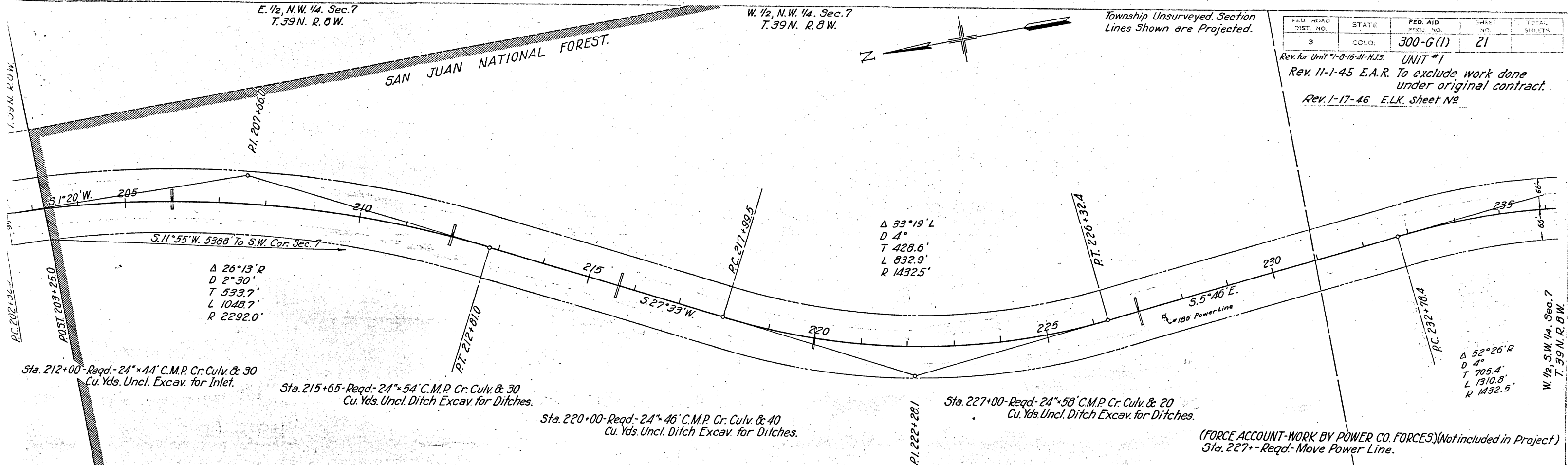
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	300-G(1)	21	

Rev. for Unit #1-8-16-41-H.J.S.

UNIT #1

Rev. 11-1-45 E.A.R. To exclude work done
under original contract.

Rev. 1-17-46 E.L.K. Sheet No.



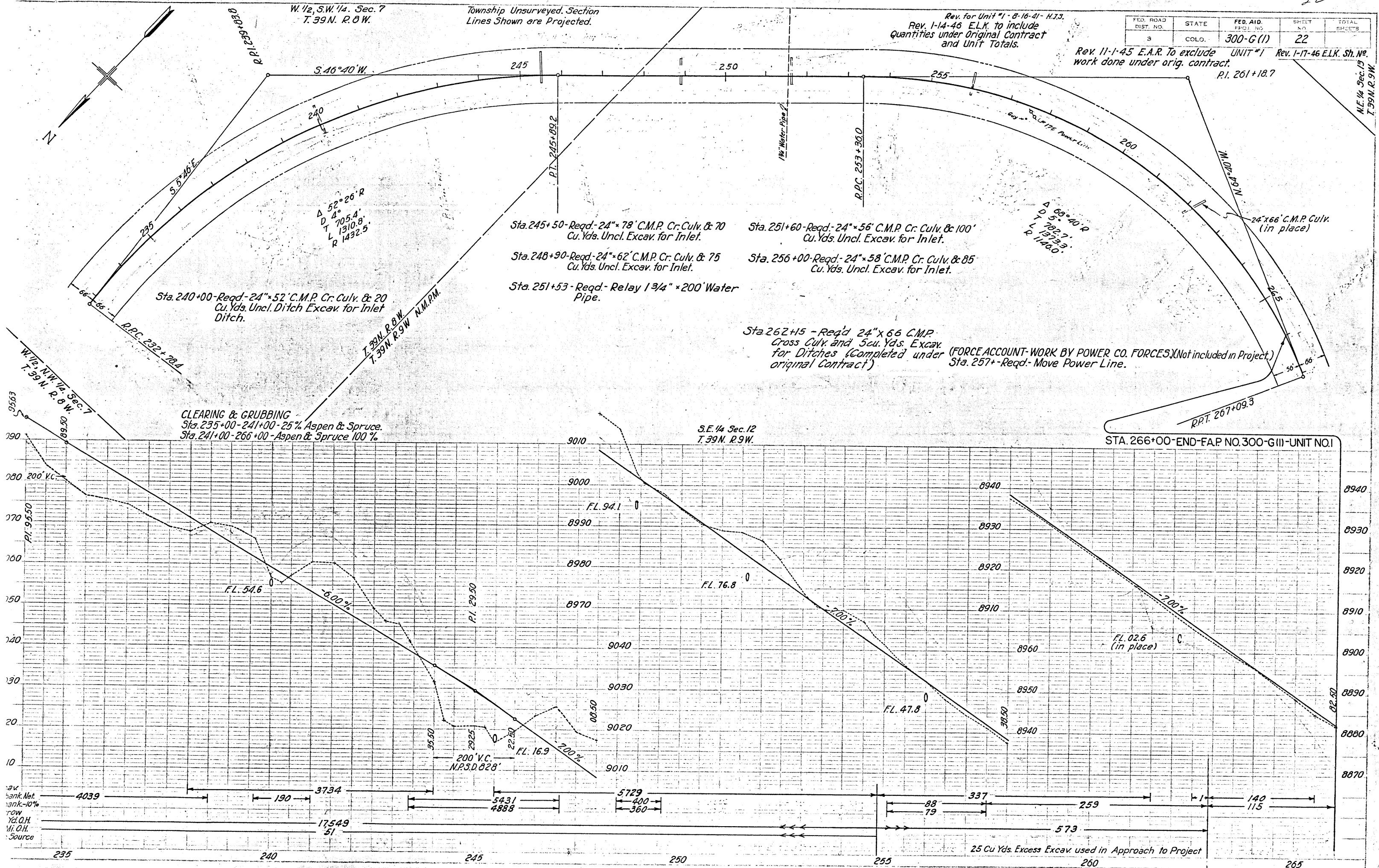
W. 1/2, S.W. 1/4, Sec. 7
T. 39N. R. 8W.

Township Unsurveyed Section
Lines Shown are Projected.

Rev. for Unit #1 - 8-16-41 - H.J.S.
Rev. 1-14-46 E.L.K. to include
Quantities under Original Contract
and Unit Totals.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	300-G(1)	22	

Rev. 11-1-45 E.A.R. To exclude work done under orig. contract.
UNIT #1
Rev. 1-17-46 E.L.K. Sh. No. 21
P.I. 261+18.7



S.E. 1/4 Sec. 12
T. 39N. R. 9W.
(WORK BY TELEPHONE CO. FORCES AT OWN EXPENSE.)
Sta. 266+00-Reqd-Move Telephone Line.

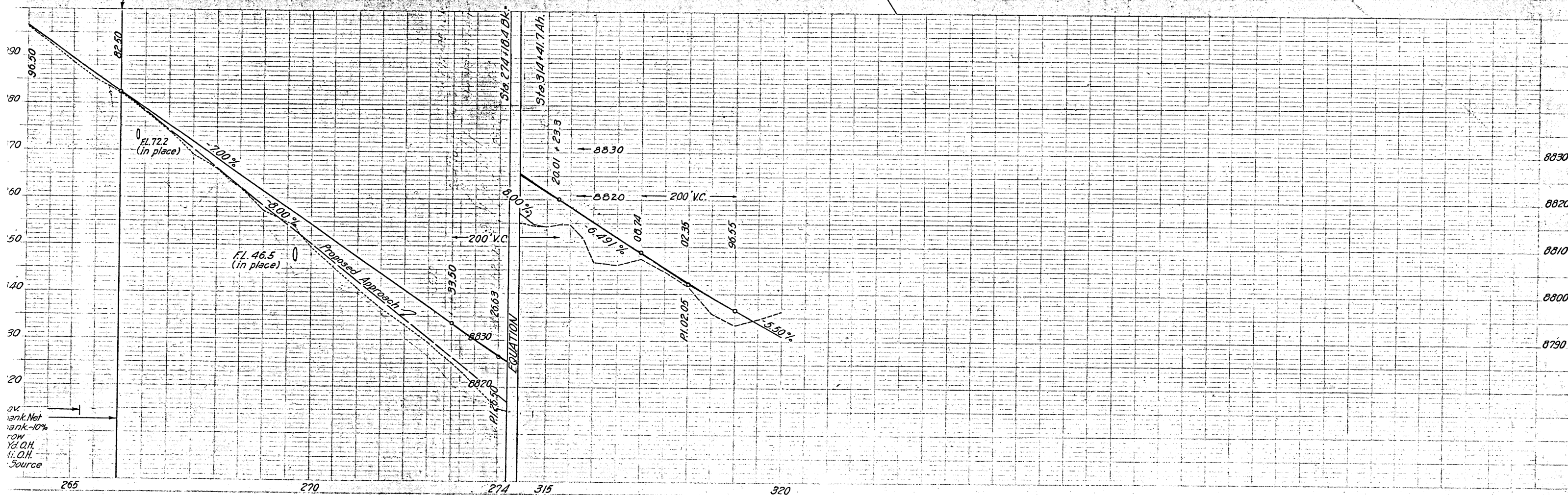
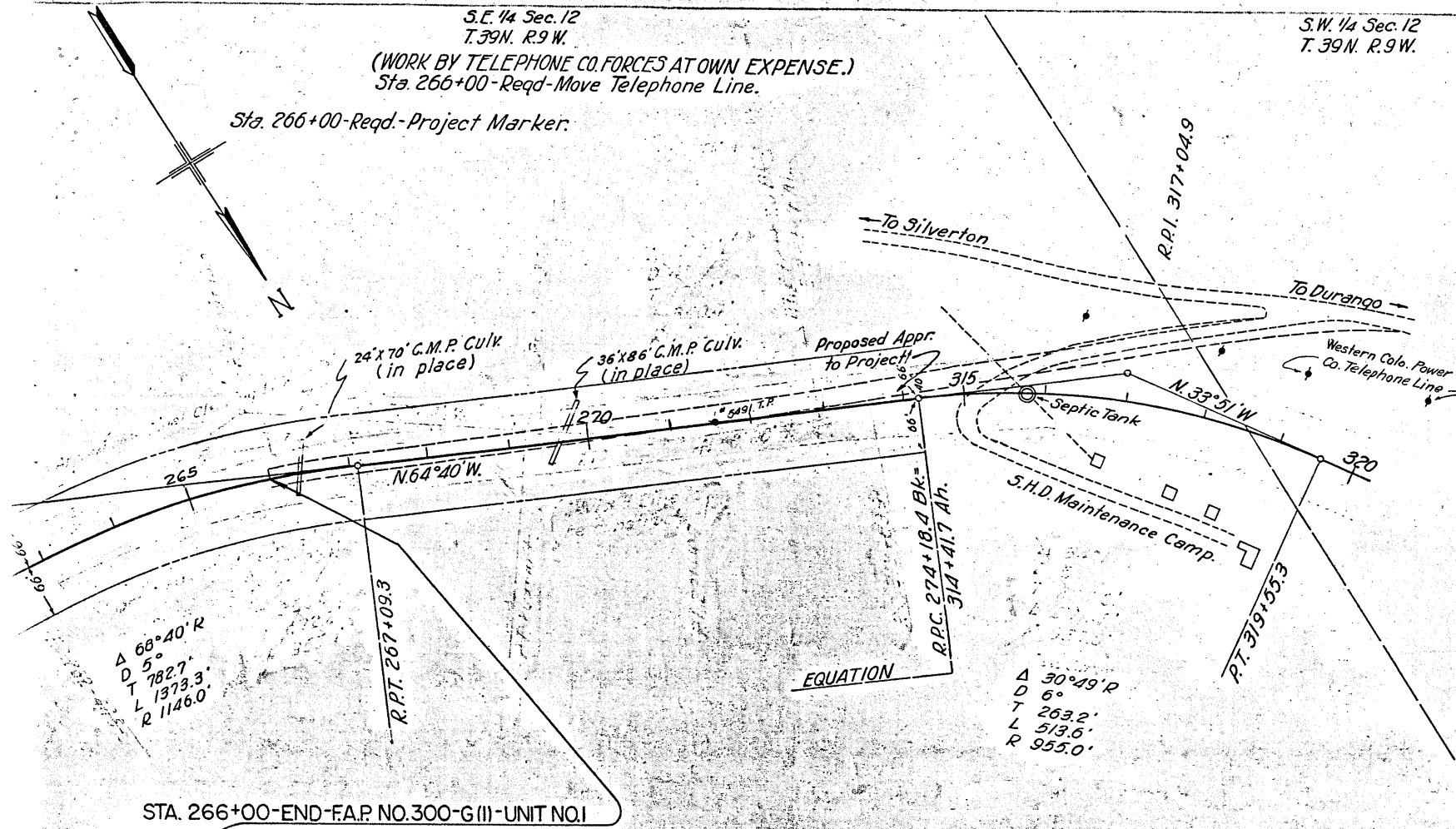
S.W. 1/4 Sec. 12
T. 39N. R. 9W.

Rev. for Unit #1 - 8-16-41 H.J.S.

FED. ROAD DIST. NO.	STATL.	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	300-G (1)	23	

UNIT #1
Rev. 11-1-45 E.A.R. To exclude work done under original contract
Rev. 1-14-46 E.L.K. to include quantities under Original Contract and Unit Totals.
Rev. 1-17-46 E.L.K. Sheet No.

Sta. 266+00-Reqd 24"x70' C.M.P. Culv. and 36"x86' C.M.P. Culv. and 4250 cu. yds. Embank for Approach to Project, as shown on Plans. (24"x70' C.M.P. Culv., 36"x86' C.M.P. Culv. and 3747 cu. yds. Embank placed under Original Contract.)
Reqd-503 cu. yds. Embank. to complete Approach, 25 cu. yds. to come from Excess Roadway Excavation Sta. 254+ to 255+ and 478 cu. yds. to come from Approach Excav. and Borrow within F.H. Limits. Overhaul on Excess Roadway Excav. is included in Profile Quantities.
Also Reqd. 50 cu. yds. Excav. for Ditch Changes.

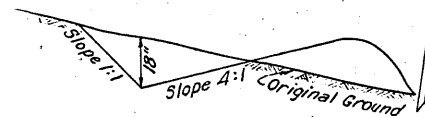


NOTES:
Alignment and grade shown on these plans are subject to adjustment during construction after approval by the Denver Office.

All poles encroaching on construction are to be moved by owners.

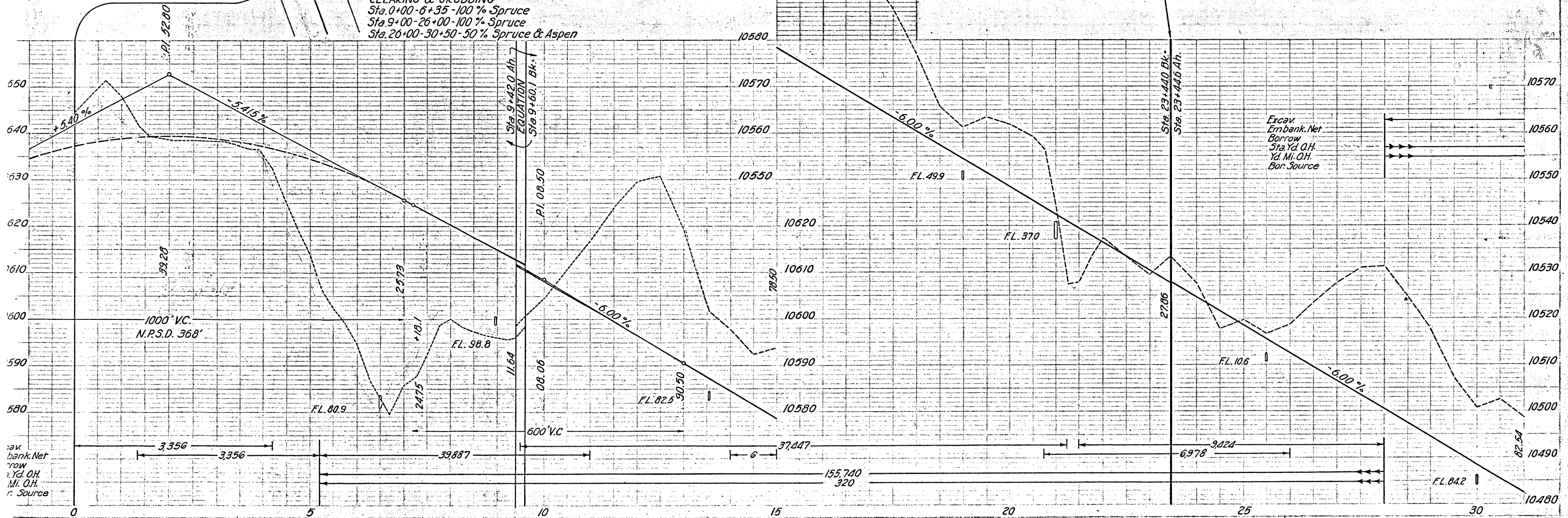
FORCE ACCOUNT
Benching fill slopes to be as directed by the Engineer.

TYPICAL CROSS SECTION OF INTERCEPTING DITCH



BEGIN F.A.P. NO. 300-G(II) - UNIT NO. 2
STA. 0+00-COAL BANK SUMMIT NORTH
STA. 0+00-COAL BANK SUMMIT SOUTH
BEGIN F.A.P. NO. 300-G(II) - UNIT NO. 1

Sta. 1+50-2+50-Reqd. 40 Cu. Yds. Uncl. Ditch Excav. for Intercepting Ditch Rt.
Sta. 2+00-3+80-Reqd. 40 Cu. Yds. Uncl. Ditch Excav. for Intercepting Ditch Lt.



Rev. 1-17-46 E.L.K.
Sheet No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLD.	300-G(1)	24	

COAL BANK SUMMIT NORTH.
Rev. for Unit #2-8-16-41 H.T.S.
Δ 67°51' L
D 10°
T 385.4'
L 678.5'
R 573.0'

UNIT #2
PT. 31+08.1
PT. 32+32.9
PT. 33+66.1
PT. 34+66.1

Sta. 6+50-Reqd. 36" x 200' C.M.P. Cr. Culv. & 20 Cu. Yds. Uncl. Ditch Excav. for Inlet Ditch.

Sta. 7+-Reqd. - Remove Shed Rt.

Sta. 8+96-Reqd. 24" x 102' C.M.P. Cr. Culv. & 45 Cu. Yds. Uncl. Excav. for Inlet.

Sta. 13+55-Reqd. 24" x 46' C.M.P. Cr. Culv. & 310 Cu. Yds. Uncl. Excav. for Inlet.

CLEARING & GRUBBING
Sta. 0+00-6+35-100% Spruce
Sta. 9+00-26+00-100% Spruce
Sta. 26+00-30+50-50% Spruce & Aspen

Sta. 19+00-Reqd. 24" x 46' C.M.P. Cr. Culv. & 175 Cu. Yds. Uncl. Excav. for Inlet.

(WORK BY TELEPHONE CO. FORCES AT OWN EXPENSE.)
Sta. 12+15+-Reqd. - Move Telephone Line.

Sta. 1+00-4+30-Reqd. - 500 Cu. Yds. Uncl. Excav. to remove mucky material under roadway & 500 Cu. Yds. Embank. for backfilling with rocky material. (Approximately 2 ft. is to be removed)

Sta. 21+00-Reqd. 48" x 54' C.M.P. Cr. Culv. & 150 Cu. Yds. Uncl. Excav. for Inlet.

Sta. 25+50-Reqd. 24" x 50' C.M.P. Cr. Culv. & 150 Cu. Yds. Uncl. Excav. for Inlet.

Sta. 30+00-Reqd. 24" x 44' C.M.P. Cr. Culv. & 360 Cu. Yds. Uncl. Excav. for Inlet.

Excav. Embank. Net Borrow
Sta. 1d. O.H.
Yd. Mi. O.H.
Bor. Source

Sta. 41+00 - Regd. - 24" x 58" C.M.P. Cr. Cul/v. &
255 Cu. Yds. Uncl. Excav. for Inlet.

Sta. 44+50-Reqd.-24"x54' C.M.P. Cr. Culv. &
265 Cu. Yds. Uncl. Excav. for Inlet.

Sta. 47+90-Reqd.- 24"x62' C.M.P. Cr. Culv. &
100 Cu. Yds. Uncl. Excav. for Inlet.

Sta. 50+63.2 Bk.-Reqd.-24"x62' C.M.P. Cr.Culv. &
160 Cu.Yds. Uncl. Excav. for Inlet.

Sta. 54 + 50 - Reqd. - 24" x 56' C.M.P. Cr. Culv. &
95 Cu. Yds. Uncl. Excav. for Inlet.

Sta. 58+00-Reqd.-24"x50' C.M.P. Cr. Culv. &
335 Cu. Yds. Uncl. Excav for Inlet.

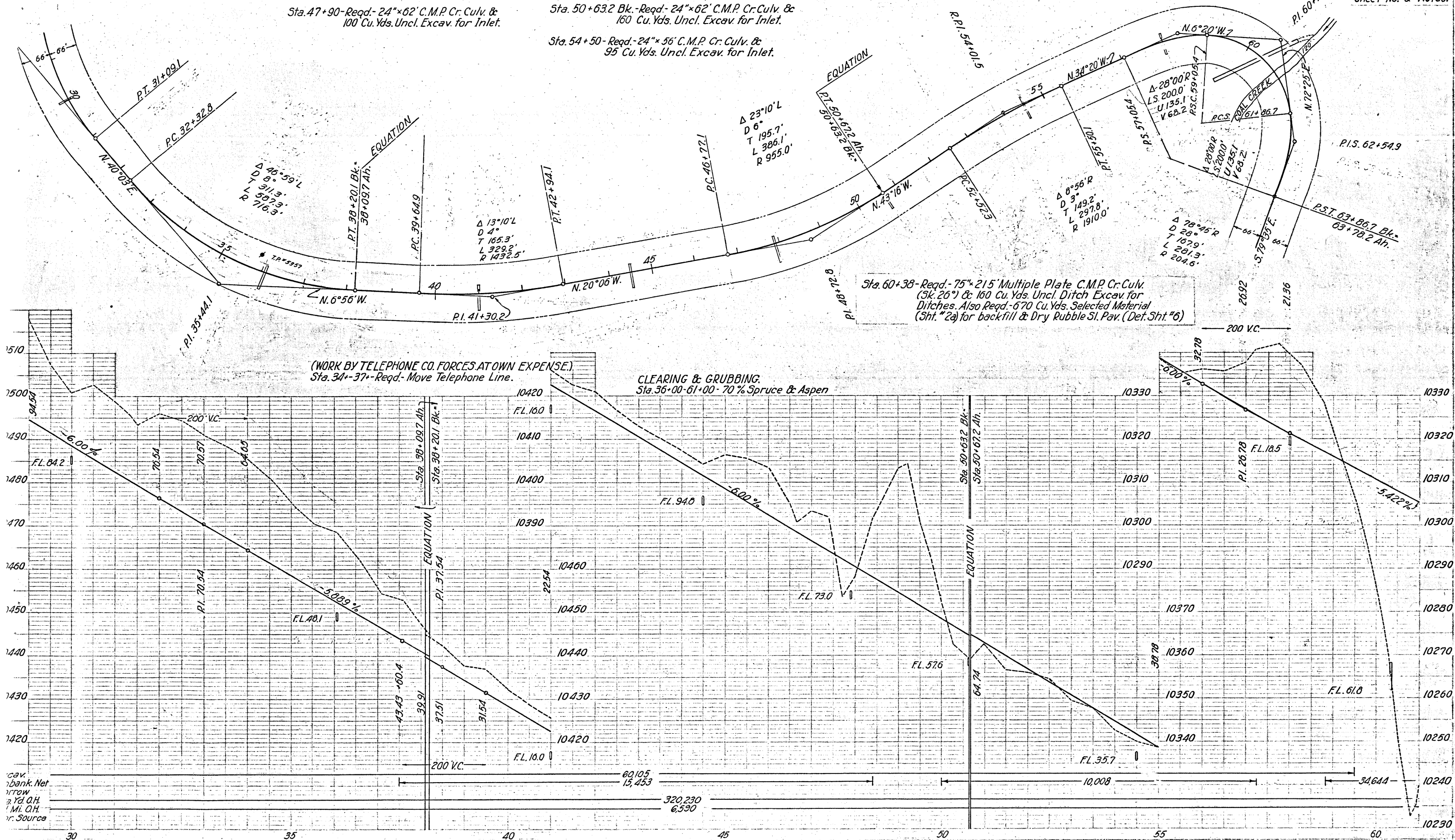
Rev. for Unit #2- 8-16-41- H.J.S

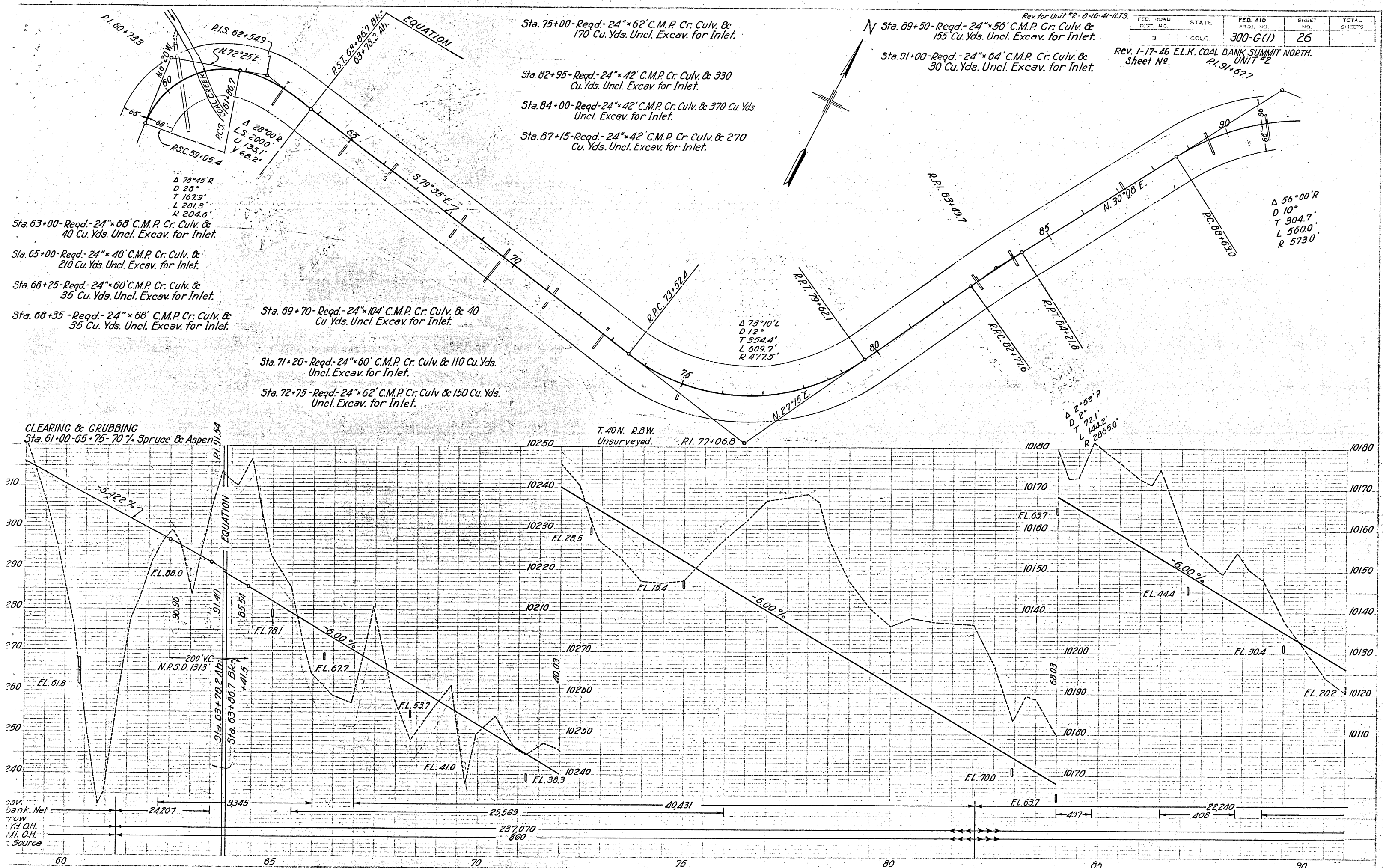
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	300-G(1)	25	

COAL BANK SUMMIT NORTH.

UNIT #2

Rev. 1-17-46 E.L.K.
Sheet No. & Notes.





FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	300-G(1)	26	

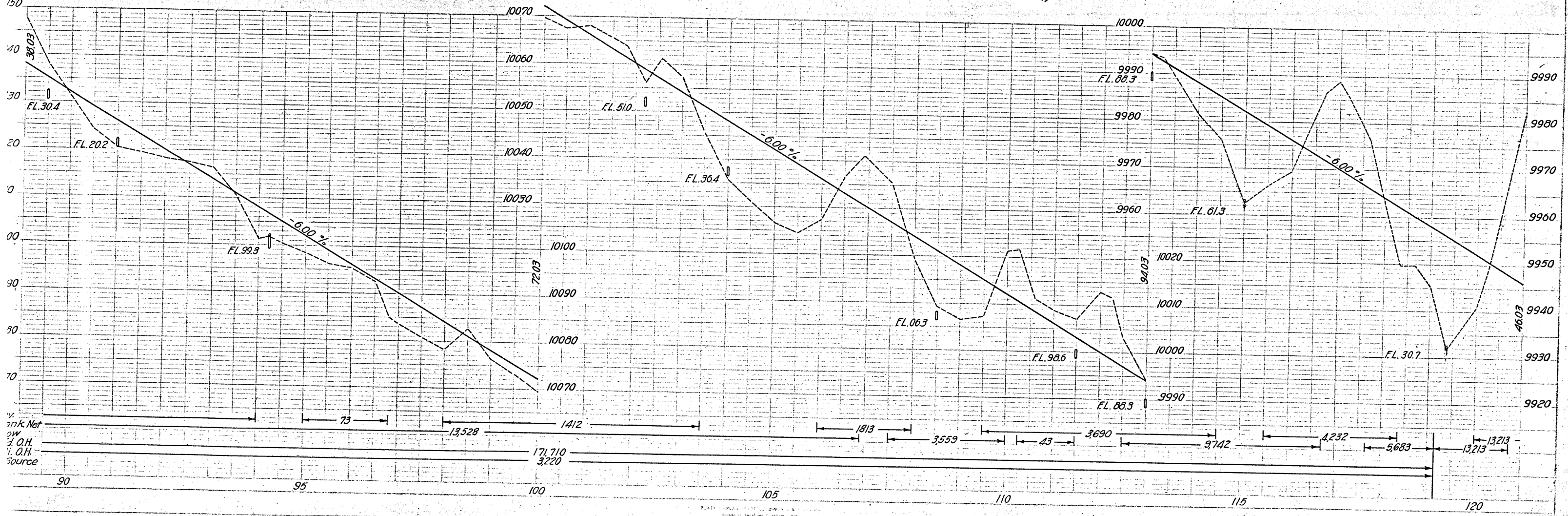
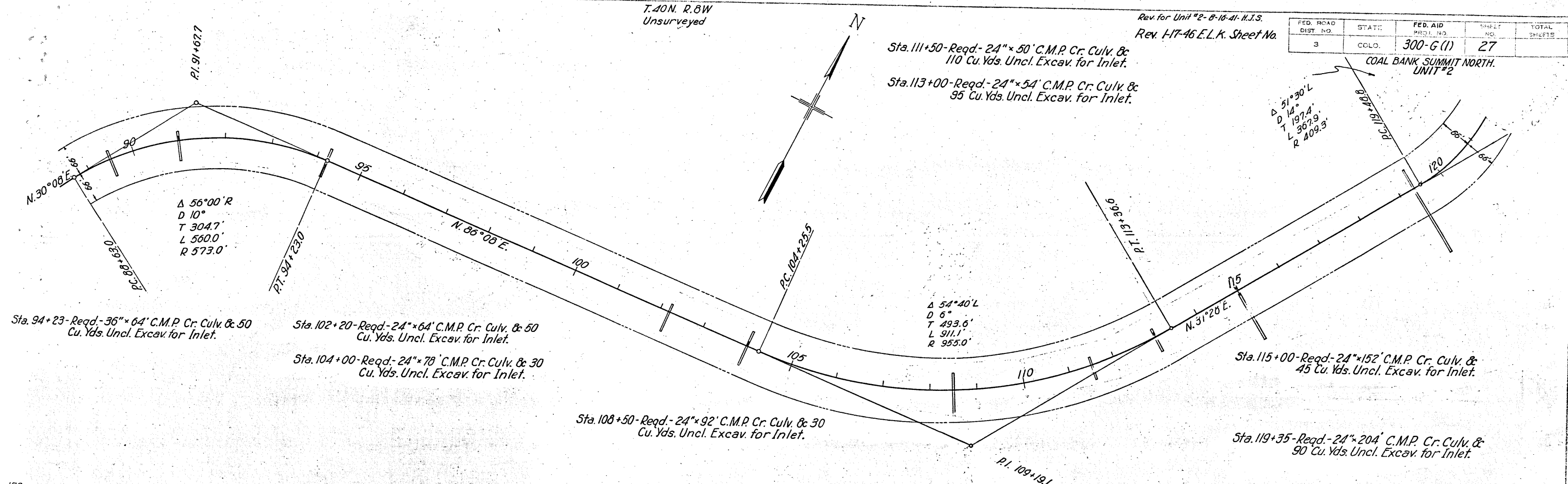
Rev. 1-17-46 E.L.K. COAL BANK SUMMIT NORTH. UNIT #2
Sheet No. P.I. 91+62.7

T.40N. R.8W
Unsurveyed

Rev. for Unit #2- 8-16-41- H.J.S.
Rev. 1-17-46 E.L.K. Sheet No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	300-G(1)	27	

COAL BANK SUMMIT NORTH.
UNIT #2



Sta. 125+55-Reqd. 24"x150' C.M.P. Cr. Culv. & 90 Cu.Yds Uncl. Ditch Excav. for Ditches.

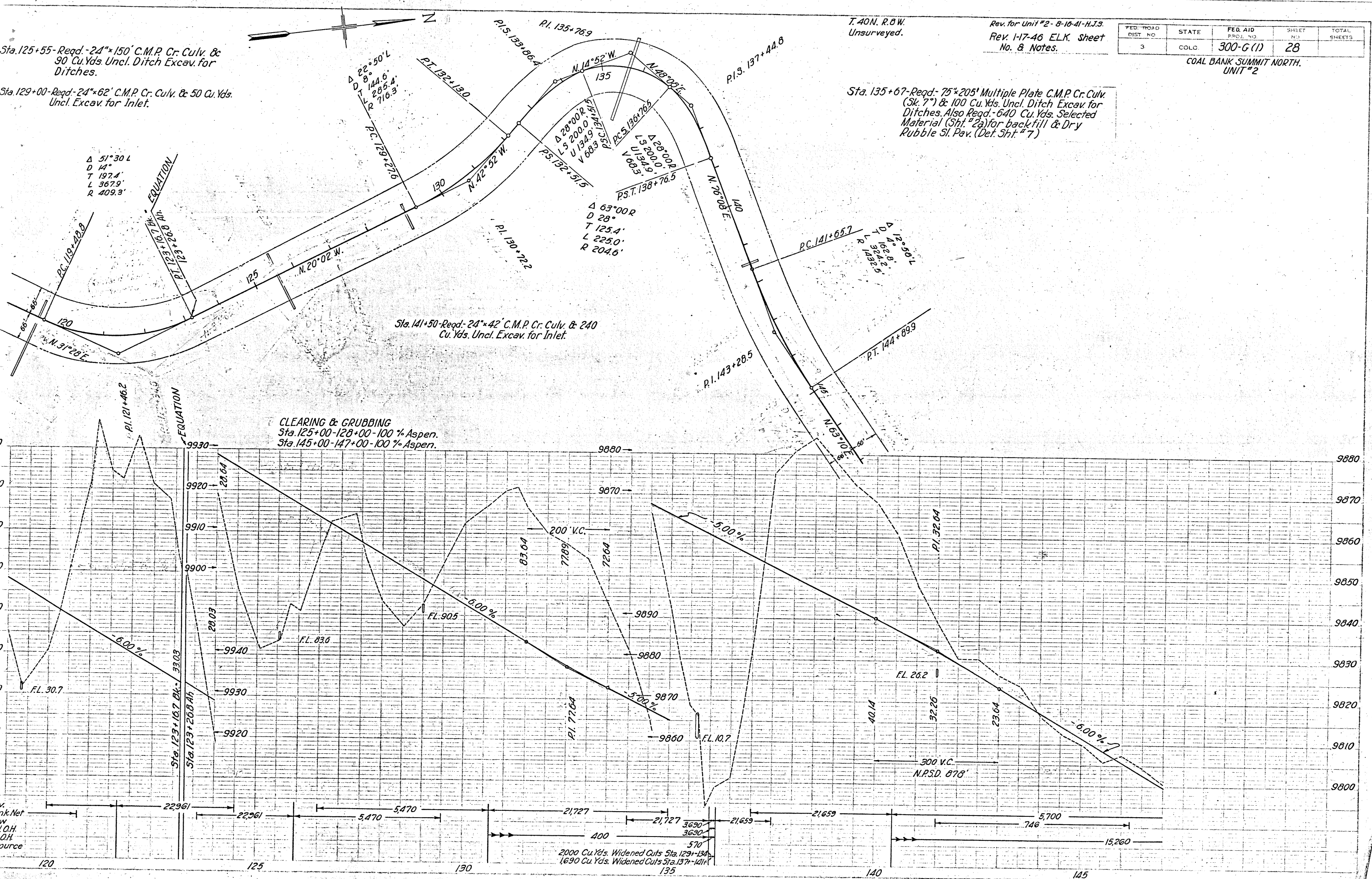
Sta. 129+00-Reqd. 24"x62' C.M.P. Cr. Culv. & 50 Cu. Yds. Uncl. Excav. for Inlet.

T. 40N. R. 8W.
Unsurveyed.

Rev. for Unit #2- 8-16-41-H.J.S.
Rev. 1-17-46 ELK. Sheet
No. & Notes.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	300-G(1)	28	

COAL BANK SUMMIT NORTH.
UNIT #2



Sta. 147+90-Reqd.-24"x62" C.M.P. Cr. Culv. & 10 Cu. Yds. Uncl. Ditch Excav. for Inlet Ditch.

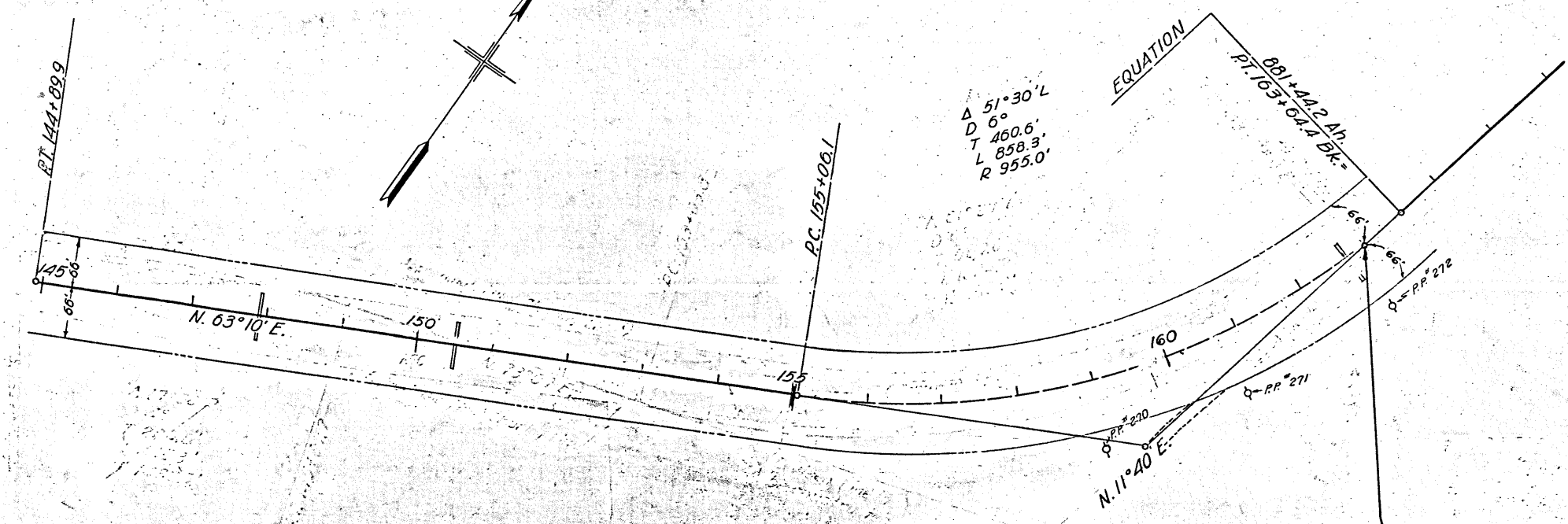
Sta. 163+00 Req'd.-Project Marker

T.40N. R.8W. Unsurveyed

Rev. for Unit #2-8-16-41- H.J.S.
Rev. 11-1-45 E.A.R. Proj. End
Rev. 1-14-46 E.L.K. Proj. End
Rev. 1-17-46 E.L.K. Sheet No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	300-G(1)	29	

COAL BANK SUMMIT NORTH. UNIT #2



Sta. 150+50-Reqd.-24"x62" C.M.P. Cr. Culv. & 10 Cu. Yds. Uncl. Ditch Excav. for Inlet Ditch.

Sta. 162+70-Req'd.-24"x60 C.M.P. Cr. & 70 Cu. Yds. Uncl. Excav. for Inlet.

Sta. 155+00-Req'd.-24"x48" C.M.P. Cr. Culv. & 70 Cu. Yds. Uncl. Excav. for Inlet.

Sta. 163+00-Req'd.-500 Cu. Yds. Embank. for Approach to Project

Sta. 160+70-162+00 Req'd. Road Approach Rt. (Embank Quantities included in Cross Sections)

STA. 163+00- END - F.A.P. 300-G (1) UNIT 2

