F011-1(30) 4-27

438-B111 8 71

6424

BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
1	3+12	10" BOXELDER 68' LT.	189.14
2	17+15	10" ELM 85 LT.	206.99
3	24+77	OAK 92 LT.	206.55

BEGINNING OF PROJECT F011-1(30)
STA. 0+000'

NOTE 0-300 TO 0+00 IS TO BE APPROACH WORK

ROBERTA BERND

STA. 4+39 P.E. LT.
1-18"×26' C.G.S.M.C.P. REQD.

STA. 8+84 P.E. LT.
REMOVE 1-6"×20' TILE
1-18"×26' C.G.S.M.C.P. REQD.

STA. 9+71 P.E. RT.
1-18"×26' C.G.S.M.C.P. REQD.

P.I. STA. 6+64.5
Δ. 187°25'
Δ 7°-25' RT.
D 0°-50'
T 445.68
L 890.0
EXT. 14.46

STA. 15+
CONSTR. S. RD. APPROACH LT.

STA. 11+27 P.E. LT.
1-18"×26' C.G.S.M.C.P. REQD.

STA. 15+33 P.E. LT.
1-18"×26' C.G.S.M.C.P. REQD.

NEW CURVE DATA

P.I. STA. 19+97.14	P.I. STA. 19+97.14
Δ. 234°24'	AZ 234°-24'
Δ 54°24'RT.	Δ 54°-24' RT.
D 4°	D 5°
T 736.3	T 589.1
L 1360.0	L 1088.0
SE .06/FT.	

STA. 23+23
CONSTR. P.E. LT.
REMOVE 1-15"×20' C.G.S.M.C.P.

JOHN PAULSON
JOHN FOREMAN

EQUATION
26+20.84 BK = 26+43.24 AH.
ROBERTA BERND
ANDREW TOBIN

NET LENGTH OF CENTERLINE STA. -0+00 TO STA. 30+00 = 2977.6 LIN. FT.

C-2802 C.Y. {C-2231 C.Y. / EBS-571 C.Y.
F-2759 C.Y.
B- 647 C.Y.
SHG.-25%

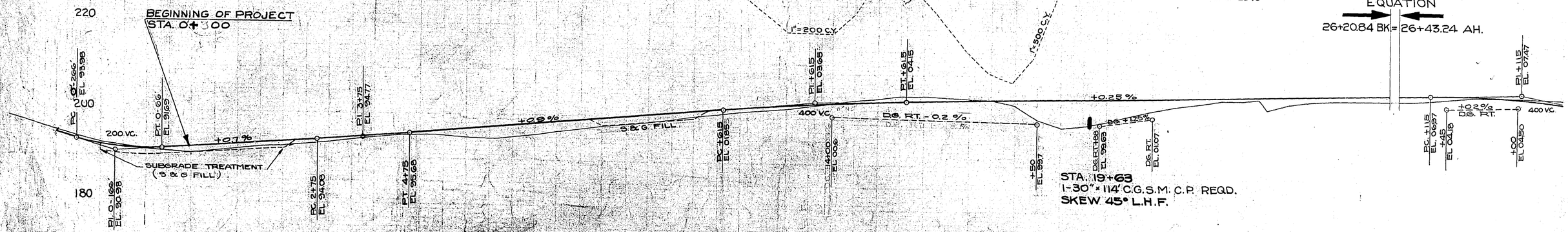
C-657 C.Y. {C- 644 C.Y. / EBS- 13 C.Y.
F-255 C.Y.
H- 40 C.Y.
SHG.-25%

C-1515 C.Y.
F-1211 C.Y.
SHG.-25%

C-1567 C.Y.
F-3899 C.Y.
B-3308 C.Y.
SHG.-25%

1"=200 C.Y.

1"=500 C.Y.



F011-1(30) 5-27

438-B(11) 9 91

6424

P.O.T. STA. 30+32.86

BENCH MARKS

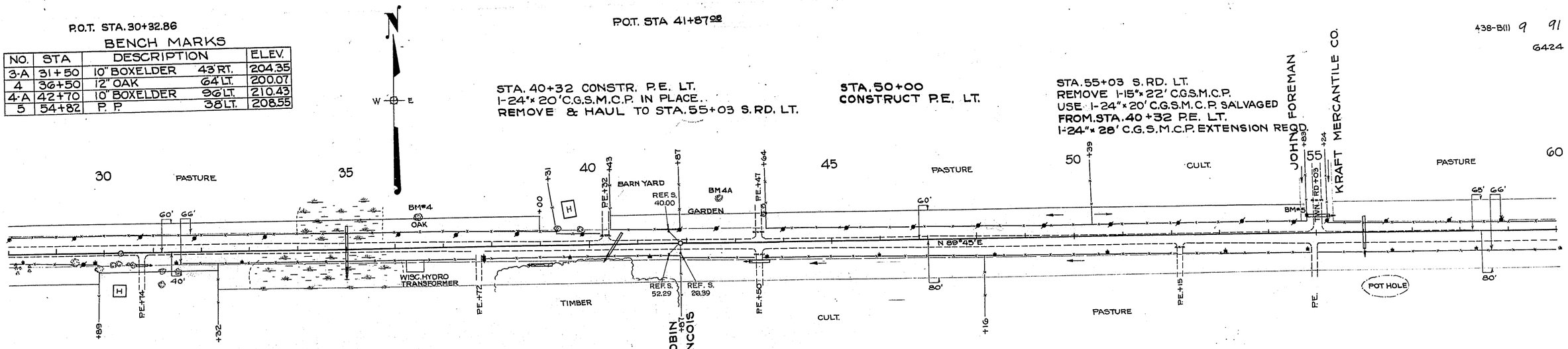
NO.	STA	DESCRIPTION	ELEV.
3-A	31+50	10" BOXELDER 43' RT.	204.35
4	36+50	12" OAK 64' LT.	200.07
4-A	42+70	10" BOXELDER 96' LT.	210.43
5	54+82	P. P. 38' LT.	208.55

P.O.T. STA 41+87.22

STA. 40+32 CONSTR. P.E. LT.
1-24"x 20' C.G.S.M.C.P. IN PLACE..
REMOVE & HAUL TO STA. 55+03 S. RD. LT.

STA. 50+00
CONSTRUCT P.E. LT.

STA. 55+03 S. RD. LT.
REMOVE 1-15"x 22' C.G.S.M.C.P.
USE 1-24"x 20' C.G.S.M.C.P. SALVAGED
FROM STA. 40+32 P.E. LT.
1-24"x 28' C.G.S.M.C.P. EXTENSION REQD.



STA. 30+74 P.E. RT.
1-18"x 26' C.G.S.M.C.P. REQD.

STA. 39+00
CONSTR. P.E. RT.
1-42"x 42' C.G.S.M.C.P REQD.

STA. 43+50 P.E. RT.
REMOVE 1-12"x 18' C.G.S.M.C.P.
1-42"x 42' C.G.S.M.C.P. REQD.

STA. 36+00-39+00 RT.
SPECIAL GROUTED PAVED DITCH REQD.

NET LENGTH OF CENTERLINE STA. 30+00-59+00 = 2900 LIN.FT.

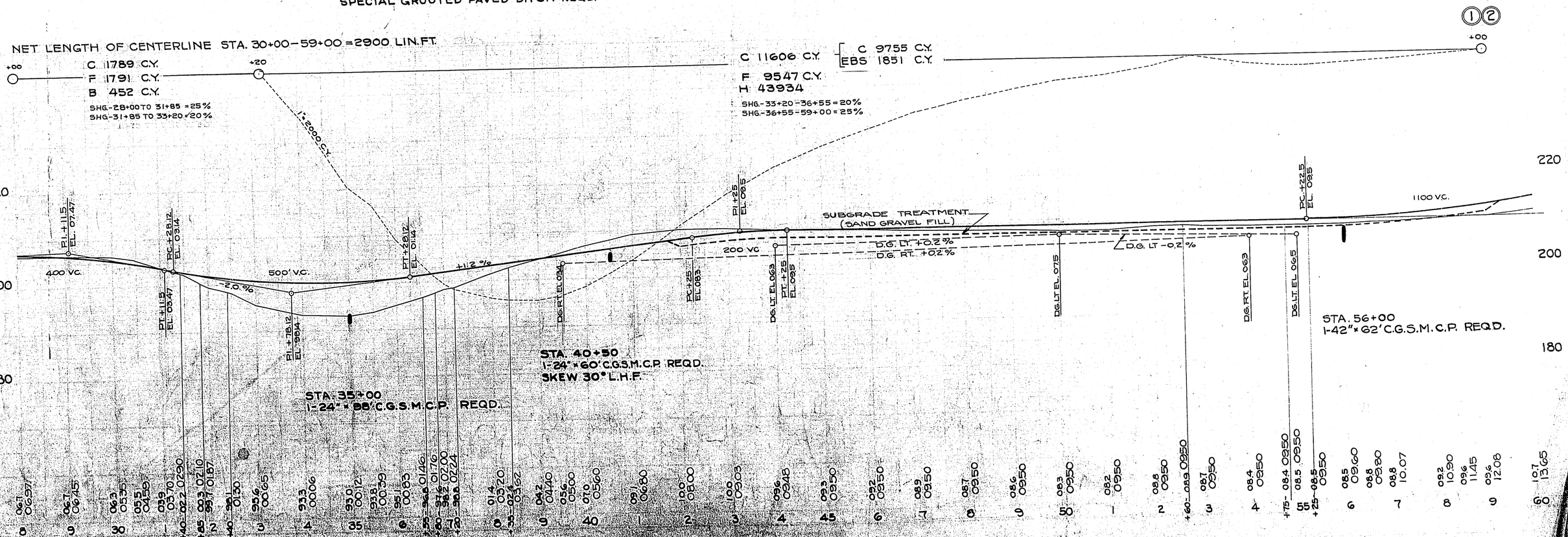
C 11789 C.Y.
F 1791 C.Y.
B 452 C.Y.

SHG.-28+00 TO 31+85 = 25%
SHG.-31+85 TO 33+20 = 20%

C 11606 C.Y.
F 9547 C.Y.
H 43934

SHG.-33+20-36+55 = 20%
SHG.-36+55-59+00 = 25%

C 9755 C.Y.
EBS 1851 C.Y.



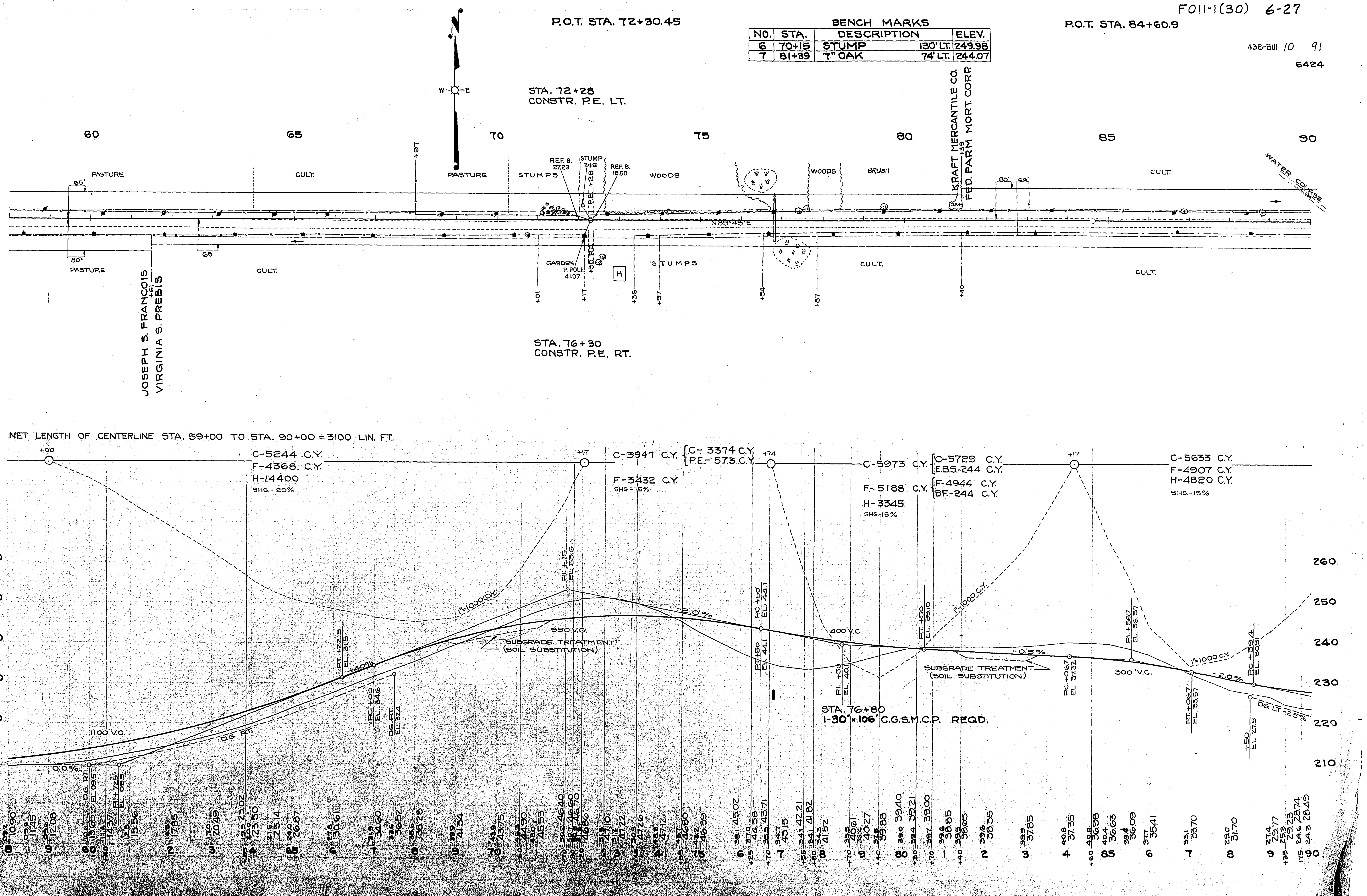
F011-1(30) 6-27

438-B(11) 10 91

6424

BENCH MARKS

NO.	STA.	DESCRIPTION		ELEV.
6	70+15	STUMP	130' LT.	249.98
7	81+39	7" OAK	74' LT.	244.07



P.O.T. STA. 107+82.3

BENCH MARKS

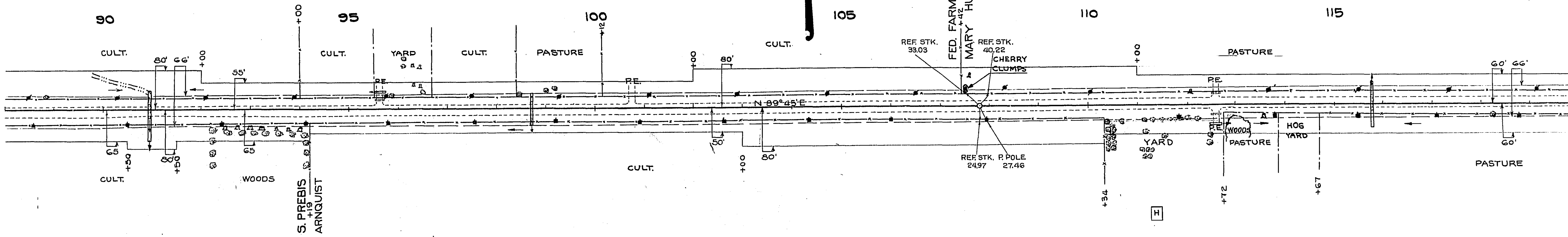
NO.	STA.	DESCRIPTION		ELEV.
8	94+10	15" OAK	65' RT.	226.58
8A	99+70	16" OAK	235' LT.	234.64
9	111+51	12" ELM	63 RT.	264.31

STA. 95+59 P.E. LT.
REMOVE 1-15"×20' C.G.S.M.C.P.
1-18"×26' C.G.S.M.C.P. REQD.

STA. 98+00
CONSTR. P.E. LT.

STA. 100+00 - 102+50
SODDED TOE OF FILL REQD. LT.

STA. 112+56
CONSTR. P.E. LT.
REMOVE 1-12"×16' C.G.S.M.C.P.



STA. 112+56 P.E. RT.
REMOVE 1-15"×24' C.G.S.M.C.P.
1-18"×26' C.G.S.M.C.P. REQD.

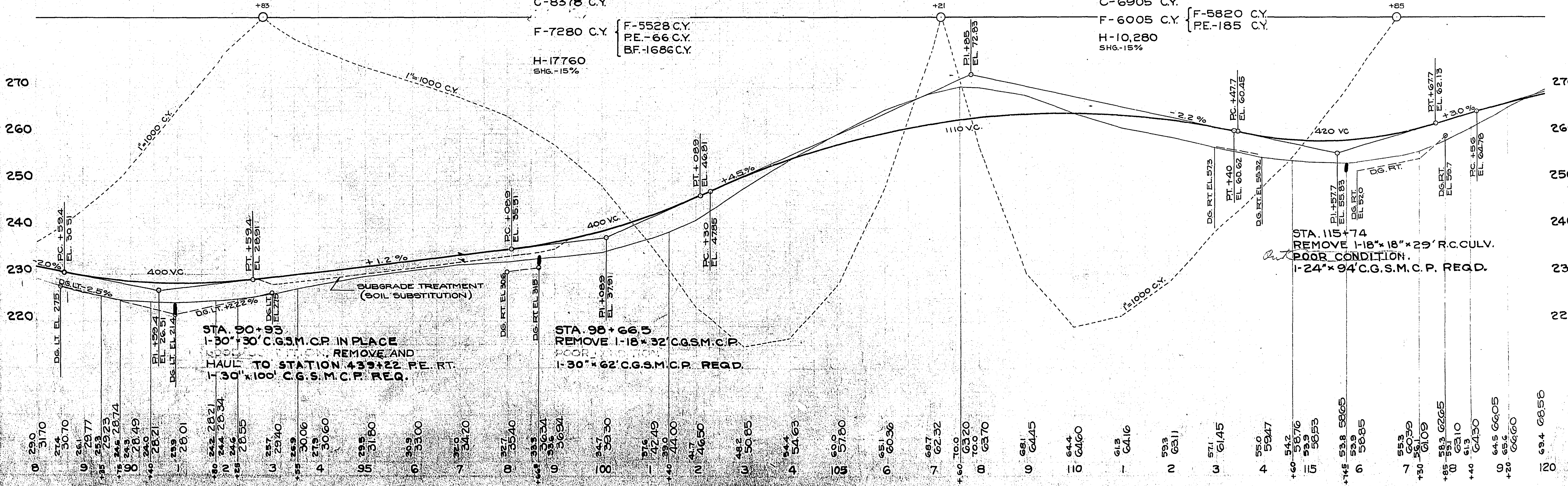
STA. 117+00 TO 118+00
GROUTED RUBBLE
PAVED DITCH REQD. RT.

NET LENGTH OF CENTERLINE STA. 90+00 TO STA. 107+21 = 1721 LIN. FT.

C-8378 C.Y.
F-7280 C.Y. {F-5528 C.Y., P.E.-66 C.Y., B.F.-1686 C.Y.}
H-17760
SHG.-15%

NET LENGTH OF CENTERLINE STA. 107+21 TO STA. 120+00 = 1279 LIN. FT.

C-6905 C.Y.
F-6005 C.Y. {F-5820 C.Y., P.E.-185 C.Y.}
H-10,280
SHG.-15%



F011-1(30) 8-27

438-BIII 12 91

6424

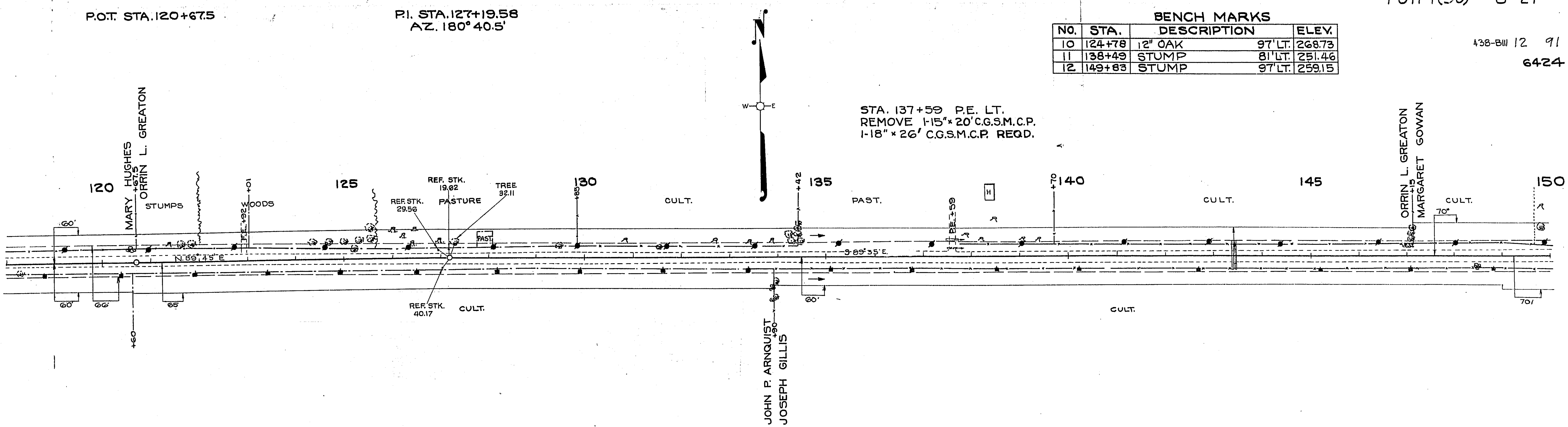
P.O.T. STA. 120+67.5

P.I. STA. 127+19.58
AZ. 180° 40.5'

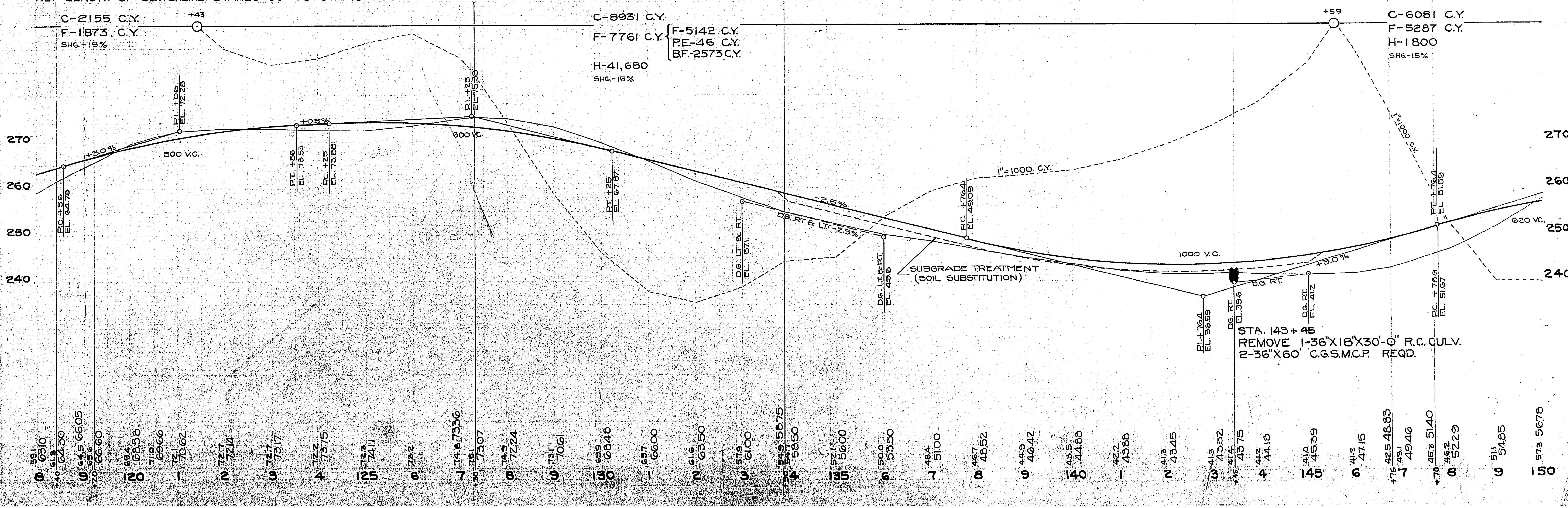
BENCH MARKS

NO.	STA.	DESCRIPTION		ELEV.
10	124+78	12" OAK	97' LT.	268.73
11	138+49	STUMP	81' LT.	251.46
12	149+83	STUMP	97' LT.	259.15

STA. 137+59 P.E. LT.
REMOVE 1-15" × 20' C.G.S.M.C.P.
1-18" × 26' C.G.S.M.C.P. REQD.



NET LENGTH OF CENTERLINE STA. 120+00 TO STA. 150+00 = 3000 LIN. FT.



F011-1(30) 9-27

438-B(1) 13 91

6424

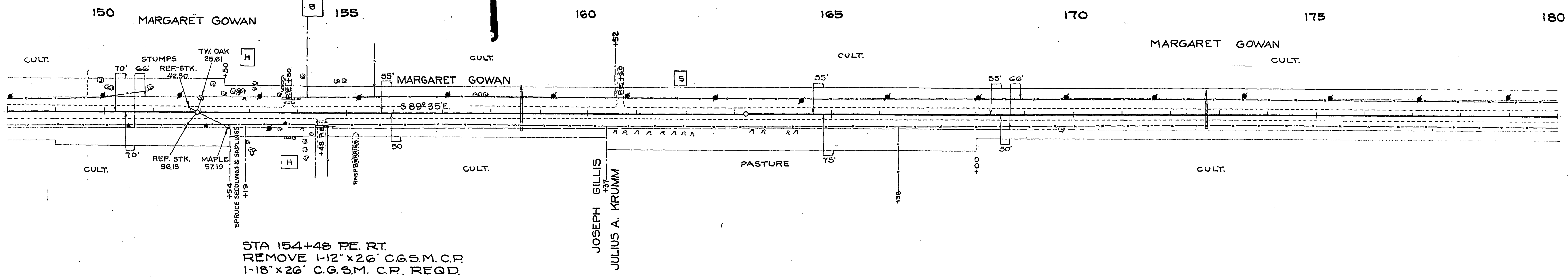
P.O.T. STA. 151+90.4

P.O.T. STA. 163+24.6

BENCH MARKS

NO.	STA.	DESCRIPTION		ELEV.
12	149+83	STUMP	97' LT.	259.15
13	158+55	20" ELM	160' RT.	250.62
14	182+33	13" ELM	67' RT.	255.78

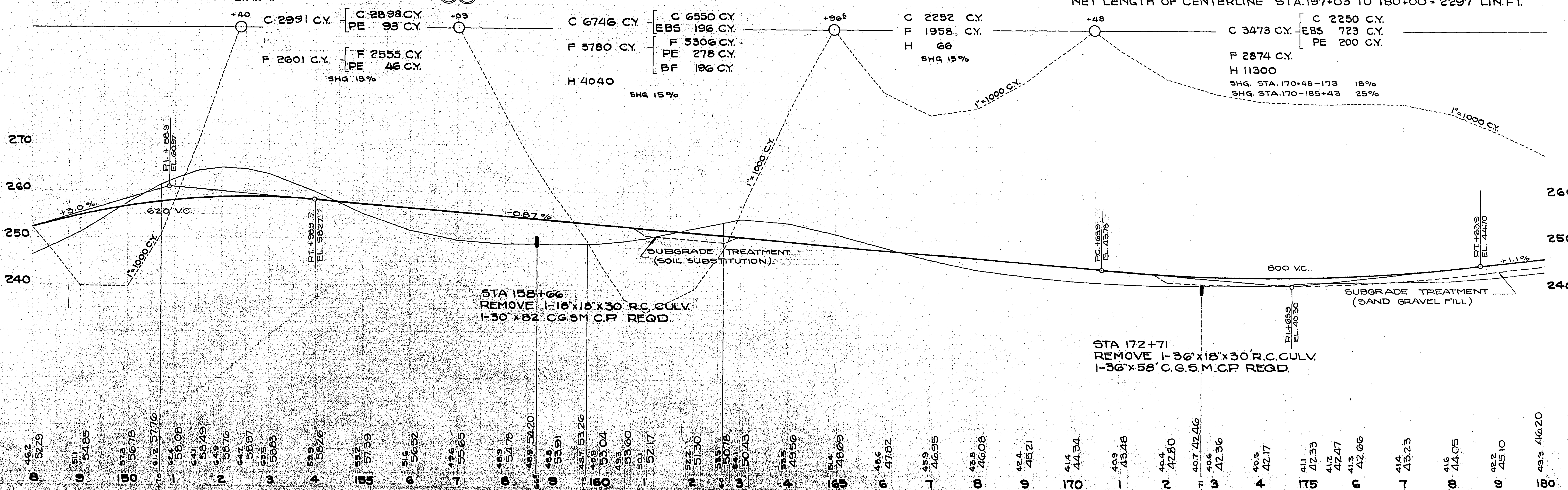
STA 153+80 P.E. LT.
REMOVE 1-12"x28' C.G.S.M. C.P.
1-18"x26' C.G.S.M. C.P. REQD.



STA 154+48 P.E. RT.
REMOVE 1-12"x26' C.G.S.M. C.P.
1-18"x26' C.G.S.M. C.P. REQD.

NET LENGTH OF CENTERLINE
STA. 150+00 TO 157+03 = 703 LIN. FT.

NET LENGTH OF CENTERLINE STA. 157+03 TO 180+00 = 2297 LIN. FT.



F011-1(30) 10-27

438-B(1) 14 91
6424

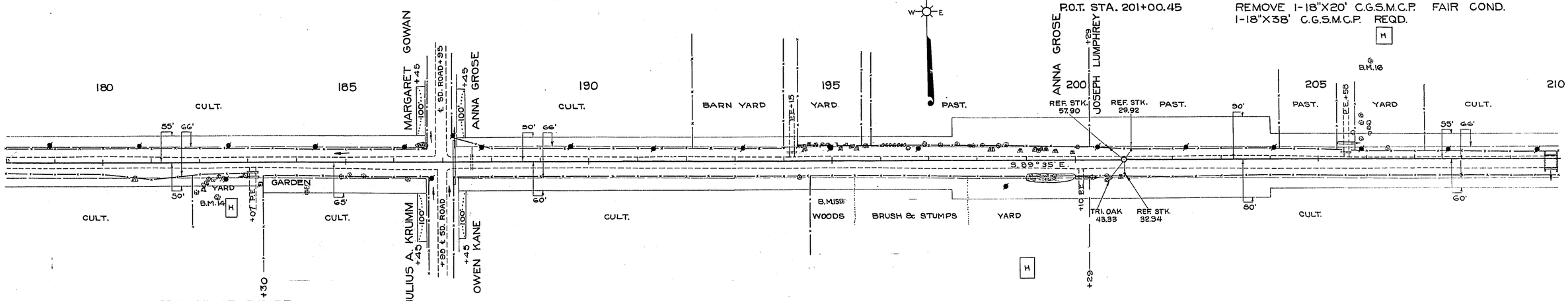
BENCH MARKS.

NO.	STA.	DESCRIPTION	ELEV.
14	182+33	13" ELM 67' RT	255.76
15	195+17	16" ELM 79' RT	265.08
16	206+11	BOX ELDER 192' LT.	247.41
	209+73	N.W. END WHEEL GUARD LT.	236.92

STA. 194+15 LT.
CONSTRUCT P.E. LT.
REMOVE 1-12"X20' C.G.S.M.C.P.

P.O.T. STA. 201+00.45

STA. 205+58 P.E. LT.
REMOVE 1-18"X20' C.G.S.M.C.P. FAIR COND.
1-18"X38' C.G.S.M.C.P. REQD.



STA. 183+07 P.E. RT.
REMOVE 1-15"X20' C.G.S.M.C.P.
1-18"X26' C.G.S.M.C.P. REQD.

STA. 182+00 - 183+00
SODDED BACKSLOPE REQD. RT.

STA. 200+10 P.E. RT.
1-18"X26' C.G.S.M.C.P. REQD.

NET LENGTH OF CENTERLINE STA. 180+00 TO STA. 210+00 = ~~3000~~ 2973.5 LIN. FT.

C-1195 C.Y. { C- 961 C.Y. / E.B.S.-234 C.Y.

F-1976 C.Y. { F- 1011 C.Y. / B.F.- 915 C.Y. / P.E.- 50 C.Y.

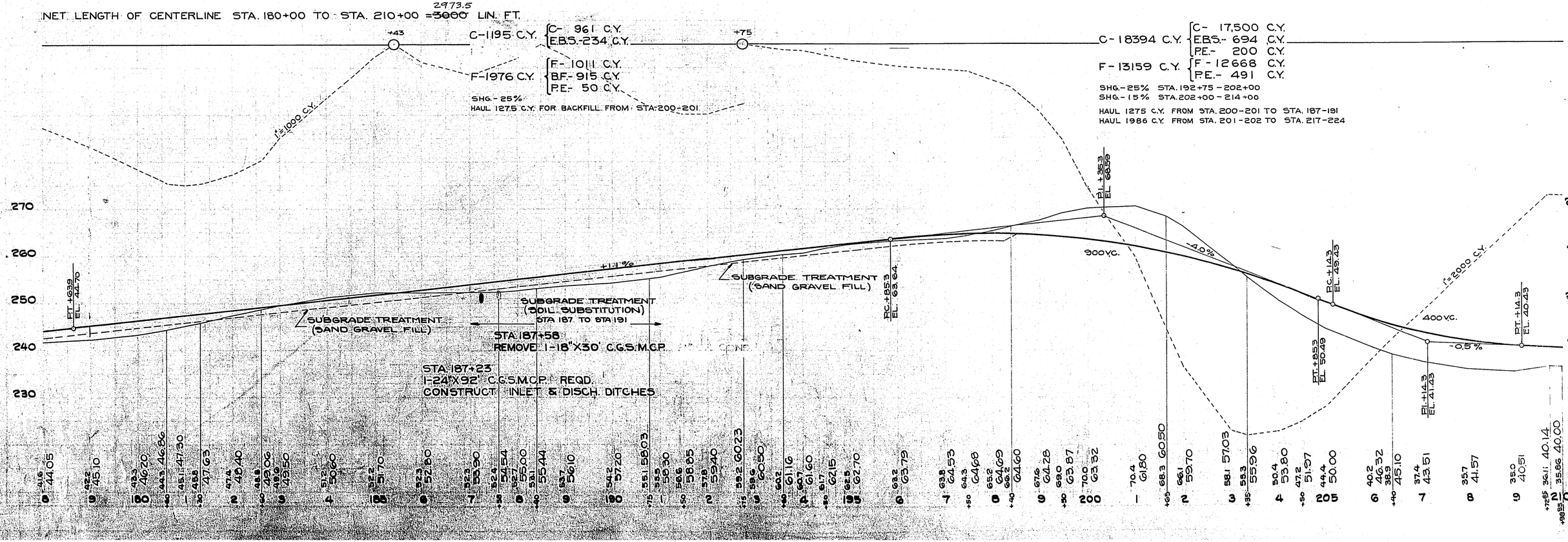
SHG.- 25%
HAUL 127.5 C.Y. FOR BACKFILL FROM STA. 200-201

C-18394 C.Y. { C- 17,500 C.Y. / E.B.S.- 694 C.Y. / P.E.- 200 C.Y.

F-13159 C.Y. { F-12668 C.Y. / P.E.- 491 C.Y.

SHG.- 25% STA. 192+75 - 202+00
SHG.- 15% STA. 202+00 - 214+00

HAUL 1275 C.Y. FROM STA. 200-201 TO STA. 187-191
HAUL 1986 C.Y. FROM STA. 201-202 TO STA. 217-224



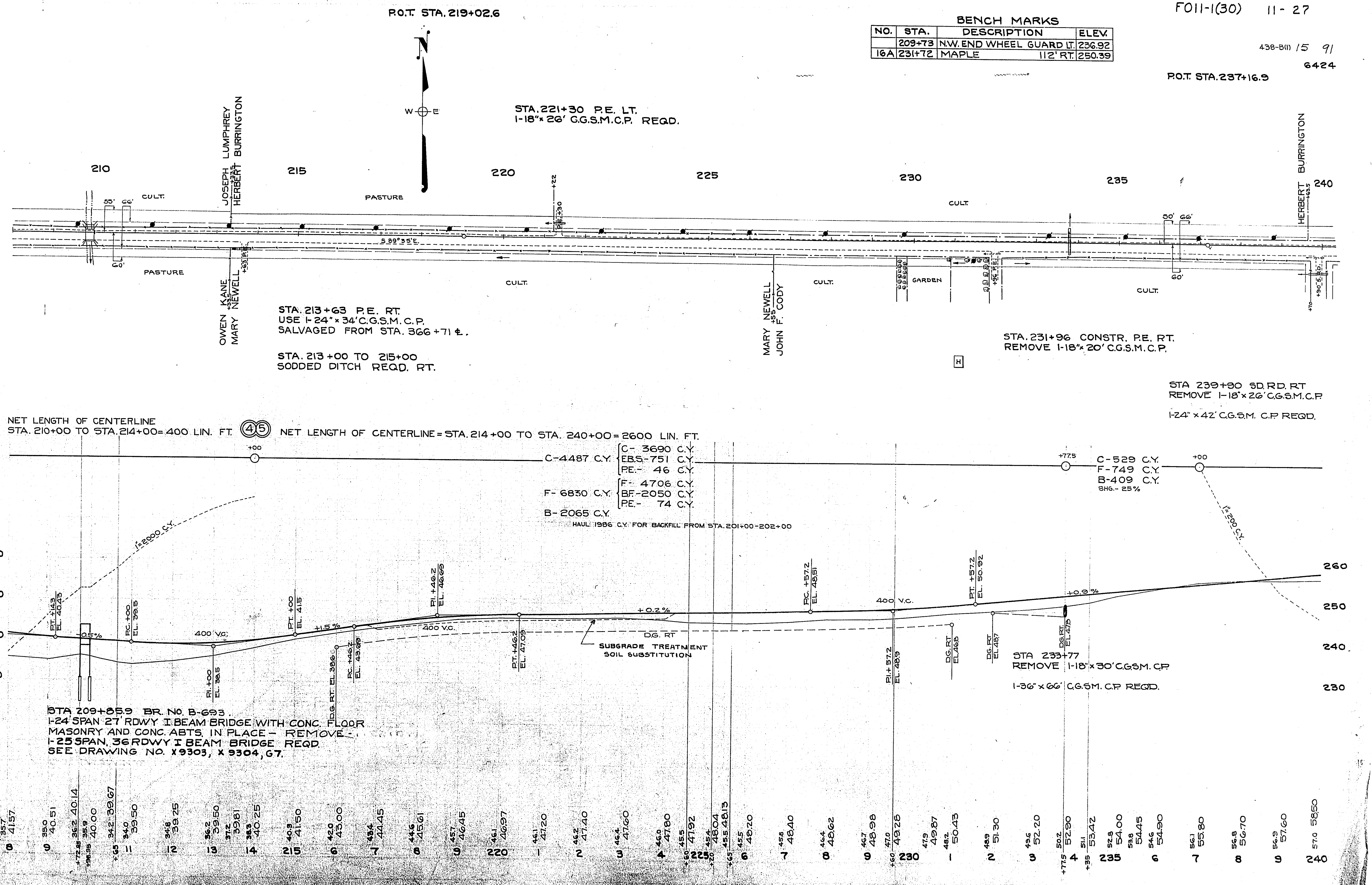
F011-1(30) 11-27

438-B(1) /5 91

6424

BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
	209+73	N.W. END WHEEL GUARD LT.	236.92
16A	231+72	MAPLE 112' RT.	250.39



F011-1(30) 12-27

438-611 16 91

6424

P.O.T. STA. 263+53.3

BENCH MARKS

NO	STA.	DESCRIPTION	ELEV.
17	249+00	OAK - 103' LT.	266.74
18	268+80	13" OAK 43' RT.	302.49

H.

STA 249+36 P.E. LT.
REMOVE 1-15"x24' C.G.S.M. C.P.
1-18"x 26' C.G.S.M. C.P. REQD.

STA 253+00
SPECIAL DITCH CHECK REQD
1-18"x20 C.G.S.M. C.P. REQD.

STA 258+54
REMOVE 1-18"x18' C.G.S.M. C.P.

STA 265+74 SD. RD. LT.
1-18"x 40' C.G.S.M. C.P. REQD.

STA 269+00
CONSTR. P.E. LT.

CULT. | EDMUND J. HOGAN +63.5 | 240 | PAST. | 245 | YARD | P.E. | 250 | PAST. | 255 | CULT. | P.E. | 260 | 80' GG' | REF. S 41.60 | REF. S. 42.97 | P.C. STA. 264+71.2 | 265 | EDMUND J. HOGAN | 29.5° | +75 | T. RD. | LUDWIG KRAMPERT | REF. S. 43.08 | P.T. STA. 266+76.2 | 75' | 270

50' GG' | 55' | S.89°35'E. | +90 SD. RD. | CULT. | PAST. | JOHN F. CODY | EDMUND J. HOGAN | P.E. | STUMPS | PAST. | +15 | P.E. | 55' | CULT. | REF. STK. 19.32 | REF. S. 41.35 | C.T.H. "T" | +72.5 | LUDWIG KRAMPERT | REF. S. 49.64 | N:88°22'E. | 60'

STA 248+95
CONSTR. P.E. RT.

STA 253+43
CONSTR P.E. RT.

STA 258+57
REMOVE 1-15"x18' C.G.S.M. C.P.

EDMUND J. HOGAN P.I. STA. 265+73.1
AZ. 177°57'
Δ 2°03'
D 1° LT.
T 102.5
L 205.0

NET LENGTH OF CENTERLINE STA. 240+00 TO STA. 264+68 = 2468 LIN. FT.

C- 975 C.Y. { E.B.S.- 88 C.Y. / C- 887 C.Y.
F- 780 C.Y. { S.RD.-46 C.Y. / F- 734 C.Y.
H-145
SHG.- 25%

C-10134 C.Y. { SP.D.- 210 C.Y. / E.B.S.-1027 C.Y. / C.- 8897 C.Y.
F- 8103 C.Y. { B.F.- 2119 C.Y. / P.E.- 149 C.Y. / F- 5835 C.Y.
H-31080
SHG.- 25%

56 NET LENGTH OF CENTERLINE STA. 264+68 TO STA. 270+00 = 532 LIN. FT.

+34 | +68 | 1"=200 C.Y. | 1"=1000 C.Y. | 0.5%

P.I. +52.77 EL. 09.74 | P.T. +52.77 EL. 07.24 | P.C. +52.77 EL. 94.24 | P.T. +20.5 EL. 77.74 | P.C. +7.05 EL. 62.73 | P.I. +45.5 EL. 66.11 | +2.1% | +0.2%

1000 V.C. | SUBGRADE TREATMENT (SOIL SUBSTITUTION) | SUBGRADE TREATMENT (SAND GRAVEL FILL) | 750' V.C.

STA 253+00 CULV. NO. C-1380
1-3'6"x6'-0"x46' R.C. CULV. REQD.
CONSTR. DISCH. DITCH RT.
SEE DRAWING NO. M 4087

STA 249+00
1-24"x62' C.G.S.M. C.P. REQD.
SKEW 30° R.H.F.

STA 265+41.5
REMOVE 1-15"x46' C.G.S.M. & B.I. C.P.

STA 267+30
REMOVE 1-36"x18"x26' R.C. CULV.
1-24"x78' C.G.S.M. C.P. REQD.

310 300 290 280 270 260 250

B 256.8 56.70 | 9 56.9 57.60 | 240 57.0 58.50 | 1 57.3 59.40 | 2 57.9 60.30 | 3 58.7 61.20 | 4 59.3 62.10 | 245 64.4 63.01 | 6 61.9 64.15 | 7 62.6 65.56 | 8 65.4 66.30 | 9 66.9 69.30 | 250 67.7 70.42 | 1 68.5 71.61 | 2 69.2 73.01 | 3 70.9 74.21 | 4 73.0 76.95 | 5 76.5 78.03 | 6 78.7 80.20 | 7 81.2 83.30 | 255 83.8 86.40 | 9 86.4 88.72 | B 89.0 90.74 | 7 91.2 92.60 | 8 93.7 95.66 | 9 95.9 98.41 | 260 98.9 00.81 | 1 303.3 02.83 | 2 05.5 03.72 | 3 07.1 04.50 | 4 03.1 05.80 | 5 10.1 06.76 | 6 10.1 07.10 | 265 09.2 07.42 | 6 09.8 07.52 | 7 06.4 07.58 | 8 04.9 07.57 | 9 03.8 07.45 | 270 03.7 07.34 | 1 03.4 07.00 | 2 03.6 06.50 | 3 03.8 06.00

438-B(1) 17 91

6424

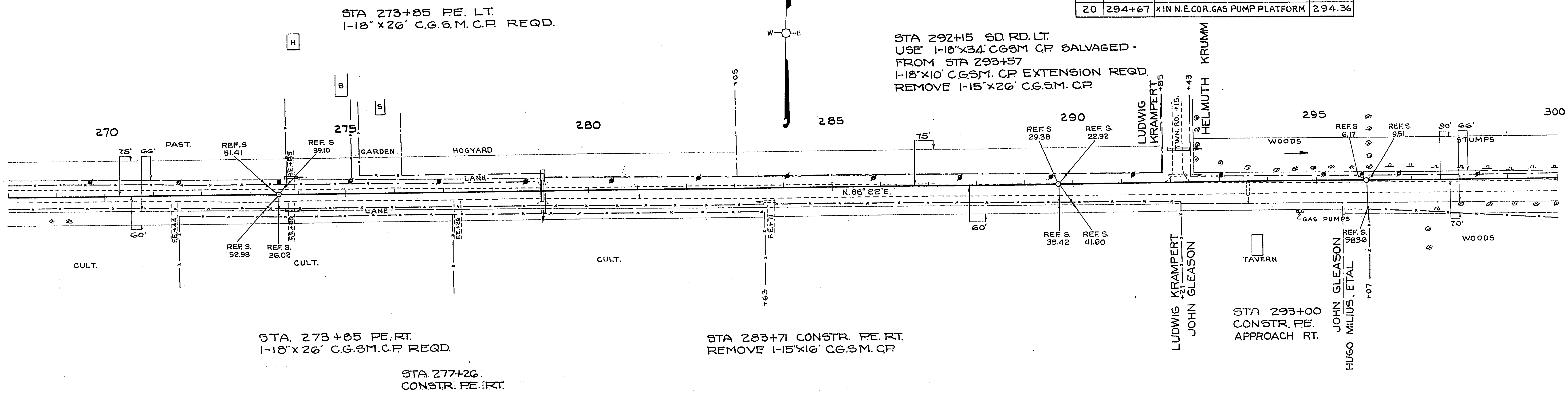
P.O.T. – STA. 273+60.45

P.O.T. – STA. 289+71.3

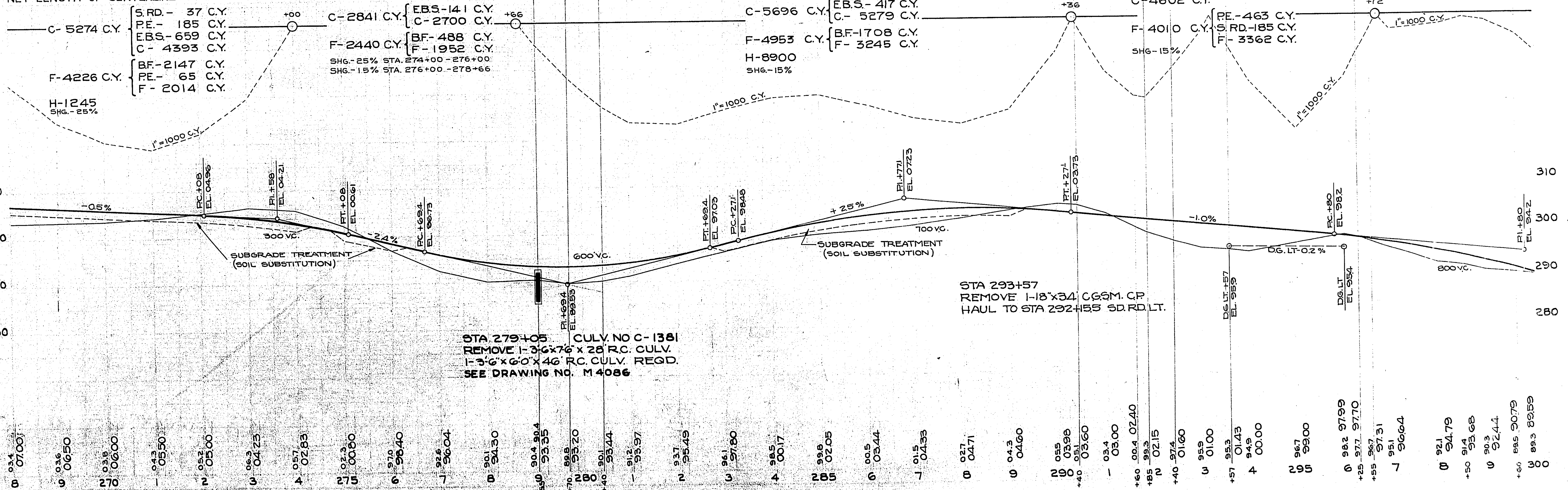
P.O.T. – STA. 296+05

BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
18	268+90	SPIKE IN 13" OAK – 43' RT.	302.49
19	279+07	x IN S.E. COR. CULVT. WING W.-20' RT.	291.20
20	294+67	x IN N.E. COR. GAS PUMP PLATFORM	294.36



NET LENGTH OF CENTERLINE STA. 270+00 TO STA. 300+00 = 3000 LIN. FT.

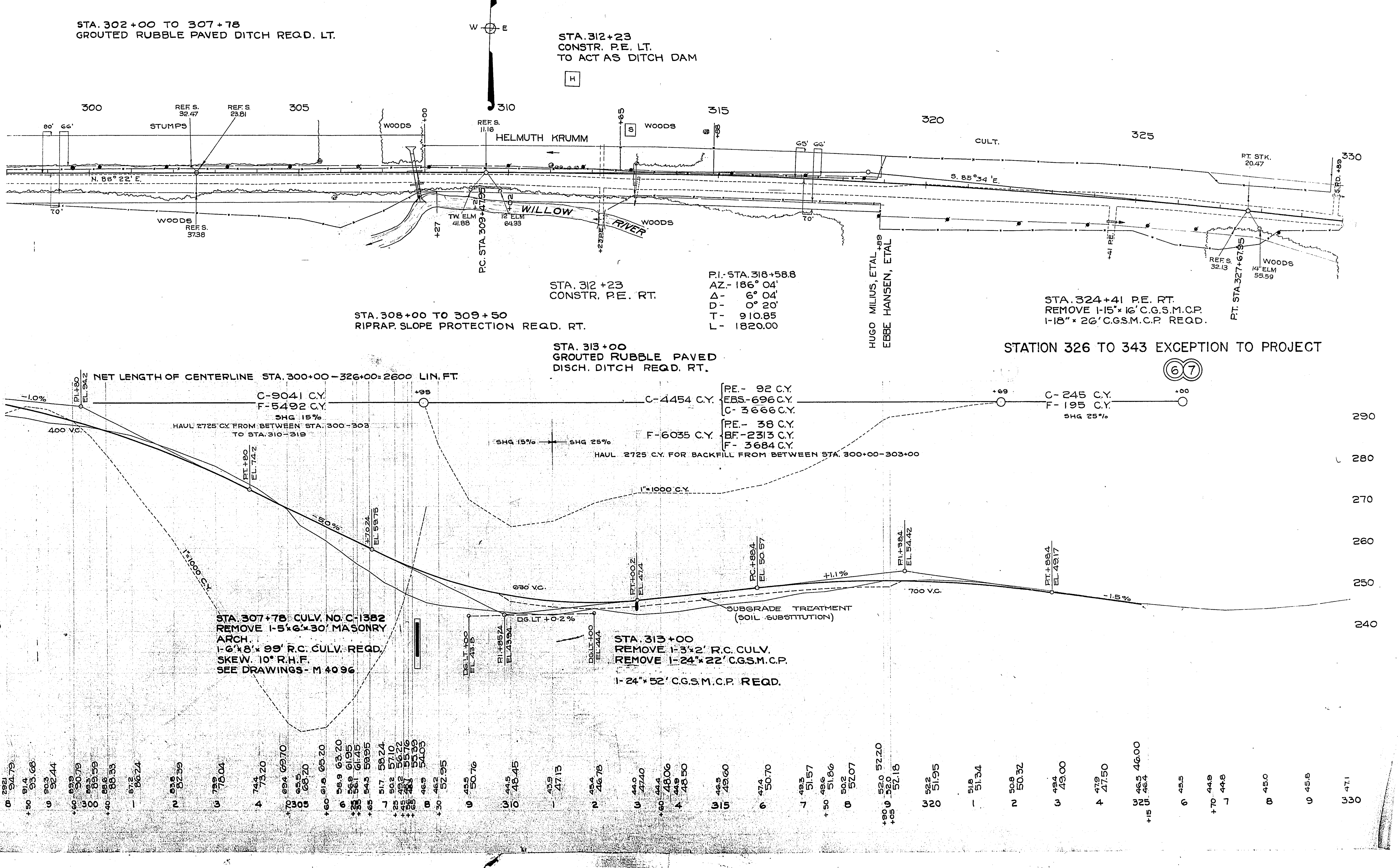


438-B(1) 18 91
6424

P.O.T. 302+53.3

BENCH MARKS

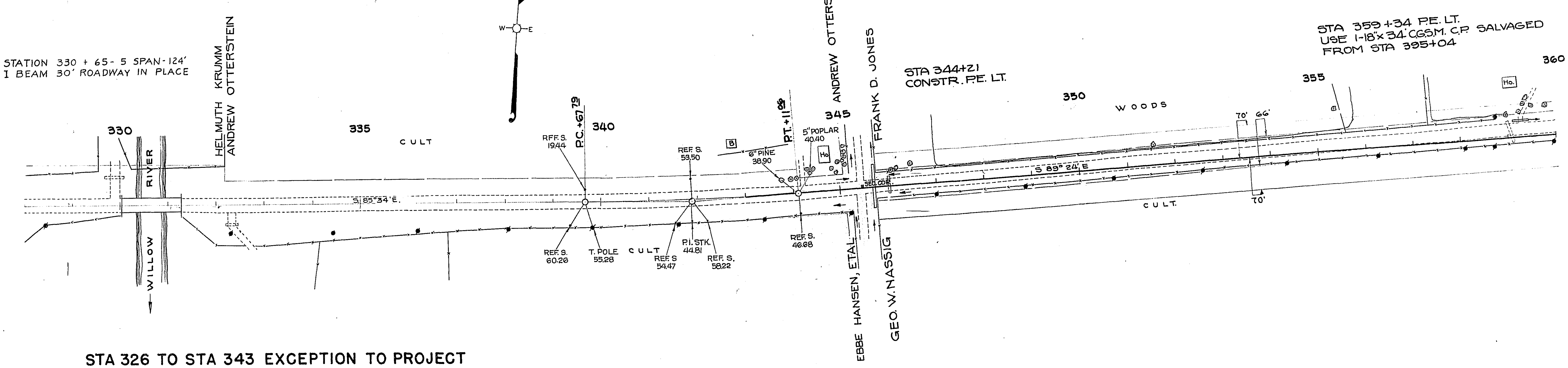
NO.	STA.	DESCRIPTION	ELEV.
21	305+78	15" ELM 63' RT.	266.01
22	314+68	TWIN BOX ELDER 105' RT.	250.08



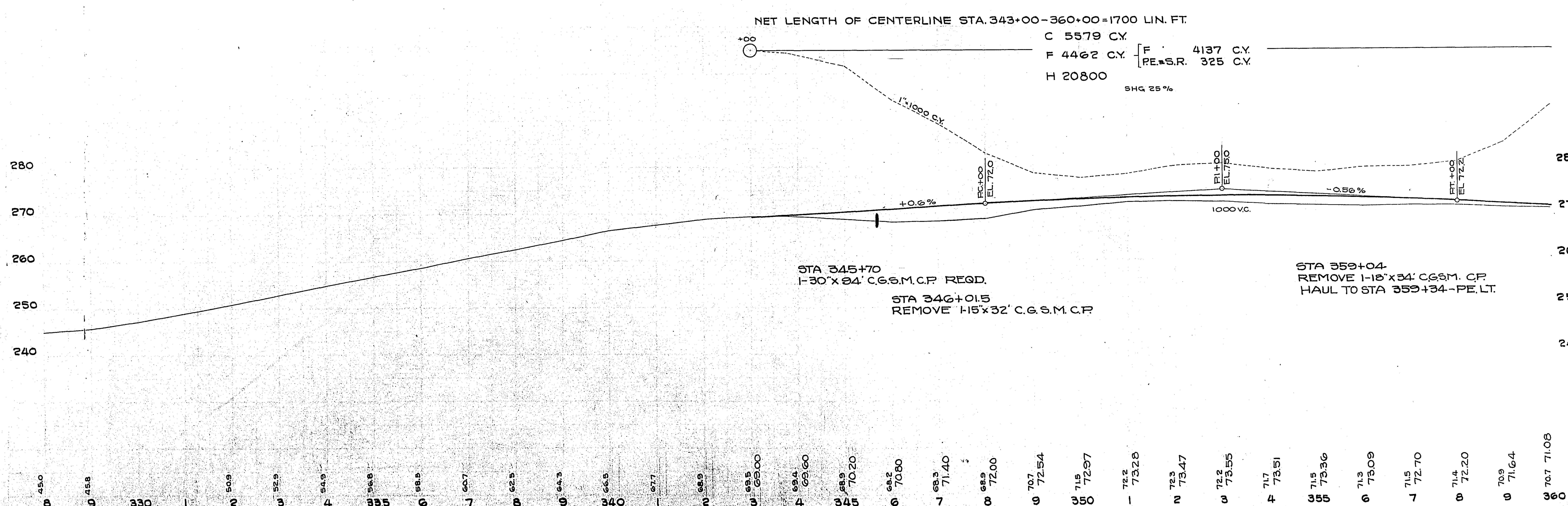
BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
23	330+03	+ IN RIGHT WH. GUARD	247.93
24	346+48	22" ELM 38' LT.	267.43
25	355+40	TWIN WH. PINE 86' LT.	271.80

P.I. 341+89.5
ΔZ. 176°09.5
Δ 3°-50.5
D 0°-52' L
T 221.71
L 443.27
S.E.

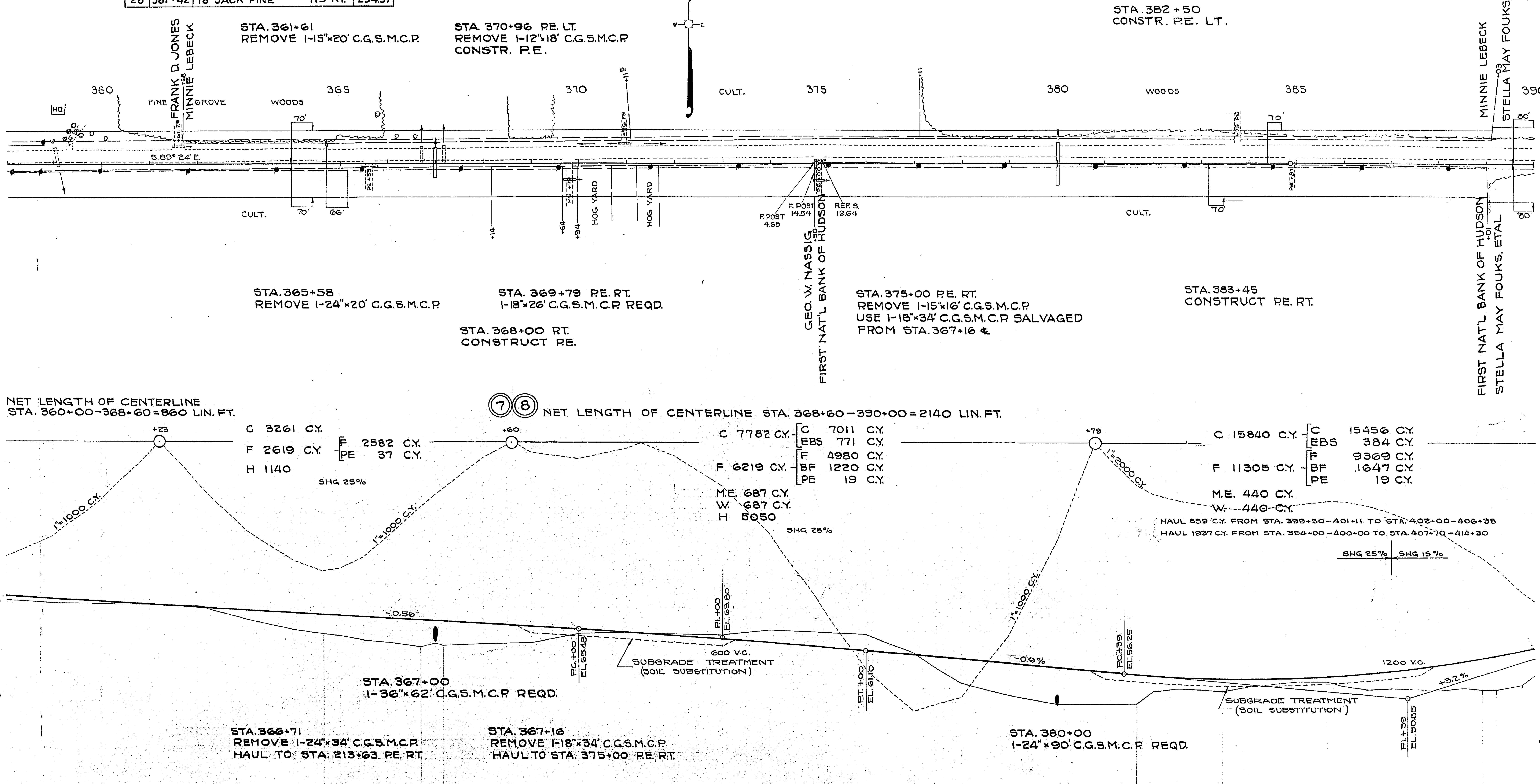


STA 326 TO STA 343 EXCEPTION TO PROJECT



BENCH MARKS

NO.	STA.	DESCRIPTION		EL.
26	305+80	18" NORWAY PINE	100' LT.	262.87
27	372+86	24" OAK	177' RT.	268.23
28	381+42	18" JACK PINE	175' RT.	254.37



Station	8	9	360	1	2	3	4	+65	365	+50	6	+71	7	+16	8	9	370	1	2	3	4	375	6	7	8	9	380	1	+65	2	+50	3	+45	4	385	+65	6	+50	7	8	+50	+90	9	+2	+75	390		
Ground	71.4	70.9	70.7	70.5	70.2	67.6	65.3	64.5	64.0	63.0	62.7	61.7	62.4	61.9	62.2	62.5	64.5	64.9	64.5	64.4	65.3	65.0	64.5	60.6	54.0	51.6	49.8	49.9	49.9	52.3	53.0	52.8	52.3	53.4	54.3	54.3	53.4	52.8	53.0	52.4	53.0	52.7		52.6	53.4	55.4		
Grade	72.20	71.64	71.08	70.52	69.96	69.40	68.84	68.48	68.28	68.00	67.72	67.32	67.16	67.07	66.60	66.04	65.48	64.89	64.25	63.55	62.79	61.97	61.10	60.20	59.30	58.40	57.50	56.60	56.02	55.76	55.46	55.24	55.12	55.06	55.23	55.51	55.72	56.11	56.58	57.77	58.49	59.13		59.64	60.67	61.16		

F011-1(30) 17-27

438-B(1) 21 91

6424

P.O.T. 396+36.15

P.O.T. 400+69.4

P.O.T. 417+73.1

STA. 400+00
CONSTR. P.E. LT.
1-18"×26'C.G.S.M.C.P. REQD.

BENCH MARKS			
NO.	STA.	DESCRIPTION	EL.
29	392+00	15" OAK 66' RT.	259.38
30	400+37	15" WHITE PINE 36' RT.	280.51
31	407+11	× IN N.W. COR. HEADER 31' LT.	259.85
32	414+65	20" WHITE PINE 85' RT.	276.43

END OF F.A. PROJ. 438-B(1)
STA. 401+11

STA. 414+54 P.E. LT.
1-18"×26'-C.G.S.M.C.P.
REQD.

STA. 417+86 LT
CONSTR. P.E.

390 395 400 405 410 415 420

TIMBER 80' 66' REF. S 45.86 STELLA MAY FOUKS, ETAL CHARLOTTE M. RYAN CULT. FILLING STA. 88°23' CHARLOTTE M. RYAN STELLA MAY FOUKS, ETAL +11 STH #46 70' CULT. S. 89° 24' E. STELLA MAY FOUKS, ETAL +55.5 +36 CEMETERY REF. S. 44.54 P.E.+86 +73 REF. S 53.00 STELLA MAY FOUKS, ETAL +95.5 +02 70' CULT.

BM #29 BM #30 BM #32

REF. S. 26.58 S. POST 6.31 STELLA MAY FOUKS, ETAL CULT. P.E.+169 +85 TWN. RD. +11 +42 60' P.E.+54 P.E.+54 +08 +73 REF. S 10.48 60' CULT.

+26

STA. 400+00
CONSTRUCT P.E. RT.

STA. 392+00 - 393+50
GROUTED RUBBLE
PAVED DITCH REQD. RT.

STELLA MAY FOUKS, ETAL

STA. 414+54 P.E. RT.
REMOVE 1-12"×20'-C.G.S.M.C.P.
1-18"×26'-C.G.S.M.C.P. REQD.

N W E

NET LENGTH OF CENTERLINE STA. 390+00–421+20 = 3120 LIN. FT.

8 9

STA. 398+58
REMOVE 1-15"×30' C.G.S.M.C.P.

STA. 400+13
REMOVE 1-12"×32' C.G.S.M.C.P.

STA. 402+01
REMOVE 1-18"×32' C.G.S.M.C.P.
POOR CONDITION

+11 C 4342 C.Y. C 905 C.Y. X-RD 3437 C.Y. +38
F 4523 C.Y.
USE 858 C.Y. FROM STA. 399+11–401+11
SHG 15%

END OF F.A. PROJ. 438-B(1)
STA. 401+11

1"=2000 C.Y.

G 4274 C.Y. C 3349 C.Y. EBS 786 C.Y. CH.ENT. 139 C.Y. F 3704 C.Y. BF 1684 C.Y. +92
E 5388 C.Y.
HAUL 1937 C.Y. BACKFILL FROM STA. 394+00–400+100
SHG 15%

G 1014 C.Y. F 2630 C.Y. B 2010 C.Y. +20
SHG. 15%

1"=2000 C.Y.

STA. 407+11 CULV. NO. C-1384
1-6'×5'×36' R.C. CULV. IN PLACE
GOOD CONDITION.
EXTEND 35 RT.
SEE DRAWING NO. M 409L.

SUBGRADE TREATMENT
(SOIL SUBSTITUTION)
700' VC.

STA. 391+50 CULV. NO. C-1383
1-3'6"×6'×46' R.C. CULV. REQD.
SEE DRAWING NO. M 408S

280 260 240

1"=2000 C.Y. P.T.+39 EL. 70.05 P.C.+60 EL. 70.72 +3.2% 1080 VC. P.I.+00 EL. 860 -3.1%

D.G. LT EL. 743 D.G. LT 780 D.G. LT EL. 719 EL. 684 P.T.+40 EL. 71.26 P.C.+99 EL. 72.65 D.G. LT EL. 600 D.G. LT EL. 571 P.I.+49 EL. 58.56 EL. 58.8 D.G. LT EL. 610 P.T.+99 EL. 67.38 P.C.+83 EL. 69.44 +2.5% P.I.+83 EL. 76.94 600 VC. P.T.+83 EL. 74.54 -0.8%

280 270 260

P.T.+50 EL. 82.25 P.I.+00 EL. 81.8 +2.0% P.T. P.C.+50 EL. 78.8 P.I.+00 EL. 78.78 P.C.+50 EL. 77.8

82.7 82.3 82.0 82.1 81.16 82.2 79.7 82.4 78.05 81.5 77.8 80.7 78.1 77.3 73.3 72.3 70.2 67.2

5 4 3 2 1 0 1 2 3

S.T.H. NO. 46 STA. 0+00 = 401+11 TN. ROAD

55.4 61.16 55.9 61.79 56.8 62.68 57.1 63.38 58.3 64.61 65.93 56.8 65.3 68.83 62.7 70.40 75.1 71.95 73.36 73.4 74.63 61.7 76.72 61.8 78.23 80.1 78.77 79.2 79.17 78.0 79.41 78.4 79.50 79.5 79.45 80.1 79.27 80.0 78.92 80.7 78.60 78.43 78.0 77.94 73.5 77.02 70.1 76.10 68.6 75.03 66.0 72.45 62.6 69.40 60.0 66.71 59.0 65.30 58.4 64.82 59.3 58.3 64.66 64.52 57.8 63.96 57.9 63.73 58.8 63.44 60.7 63.94 62.8 65.25 65.2 67.36 67.7 69.85 70.6 71.98 73.0 72.84 72.9 73.56 73.8 74.24 74.1 74.58 74.5 74.86 75.3 75.08 75.8 74.9 75.01 70.7 74.40 69.6 73.60 67.7 72.80 67.1 72.00

390 395 400 405 410 415 420

F011-1(30) 18-27

FED.AID 758-C(1) 10 61 6424

P.O.T. 400+69.4

P.O.T. 417+73.1

BENCH MARKS			
NO.	STA.	DESCRIPTION	ELEV.
30	400+37	15" WHITE PINE 36' RT.	280.51
31	407+11	× IN N.W. COR. HEADER 31' LT.	259.85
32	414+65	20" WHITE PINE 85' RT.	276.43

CHARLOTTE M. RYAN

STELLA MAY FOUKS ETAL.

S.T.H. #46

FILLING STA.

400

405

410

415

420

BEGINNING OF PROJECT.
STA. 401+11

STA. 414+54 P.E. LT.
1-18"×26' C.P. REQD

STA. 417+86 LT.
CONSTR. P.E.

CEMETERY

REF.S. 44.54

REF.S 53.00

REF.S 10.48

CULT.

S 89° 24' E

STELLA MAY FOUKS, ETAL.

STA. 414+54 P.E. RT.
REMOVE 1-12"×20' C.G.S.M.C.P.
1-18"×26' C.P. REQD.

N

W E

NET LENGTH OF CENTERLINE STA. 401+11 TO STA. 421+20 = 2009 LIN. FT.

C 4342 C.Y. { C 905 C.Y., X-RD 3437 C.Y.

F 4523 C.Y.

USE 858 C.Y. FROM STA. 399+11 - 401+11
SHG. 15%

C-4274 C.Y. { C 3349 C.Y., E.B.S. 786 C.Y., CH. ENT. 139 C.Y.

F-5388 C.Y. { F 3704 C.Y., B.F. 1684 C.Y.

HAUL 1937 C.Y. BACKFILL FROM STA. 394+00 - 400+10
SHG. 15%

C - 1014 C.Y.
F - 2630 C.Y.
B - 2010 C.Y.
SHG. 15%

1" = 2000 C.Y.

P.I. +00 EL. 88.08

P.C. +80 EL. 70.72

+3.2%

1080' V.C.

-3.1%

P.C. +39 EL. 69.43

P.T. +40 EL. 71.26

D.G. LT. EL. 71.9

EL. 68.4

D.G. LT. EL. 60.00

D.G. LT. EL. 57.1

EL. 57.3

P.I. +49 EL. 58.58

EL. 58.8

D.G. LT. EL. 61.0

SUBGRADE TREATMENT
(SOIL SUBSTITUTION)
700' V.C.

P.T. +99 EL. 67.33

P.C. +83 EL. 69.44

+2.5%

P.I. +83 EL. 76.94

600 V.C.

P.T. +83 EL. 74.54

-0.8%

STA. 407+11 CULV. NO. C-1384
1-6'×5'×36' R.C. CULV. IN PLACE
GOOD CONDITION.
EXTEND 35' RT.
SEE DRAWING NO. M 4091

STA. 402+01
REMOVE 1-18"×32' C.G.S.M.C.P.
POOR CONDITION.

+2.0%

P.T. +50 EL. 82.25

P.I. +00 EL. 81.8

P.C. +50 EL. 78.8

P.I. +00 EL. 77.8

P.C. +50 EL. 77.8

P.T.

S.T.H. 46 STA. 0+00 - 401+11 TOWN ROAD

82.7 82.3 82.0 82.1 81.16 82.6 79.7 82.4 78.05 81.5 77.8 80.7 78.7 77.3 75.3 72.3 70.2 67.2

5 4 3 2 1 0 1 2 3

78.43 77.94 77.02 76.10 75.03 72.45 69.40 66.71 65.30 64.82 64.66 64.52 63.96 63.73 63.44 63.94 65.25 67.36 69.85 71.98 72.84 73.56 74.24 74.58 74.88 75.08 75.08 75.01 74.40 73.60 72.50 72.00

280 270 260 250 240

390 +30 55.4 55.9 +70 56.8 57.1 58.3 +10 58.8 +15 65.3 69.7 75.1 75.4 79.4 81.7 81.8 80.1 79.2 +58 78.0 78.4 79.5 +13 80.1 79.7 80.0 +35 80.4 80.7 +40 78.0 +70 73.5 70.1 76.10 68.6 75.03 66.0 72.45 62.6 69.40 60.0 66.71 +70 59.0 58.4 +11 58.3 +21 58.3 64.52 +70 57.8 63.96 57.9 63.73 58.8 63.44 60.7 63.94 62.8 65.25 65.2 67.36 67.7 69.85 70.6 71.98 73.0 72.84 72.9 73.56 +60 73.8 74.24 74.1 74.58 +45 74.5 74.88 75.3 75.08 +75 75.8 75.08 +75 74.9 75.01 70.7 74.40 68.6 73.60 67.7 72.50 67.1 72.00

1 2 3 4 5 6 7 8 9 400 1 2 3 4 5 6 7 8 9 410 1 2 3 4 5 6 7 8 9 420 1 2

(8) (9)

F011-1(30) 19-27

FED.AID

758-C(1) 11 61

6424

P.O.T. 427+55.65

BENCH MARKS

NO	STA.	DESCRIPTION	EL.
33	428+25	⊞ W. EDGE CONC. FLOOR 28' RT.	268.66
34	439+70	10" TWIN ELM 23' RT.	266.82
35	445+18	18" BOX ELDER 107' RT.	272.11

STA. 439+22 P.E. LT.
1-18"x20' C.G.S.M.C.P. IN PLACE
GOOD CONDITION
SALVAGE & RESET
1-18"x6' .C.P. EXT. REQD.

STA. 445+76 P.E. LT.
REMOVE 1-12"x16' C.G.S.M.C.P.
1-18"x26' C.P. REQD.

STA. 427+55 S.RD. RT.
REMOVE 1-15"x46' C.G.S.M.C.P.
1-24"x 40' C.P. REQD.

STA. 430+56 S.RD. CONN. RT.
REMOVE 1-24"x38' C.G.S.M.C.P.
GOOD CONDITION

STA. 429+90 S.RD. CONN. RT.
1-24"x 58' C.P. REQD.

STA. 439+22 P.E. RT.
REMOVE 1-18"x18" R.C. CULV.
1-30"x30' C.P. REQ'D.

NET LENGTH OF CENTERLINE STA. 421+20 – 450+00 = 2880 LIN. FT.

C-4069 C.Y. — C 2871 C.Y., EBS 1013 C.Y., INT 185 C.Y.

F 5080 C.Y. — F 3396 C.Y., BF 1684 C.Y.

C-13577 C.Y. — C 11863 C.Y., EBS 1501 C.Y., PE&SR 213 C.Y.

F 9648 C.Y. — F 4144 C.Y., BF 5087 C.Y., PE&SR 417 C.Y.

HAUL 2021 C.Y. BACKFILL FROM STA. 450+00–459+61 SHG 20%

HAUL 2021 C.Y. FROM STA. 450+00–459+61 TO STA. 424+40–429+30 SHG 20%

1"=2000 C.Y.

STA. 432+15 CULV. NO. C-1385
1-3'6"x6'0"x46' R.C. CULV. REQD.
DISCHARGE DITCH REQD.
SEE DRAWING NO. M 4090

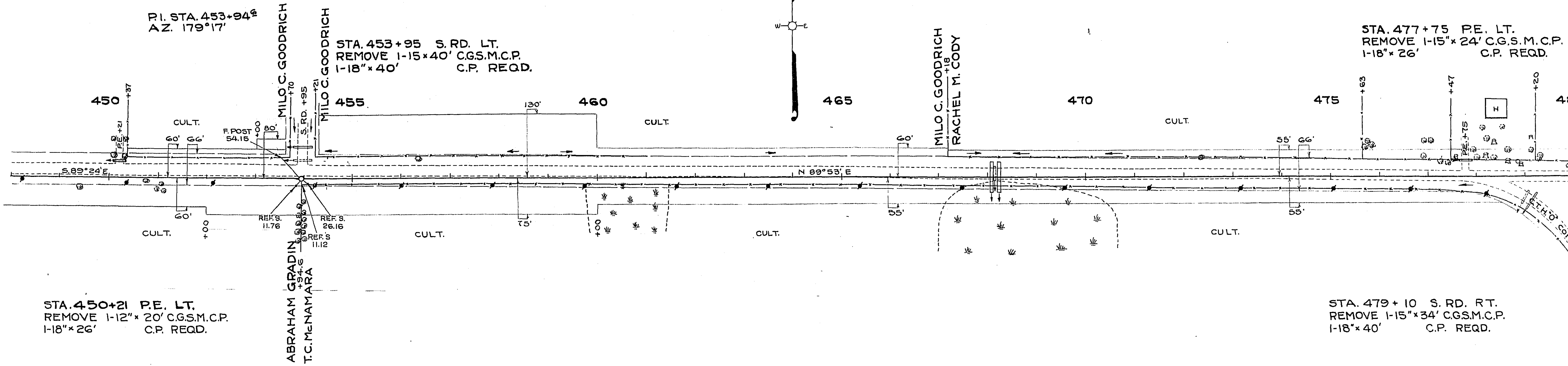
STA. 435+82
REMOVE 1-24"x30' C.G.S.M.C.P.
GOOD CONDITION

STA. 442+20
REMOVE 1-18"x20' C.G.S.M.C.P.
GOOD CONDITION
1-30"x52' C.P. REQD.

F011-1(30) 20-27
FED. AID
758-C(1) 12 61
6424

BENCH MARKS

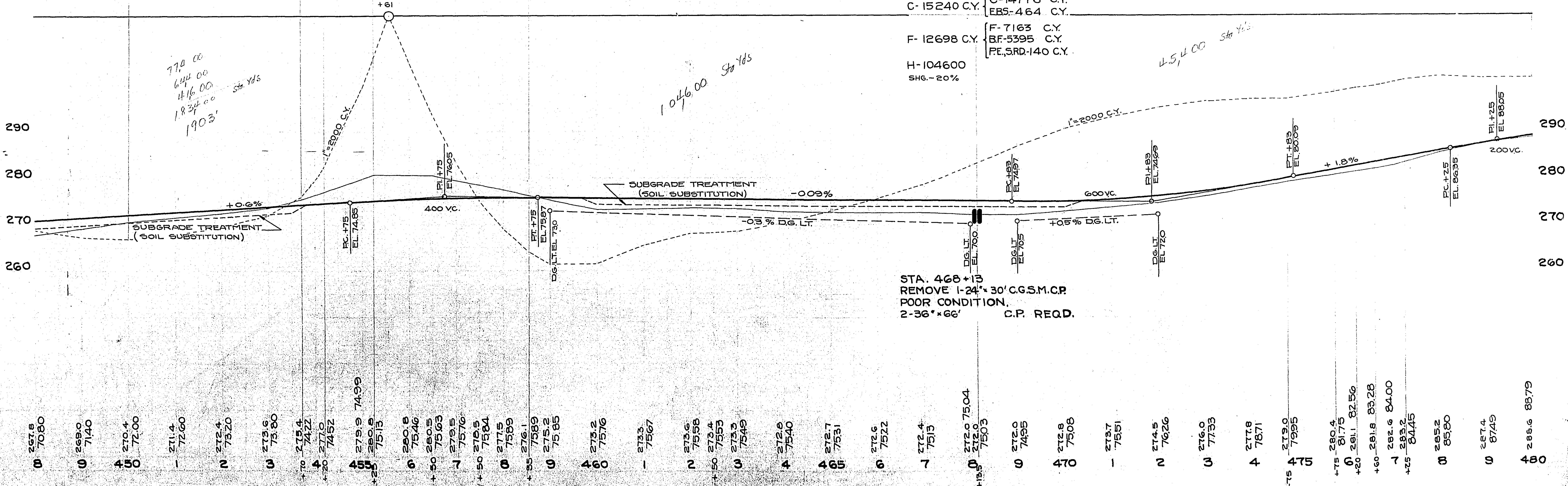
NO.	STA.	DESCRIPTION	ELEV.
36	453+95	SPIKE IN 14" CHERRY TREE 103' RT.	278.65
37	478+19	SPIKE IN 19" PINE 78' LT.	286.19



NET LENGTH OF CENTERLINE
STA. 450+00 TO STA. 455+61 = 561 LIN. FT.

NET LENGTH OF CENTERLINE STA. 455+61 TO STA. 480+00 = 2439 LIN. FT.

C-15240 C.Y. { C-14776 C.Y., EBS-464 C.Y.
F-12698 C.Y. { F-7163 C.Y., B.F.-5395 C.Y., P.E., S.RD.-140 C.Y.
H-104600
SHG.-20%



F011-1(30) 21-27

FED AID

758-C(1) 13 61

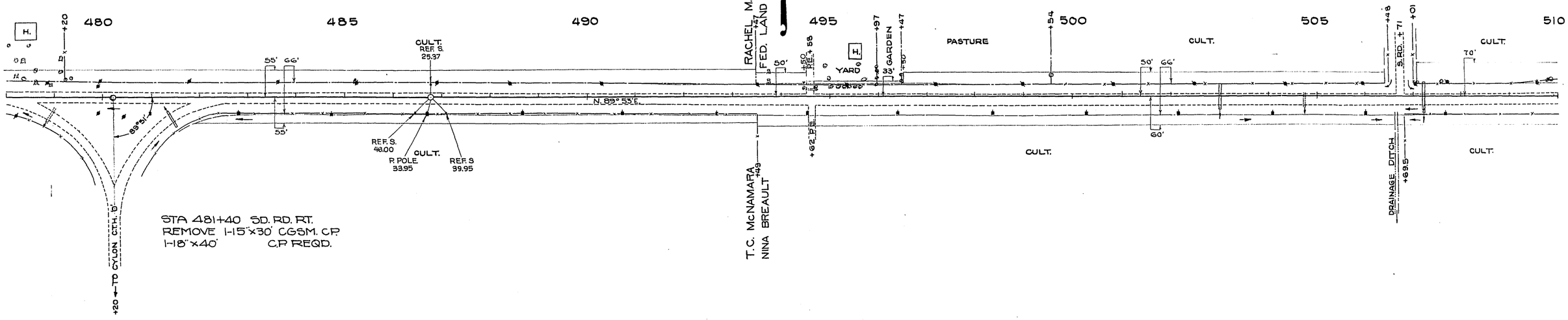
6424

P.O.T. STA. 486+76.75

BENCH MARKS

NO	STA.	DESCRIPTION	EL.
37	478+19	19" PINE 78' LT.	286.19
38	495+59	20" BOX ELDER 67' LT.	287.37
39	510+84	8" WHITE OAK 35' LT.	287.31

STA 494+58 CONSTRUCT P.E. LT.
REMOVE 1-15"x16' C.G.S.M. C.P.



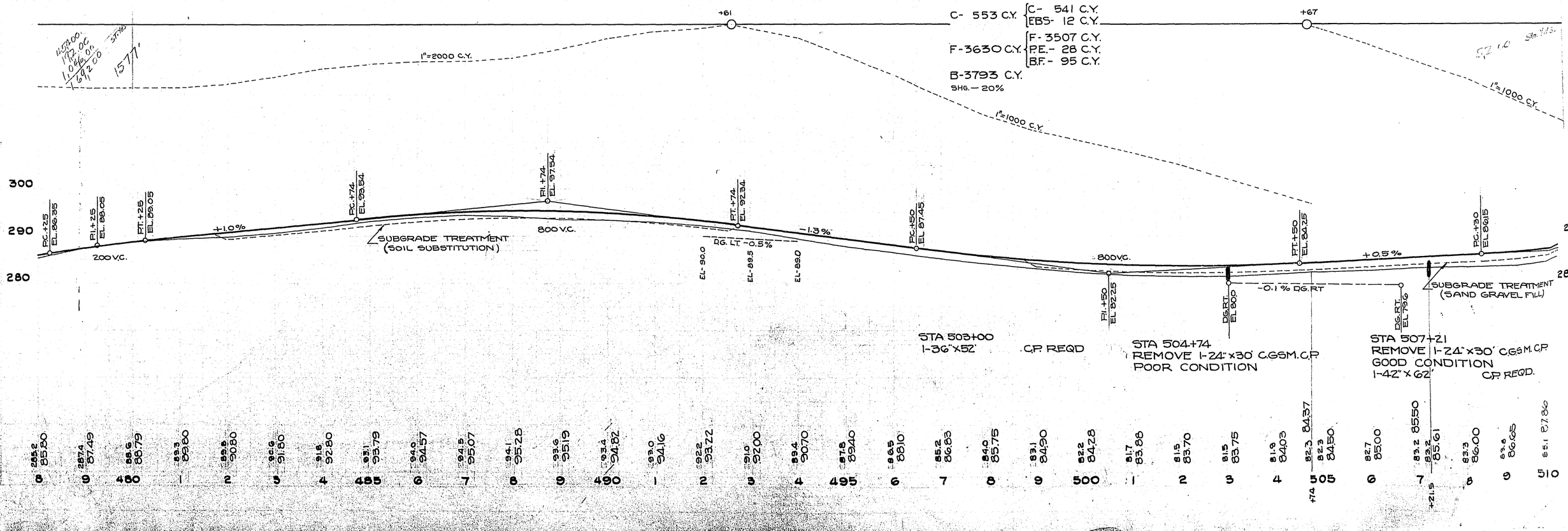
NET LENGTH OF CENTERLINE STA. 480+00 TO STA. 510+00 = 3000 LIN. FT.

C- 553 C.Y. {C- 541 C.Y. EBS- 12 C.Y.

F-3630 C.Y. {F- 3507 C.Y. P.E.- 28 C.Y. B.F.- 95 C.Y.

B-3793 C.Y.

SHG.— 20%



STA 503+00
1-36"x52" C.P. REQD

STA 504+74
REMOVE 1-24"x30" C.G.S.M. C.P.
POOR CONDITION

STA 507+21
REMOVE 1-24"x30" C.G.S.M. C.P.
GOOD CONDITION
1-42"x62" C.P. REQD.

F011-1(30)   22-27

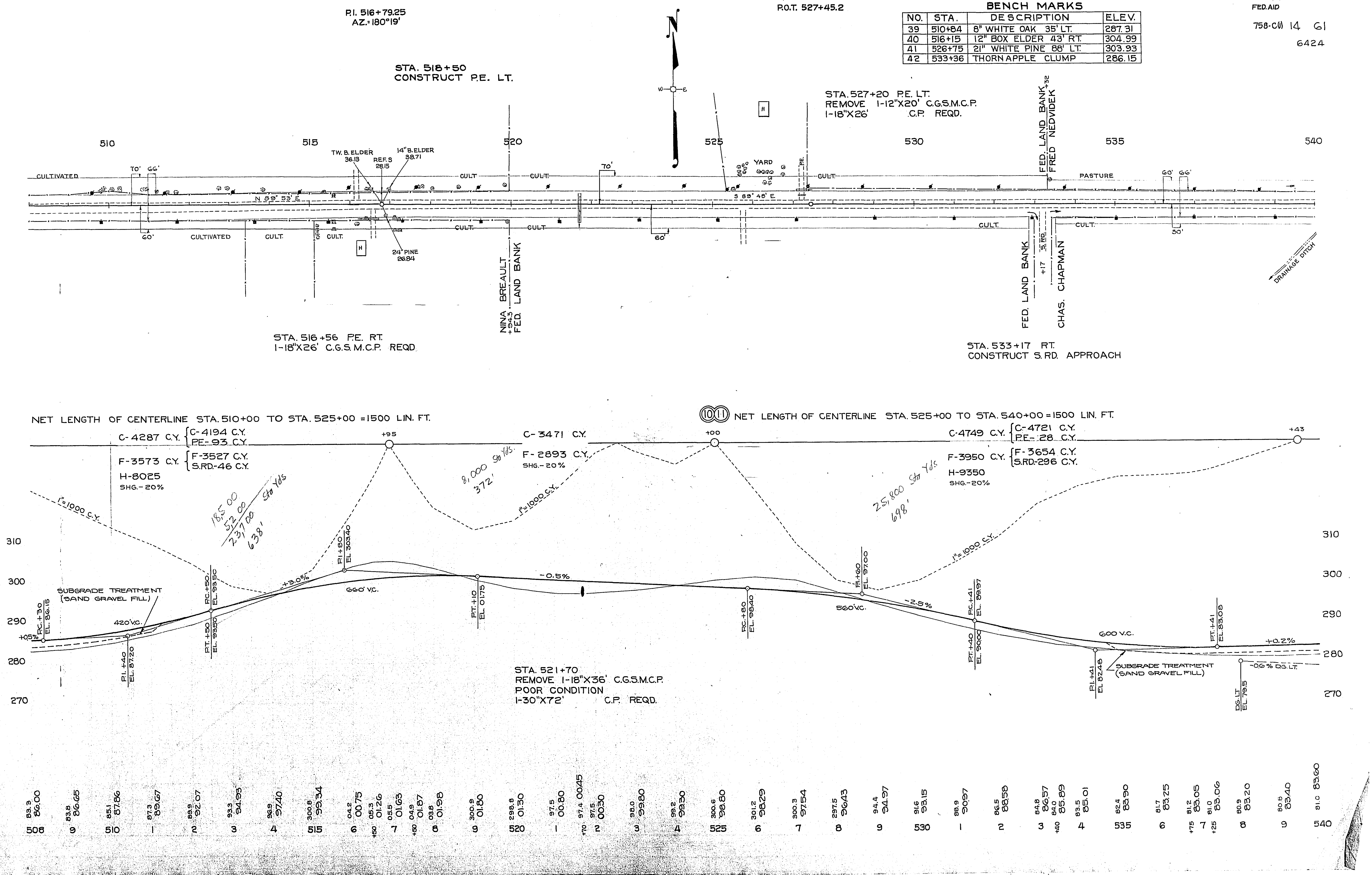
FED.AID

758-C(I) 14 61

6424

BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
39	510+84	8" WHITE OAK 35' LT.	287.31
40	516+15	12" BOX ELDER 43' RT.	304.99
41	526+75	21" WHITE PINE 88' LT.	303.93
42	533+36	THORNAPPLE CLUMP	286.15



F011-1(30) 23-27

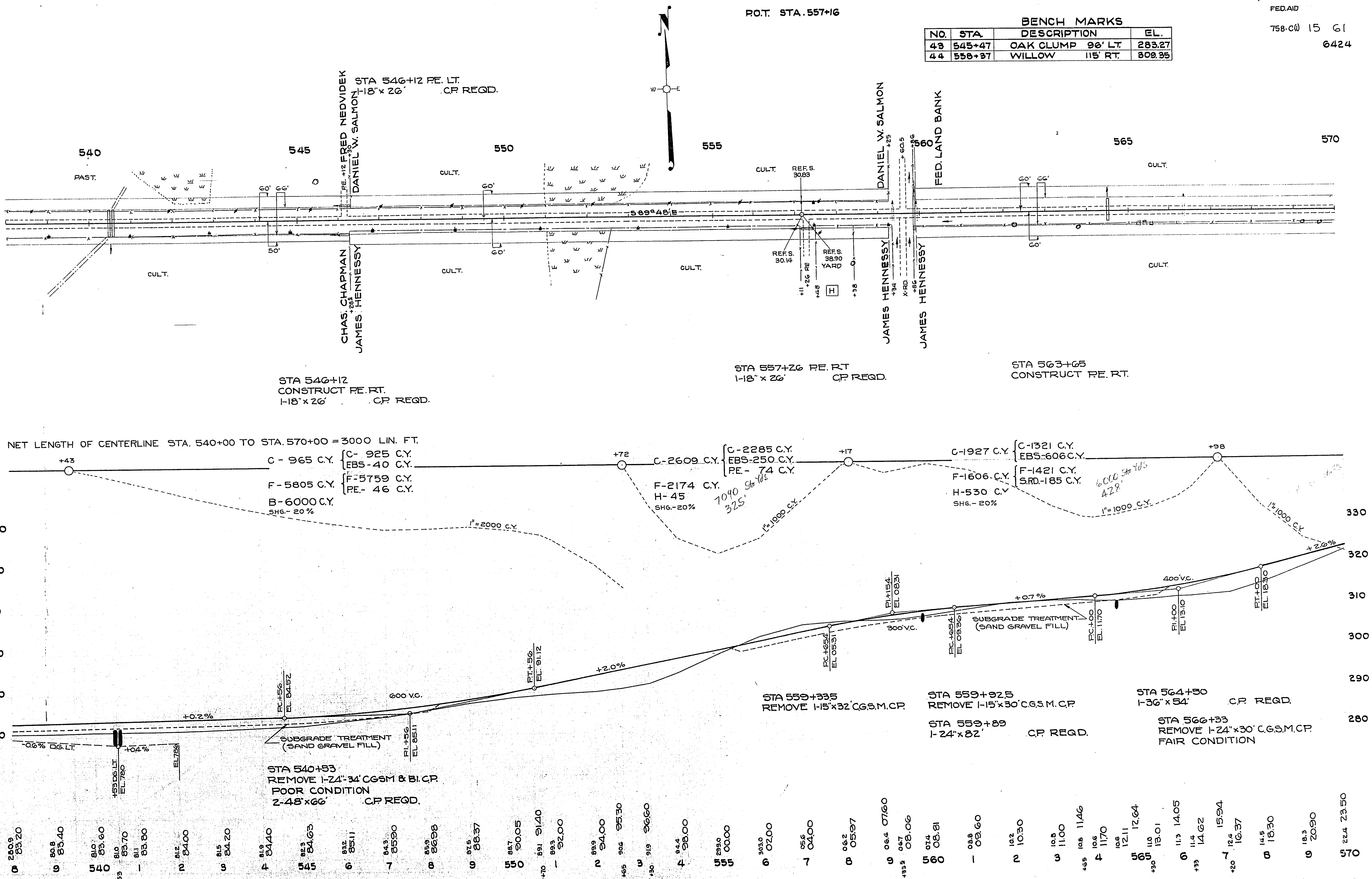
FED.AID

758-C(1) 15 61

6424

BENCH MARKS

NO.	STA.	DESCRIPTION	EL.
43	545+47	OAK CLUMP 96' LT.	283.27
44	558+37	WILLOW 115' RT.	309.35



F011-1(30) 24-27

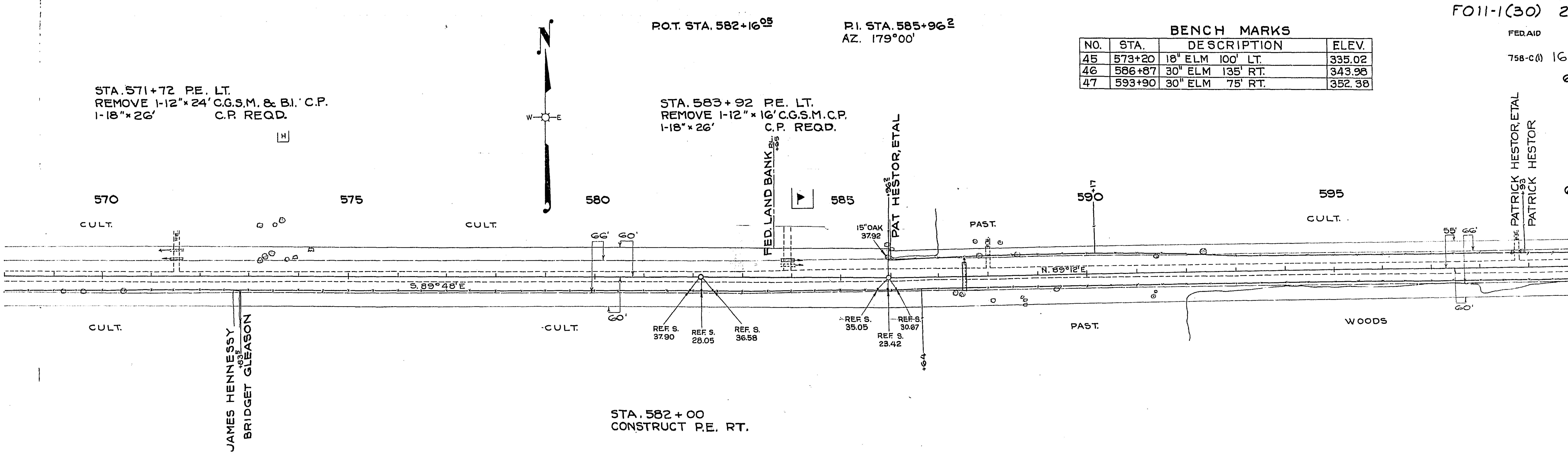
FED. AID

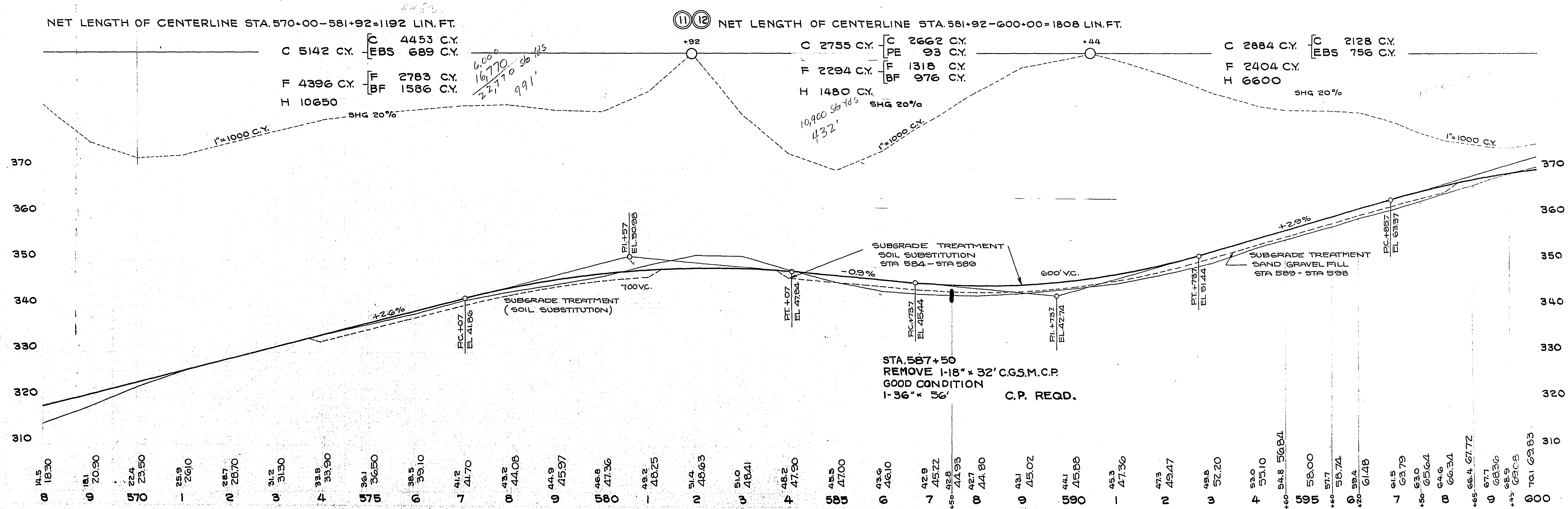
758-C(1) 16 61

6424

BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
45	573+20	18" ELM 100' LT.	335.02
46	586+87	30" ELM 135' RT.	343.98
47	593+90	30" ELM 75' RT.	352.38





F011-1(30) 25-27

FED.AID 758-C(1) 17 61 6424

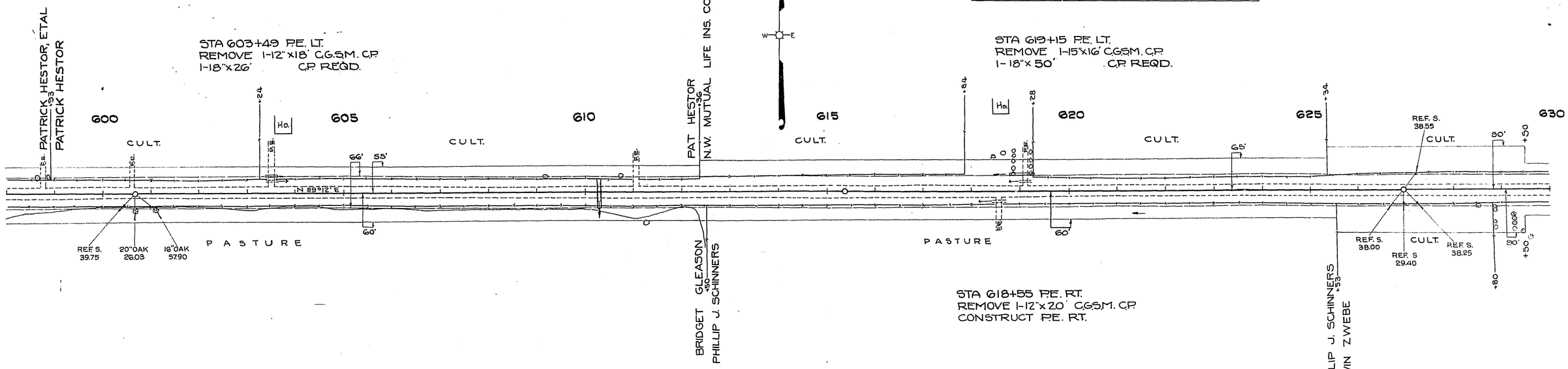
P.O.T. STA. 600+67[2]

P.O.T. STA. 615+36[3]

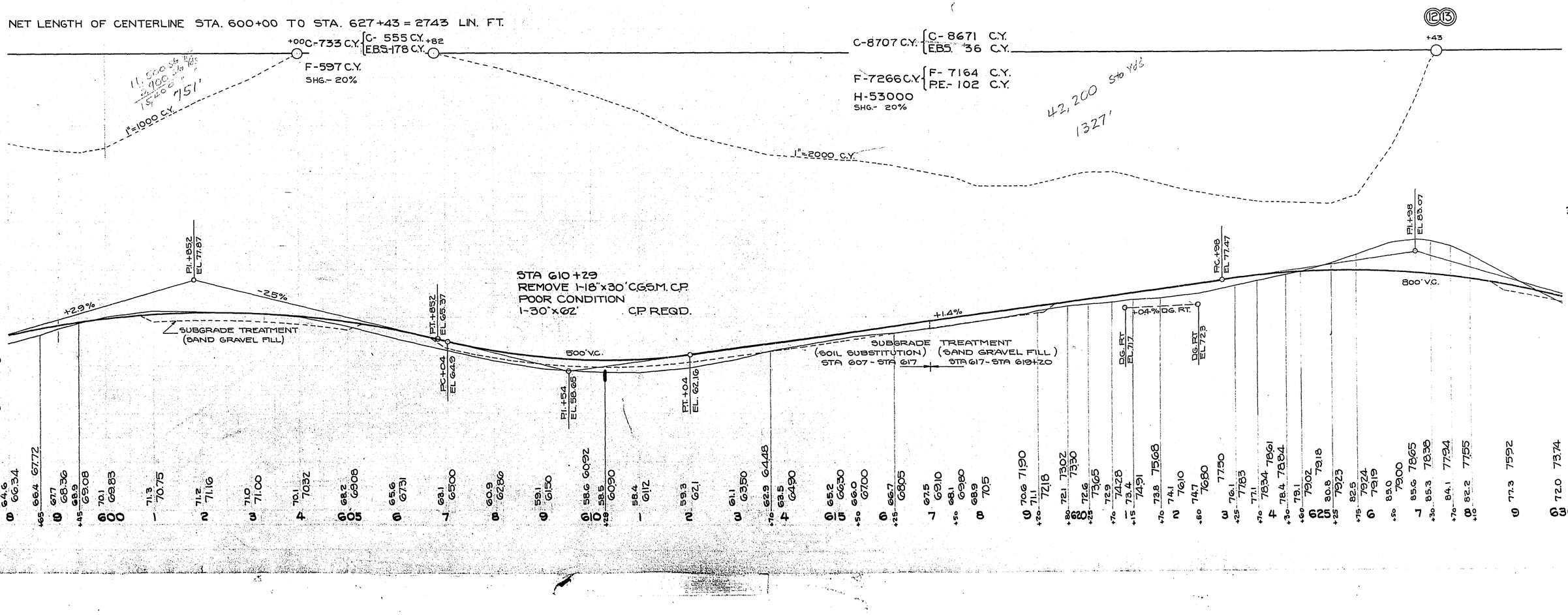
P.O.T. STA. 626+96[1]

BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
48	602+55	24" ELM 46' RT.	370.35
49	611+26	24" ELM 60' RT.	357.70
50	618+64	14" BOX ELDER 73' LT.	370.16



NET LENGTH OF CENTERLINE STA. 600+00 TO STA. 627+43 = 2743 LIN. FT.



F011-1(30) 26-27

FED. AID

758-C(1) 18 61

6424

P.O.T. STA. 648+16.65

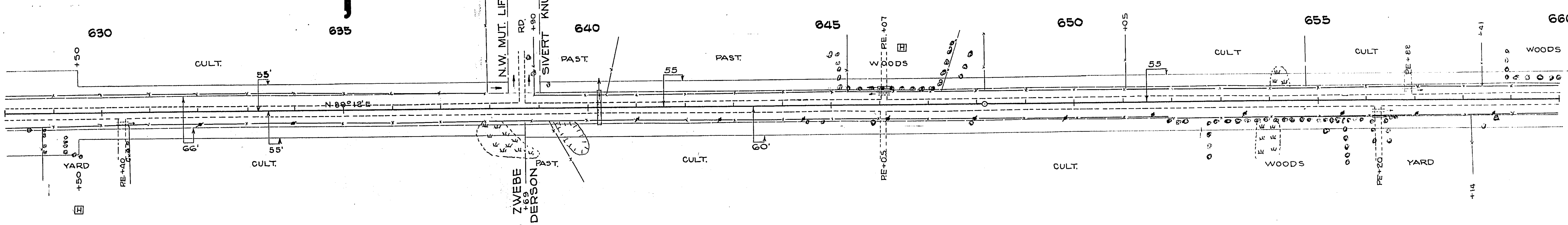
BENCH MARKS

NO.	STA.	DESCRIPTION	EL.
51	630+52	19" BOX ELDER 77' RT.	369.98
52	638+79	30" OAK 106' LT.	346.35
53	644+97	20" ELM 105' LT.	354.52
54	655+48	22" OAK 59' RT.	356.35

STA. 638+64
CONSTR. S. RD. APPROACH LT.

STA. 646+07 P.E. LT.
REMOVE 1-15"×20' C.G.S.M.C.P.
1-18"×26' C.P. REQD.

STA. 656+88
REMOVE 1-12"×10' C.G.S.M.C.P. LT.



STA. 630+40 P.E. RT.
CONSTR. P.E. RT.
REMOVE 1-12"×16' C.G.S.M. C.P.

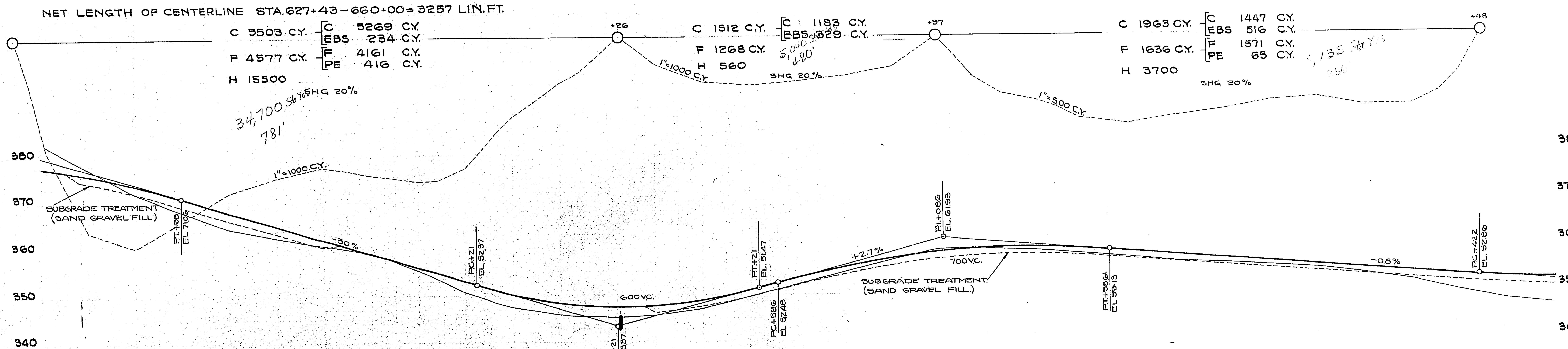
STA. 656+20 P.E. RT.
REMOVE 1-24"×16' C.G.S.M.C.P.
FAIR CONDITION
1-24"×24' C.P. REQD.

NET LENGTH OF CENTERLINE STA. 627+43 − 660+00 = 3257 LIN. FT.

C 5503 C.Y. – C 5269 C.Y., EBS 234 C.Y.
F 4577 C.Y. – F 4161 C.Y., PE 416 C.Y.
H 15500
SHG 20%
34,700 Sta. Yds
781'

C 1512 C.Y. – C 1183 C.Y., EBS 329 C.Y.
F 1268 C.Y.
H 560
SHG 20%
5,040 Sta. Yds
480'

C 1963 C.Y. – C 1447 C.Y., EBS 516 C.Y.
F 1636 C.Y. – F 1571 C.Y., PE 65 C.Y.
H 3700
SHG 20%
9,135 Sta. Yds
956'



STA. 640+25
REMOVE 1-24"×32' C.G.S.M.C.P.
GOOD CONDITION
1-36"×70' C.P. REQD.

Station	Elevations
8 (+10)	82.2 77.55
9	77.3 75.92
630	72.0 73.74
1	68.1 71.00
2	64.8 68.00
3	62.4 65.00
4	60.8 62.00
+60	59.9 60.20
635	59.1 59.00
6	55.3 56.00
+40	53.4 54.80
7	50.6 53.00
+60	48.4 51.27
8	47.4 50.30
9	45.9 48.52
+25	45.7 48.23
+45	45.5 48.03
+70	45.4 47.85
+80	45.4 47.79
640	45.3 47.70
+25	45.3 47.64
1	45.6 47.83
2	47.0 48.90
3	49.6 50.92
4	52.1 53.56
645	54.8 55.80
6	57.2 57.55
+70	58.8 58.47
7	59.3 58.80
+70	59.6 59.36
8	59.5 59.52
+30	59.3 59.65
9	59.0 59.77
+55	58.7 59.64
650	58.2 59.51
1	57.3 58.80
2	56.5 58.00
3	56.0 57.20
4	55.3 56.40
655	54.8 55.60
6	53.6 54.80
7	52.0 54.00
+55	50.7 53.56
8	49.7 53.20
9	47.6 52.49
660	46.7 52.27

F011-1(30) 27-27

FED. AID

758-C(1) 19 61

6424

P.I. - 665+11.1
AZ - 89° 19'
Δ - 90° 41'
D - 14° 00' L.
T - 414.17'
L - 647.74'

P.I. - STA. 665+11.1
AZ. - 180°-36'

P.O.T. - STA. 670+00

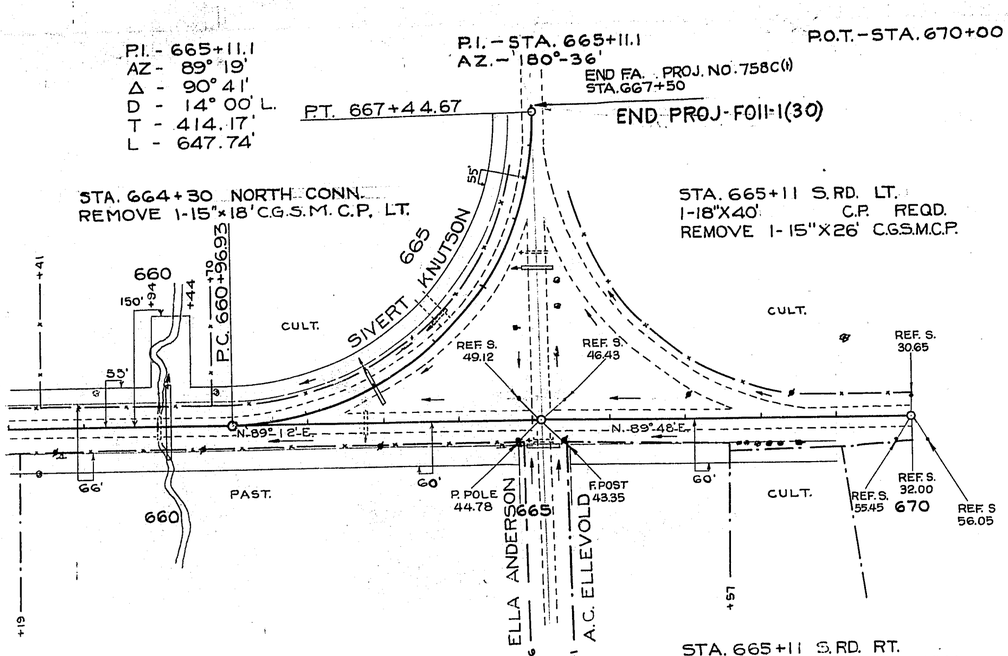
END F.A. PROJ. NO. 758C(1)
STA. 667+50

P.T. 667+44.67

END PROJ - F011-1(30)

STA. 664+30 NORTH CONN.
REMOVE 1-15"x18' C.G.S.M. C.P. LT.

STA. 665+11 S. RD. LT.
1-18"X40' C.P. REQD.
REMOVE 1-15"X26' C.G.S.M.C.P.



STA. 665+11 S. RD. RT.
REMOVE 1-24"X18" R.C. CULV.
USE 1-24"X34' C.G.S.M.C.P. SALVAGED FROM ℄ STA. 660+03
1-24"X 6' C.P. EXT. REQD.

BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
55	660+75	26" ELM - 38' LT.	345.79
56	669+10	40" ELM - 100' LT	367.60

NET LENGTH OF CENTERLINE STA. 660+00 TO STA. 667+50 = 750 LIN. FT.

C 1488 C.Y. [C 689 C.Y. EBS 590 C.Y. CH.CH. 209 C.Y.] +00

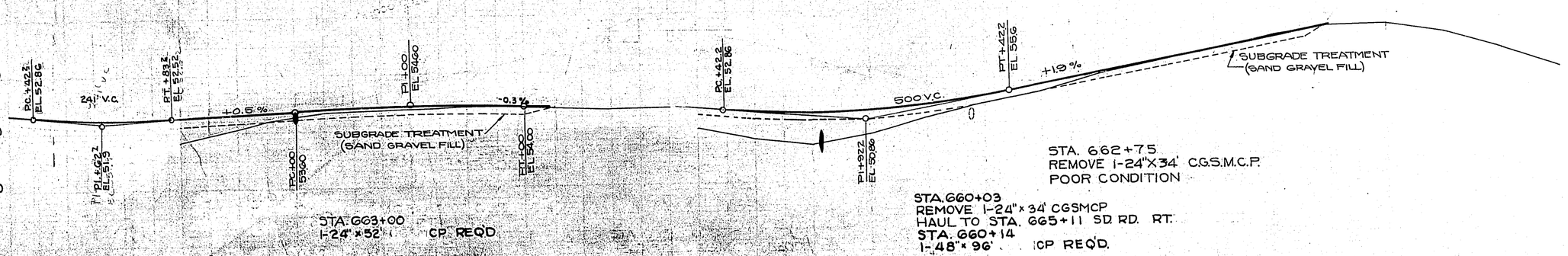
F 3365 C.Y.
B 1563 C.Y.
W 209 C.Y. (CH.CH)
SHG. 20%
HAUL 1196 C.Y. FOR FILL TO STA. 659-660 FROM EAST APP

C - 1810 C.Y. [C 811 C.Y. EBS 999 C.Y.] +00

F 512 C.Y.

SHG. 20%
HAUL 1196 C.Y. TO STA. 659-660

EAST CONN. STA. 661+50 TO STA. 670+00



STA. 663+00
1-24" x 52' C.P. REQ'D

STA. 662+75
REMOVE 1-24"X34' C.G.S.M.C.P.
POOR CONDITION

STA. 660+03
REMOVE 1-24" x 34' CGSMCP
HAUL TO STA. 665+11 SD RD. RT.
STA. 660+14
1-48" x 96' CP REQ'D.

8 349.7 53.20
9 476 52.49
660 467 52.27
1 482 52.6
2 484 52.85
N 506 53.10
3 513 53.35
4 527 53.36
5 532 53.82
665 538 54.00
6 536 54.13
7 535 54.20
8 539 54.23
9 541 54.2
660 541 54.12
1 540 54.00
2 537 53.85
8 349.7 53.2
9 476 52.49
660 467 52.27
661 482 52.56
2 511 53.44
PAS 525 53.80
3 534 54.60
4 553 56.70
665 582 58.60
6 60.2 60.50
7 624 62.40
8 64.5 64.30
9 661 66.20
670 662
1 64.7
2 61.7
3 58.1