

STATEMENT OF ESTIMATED QUANTITIES

| ITEM NO. | ITEM | UNIT | TOTAL ESTIMATED QUANTITIES | TOTAL FINAL QUANTITIES |
|----------|--------------------------------------------|--------------|----------------------------|------------------------|
| 2031.503 | FIELD LABORATORY, TYPE D | EACH | 1 | |
| 2101.501 | CLEARING | ACRE | 3.85 | |
| 2101.502 | CLEARING | TREE | 7 | |
| 2101.503 | GRUBBING | ACRE | 1.80 | |
| 2101.507 | GRUBBING | TREE | 7 | |
| 2104.505 | REMOVE BITUMINOUS PAVEMENT | SQ. YD. | 5875 (P) | |
| 2104.521 | SALVAGE FENCE | LIN. FT. | 1293 | |
| 0657.004 | INSTALL FENCE | LIN. FT. | 1209 | |
| 2105.501 | COMMON EXCAVATION | CU. YD. | 29871 (P) | |
| 2105.523 | COMMON BORROW (LV) | CU. YD. | 10407 | |
| 2105.525 | TOPSOIL BORROW (LV) | CU. YD. | 325 | |
| 2150.501 | WATER | M-GAL. | 100 | |
| 2211.503 | AGGREGATE BASE PLACED, CLASS 5 | CU. YD. | 4204 | |
| 2331.504 | BITUMINOUS MATERIAL FOR MIXTURE | TON | 215 | |
| 2331.510 | BINDER COURSE MIXTURE | TON | 1675 | |
| 2331.514 | BASE COURSE MIXTURE | TON | 2200 | |
| 2331.516 | SHOULDER MIXTURE | TON | 1120 | |
| 2331.531 | TEMPORARY LANE MARKING | ROAD STATION | 171 | |
| 2341.504 | BITUMINOUS MATERIAL FOR MIXTURE | TON | 77 | |
| 2341.508 | WEARING COURSE MIXTURE | TON | 1275 | |
| 2357.502 | BITUMINOUS MATERIAL FOR TACK COAT | GALLON | 2000 | |
| 2501.511 | 15" CI PIPE CULVERT | LIN. FT. | 352 | |
| 2501.511 | 18" CI PIPE CULVERT | LIN. FT. | 176 | |
| 2501.511 | 24" CI PIPE CULVERT | LIN. FT. | 68 | |
| 2501.561 | 24" R.C. PIPE CULVERT DESIGN 3008 D, CL II | LIN. FT. | 58 | |
| 2501.515 | 15" CI PIPE APRONS | EACH | 22 | |
| 2501.515 | 18" CI PIPE APRONS | EACH | 6 | |
| 2501.515 | 24" CI PIPE APRONS | EACH | 2 | |
| 2501.515 | 24" RC PIPE APRONS | EACH | 2 | |
| 2575.501 | ROADSIDE SEEDING | ACRE | 3.4 | |
| 2575.502 | SEED MIXTURE NO. 3 | POUND | 336 | |
| 2575.505 | SODDING | SQ. YD. | 3661 | |
| 2575.511 | MULCH MATERIAL TYPE 1 | TON | 16.8 | |
| 2575.519 | DISC ANCHORING | ACRE | 8.4 | |
| 2575.531 | COMMERCIAL FERTILIZER, ANALYSIS 10-10-10 | TON | 2.25 | |
| 0675.002 | BAY OR STRAW BALES | EACH | 30 | |

- ① INCLUDES 825 CU. YDS. FROM L² & L³ ROAD CONNECTIONS & 1010 CU. YDS. FROM ROAD OBLITERATION.
- ② FOR DUST CONTROL.
- ③ INCLUDES 222 CU. YDS. FOR ROAD APPROACHES & 77 CU. YDS. FOR ENTRANCES.
- ④ INCLUDES 200 TON FOR RT. TURN LANES, 85 TON FOR ROAD APPROACHES.
- ⑤ INCLUDES 200 TON FOR ROAD APPROACHES.
- ⑥ INCLUDES 165 TON FOR ROAD APPROACHES & 85 TON FOR ENTRANCES.
- ⑦ TO BE USED FOR EROSION CONTROL AS DIRECTED BY THE ENGINEER.

| PLATE NO. | DESCRIPTION |
|-----------|---------------------------------------------|
| 0003 A | SPECIFICATION REFERENCE TO STANDARD PLATES |
| 3000 I | REINFORCED CONCRETE PIPE |
| 3006 D | GASKET JOINT FOR R.C. PIPE |
| 3040 F | CORRUGATED METAL PIPE CULVERT |
| 3100 F | CONCRETE APRON FOR REINFORCED CONCRETE PIPE |
| 3123 H | METAL APRON FOR C.M. PIPE |
| 8000 H | STANDARD BARRICADES |
| 9080 B | APPROACHES AND ENTRANCES |
| 9102 C | SODDING AT PIPE CULVERT ENDS |

BASIS OF PLANNED QUANTITIES

- 2331 BINDER COURSE MIXTURE
BITUMINOUS MIXTURE 165 LBS./S.Y. PER 1 1/2" THICKNESS
BITUMINOUS MATERIAL FOR MIXTURE 4.5% BY WT.
- 2331 BASE COURSE MIXTURE
BITUMINOUS MIXTURE 220 LBS./S.Y. PER 2" THICKNESS
BITUMINOUS MATERIAL FOR MIXTURE 4.5% BY WT.
- 2331 SHOULDER COURSE MIXTURE
BITUMINOUS MIXTURE 165 LBS./S.Y. PER 1 1/2" THICKNESS
BITUMINOUS MATERIAL FOR MIXTURE 6.0% BY WT.
- 2341 WEARING COURSE MIXTURE
BITUMINOUS MIXTURE 165 LBS./S.Y. PER 1 1/2" THICKNESS
BITUMINOUS MATERIAL FOR MIXTURE 6.0% BY WT.
- 2357 BITUMINOUS MATERIAL FOR TACK COAT 0.05 GAL. PER S.Y.
- 2575 ROADSIDE SEEDING BASED ON HORIZONTAL MEASUREMENTS PLUS 10%.

SPECIAL DETAILS

THE CONTRACTOR SHALL REMOVE SUFFICIENT TOPSOIL MATERIAL WITHIN THE EXCAVATION AREAS AND AREAS ON WHICH EMBANKMENT WILL BE PLACED, EXCEPT LOW AREAS STA. 66+00 TO 84+00, STOCKPILE IF NECESSARY, AND USE IT FOR TOPSOIL COVERING ON THE NEW SLOPES AND DITCH BOTTOMS. THIS WILL REQUIRE APPROXIMATELY 3137 CU. YDS TO PROVIDE A MINIMUM COVER OF 3". THIS WORK SHALL BE CONSIDERED AS INCIDENTAL TO COMMON EXCAVATION.
TOPSOIL BORROW SHALL BE USED FOR FRONT YARD AREAS TO BE SODDED.
REMOVAL OF BITUMINOUS PAVEMENT IN PLACE IS BASED ON AN AVERAGE WIDTH OF 23.5 FEET AND QUANTITIES COMPUTED ON THE BASIS OF SQUARE YARDS IN PLACE.

| SODDING | | |
|--------------------------------|------|-------|
| STATION | LOC. | S. Y. |
| 34+00 - 35+02 | LT. | 400 |
| 35+16 - 36+00 | LT. | 375 |
| 82+15 - 82+34 | RT. | 253 |
| 83+18 - 84+00 | RT. | 575 |
| 85+00 - 85+17 | LT. | 100 |
| 85+31 - 87+88 | LT. | 1150 |
| 88+02 - 88+27 | LT. | 90 |
| 88+31 - 89+00 | RT. | 50 |
| L ³ ROAD CONNECTION | LT. | 350 |
| CULVERT ENDS | | 318 |
| TOTAL | | 3661 |

SALVAGE & INSTALL FENCE

| STATION | LOC. | SALVAGE | INSTALL | REMARKS |
|---------------|------|---------|---------|---------------------|
| 32+50 - 37+50 | RT. | 500 | 500 | |
| 38+75 - 41+50 | RT. | 275 | 275 | |
| 50+00 | RT. | 50 | 48 | LINE FE |
| 54+29 | LEFT | 180 | 0 | CENTERLINE CROSSING |
| 85+00 - 87+88 | RT. | 283 | 288 | |
| TOTAL | | 1293 | 1109 | |

CLEARING AND GRUBBING

| STATION (TO STATION) | LOC. | CLEARING | | GRUBBING | |
|----------------------|-------------|----------|------|----------|------|
| | | TREE | ACRE | TREE | ACRE |
| 32+70 - 37+35 | 44 - 62RT. | | 0.35 | | 0.35 |
| 38+20 - 39+59 | 17 - 52LT. | | 0.10 | | 0.10 |
| 50+93 | 28 - 58RT. | 7 | | 7 | |
| 51+34 - 52+10 | 6 - 58RT. | | 0.15 | | 0.15 |
| 53+00 - 54+65 | 56LT-58RT. | | 0.10 | | 0.10 |
| 58+00 - 61+40 | 30LT-60RT. | | 0.55 | | 0.55 |
| 62+00 - 63+00 | 32 - 58RT. | | 0.10 | | 0.10 |
| 66+21 - 68+39 | 48LT-50RT. | | 0.00 | | |
| 71+15 - 71+55 | 30 - 52LT. | | 0.05 | | |
| 73+85 - 75+15 | 25 - 35RT. | | 0.10 | | |
| 75+70 - 82+00 | 60LT-52RT. | | 1.25 | | |
| 84+40 - 87+85 | 38 - 50LT. | | 0.25 | | 0.25 |
| 84+55 - 87+55 | 35 - 48RT. | | 0.20 | | 0.20 |
| 72+40 - 72+95 | 40 - 52 LT. | | 0.05 | | |
| TOTAL | | 7 | 3.85 | 7 | 1.80 |

- ① CLEAR & GRUB TO 52' MIN. ON LT. TO ALLOW FOR POWER LINE RELOCATION.

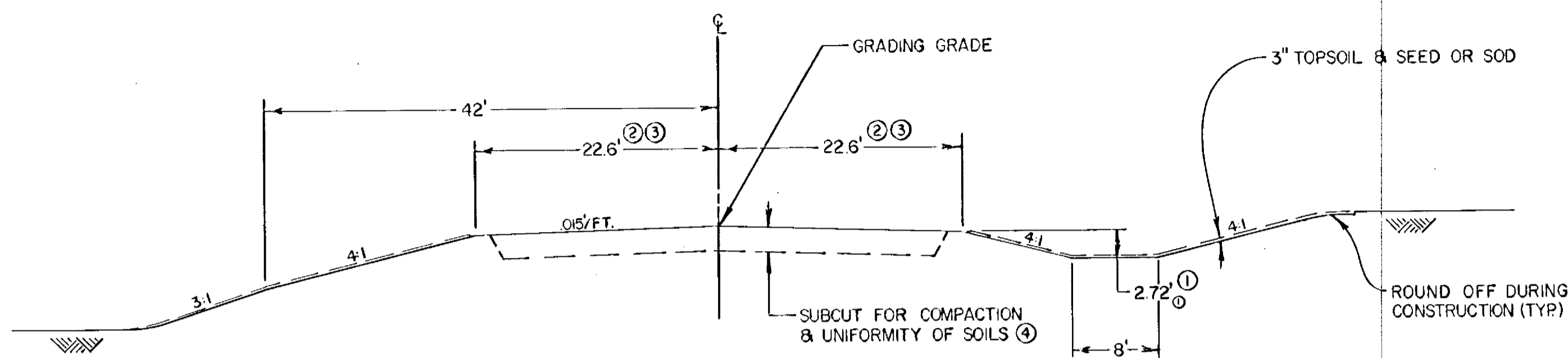
DRAINAGE

| STATION | LOCATION | IN PLACE | CONSTRUCTION WIDTH | REMOVE | | PORTABLE CULVERTS | | | | | | | | | | | |
|---------------------|----------|----------------|---------------------|-------------|---------------|-------------------|----------|---------|------------|------------|------------|------------|----------|-----|----------|-----|----|
| | | | | PORT. CULV. | CONG. STRUCT. | EXC. | SOD-DING | RIP-RAP | 15" C.M.P. | 18" C.M.P. | 24" C.M.P. | 24" R.C.P. | | | | | |
| | | | | LIN. FT. | CU. YD. | CU. YD. | SQ. YD. | CU. YD. | LIN. FT. | AP. | LIN. FT. | AP. | LIN. FT. | AP. | LIN. FT. | AP. | |
| 35+14 | LT. | --- | ENTRANCE (24') | | | | 17 | | | | 34 | 2 | | | | | |
| 36+35 | LT. | --- | 208TH LANE (32') | | | | 23 | | | | | | 48 | 2 | | | |
| 38+74 | LT. | --- | FIELD ENT. (20') | | | | 17 | | | | 30 | 2 | | | | | |
| 43+00 | RT. | --- | ROAD APR. (32') | | | | 23 | | | | | | 58 | 2 | | | |
| 48+53 | C | --- | CROSS CULV. | | | | 31 | | | | | | | | | | 58 |
| 50+88 | RT. | --- | FIELD ENT. (20') | | | | 17 | | | | 32 | 2 | | | | | |
| 51+30 | LT. | --- | FIELD ENT. (20') | | | | 17 | | | | 32 | 2 | | | | | |
| 58+56 | RT. | --- | FIELD ENT. (20') | | | | 17 | | | | 30 | 2 | | | | | |
| 61+67 | RT. | --- | FIELD ENT. (20') | | | | 17 | | | | 30 | 2 | | | | | |
| 61+67 | LT. | --- | FIELD ENT. (20') | | | | 17 | | | | 32 | 2 | | | | | |
| 68+25 | C | --- | CROSS CULV. | | | | 31 | | | | | | | | 68 | 2 | |
| 80+50 | RT. | --- | ROAD APR. (32') | | | | 23 | | | | | | 70 | 2 | | | |
| 83+06 | RT. | --- | ENTRANCE (24') | | | | 17 | | | | 36 | 2 | | | | | |
| 85+24 | LT. | --- | ENTRANCE (24') | | | | 17 | | | | 32 | 2 | | | | | |
| 87+95 | LT. | --- | ENTRANCE (24') | | | | 17 | | | | 32 | 2 | | | | | |
| 88+23 | RT. | 216 1/4 AVENUE | NO CULV. REQ. (32') | | | | | | | | | | | | | | |
| L ² 0+90 | LT. | --- | ENTRANCE (24') | | | | 17 | | | | 32 | 2 | | | | | |
| TOTAL | | | | | | | 318 | | | | 352 | 22 | 176 | 6 | 68 | 2 | 58 |

ALL DIMENSIONS NOMINAL

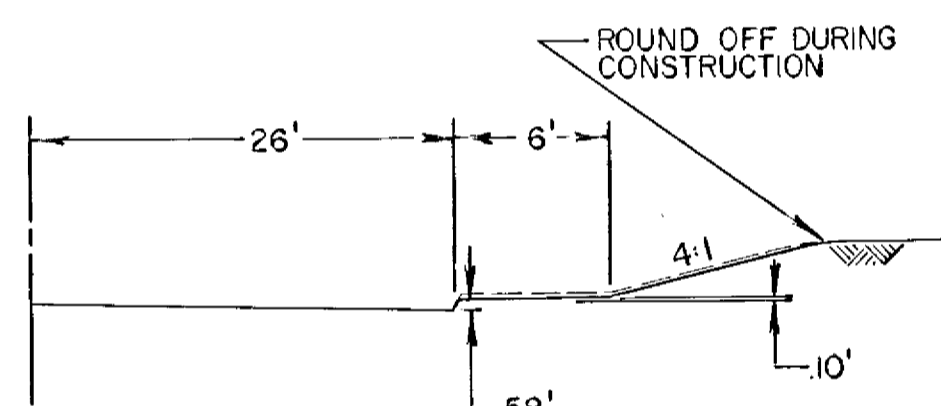
TYPICAL SECTIONS

GRADING SECTION



- ① SEE CROSS SECTIONS FOR MODIFIED DITCHES
 - ② 26.6' WIDE IN RT. TURN LANE AREAS
 - ③ 19.6' FOR ROAD APPROACH CONSTRUCTION (L & R)
 - ④ SUBCUT DEPTH & LOCATIONS
- | 1.0' SUBCUT | 2.25' SUBCUT |
|---------------|---------------|
| 43+85 - 47+50 | 76+40 - 78+25 |
| 50+30 - 56+10 | |
| 58+80 - 62+75 | |

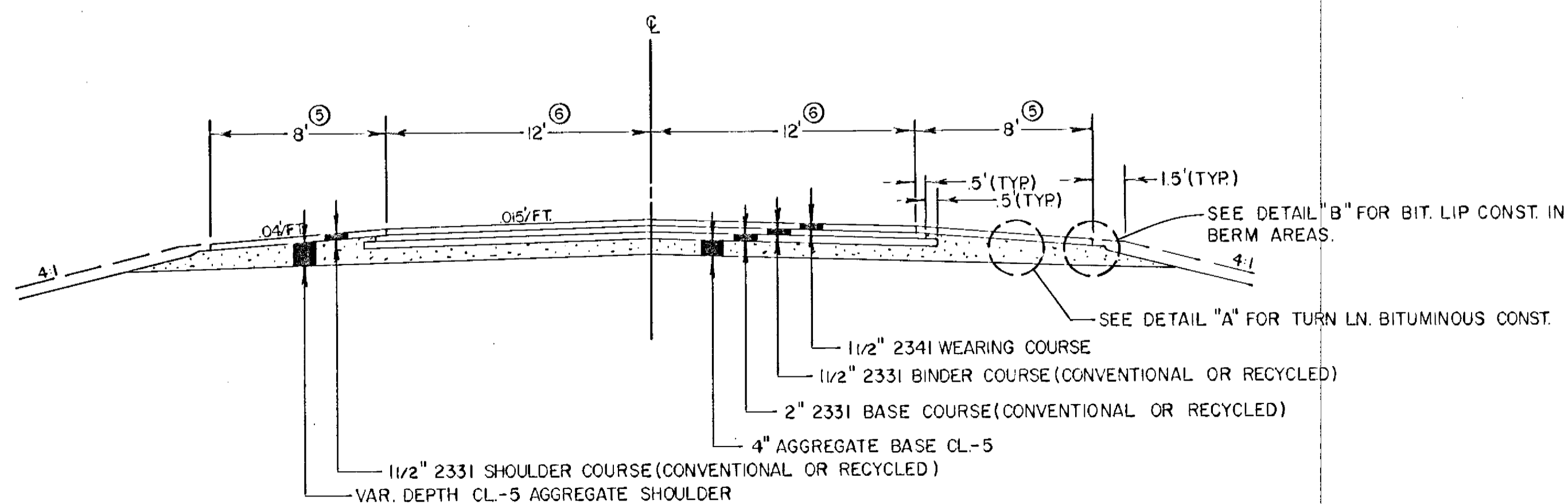
BERM SECTION



LOCATIONS

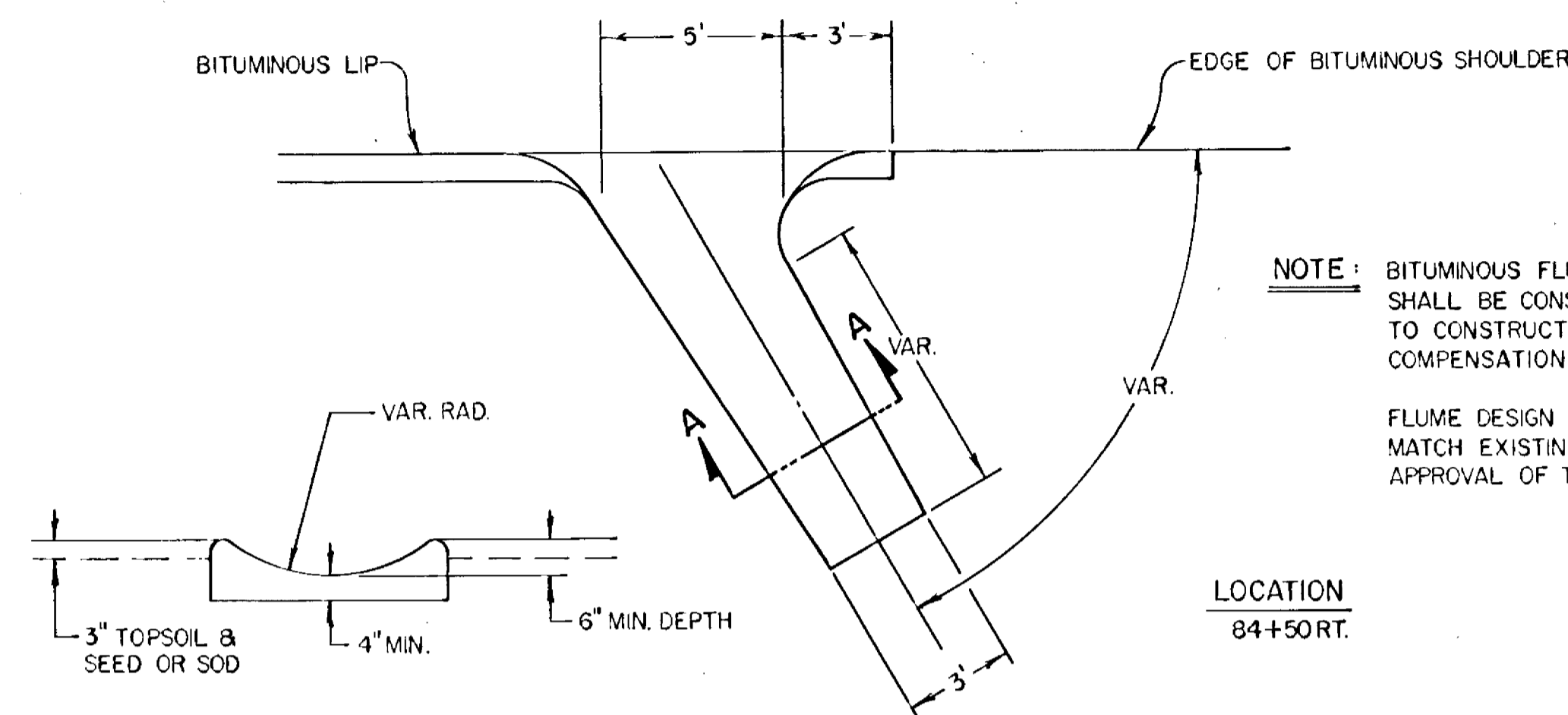
| STA. | STA. |
|-------|-----------|
| 84+50 | 88+07 RT. |

BASE & BITUMINOUS SECTION



- ⑤ 12' IN RT. TURN LANE AREAS
- ⑥ 16' ON CL & L ROAD APPROACH CONSTRUCTION

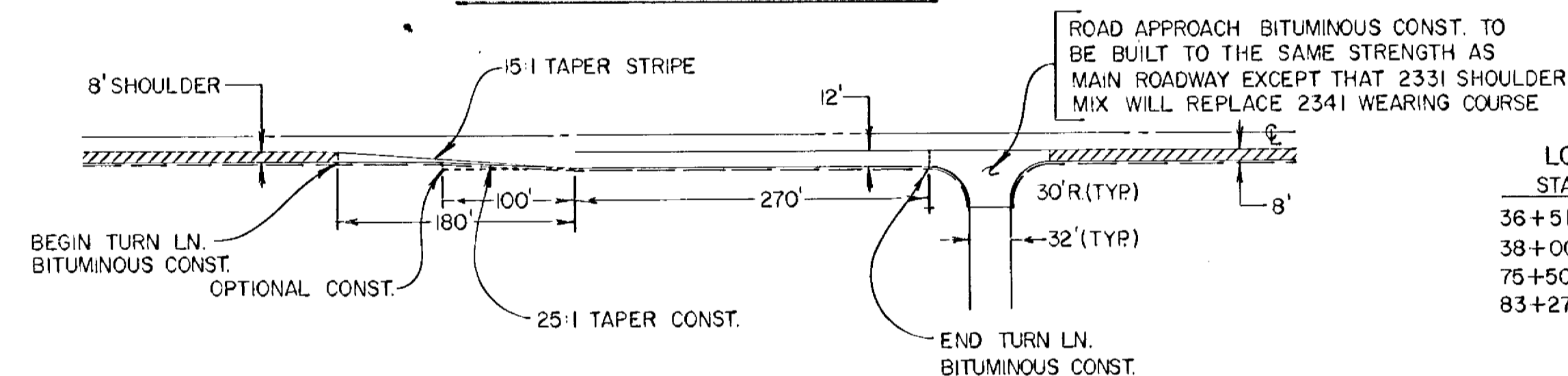
TYPICAL BITUMINOUS FLUME



LOCATION
84+50RT.

SECTION A-A

TYPICAL RIGHT TURN LANE

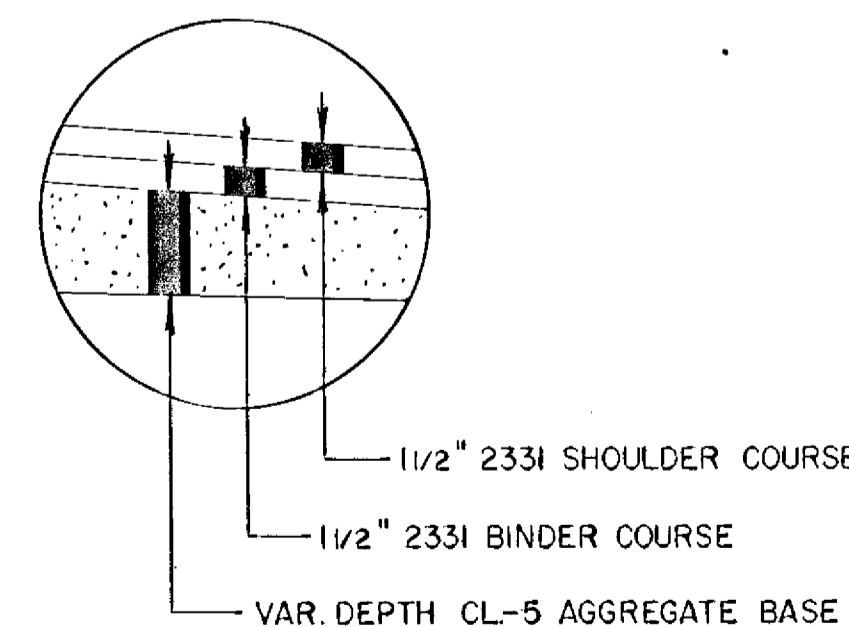


LOCATIONS

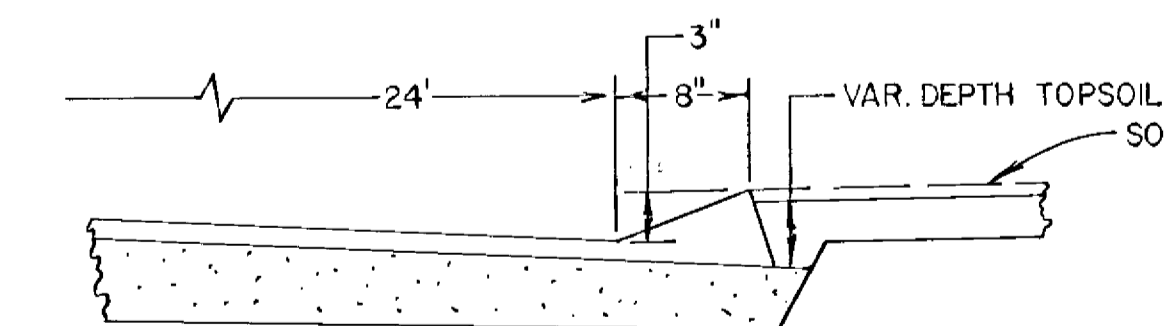
| STA. | STA. |
|-------|-----------|
| 36+51 | 41+31 LT. |
| 38+00 | 42+80 RT. |
| 75+50 | 80+30 RT. |
| 83+27 | 88+07 RT. |

NOTE: SEE DETAIL "A" FOR BITUMINOUS & BASE CONST.

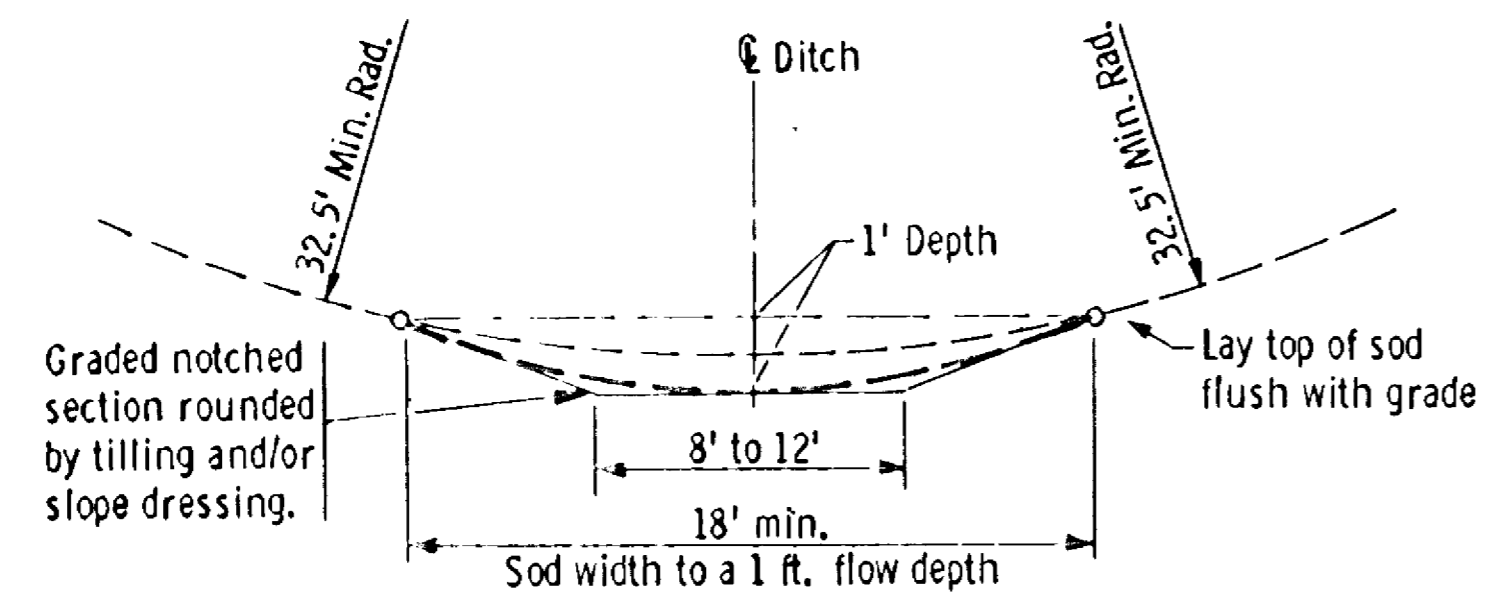
DETAIL "A"



DETAIL "B"

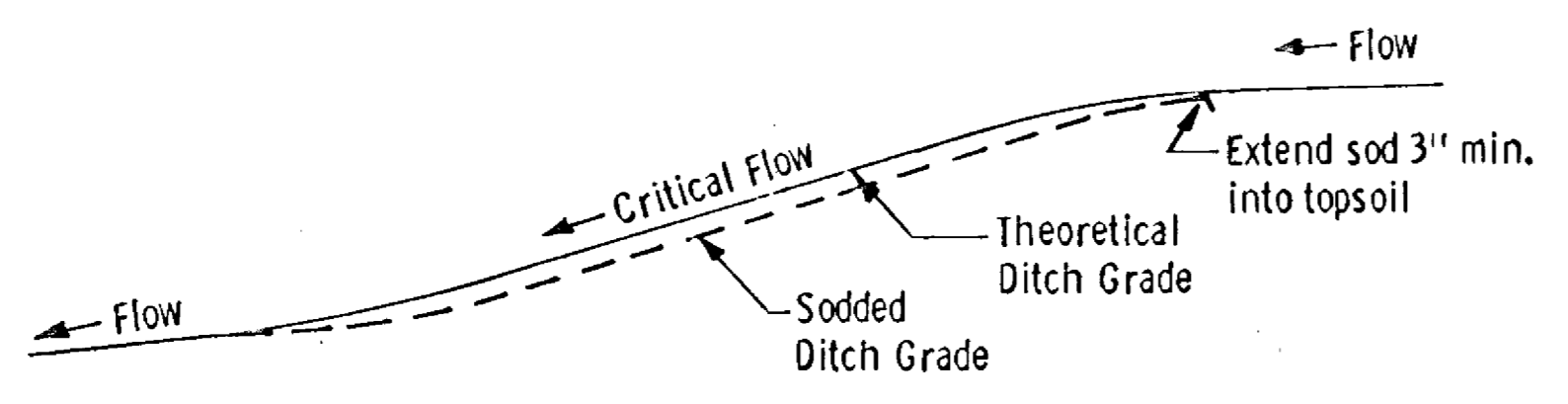


NOTE: CONTRACTOR MAY MODIFY LIP DESIGN UPON APPROVAL OF THE PROJECT ENGINEER



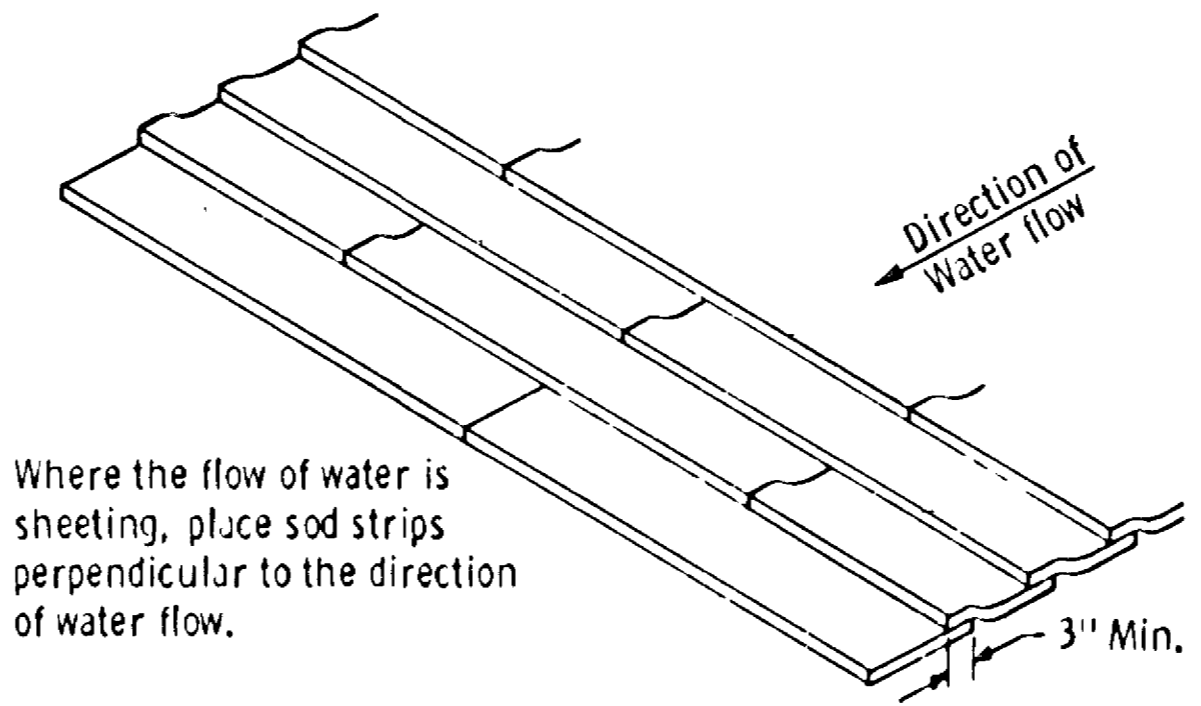
SODDED DITCH CROSS SECTION

Ditches having a minimum radius of 32.5 feet and requiring sod shall be constructed according to the above details. Where ditch radius is less than 32.5 feet, notching is not required. Sod a minimum of 18 feet in width.



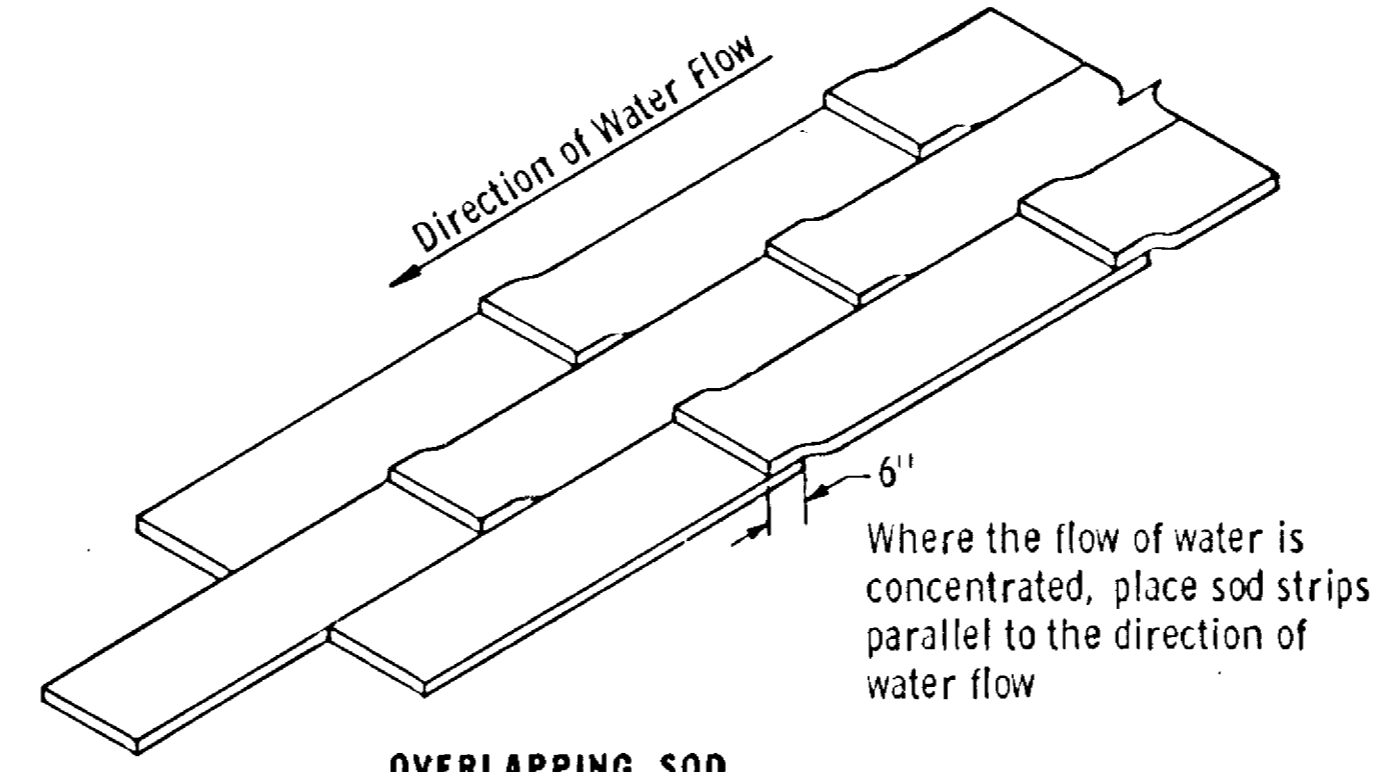
DITCH PROFILE

SODDED DITCH DETAILS



Where the flow of water is sheeting, place sod strips perpendicular to the direction of water flow.

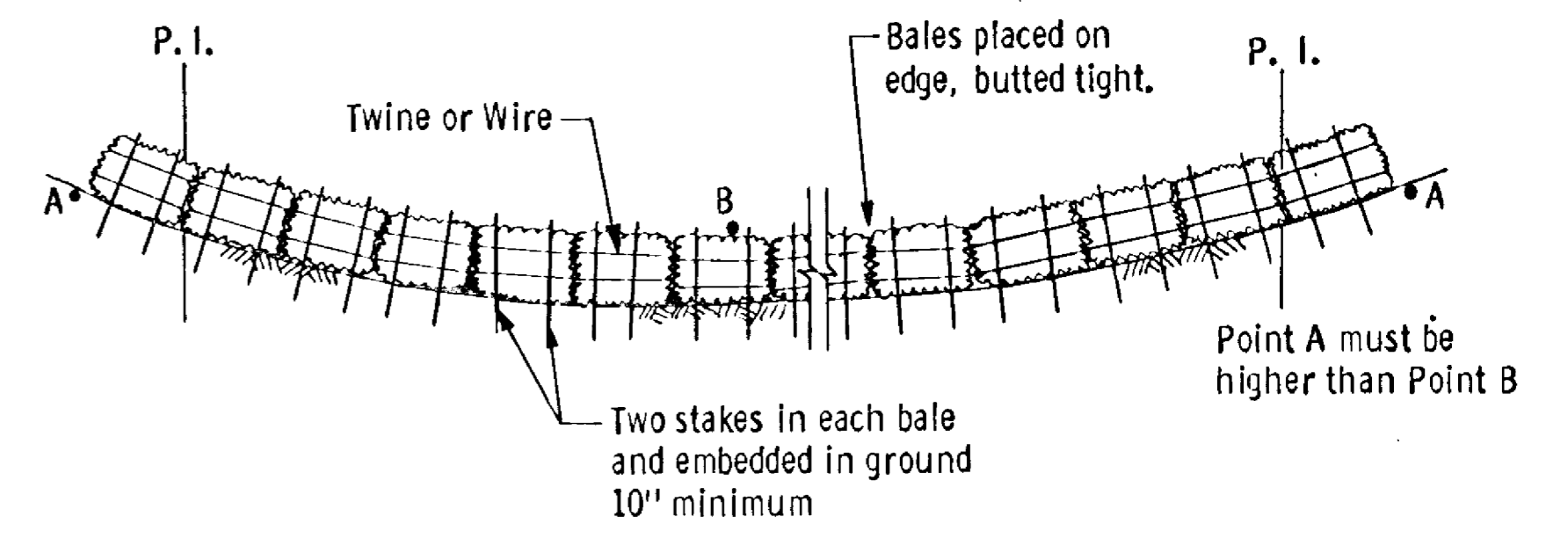
SHINGLING SOD



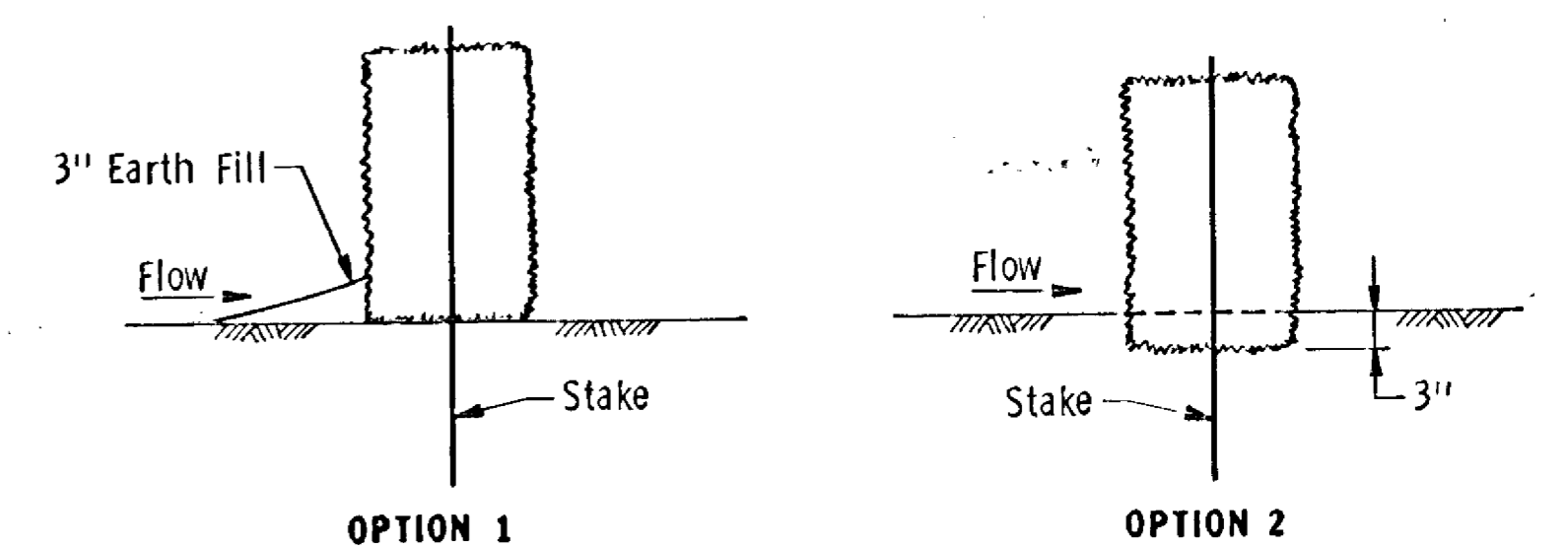
Where the flow of water is concentrated, place sod strips parallel to the direction of water flow

OVERLAPPING SOD

SPECIAL SOD PLACEMENT TECHNIQUES



BALE HAY OR STRAW DITCH CHECK



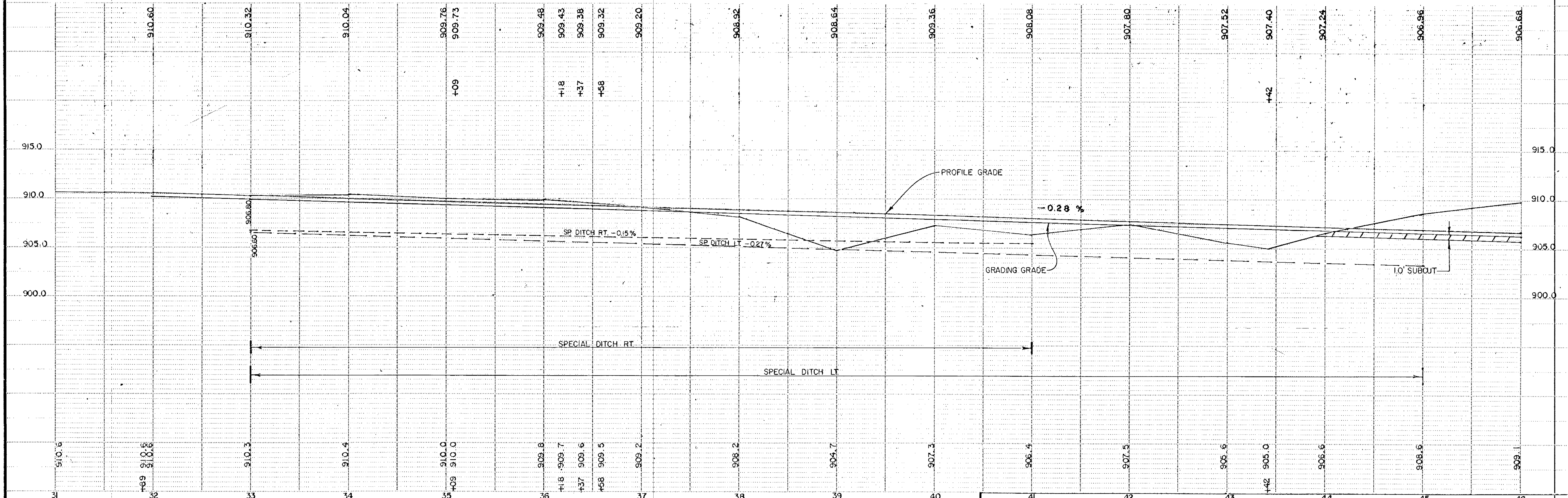
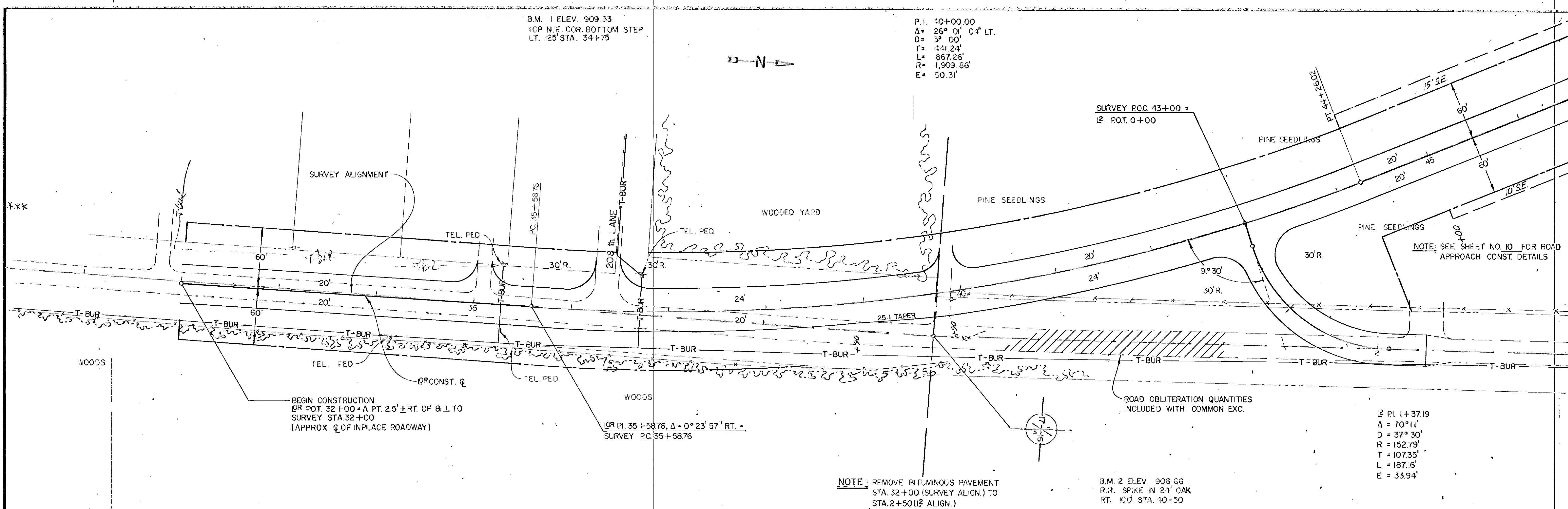
OPTION 1

OPTION 2

DITCH CHECK SECTIONS

B.M. 1 ELEV. 909.53
 TCP N.E. COR. BOTTOM STEP
 LT. 125' STA. 34+75

P.I. 40+00.00
 $\Delta = 26^\circ 01' 04''$ LT.
 $D = 3^\circ 00'$
 $T = 441.24'$
 $L = 867.26'$
 $R = 1,909.86'$
 $E = 50.31'$



P.I. 40+00
 $\Delta = 26^\circ 10' 04''$ LT.
 $D = 3^\circ 00'$
 $R = 1,909.86'$
 $T = 441.24'$
 $L = 867.26'$

SURVEY P.O.C. 43+00 =
 P.O.T. 0+00

PT. 44+26.02

PINE
 SEEDLINGS

15' SE.

+150



B.M. 4 ELEV. 908.63
 DBL. SPIKE IN 8" R.R. TIE
 LT. 150' STA. 54+30

P.I. 1+37.19
 $\Delta = 70^\circ 11'$ LT.
 $D = 37^\circ 30'$
 $R = 152.79'$
 $T = 107.35'$
 $L = 187.16'$
 $E = 33.94'$

PINE
 SEEDLINGS

10' SE.

+150

WOODS
 & BRUSH

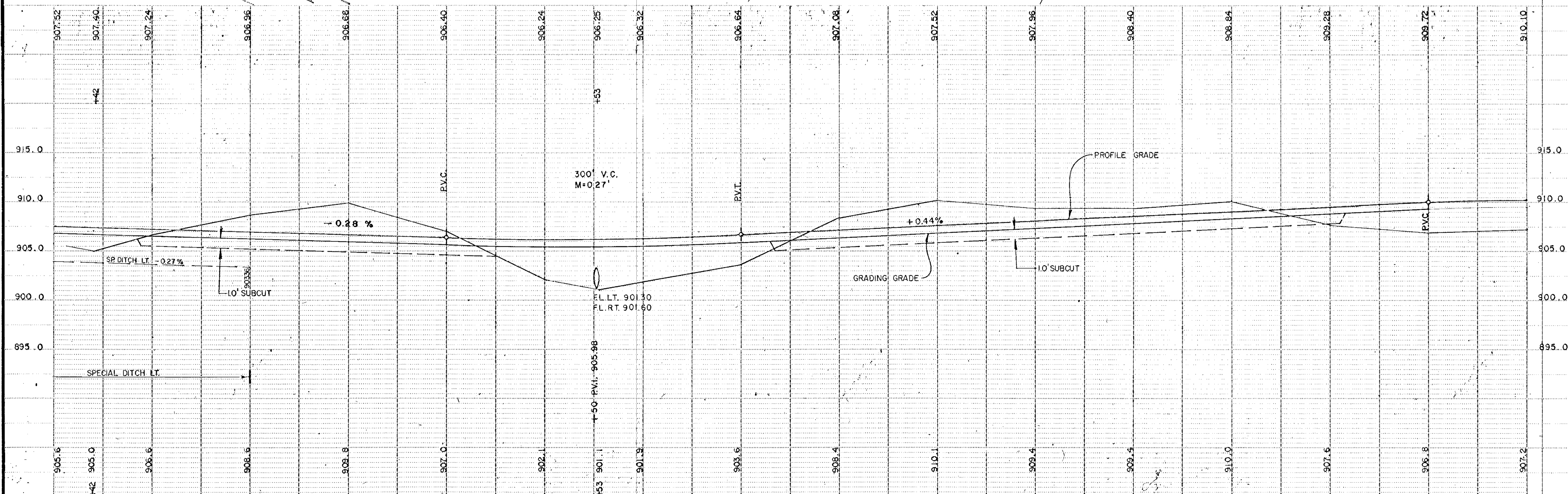
15' SE.

P.I. 63+70.61
 $\Delta = 54^\circ 41' 48''$ RT.
 $D = 3^\circ 00'$
 $R = 1,909.86'$
 $T = 987.79'$
 $L = 1,823.22'$

B.M. 3 ELEV. 905.16
 R.R. SPIKE IN 8" R.R. TIE
 RT. 100' STA. 51+05

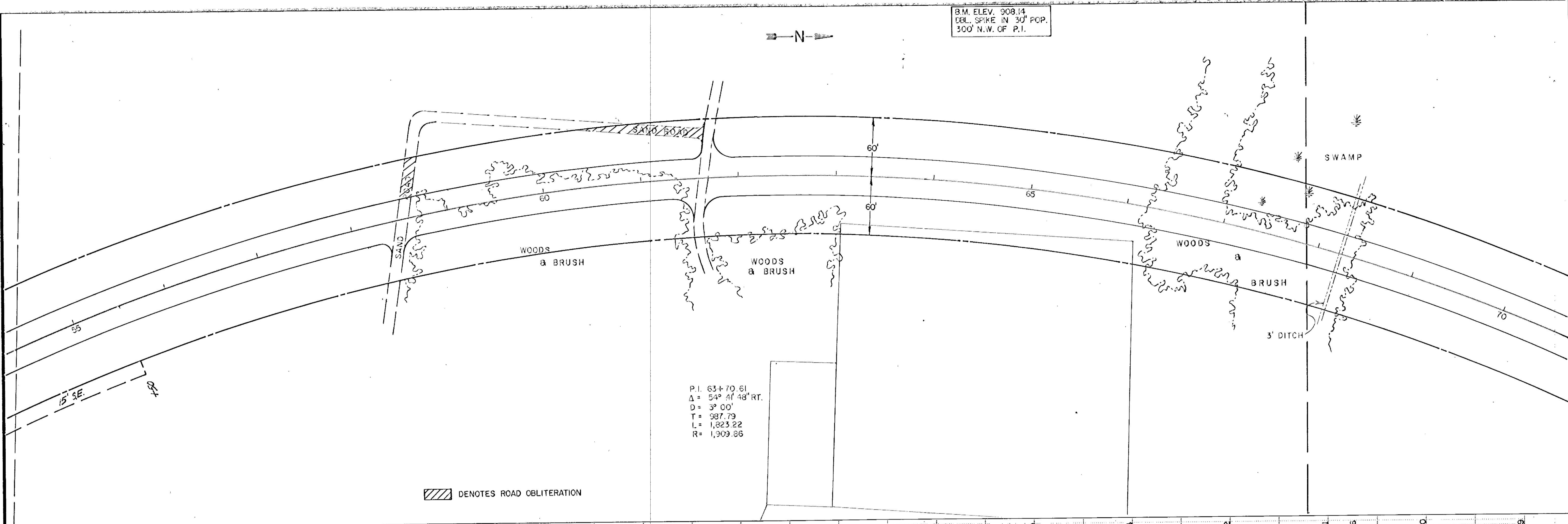
NOTE: SEE SHEET NO. 10 FOR ROAD
 APPROACH CONST. DETAILS

DENOTES ROAD OBLITERATION



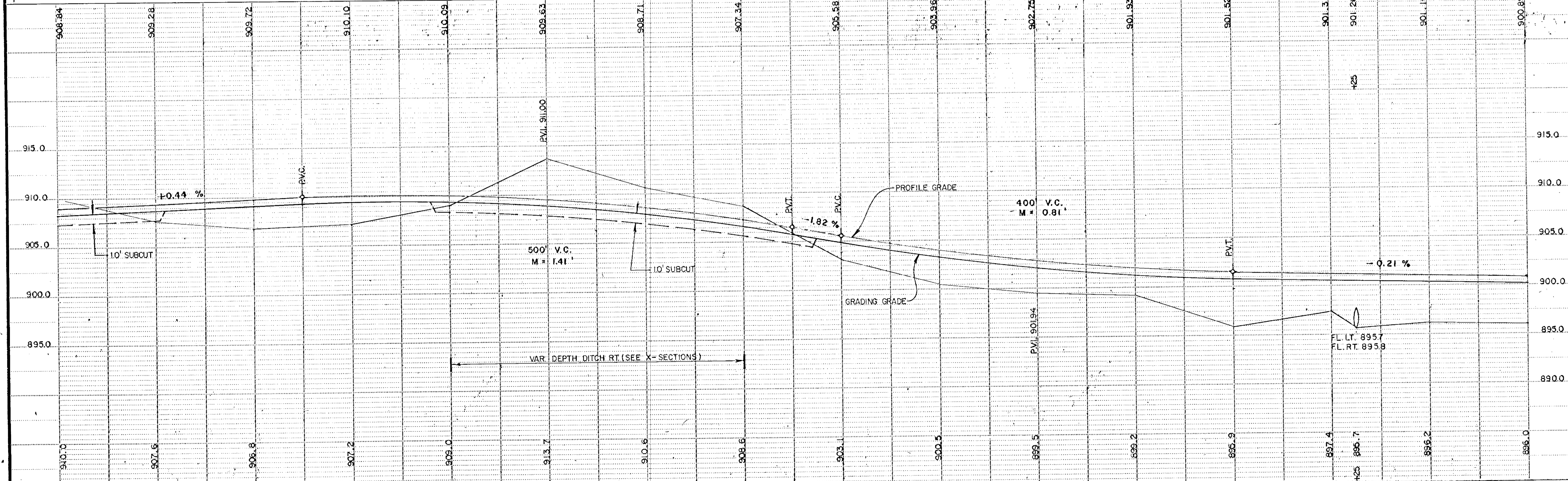
TELETYPE POST - SINGLE PLAN - INCHES - 1/4" = 1'

B.M. ELEV. 908.14
 DEL. SPIKE IN 30' POP.
 300' N.W. OF P.I.

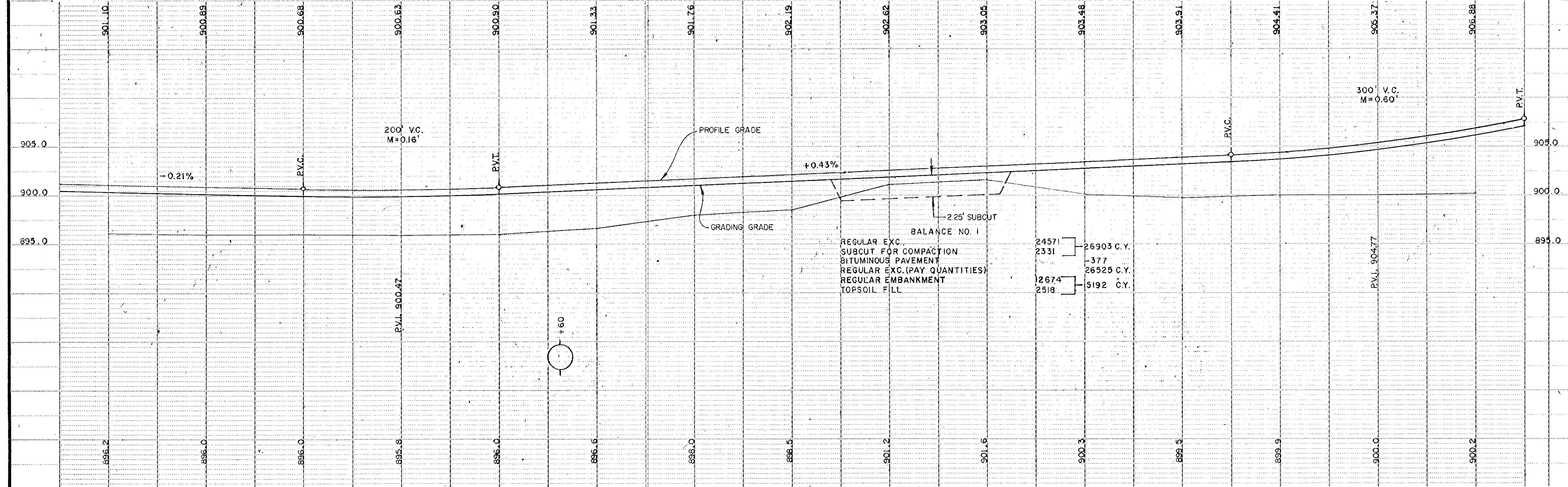
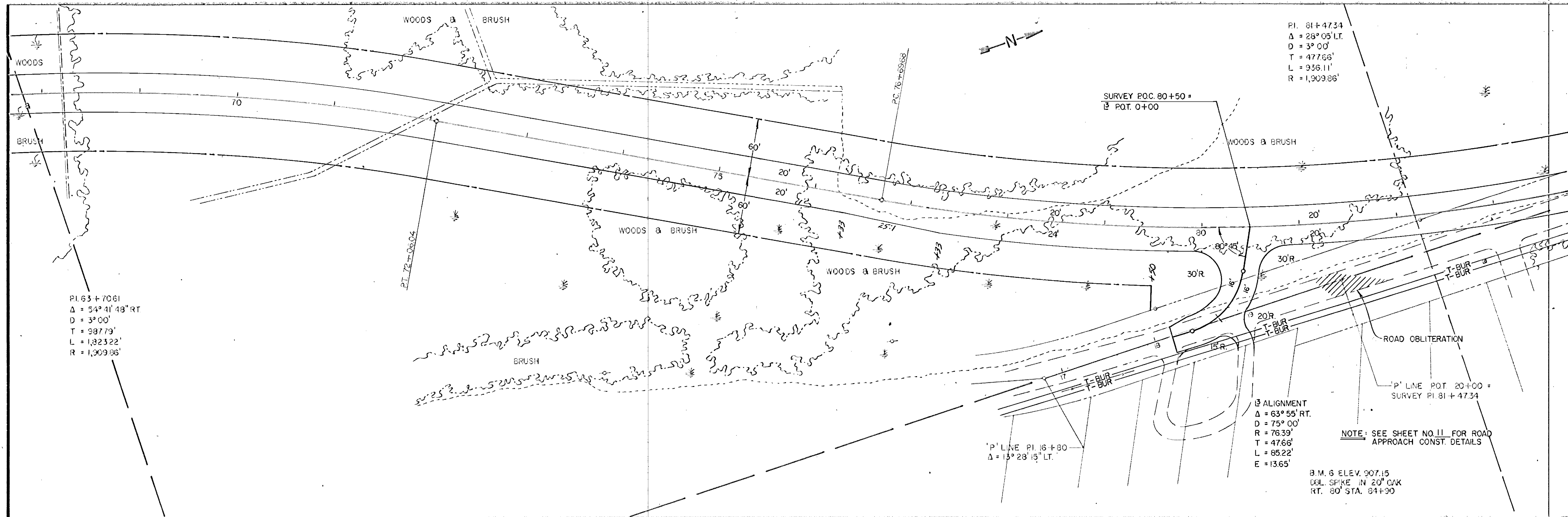


P.I. 63+70.61
 $\Delta = 54^\circ 41' 48''$ RT.
 $D = 3^\circ 00'$
 $T = 987.79$
 $L = 1,823.22$
 $R = 1,909.86$

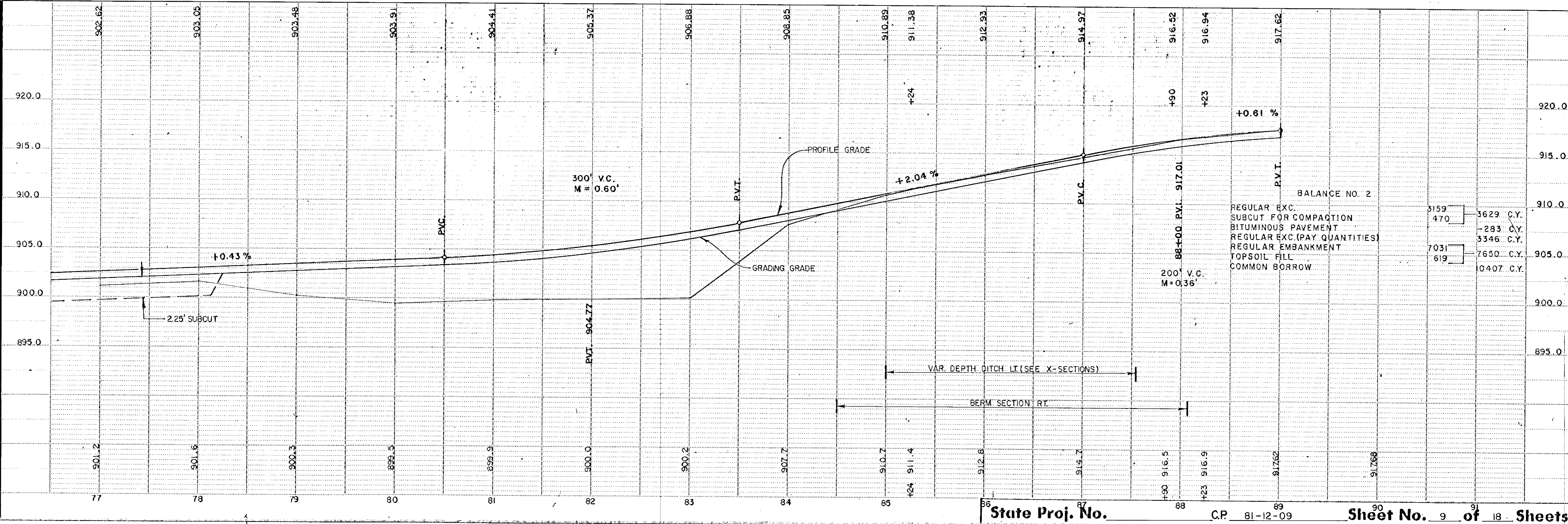
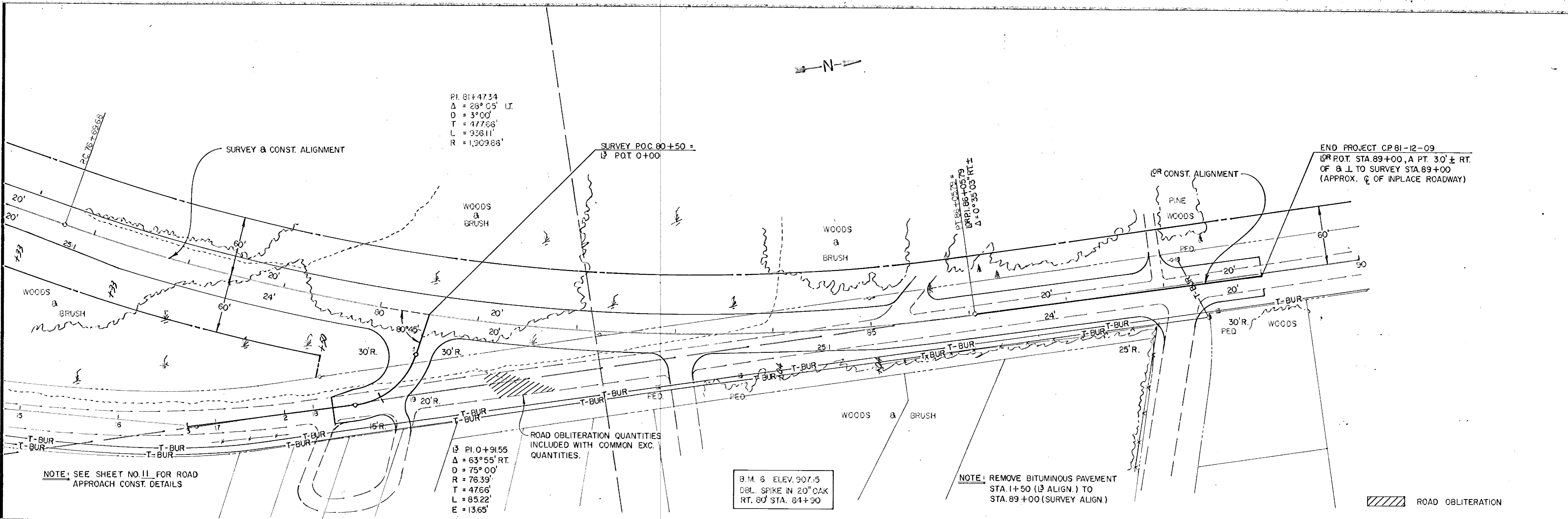
DENOTES ROAD OBLITERATION



TELETYPE POST - SINGLE PLAN - PROFILE - 1224



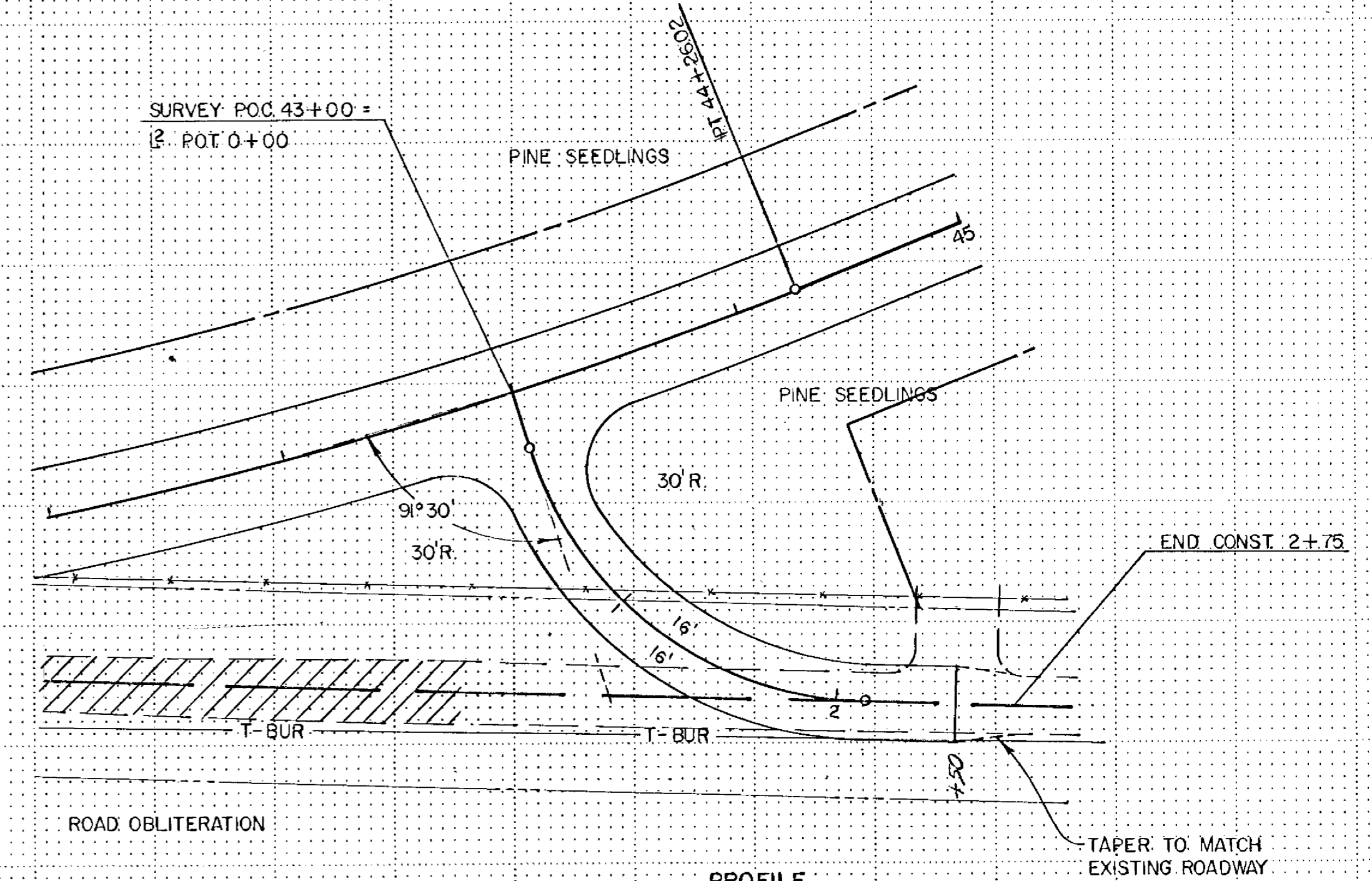
TELETYPE POST - SINGLE PLAN - PROFILE - 102M



ELEVATION POST - SINGLE PLAN - PROFILE - 1/8" = 1'

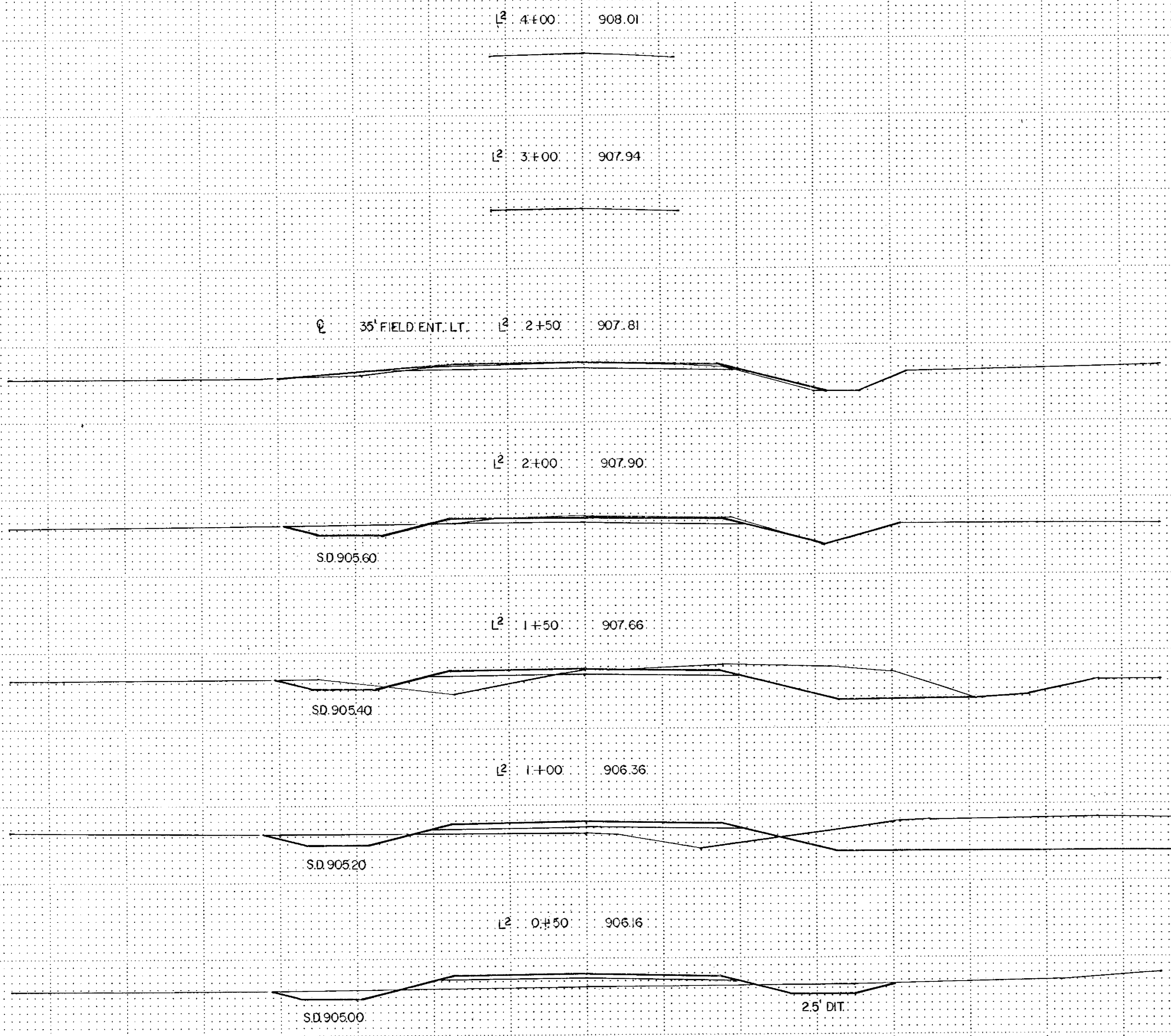
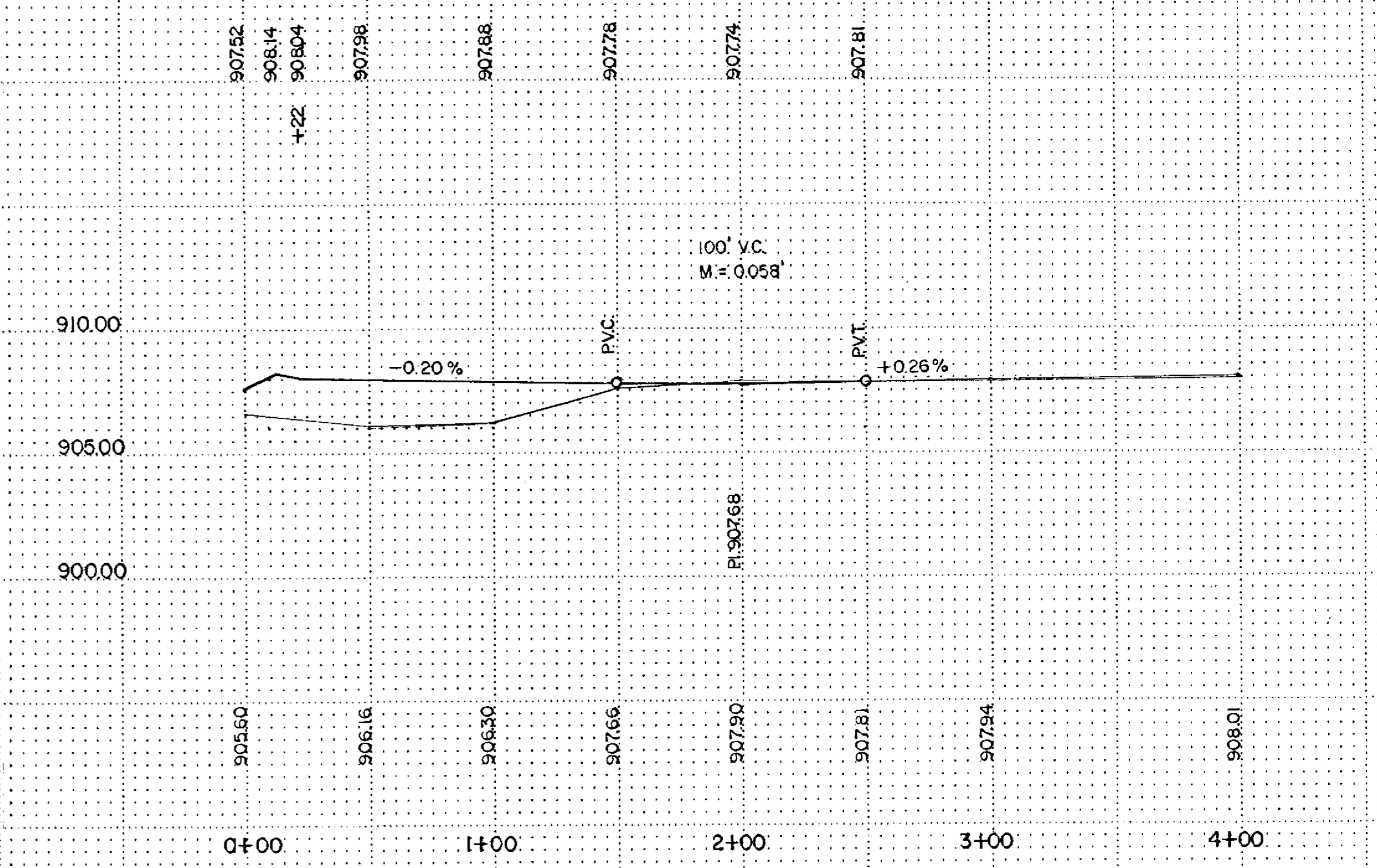
EXCAVATION EMBANKMENT

| Station | Excavation | Embankment | Surface |
|---------|------------|------------|---------|
| 4+00 | | | |
| 3+00 | | | |
| 2+50 | | | |
| 2+00 | | | |
| 1+50 | | | |
| 1+00 | | | |
| 0+50 | | | |



ROAD OBLITERATION

PROFILE



5
8
4 F.S.

11
20
14 F.S.

124
11
20 F.S.

330
111
37 F.S.

270
130
35 F.S.

L3 ROAD APPROACH CONST.

Fed. Proj. No.

EXCAVATION EMBANKMENT
 Sta. Elev. Slope Dist. Area

