

INDEX OF SHEETS

Sheet No. 1 Title Sheet

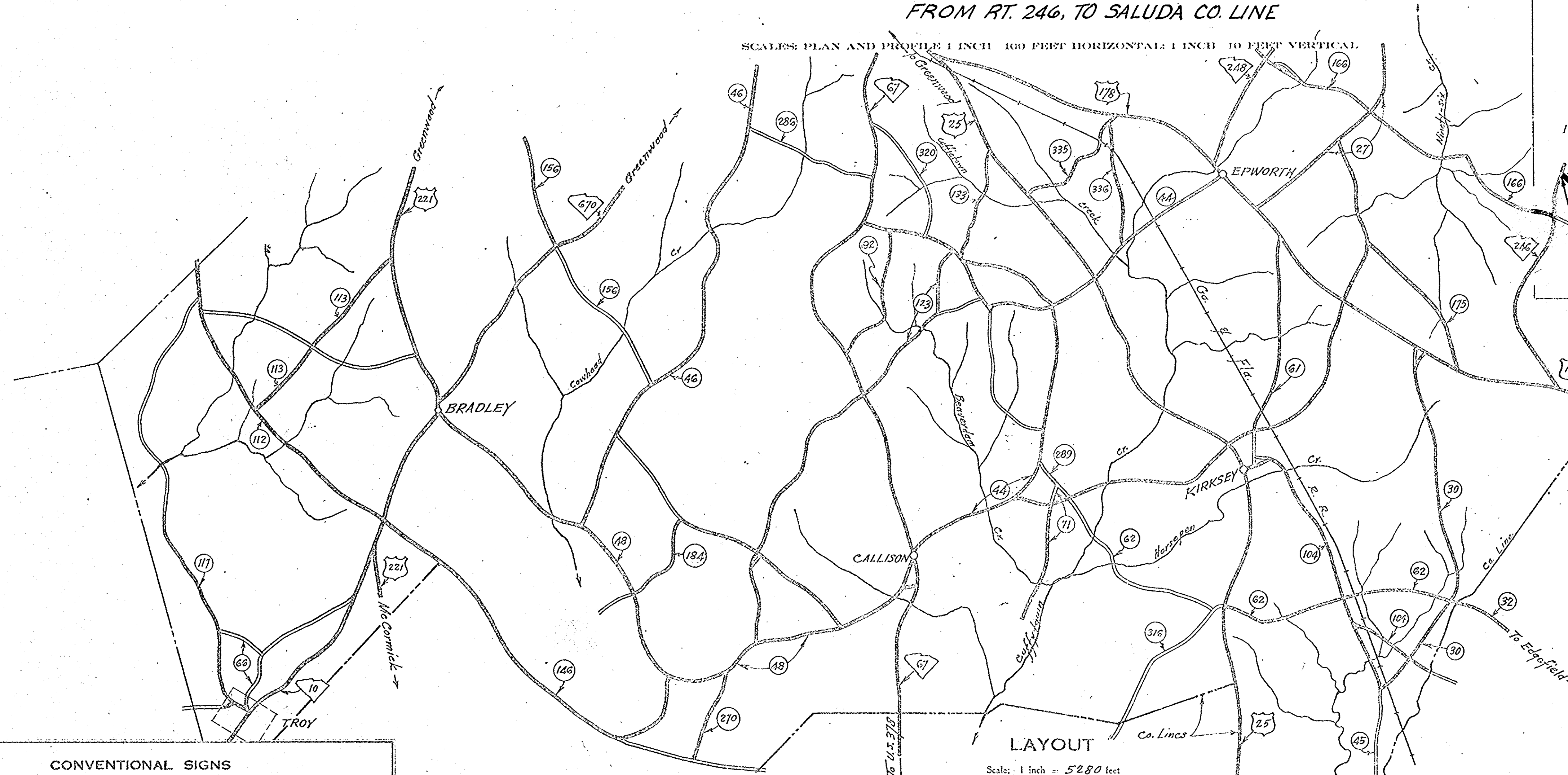
- " 2 Typical Sections of Improvement
- " 3 Intersections Std.
- " 4 Superelevation "
- " 5 Traffic Control Devices
- 5A State Federal Highway Construction Sign
- " 6-9 Plan and Profile
- " 10-18 Cross Sections

SOUTH CAROLINA STATE HIGHWAY DEPARTMENT COLUMBIA

PLAN AND PROFILE OF PROPOSED STATE HIGHWAY

F.A.P. N° S-2124 (1)
DKT. N° 24.377
RD. S-371
GREENWOOD CO.
FROM RT. 246, TO SALUDA CO. LINE

SCALE: PLAN AND PROFILE 1 INCH = 100 FEET HORIZONTAL 1 INCH = 10 FEET VERTICAL



CONVENTIONAL SIGNS

State Line	Trolley Poles
County Line	Power Poles
City or Town Limits	Telephone or Telegraph Poles
Property Line	Marsh
ence	Trees
Retaining Wall	Brush
Existing Road	Stumps
Q and R.O.W. Lines of	Buildings
Proposed Road	Bridge
Railroad	Concrete Box Culvert
Levee or Embankment	Pipe Culvert
Guard Rail	Drop Inlet and Culvert
Point of Intersection (P. I.)	Hub on Center Line

LEGEND

PROPOSED PROJECT
OTHER ROADS

Net Length of Roadway	1.760	Miles
Net Length of Bridges		Miles
Net Length of Project	1.760	Miles
Length of Exceptions	0.004	Miles
Gross Length of Project	1.764	Miles

Equalities in Stationing NONE

Note: All workmanship and material on this project to conform with South Carolina State Highway Department Standard Specifications for Highway Construction dated Nov. 1, 1955

SUMMARY OF ESTIMATED QUANTITIES

EARTHWORK

Clearing and Grubbing within Roadway	Nec.	
Clearing and Grubbing of Borrow and Material Pits	1.0	Acres
Unclassified Excavation	3,063	C.Y.
Overhaul	44,552	C.Y.M.
Selected Material for Shoulders	1,067	C.Y.

BASE COURSE

Earth Type Base Course (Ground Surf.)	3,815	C.Y.
Scarifying, Mixing, Remixing, Shaping and Reshaping	22,688	M.S.Y.

SURFACING

Bituminous Surfacing (Double Treatment) Type 1 thru 6	21,656	S.Y.
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STRUCTURES

15" R.C. Culvert Pipe	280	L.F.
18" R.C. Culvert Pipe	72	L.F.
24" R.C. Culvert Pipe	24	L.F.
36" R.C. Culvert Pipe	16	L.F.
42" R.C. Culvert Pipe	36	L.F.

15" Relaid Pipe Culvert	100	L.F.
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INCIDENTALS

Reset Fences	1,500	L.F.
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F.A.P. N° S-2124 (1) DKT. N° 24.377 Rd. S-371
Sta. 0+10 to Sta. 93+27
See Sheets No. 6-9

Exception to Project
Sta. 61+21 to Sta. 61+41

APPROVED
STATE HIGHWAY ENGINEER
DATE 4/27/64

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
RECOMMENDED FOR APPROVAL:
DISTRICT ENGINEER
DATE
APPROVED:
DIVISION ENGINEER
DATE

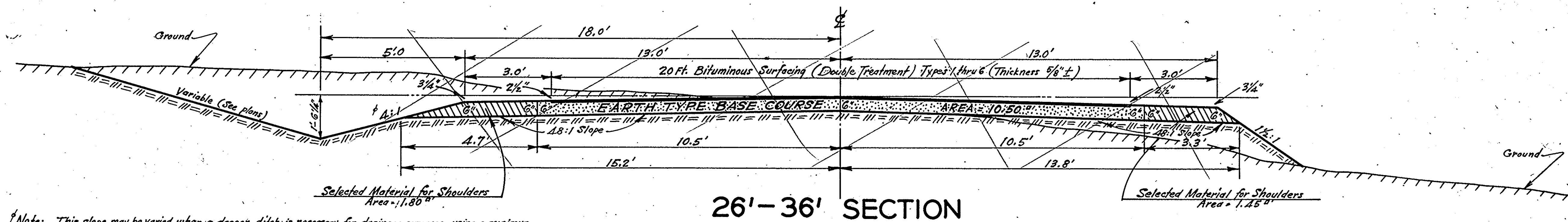
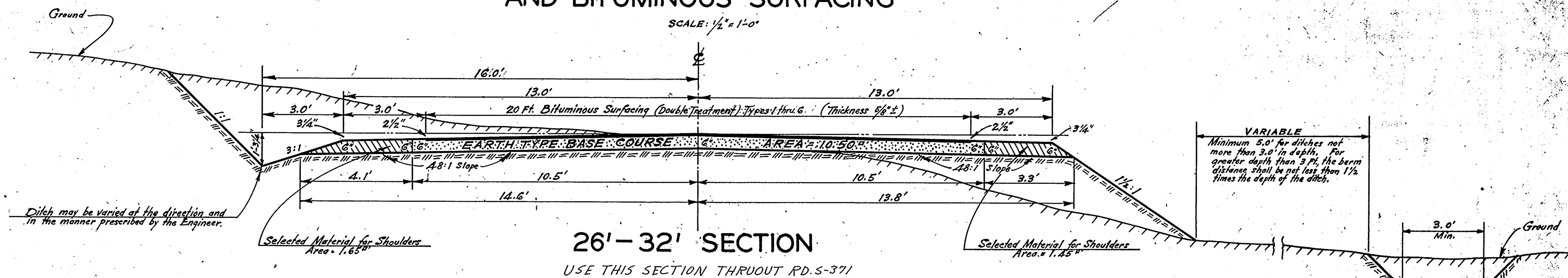
Sq. # 5 H.O.T.

STATE HIGHWAY DEPT.
COLUMBIA

TYPICAL SECTIONS

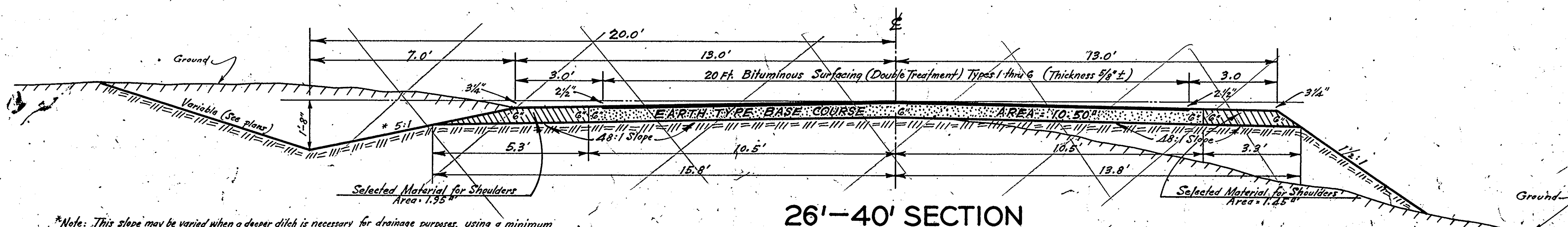
FOR
EARTH TYPE BASE COURSE
AND BITUMINOUS SURFACING

Proj. No.	State	County	Dist. No.	Sheet No.	Scale
3-37	3-C	Greenwood	24:377	3:371	1/2" = 1'-0"



Note: This slope may be varied when a deeper ditch is necessary for drainage purposes, using a minimum slope of 12:1 and a maximum slope of 4:1. Where a deeper ditch than provided by a 3:1 is necessary, the ditch shall be placed farther from the centerline continuing the 3:1 slope to provide the necessary depth. See profile for special ditch grades.

Also, this section may be widened by continuing the 4:1 slope (the distance between the centerline and bottom of the ditch not to exceed 24 ft.) where borrow material is necessary on flat grades that are governed by water elevation or where a wide ditch is necessary for drainage purposes.



Note: This slope may be varied when a deeper ditch is necessary for drainage purposes, using a minimum slope of 12:1 and a maximum slope of 4:1. Where a deeper ditch than provided by a 4:1 is necessary, the ditch shall be placed farther from the centerline continuing the 4:1 slope to provide the necessary depth. See profile for special ditch grades.

Also, this section may be widened by continuing the 5:1 slope (the distance between the centerline and bottom of the ditch not to exceed 30 feet) where borrow material is necessary on flat grades that are governed by water elevation or where a wide ditch is necessary for drainage purposes.

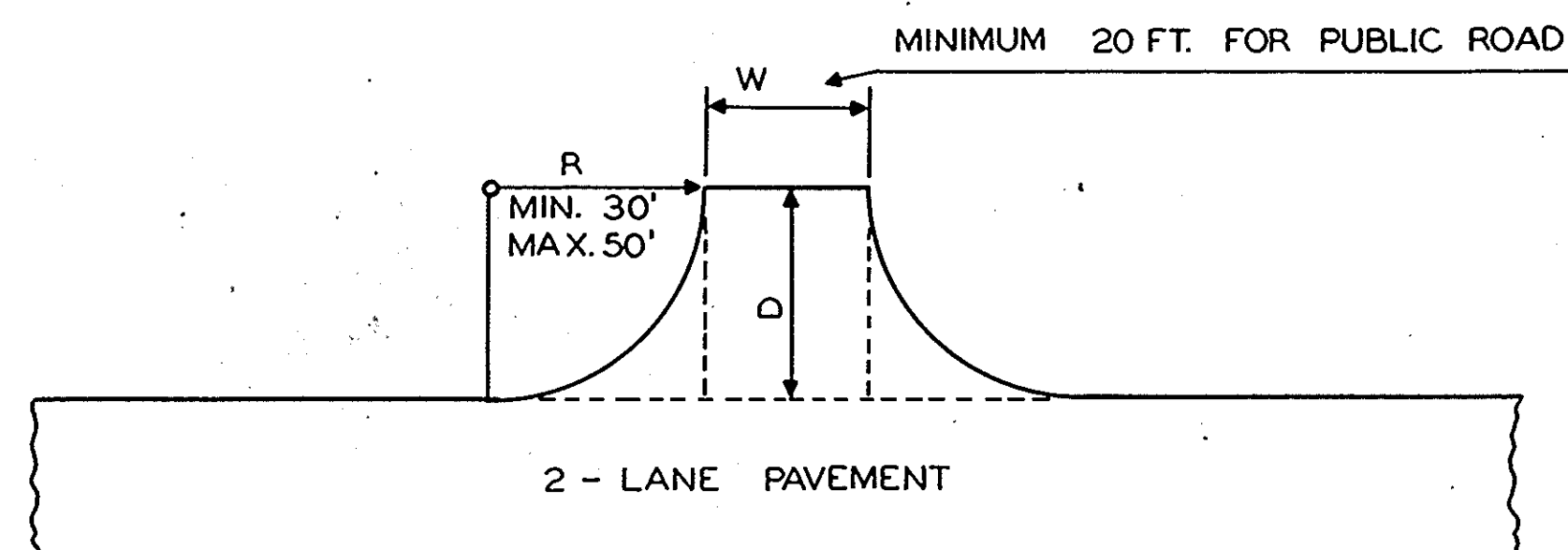
Note: Horizontal dimensions are shown in tenths of feet.

SECTION 16

FED. ROAD DIV. NO.	STATE	COUNTY	DOCKET NO.	PROJECT NO.	NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	Greenwood	24-377	S-2124 (1)	S-371	3	18

STANDARD TYPE INTERSECTIONS

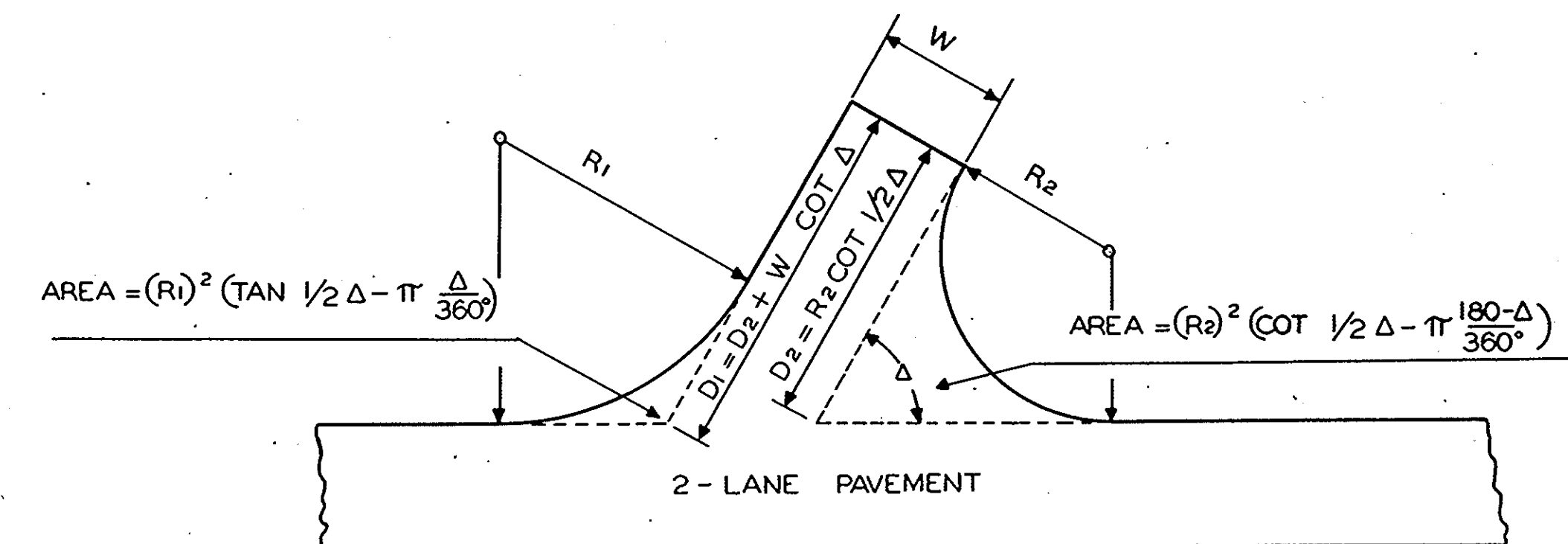
SCALE : 1" = 25'



T - TYPE INTERSECTION

FOR ANGLES AT OR NEAR 90°
AREA OF PAVED SPUR = $WD + 0.43 R^2$

FOR PRIVATE DRIVEWAYS TO BE PAVED,
USE THIS TYPE WITH 20' RADIUS AND 10'
WIDTH AT BACK. AREA FOR DRIVEWAY =
41.3 S.Y.



Y - TYPE INTERSECTION

ANGLE Δ	MAXIMUM			MINIMUM		
	R1 FEET	R2 FEET	AREA * S.Y.	R1 FEET	R2 FEET	AREA * S.Y.
90°	50	50	241.7	30	30	116.3
75°	80	50	354.3	50	25	145.1
60°	125	35	350.2	75	20	164.1
45°	200	25	355.9	100	15	170.2
# 30°	300	20	398.1	150	10	180.0

* THE AREAS GIVEN ARE FOR THE TOTAL AREA BEYOND THE EDGE OF THE PAVEMENT ON THE MAIN ROAD. WIDTH AT BACK OF INTERSECTION, W = 22 FT.

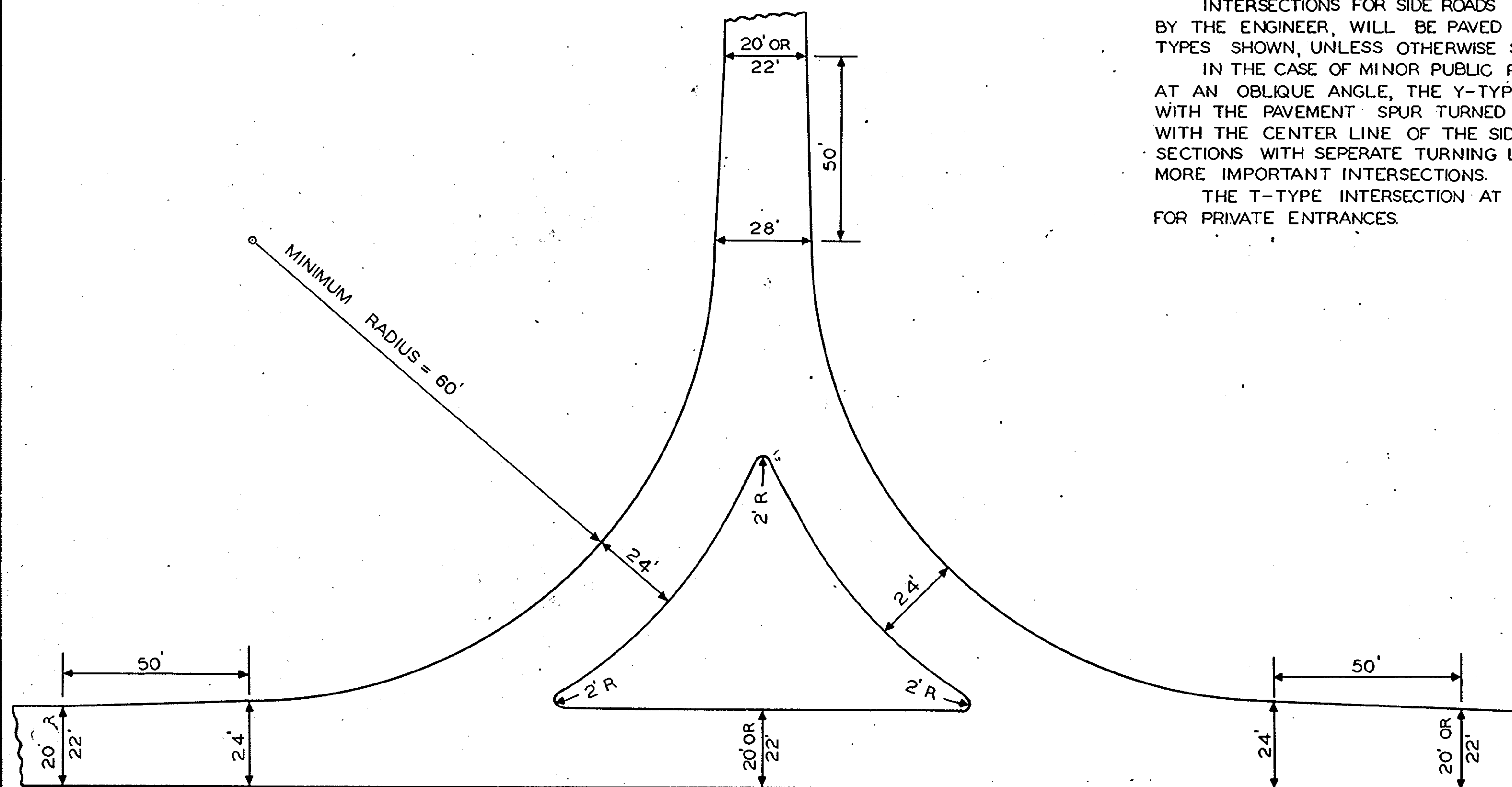
INTERSECTIONS AT LESS THAN 45° SHOULD BE CONSTRUCTED WITH SEPARATE TURNING LANES WHERE PRACTICAL AS SHOWN BY INTERSECTION TYPE BELOW.

GENERAL NOTES:

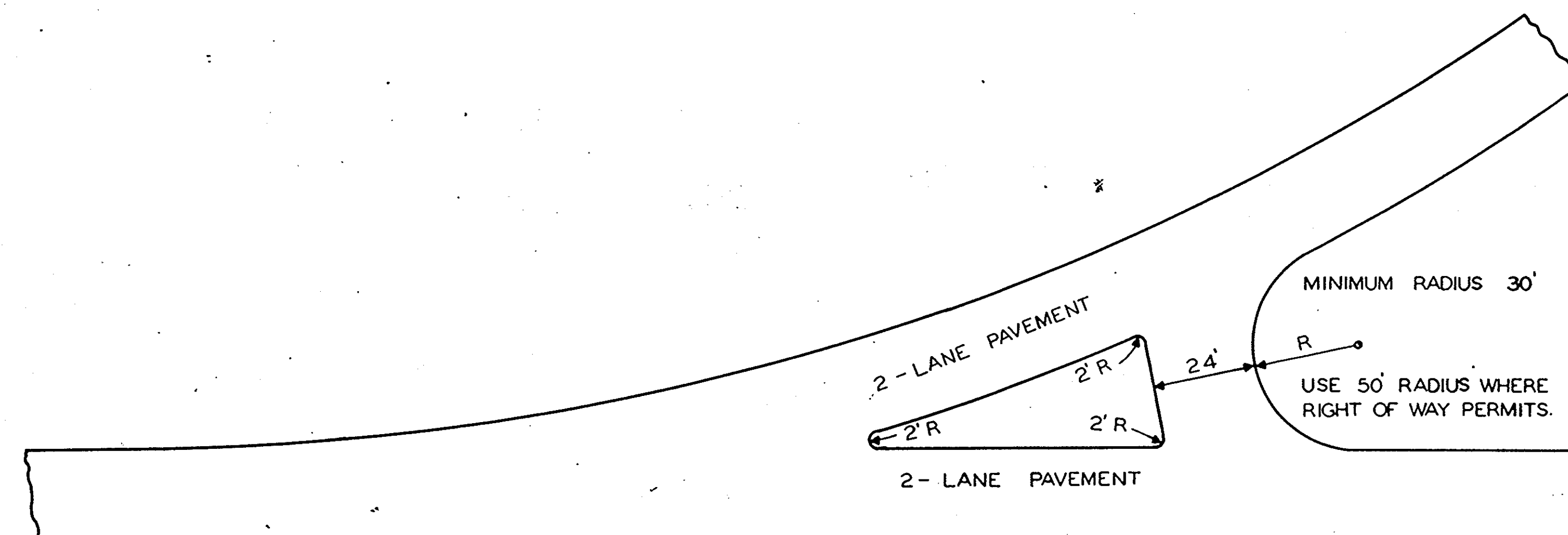
INTERSECTIONS FOR SIDE ROADS AND DRIVEWAYS WHERE DIRECTED BY THE ENGINEER, WILL BE PAVED USING ONE OF THE STANDARD TYPES SHOWN, UNLESS OTHERWISE SHOWN ON PLANS.

IN THE CASE OF MINOR PUBLIC ROADS INTERSECTING THE HIGHWAYS AT AN OBLIQUE ANGLE, THE Y-TYPE INTERSECTION SHOULD BE USED WITH THE PAVEMENT SPUR TURNED AT THE PROPER ANGLE TO LINE UP WITH THE CENTER LINE OF THE SIDE ROAD. T-TYPE OR Y-TYPE INTERSECTIONS WITH SEPARATE TURNING LANES SHOULD BE USED AT THE MORE IMPORTANT INTERSECTIONS.

THE T-TYPE INTERSECTION AT 90° SHOULD BE USED AT DRIVEWAYS FOR PRIVATE ENTRANCES.



T - TYPE INTERSECTION WITH SEPARATE TURNING LANES



Y - TYPE INTERSECTION WITH SEPARATE TURNING LANE

DRAWING NO. A-51

SUPERELEVATION STANDARD

S.C. STATE HIGHWAY DEPT.
COLUMBIA

FED.ROAD DIV.NO.	STATE	COUNTY	DOCKET NO.	PROJECT NO.	NO	SHEET NO	TOTAL SHEET
3	S.C.	Greenwood	24-377	S-2124(V)	S-371	4	18

NOTES

All curves are to be superelevated to the nearest thirty (30') minutes according to table. In any case where conditions do not permit an approach as long as shown on this sheet, the Resident Engineer is to adjust same, to meet the conditions. Where unusual conditions make it desirable, superelevation may be obtained by revolving the surface about the centerline instead of the inside edge, the amount of superelevation to be the same as shown in the table. For all types of surfacing the roadway crown shall decrease gradually from the point where superelevation begins, reaching a flat section 80ft. from the beginning S.E. toward the curve. The crown in subgrade shall be eliminated to conform to the finished surfacing.

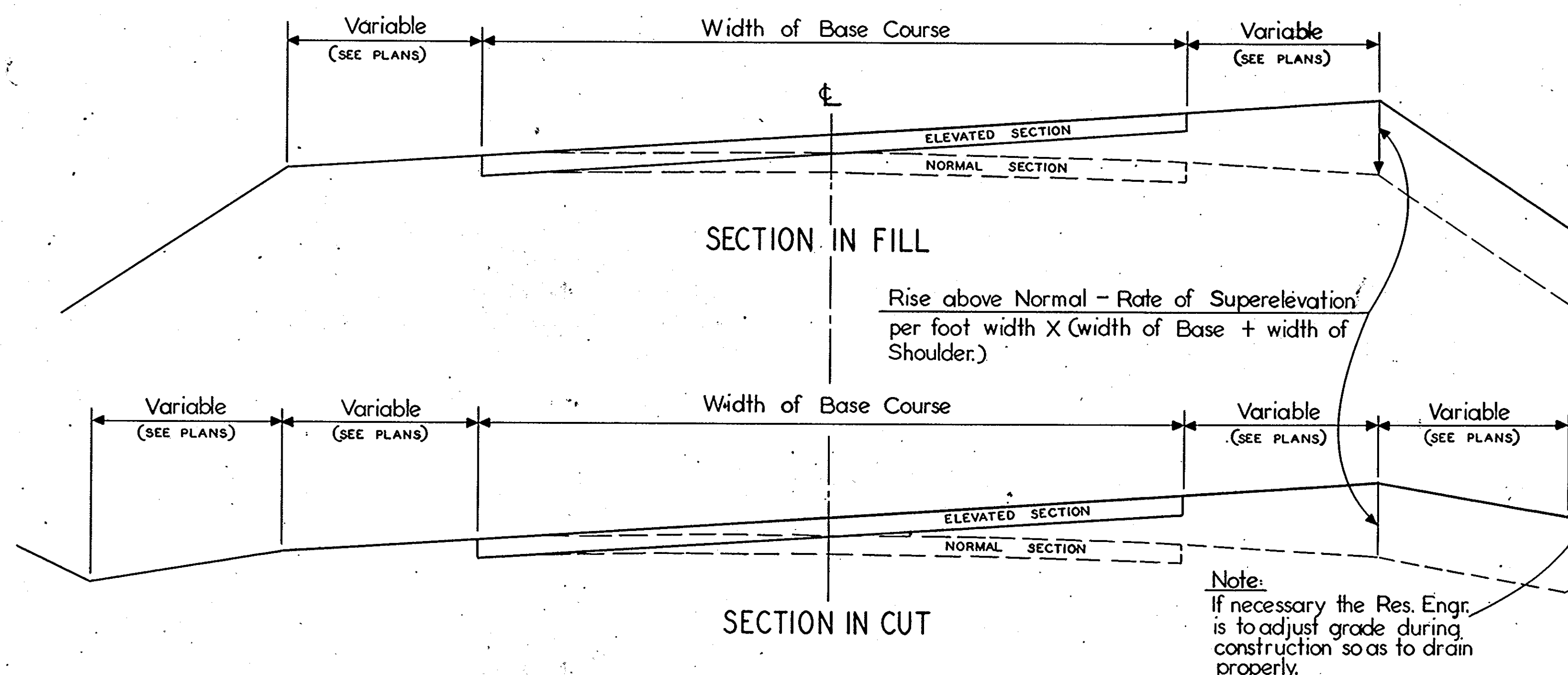
SUPERELEVATION FORMULA:

$$E = 0.067 \frac{S^2}{R}$$

E = SUPERELEVATION IN FEET

S = SPEED IN MILES PER HOUR

R = RADIUS OF CURVE IN FEET



~~SUPERELEVATION
FOR
DESIGN SPEED OF 65 M.P.H.
(BASED ON S = 50 M.P.H. IN FORMULA)~~

DEGREE OF CURVE	RADIUS OF CURVE	SUPERELEV. IN FT. PER FT. WIDTH	TOTAL SUPERELEVATION - FT.			LENGTH OF APPROACH - FT.		
			21' WIDTH	23' WIDTH	25' WIDTH	21' WIDTH	23' WIDTH	25' WIDTH
0°-30'	11 459.19	0.014	0.29	0.32	0.35	98	104	110
1°-00'	5729.65	0.029	0.61	0.67	0.73	162	174	186
1°-30'	3819.83	0.043	0.90	0.99	1.08	220	238	256
2°-00'	2864.93	0.057	1.20	1.31	1.43	280	302	326
2°-30'	2292.01	0.072	1.51	1.66	1.80	342	372	400
3°-00'	1910.08	0.086	1.81	1.98	2.15	402	436	470
3°-30' and over	TO BE SUPERELEVATED SAME AS 3°-00'							

TABLE SHOWING AMOUNT OF SUPERELEVATION AT ANY POINT ON APPROACH TO CURVE

DISTANCE FROM BEGINNING OF SUPERELEVATION IN DIRECTION OF CURVE - FEET

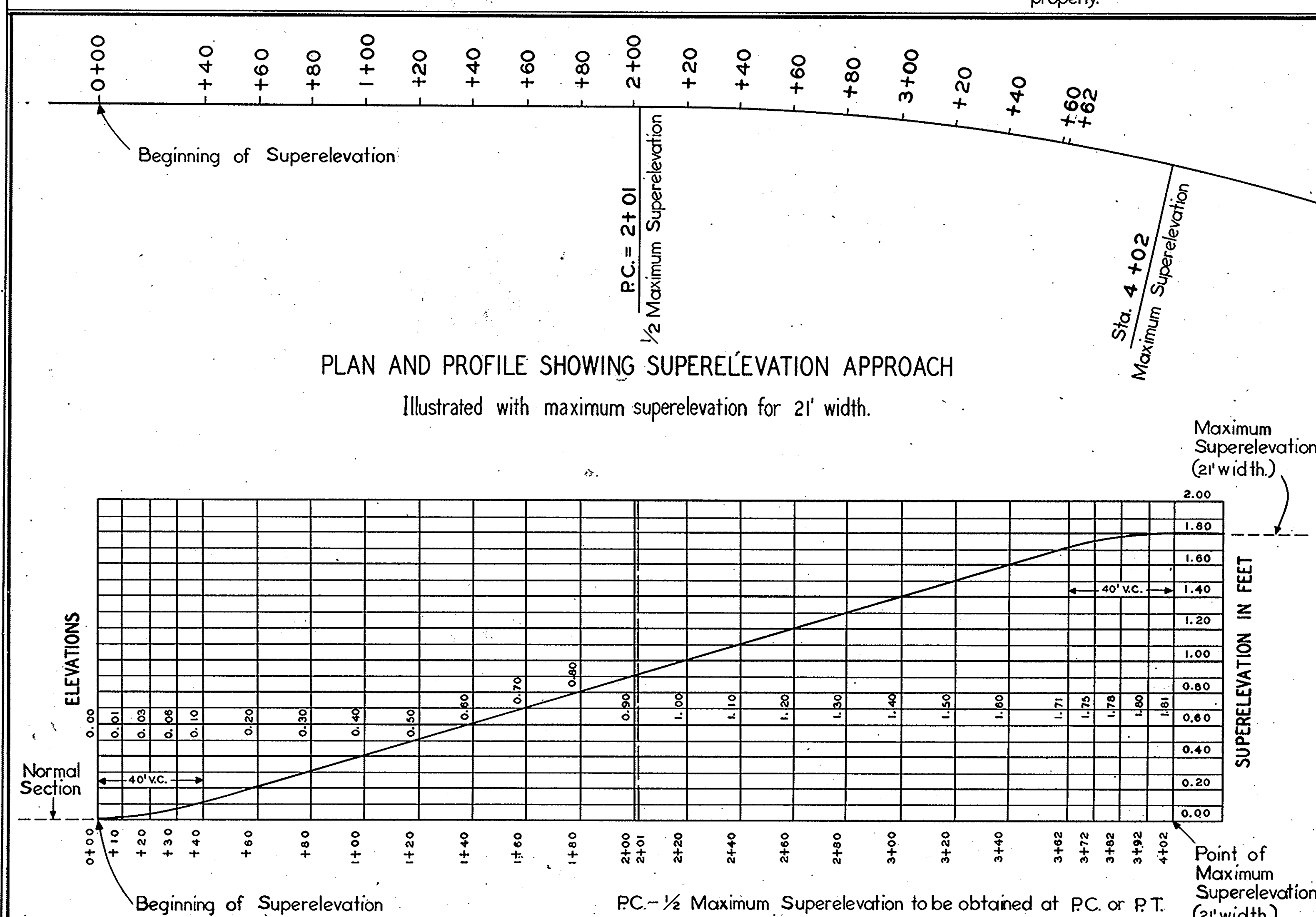
[illegible]

SUPERELEVATION
FOR
DESIGN SPEED OF 45 M.P.H.
(BASED ON S = 35 M.P.H. IN FORMULA)

DEGREE OF CURVE	RADIUS OF CURVE	SUPERELEV. IN FT. PER FT. WIDTH	TOTAL SUPERELEVATION - FT.			LENGTH OF APPROACH - FT.		
			19' WIDTH	21' WIDTH	23' WIDTH	19' WIDTH	21' WIDTH	23' WIDTH
1° - 00'	5729.65	0.014	0.27	0.29	0.32	94	98	104
1° - 30'	3619.93	0.021	0.40	0.44	0.48	120	126	136
2° - 00'	2664.93	0.029	0.55	0.61	0.67	150	162	174
2° - 30'	2292.01	0.038	0.68	0.76	0.83	176	192	206
3° - 00'	1910.06	0.043	0.82	0.90	0.99	204	220	238
3° - 30'	1637.28	0.050	0.95	1.05	1.15	230	250	270
4° - 00'	1432.89	0.057	1.08	1.20	1.31	256	280	302
4° - 30'	1273.57	0.065	1.24	1.37	1.50	288	314	340
5° - 00'	1146.28	0.072	1.37	1.51	1.66	314	342	372
5° - 30'	1042.14	0.079	1.50	1.66	1.82	340	372	404
6° - 00'	955.37	0.086	1.63	1.81	1.98	366	402	436

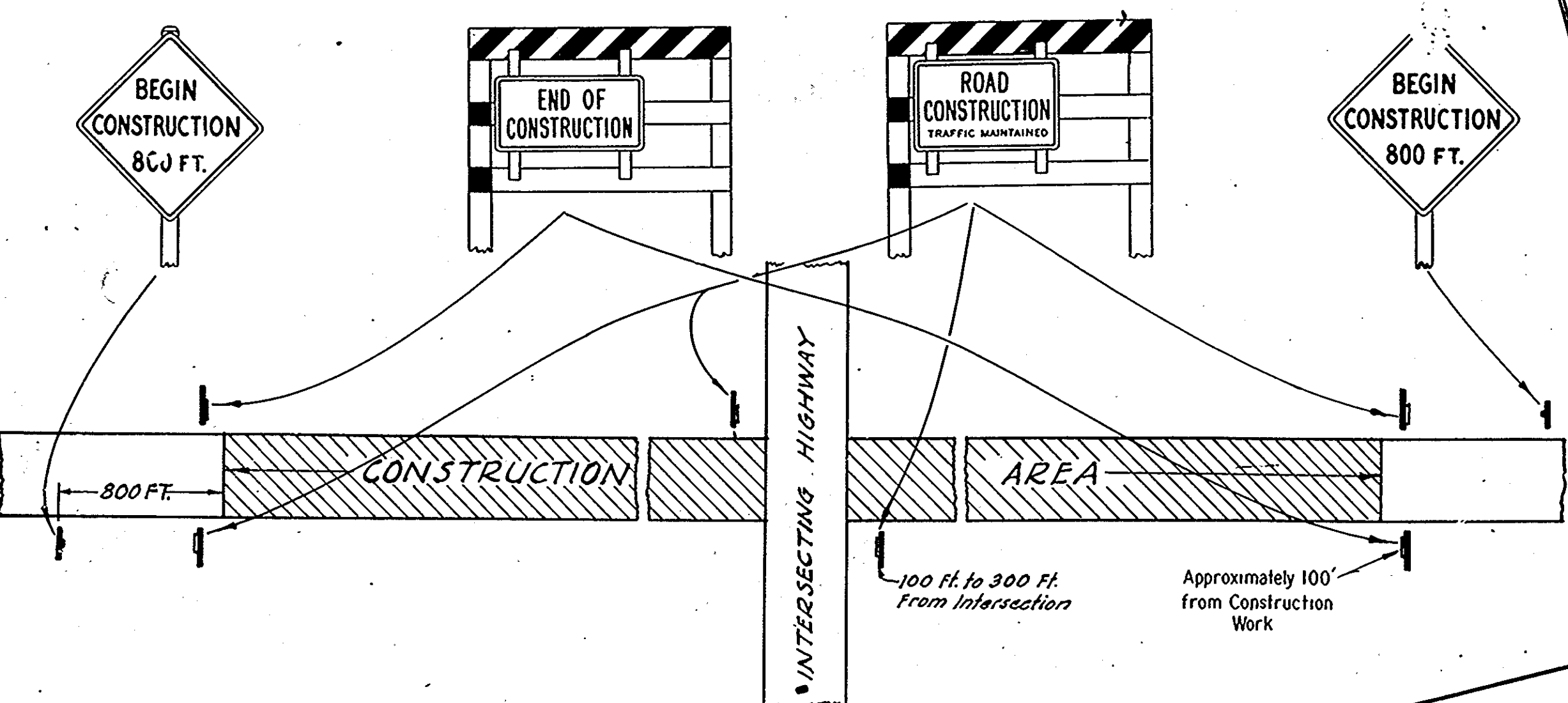
TABLE SHOWING AMOUNT OF SUPERELEVATION AT ANY POINT ON APPROACH TO CURVE

DISTANCE FROM BEGINNING OF SUPERELEVATION IN DIRECTION OF CURVE - FEET

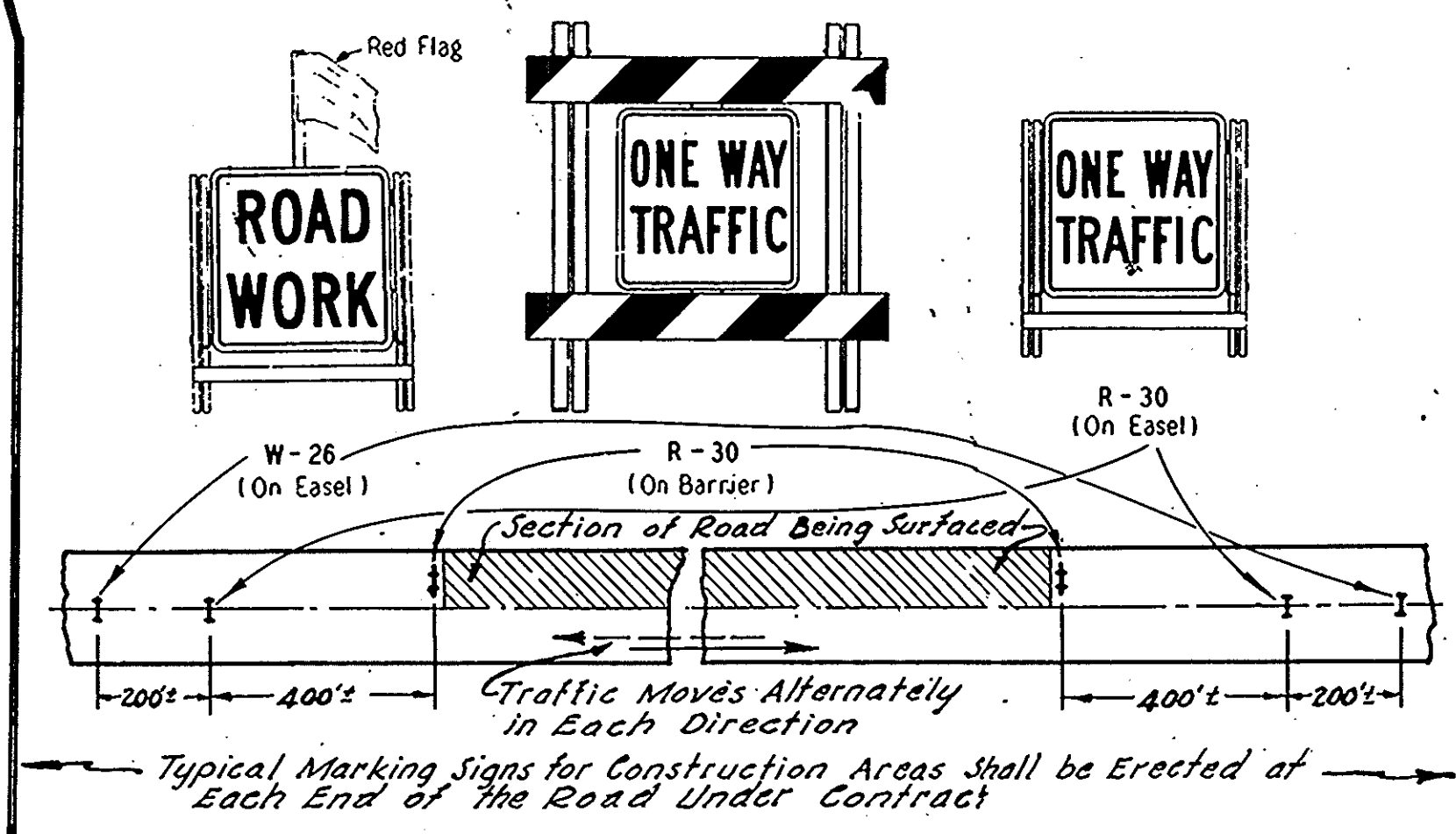
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REVISED	BY: T.J. HENDRIX	4 - 1946
REDRAWN	BY: C.W. METZ	4 - 1946
RETRACED	BY: CONNIE WILLIS	3 - 1958

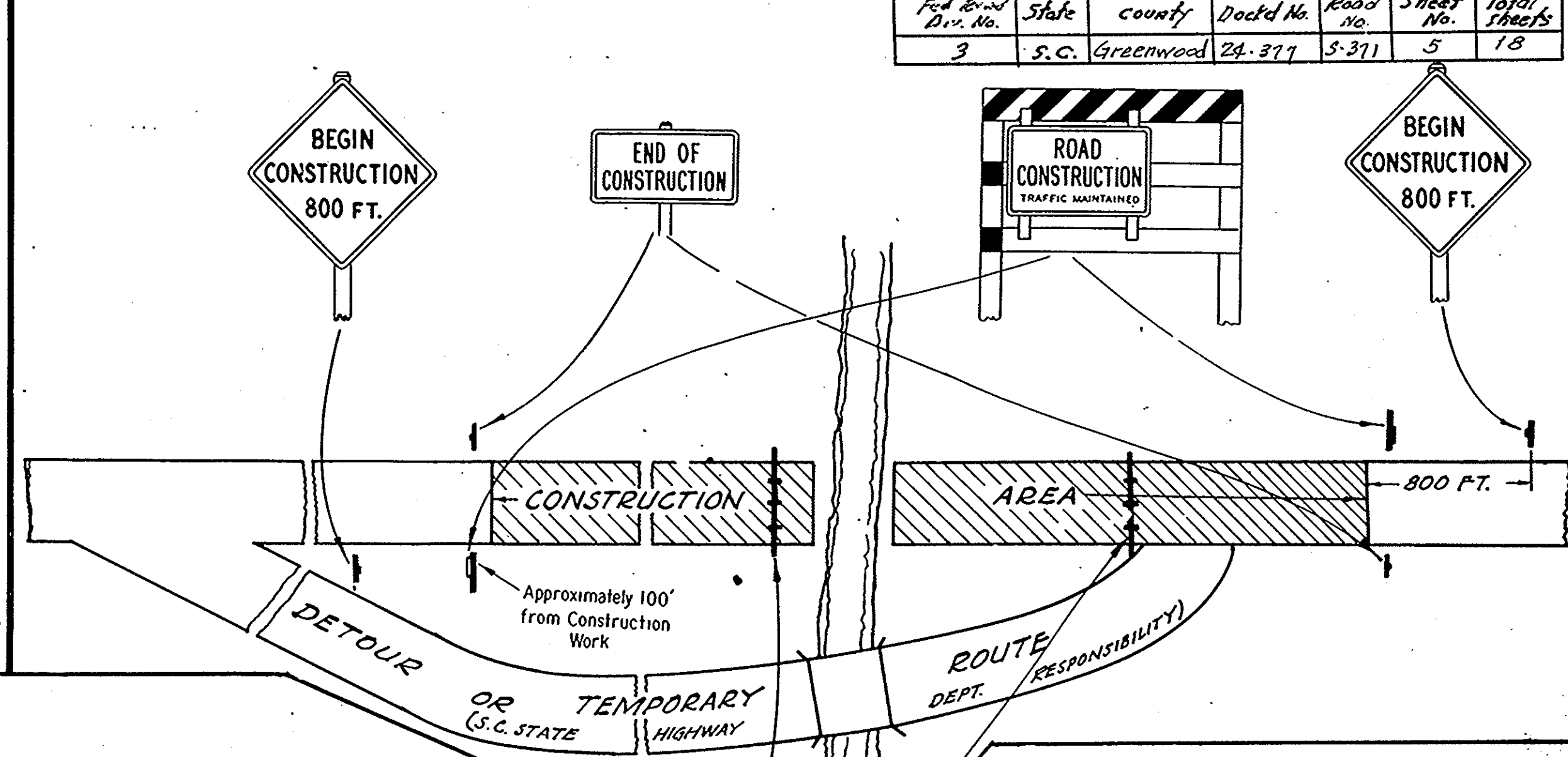
TYPICAL MARKING FOR CONSTRUCTION AREAS



APPLICATION OF STANDARD SIGNS WHEN ROADWAY IS BEING SURFACED

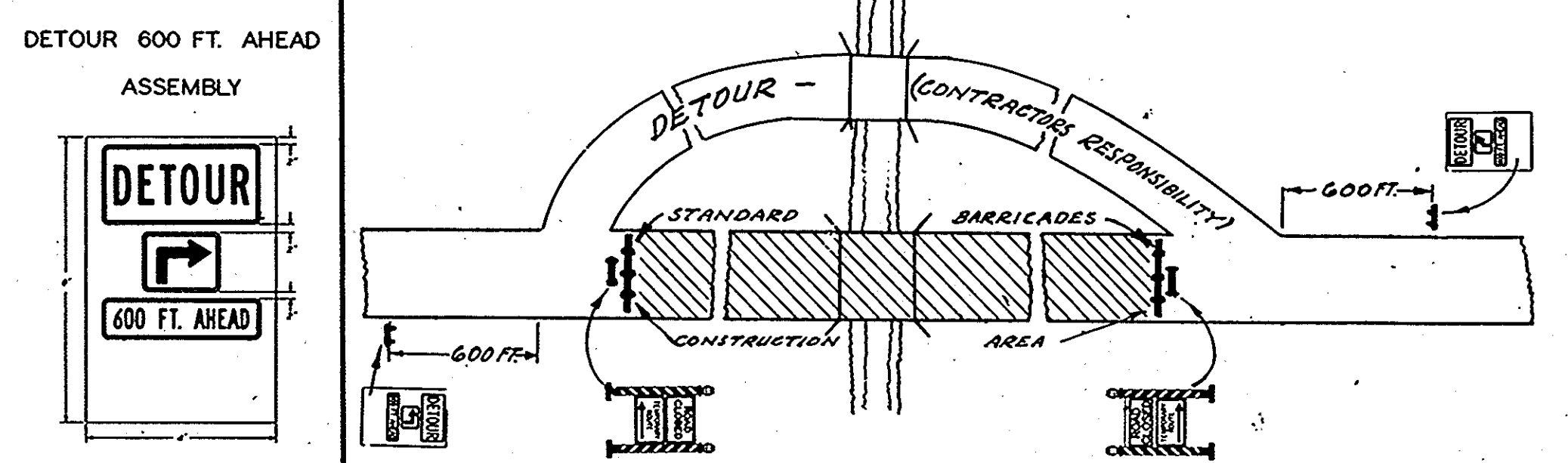


TYPICAL MARKING FOR CONSTRUCTION AREAS

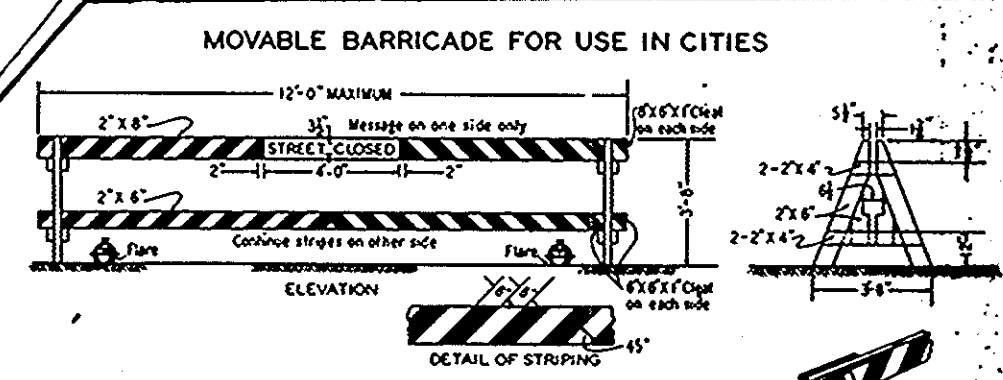
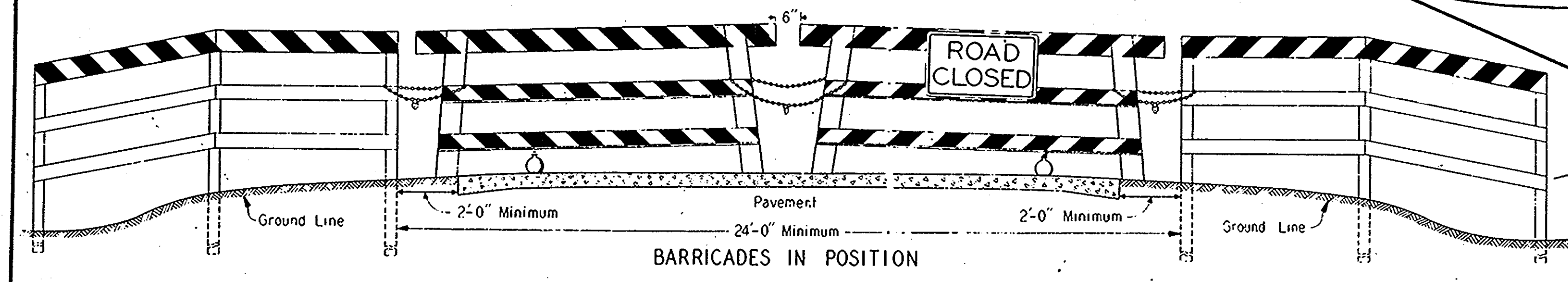


Sheet No.	State	County	District No.	Sheet No.	Total Sheets
3	S.C.	Greenwood	29-377	5-371	18

TYPICAL MARKING FOR CONSTRUCTION AREAS

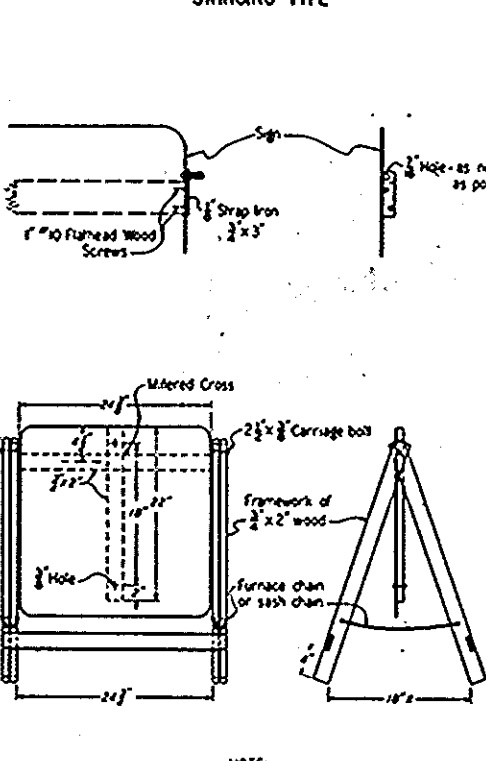


STANDARD BARRICADES

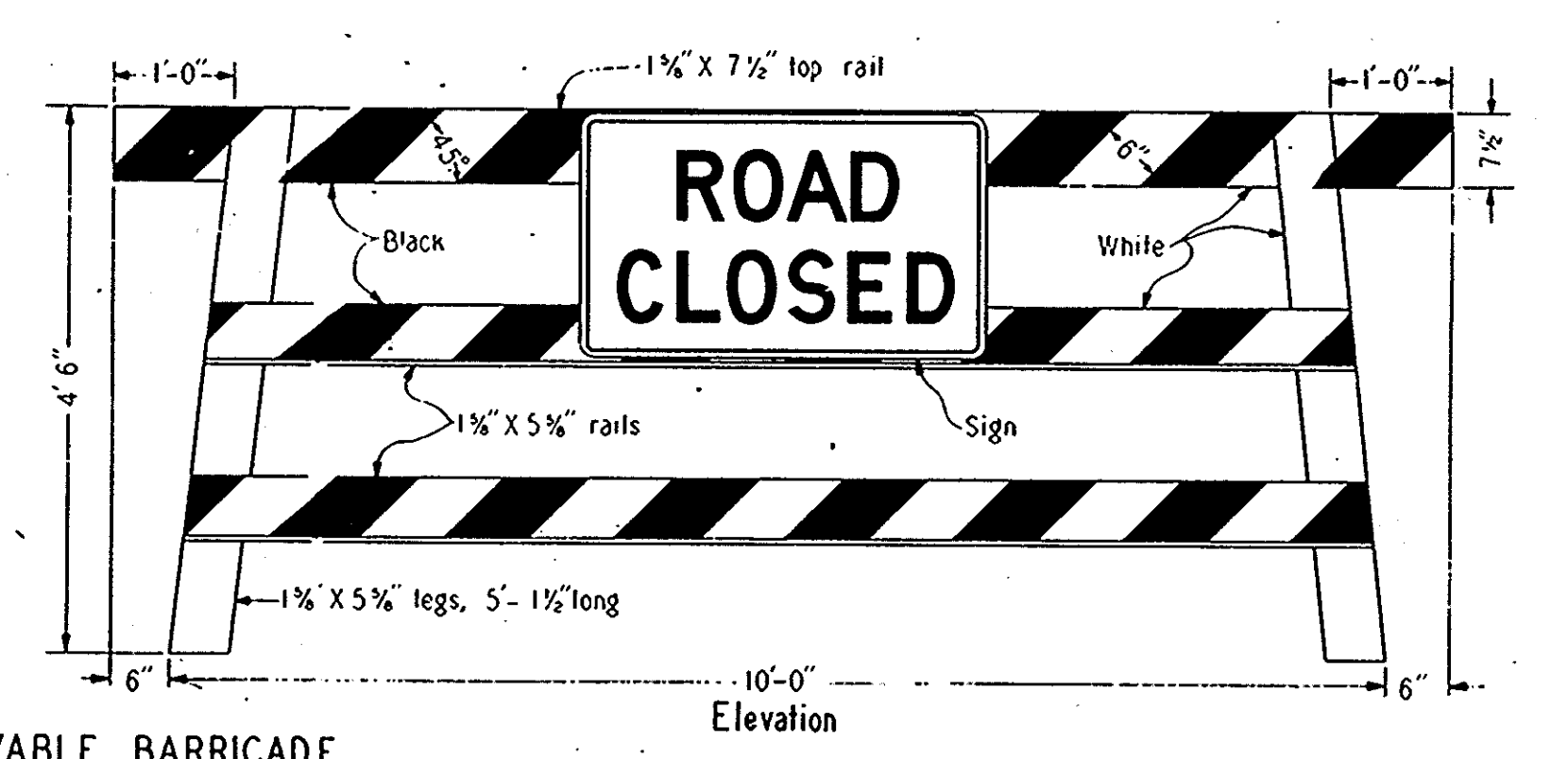
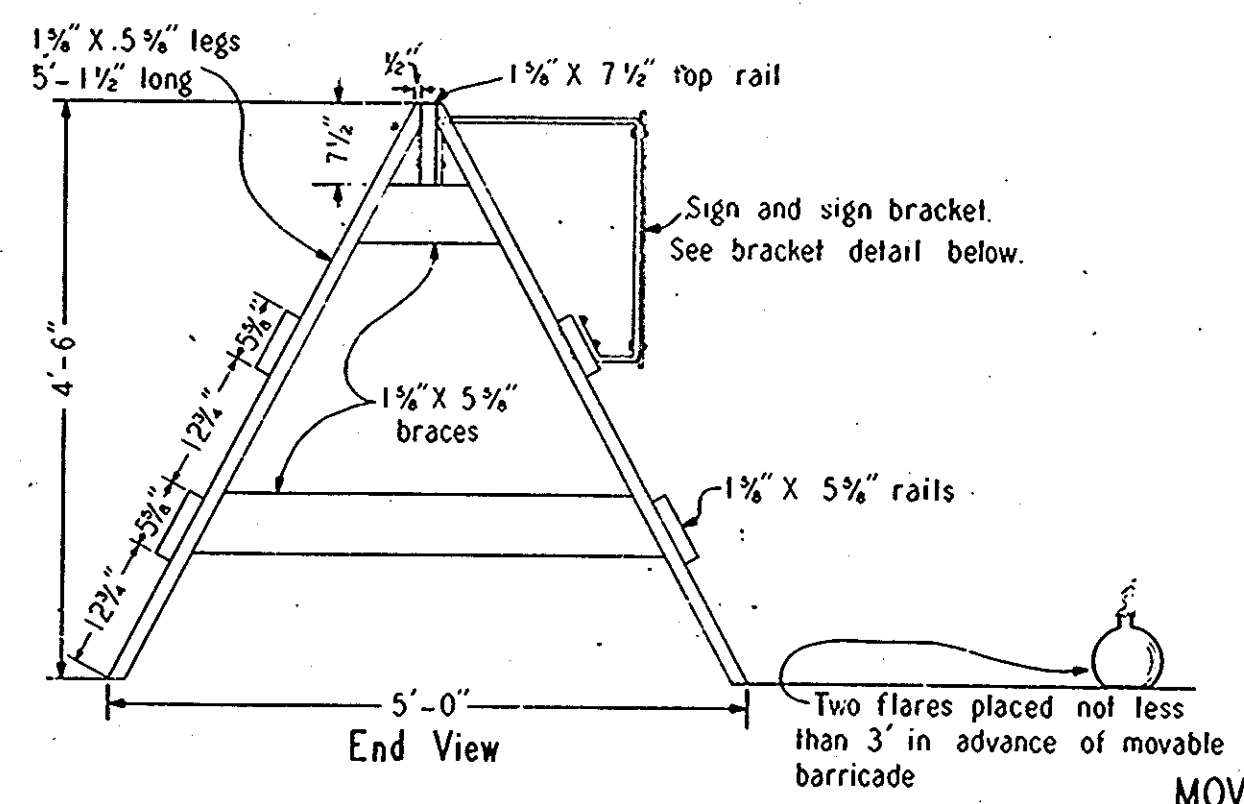
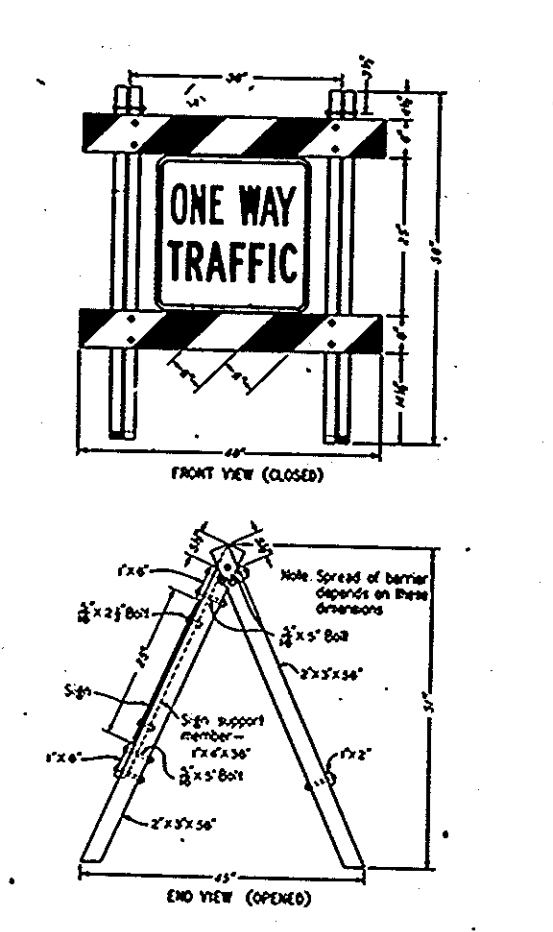


NOTE: The movable barricade should be used on streets which are closed to traffic. A sufficient number of barricades should be used to close the entire street width. The barricade may also be used when traffic is confined to one side of the street for the protection of the workmen, repair, open trenches, etc., in which case the message STREET CLOSED should be on the back.

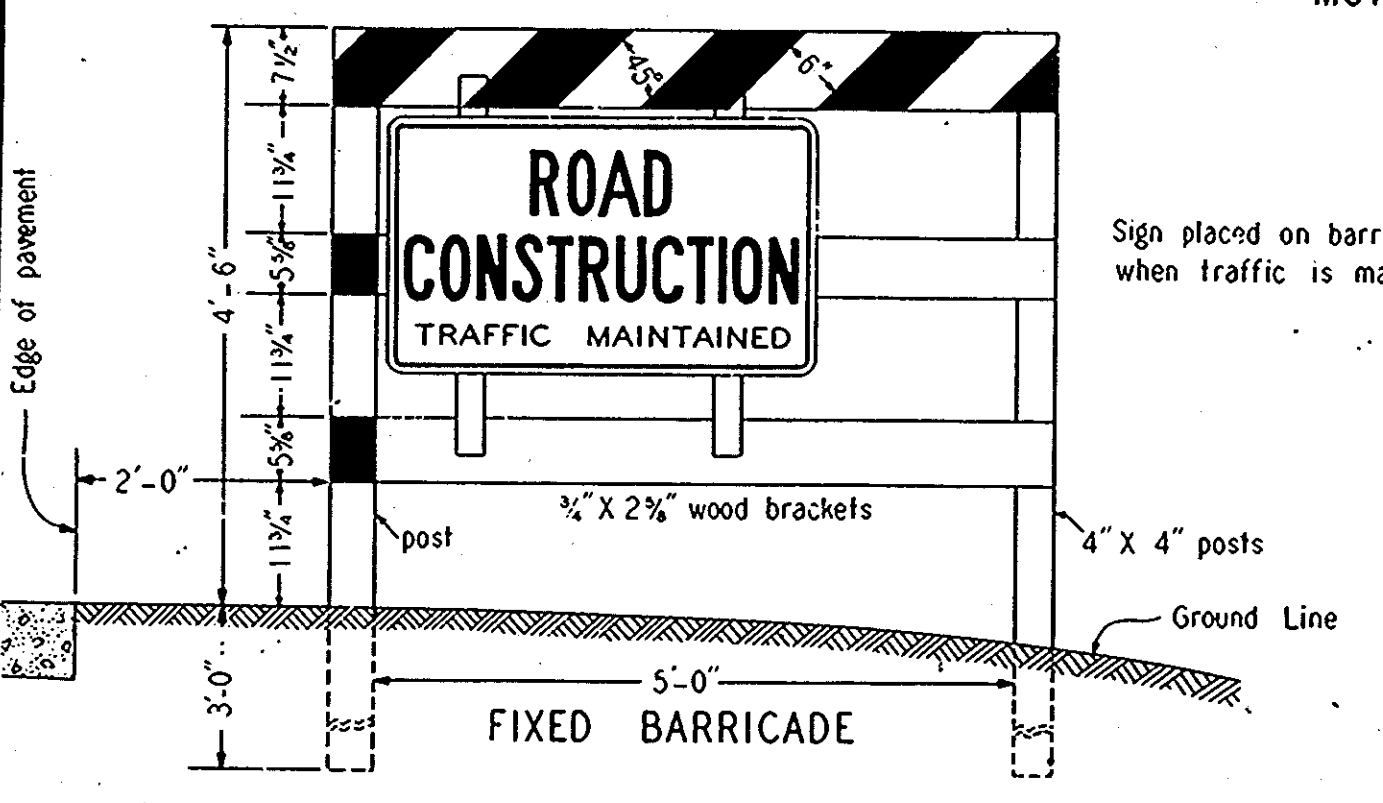
STANDARD SIGN EASEL



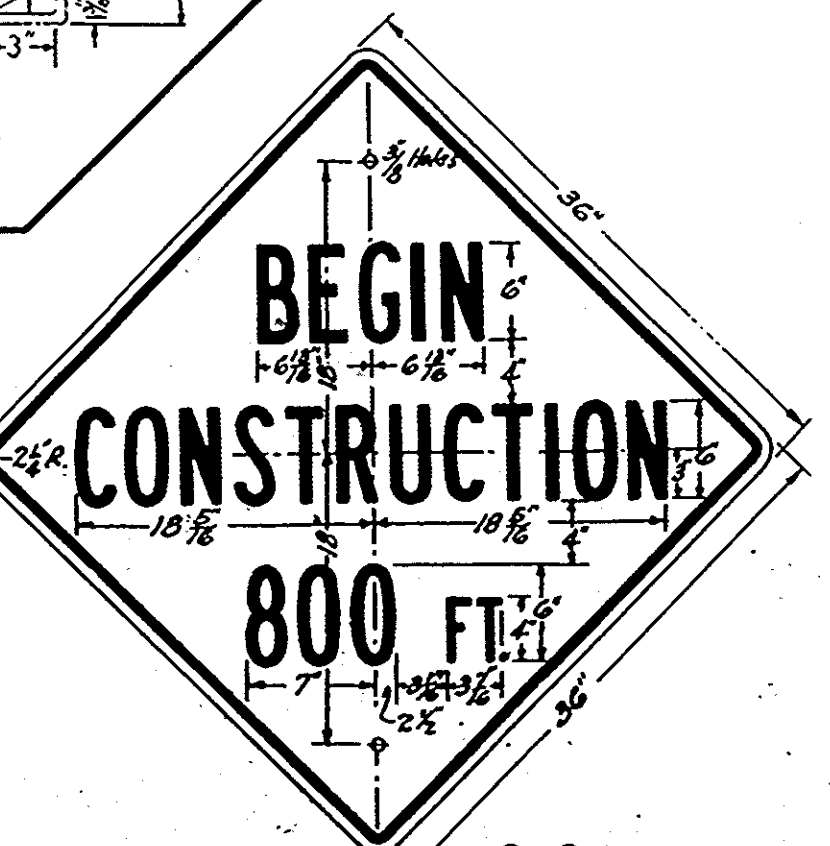
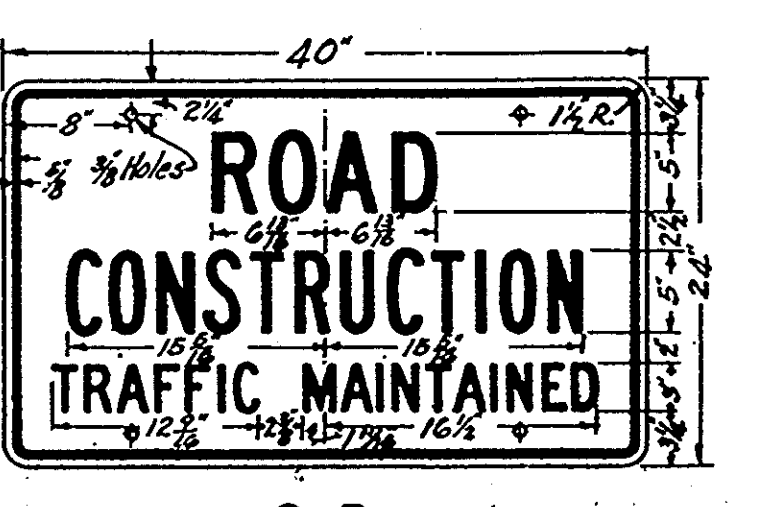
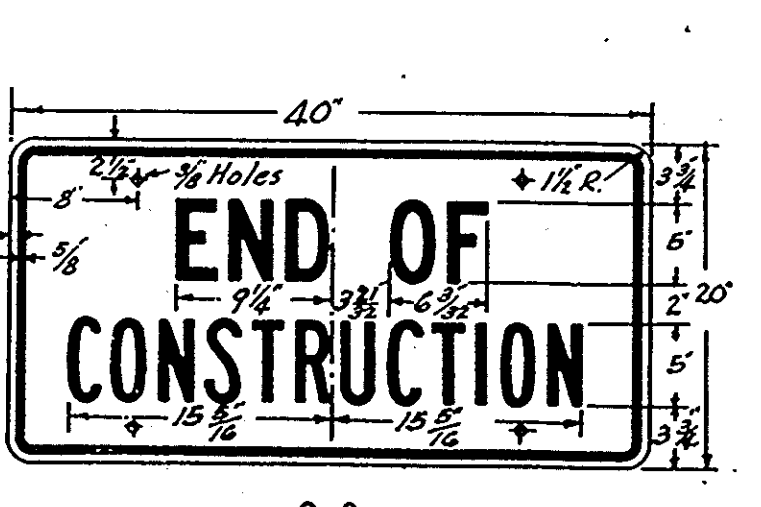
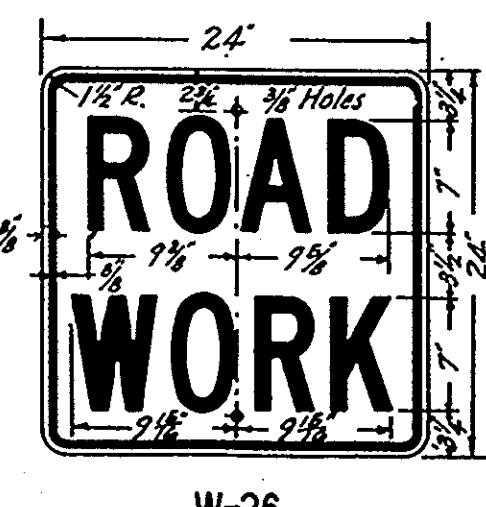
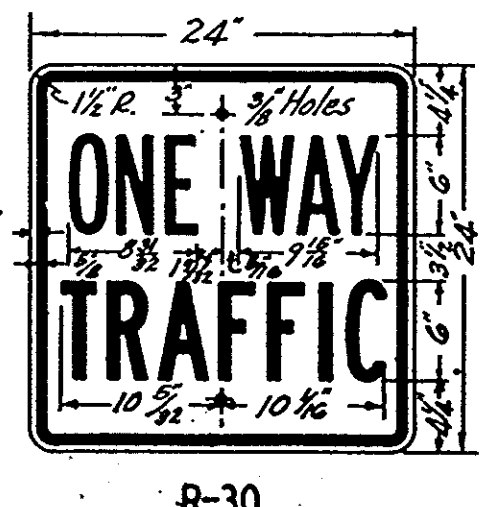
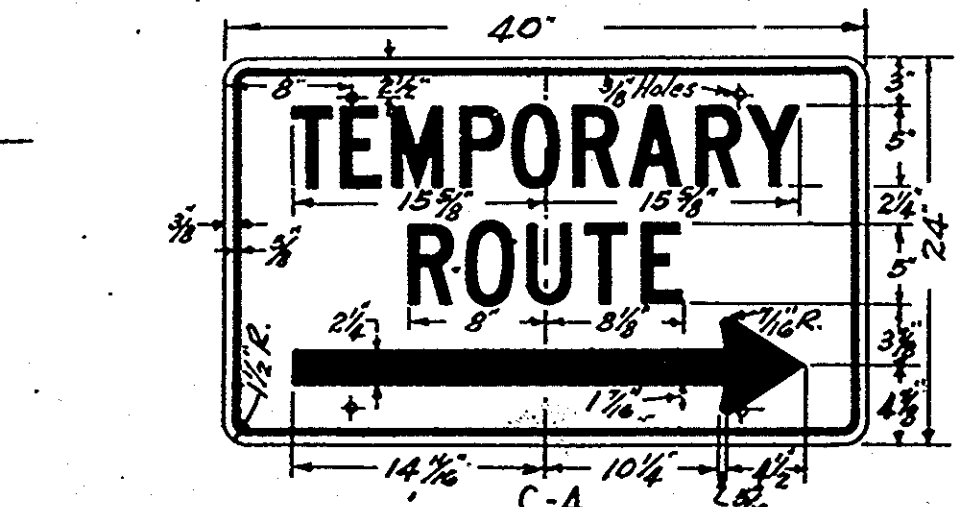
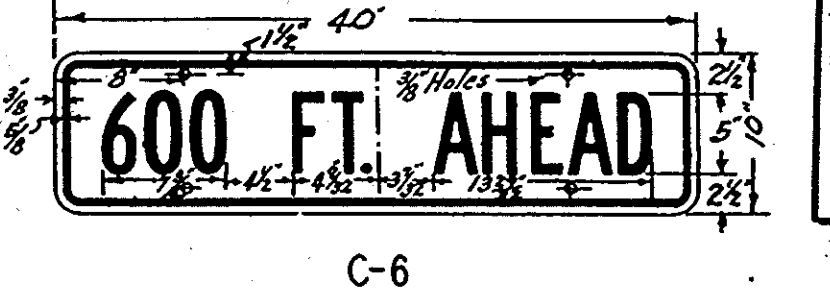
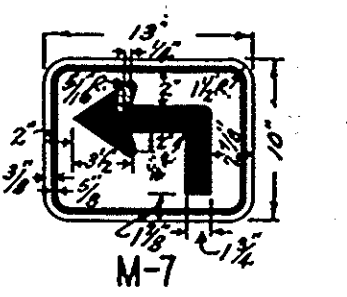
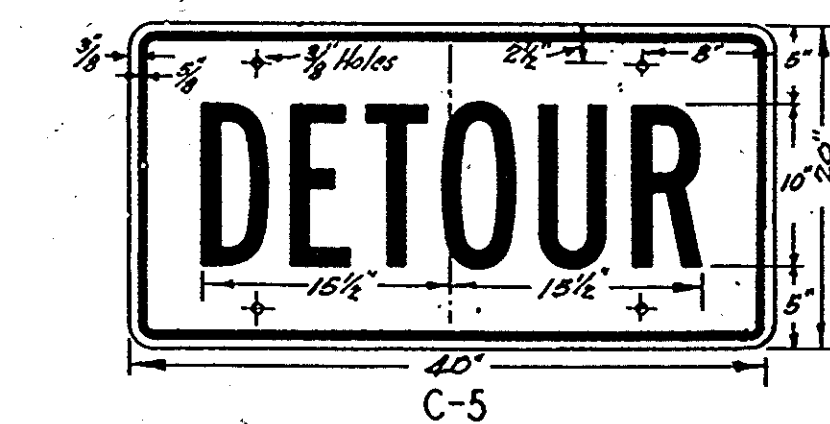
STANDARD PORTABLE SIGN BARRIER



MOVABLE BARRICADE



DRAWINGS SHOWING DIMENSIONS OF SIGNS

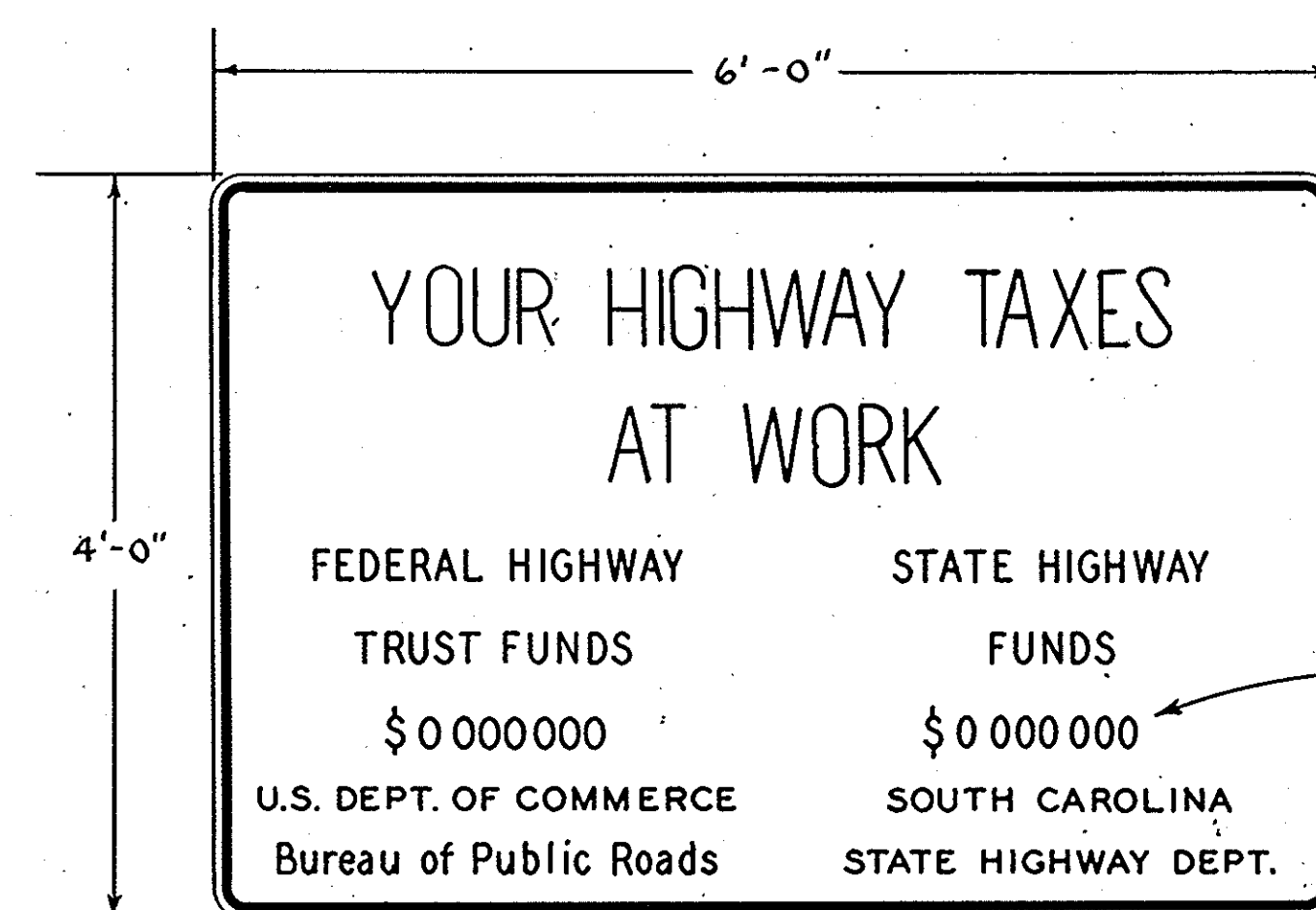


DETAILS SHOWING STANDARD SIGNS, BARRIERS, LIGHTS, AND BARRICADES TO BE FURNISHED, ERECTED, AND MAINTAINED BY THE CONTRACTOR WHERE APPLICABLE ON ALL ROAD OR BRIDGE CONTRACTS

APPROVED
DATE
STATE HIGHWAY ENGINEER

CONSTRUCTION IDENTIFICATION SIGN

FEDERAL-AID PRIMARY & SECONDARY SYSTEM



LEGEND & BORDER: BLACK
BACKGROUND: WHITE

The cost figures will be
furnished to the Contractor
by the Department.

2 Signs on L.R. Miles for Rd. S-221
Signs on Miles for Rds. 8
Signs on Miles for Rds. 8
Signs on Miles for Rds. 8

SIGNS REQUIRED

2 Signs will be required on the enclosed plans. See Plan Sheets 6 & 9

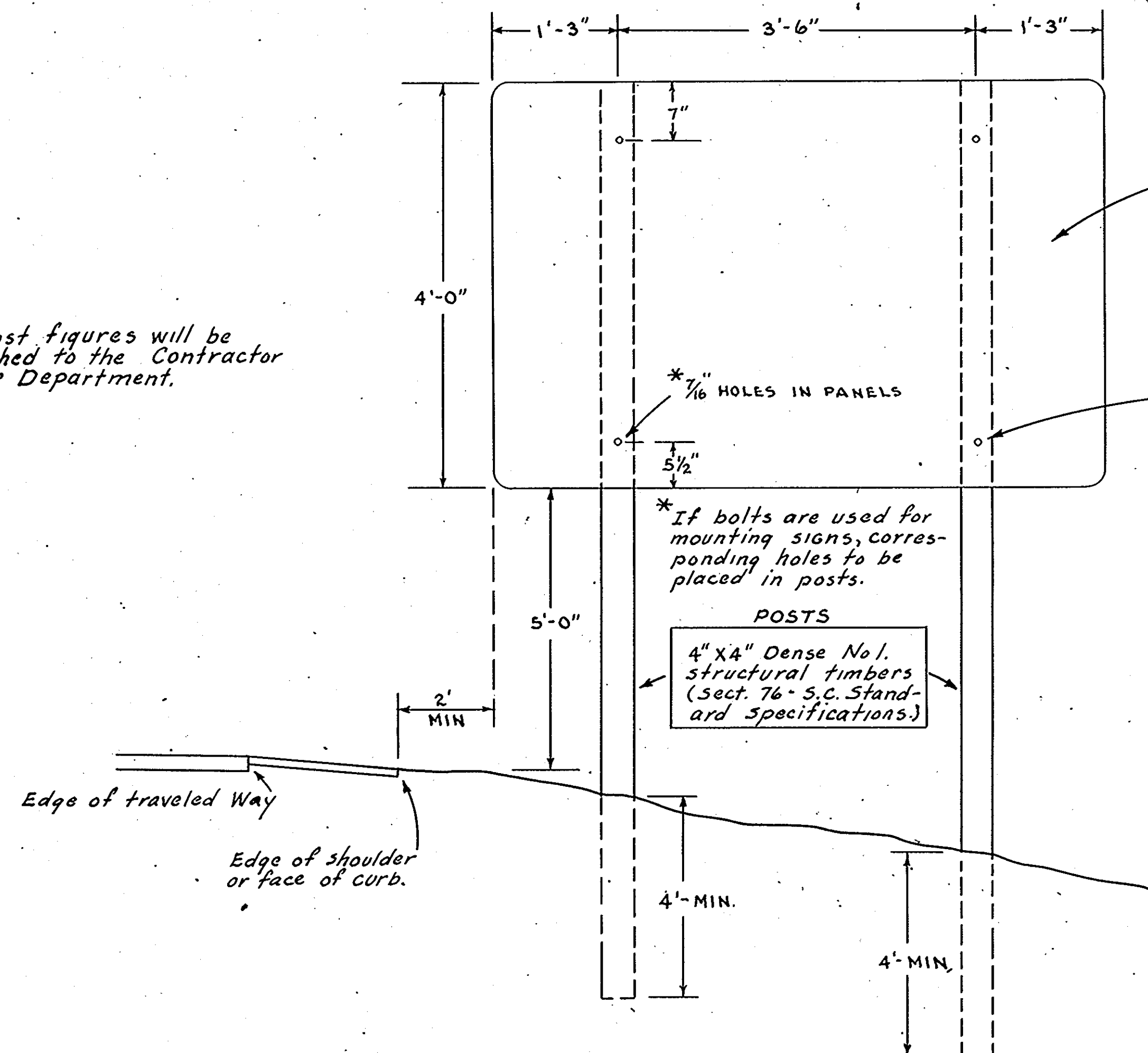
FABRICATION

The sign panel shall be made of one piece of plywood as indicated above. Panels shall be cut to size and mounting holes bored before painting is begun. Care should be exercised in sawing and drilling to avoid splintering. After cutting, all panels shall receive the following treatment:-

1. Paint front, back and all edges with a coat of "Outside White Paint" (Section 80, S.C. Standard Specifications), applying a heavy coat to edges. Allow panels to Air-dry with good air circulation for at least 24 hours, longer if necessary to assure the panels are thoroughly dry.
2. Repeat Step 1.
3. Abrade face of panel lightly with fine sandpaper or steel wool.
4. Repeat Step 1.
5. Apply Legend and Border (See "Legend") at rate necessary to assure a full cover and uniform copy. Paints for Legend shall be a high quality exterior silk screen enamel for screen application and a high quality exterior Bulletin lettering enamel for brush application.

LEGEND

The Legend and Border shall correspond with full scale drawings available to the Contractor from the Department's offices at 1100 Senate St, Columbia, S.C.



ERECTION

Sign panels shall be assembled into a single unit, using splice plates and nails as shown above. The nails shall be cleated at the rear of the splice plate.

Posts shall be set as indicated, thoroughly tamping the replaced soil in six inch layers. The posts shall be painted with two coats of "outside white paint," allowing at least 24 hours after each coat, or until the paint is thoroughly dry. The signs shall be mounted as indicated above.

REMOVAL AND OWNERSHIP

The signs shall be removed by the Contractor and shall remain property of the contractor upon completion of the contract.

SIGN PANELS

1/2" Exterior Plywood, Front Side Grade "A" Back Side Grade "C" or Better (Commercial Standard CS 45-55 For Douglas Fir Plywood, U.S. Dept. of Commerce.)

MOUNTING HARDWARE

3/8" X 5" Bolt or 3/8" X 3" Lag Screw. Flat washer to be used between face of sign and head of bolt or screw. If bolt is used, flat washer and lock washer to be used between Post and nut.

APPROVED

[Signature] 2/10/64
State Highway Engineer Date

FED. ROAD DIV. NO.	STATE	COUNTY	DOCKET NO.	PROJECT NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S. C.	Greenwood	24-377	S-2124(1)	5-371	4	18

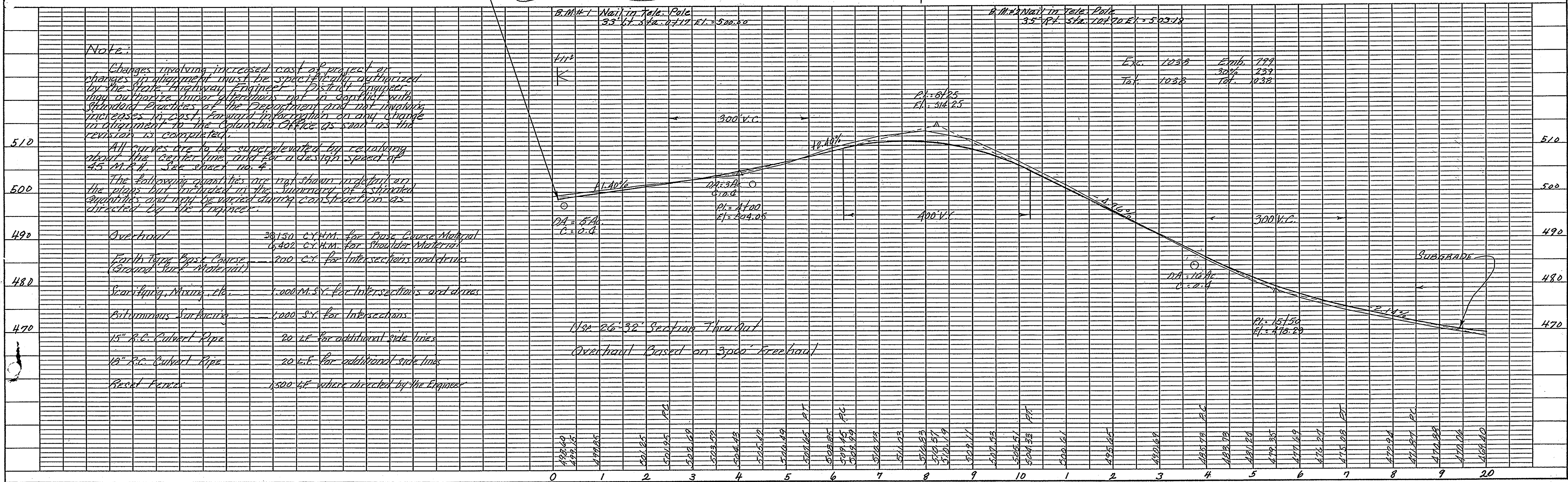
PLAN	DATE	BY	DATE
SURVEYED	6-23-64	BY	
NOTE BOOK			
NO.			

PROFILE	DATE	BY	DATE
SURVEYED		BY	
NOTE BOOK			
NO.			

Survey Sta. 0+10 Begin
F.A.P. No. S. 2124(1) Dkt. No. 24-377
Rd. S. 371

During Construction Relocate centerline as approx. shown by dashed line Sta. 0+00 to Sta. 9+39.1. Hold New P.I. Sta. 8+51. Shift centerline 3' Lt. at Sta. 1+00. Use 1° as Curve

JOHNNIE B. & MRS. MIRIAM T. RUSHTON
D. 5.4.64



Note:
Changes involving increased cost of project or changes in alignment must be specifically authorized by the State Highway Engineer. District Engineer may authorize minor alterations not in conflict with Standard Practices of the Department and not involving increases in cost, provided in preliminary or any change in alignment to the Planning Office as soon as the revision is completed.
All curves are to be super-elevated by rotating about the center line and for a design speed of 45 M.P.H. See sheet no. 4.
The following quantities are not shown in detail on the plans but included in the summary of estimated quantities and may be varied during construction as directed by the Engineer.

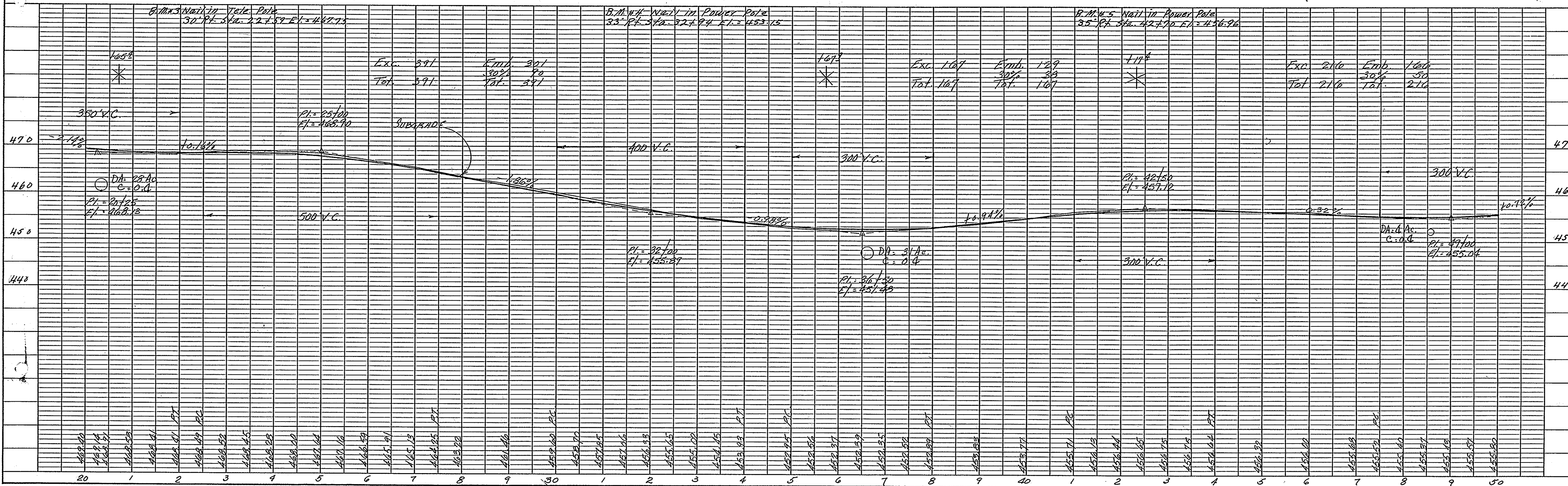
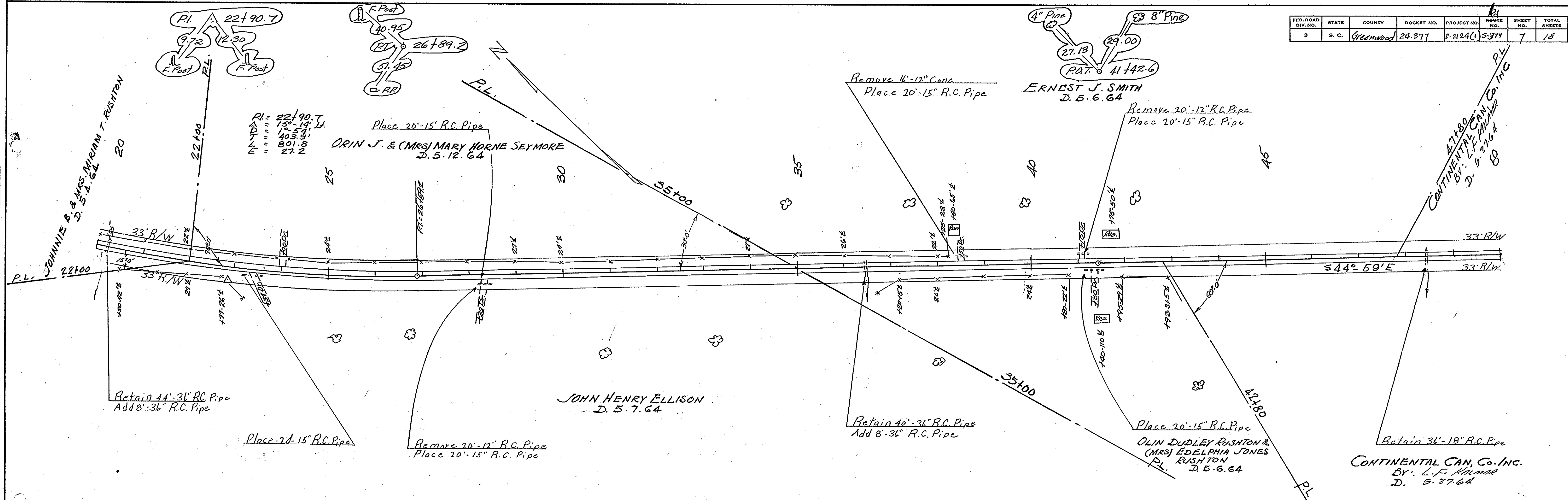
Overhaul	38150 CY.H.M. for Base Course Material
	6402 CY.H.M. for Shoulder Material
Earth for Base Course	200 CY for Intersections and drains
Gravel Sub. Material	
Scarifying, Mixing, etc.	1,000 M.S.Y. for Intersections and drains
Bituminous Surfacing	1,000 S.Y. for Intersections
15" R.C. Culvert Pipe	20 L.F. for additional side lines
12" R.C. Culvert Pipe	20 L.F. for additional side lines
Reet Paving	1,500 L.F. where directed by the Engineer

Use 26'-32' Section Thru Out
Overhaul Based on 3pcn' Freehaul

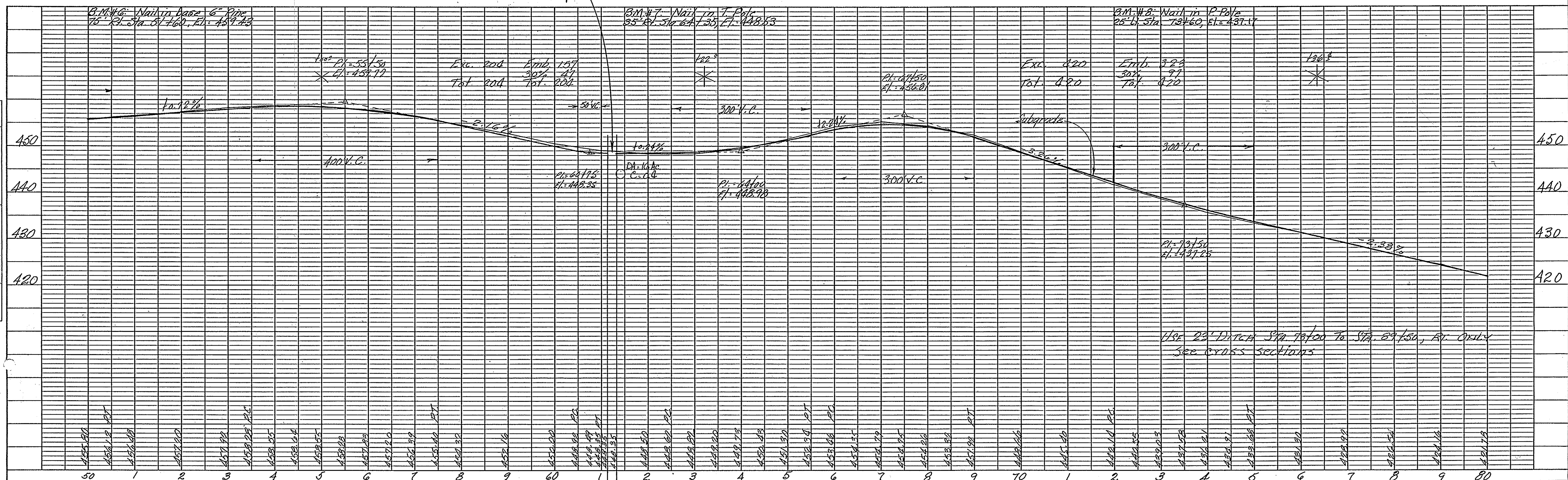
FED. ROAD DIV. NO.	STATE	COUNTY	DOCKET NO.	PROJECT NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S. C.	Greenwood	24-377	S. 224(1)	5-371	7	18

PLAN	SURVEYED	DATE
	PLOTTED	BY
	ALIGNED	BY
	CHECKED	BY
NOTE BOOK NO.		

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	GRADES	BY
	CHECKED	BY
STRUCTURE NOTATIONS CHD		



PROFILE	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK		
GRADES CHECKED		
B. M.'s NOTED		
STRUCTURE NOTATION SKETCHED		



FED. ROAD DIV. NO.	STATE	COUNTY	DOCKET NO.	PROJECT NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S. C.	Greenwood	24.377	S-2124(1)	S-371	9	18

PLAN	SURVEYED	DATE
	PLOTTED	BY
	NOTE BOOK	ALIGNED CHECKED
	NO.	RT. OF WAY CHECKED

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	NOTE BOOK	GRADES CHECKED
	NO.	STRUCTURE NOTATIONS CHKO.

