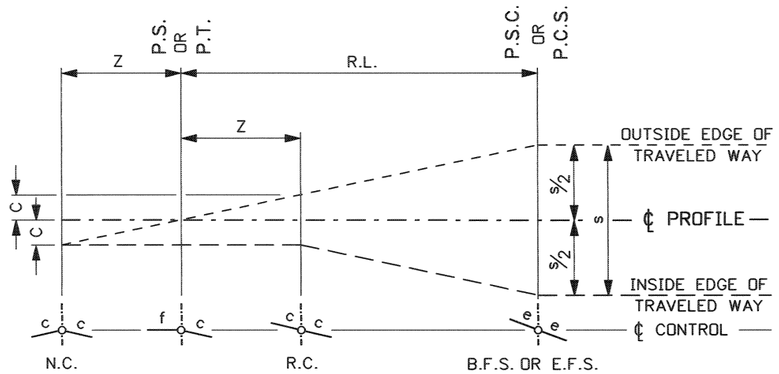
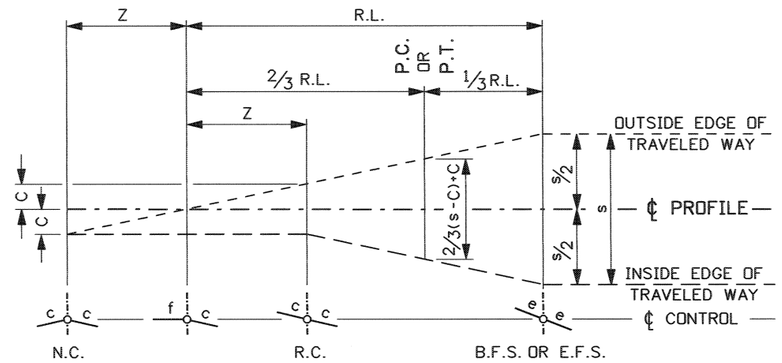
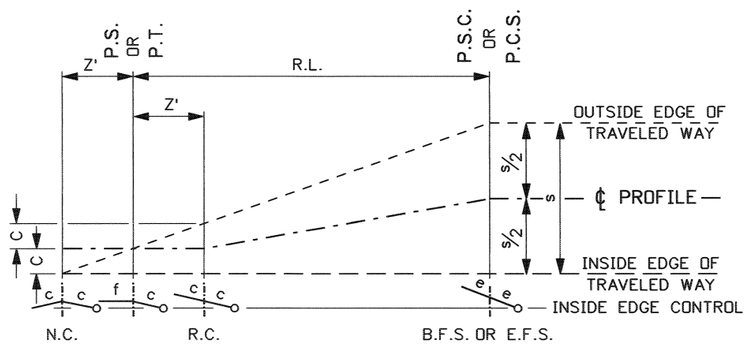
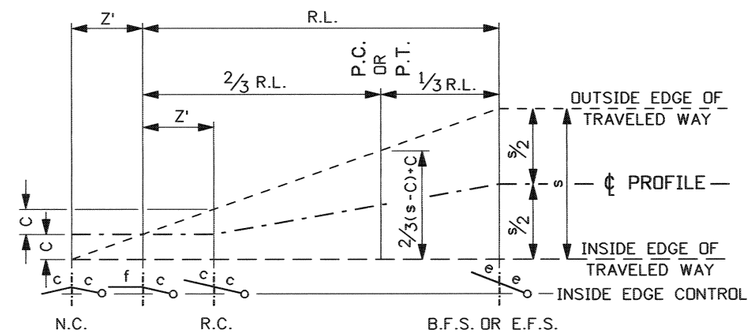


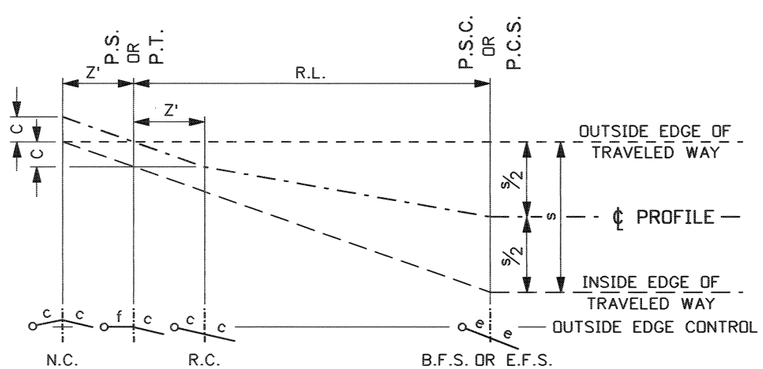



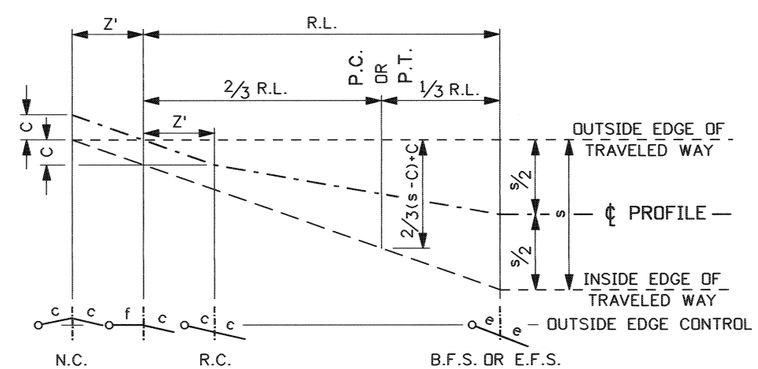

METHOD 1 - REVOLVING ABOUT CENTER LINE




METHOD 2 - REVOLVING ABOUT INSIDE EDGE OF TRAVELED WAY




METHOD 3 - REVOLVING ABOUT OUTSIDE EDGE OF TRAVELED WAY

SPIRAL CURVE SUPERELEVATION

SIMPLE CURVE SUPERELEVATION

| SUPERELEVATION NOMENCLATURE | |
|---|---|
| SYMBOL | DESCRIPTION |
| R.L. | RUNOFF LENGTH OR SPIRAL LENGTH |
| Z OR Z' | TANGENT RUNOUT LENGTH |
| e | SUPERELEVATION RATE (FT./FT.) |
| c | NORMAL CROWN RATE (FT./FT.) |
| f | FLAT (0 FT./FT.) |
| $W_t$ | WIDTH OF TRAVELED WAY |
| s | $e(W_t)$ |
| C | $c(W_t)/2$ |
| P.C. | POINT OF CURVE |
| P.S. | POINT OF SPIRAL |
| P.T. | POINT OF TANGENT |
| P.C.S. | POINT OF CURVE TO SPIRAL |
| P.S.C. | POINT OF SPIRAL TO CURVE |
| N.C | NORMAL CROWN |
| R.C. | REVERSE CROWN |
| B.F.S. | BEGIN FULL SUPERELEVATION |
| E.F.S | END FULL SUPERELEVATION |

## NOTES

1. METHOD 1 SHALL BE USED TO DEVELOP SUPERELEVATION FOR ALL CURVES ON UNDIVIDED HIGHWAYS OR DIVIDED HIGHWAYS WITH SEPARATE PROFILES; HOWEVER, IF THE PLANS SHOW A PROFILE GRADE ON THE INSIDE OF THE CURVE, THEN METHOD 2 SHALL BE USED.
2. ON DIVIDED HIGHWAYS WITH NARROW MEDIANS, I.E., MEDIAN PROFILE CONTROL, METHODS 2 & 3 SHALL BE USED FOR THE RESPECTIVE ROAD BEDS.
3. WIDENING, WHEN USED, SHALL BE DEVELOPED UNIFORMLY WITHIN THE RUNOFF LENGTH ON THE INSIDE OF THE CURVE.
4. FURTHER SUPERELEVATION AND RUNOFF DESIGN INFORMATION IS AVAILABLE THE ITD DESIGN MANUAL.

| REVISIONS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | DATE | BY | NO. | DATE | BY | NO. | DATE | BY |
| 1 | 2-69 | | | | | | | |
| 2 | 1-97 | MSM | | | | | | |
| 3 | 3-00 | MSM | | | | | | |
| 4 | 3-05 | MSM | | | | | | |

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME a5__0305.std

DRWG. ORIG. DATE: FEBRUARY, 1969

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ASSISTANT CHIEF ENGINEER (DEVELOPMENT)

CHIEF ENGINEER

STANDARD DRAWING

SUPERELEVATION

English

STANDARD DRWG. NO.

A-5

SHEET 1 OF 1

PROFESSIONAL ENGINEER REGISTERED 6506 STATE OF IDAHO TED E. MASON

3-1-05