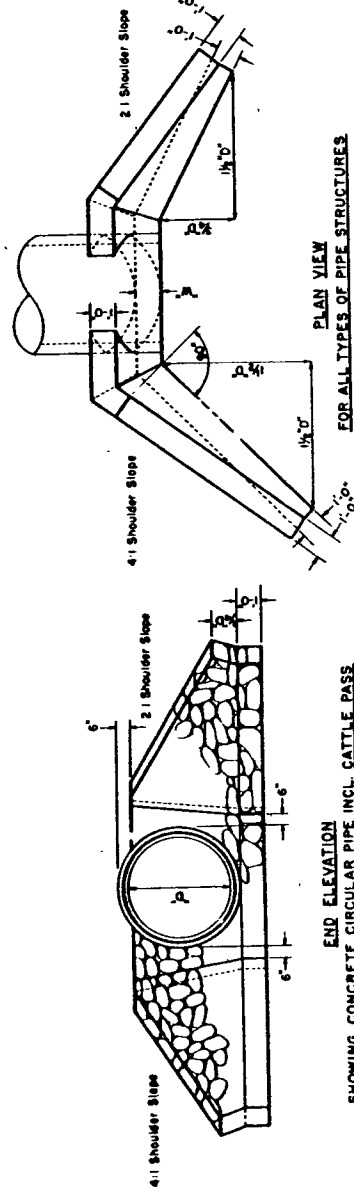




CIRCULAR PIPE Size of Pipe	Type of Pipe	Cu Yds Mortar or Rubble Masonry per End Ell	"A" (Feet)	"B" (Feet)	Front Slope "S ₁ "	Back Slope "S ₂ "	Width of Footing at "A"
24"	RCCP	12	1.0	3.4	0.8	1/4	1.0
30"	RCCP	10	0.8	2.8	0.8	-	-
36"	RCCP	15	1.3	5.1	1.5	-	-
42"	RCCP	17	1.3	6.9	2.3	-	-
48"	RCCP	22	1.7	8.1	2.9	-	-
54"	RCCP	32	2.6	10.7	3.9	-	-
60"	RCCP	38	2.2	9.8	3.6	-	-
66"	RCCP	44	2.6	11.5	4.5	1/4	2.98
72"	RCCP	50	3.0	13.3	5.2	-	2.20
78"	RCCP	56	3.4	15.1	6.0	-	2.68
84"	RCCP	62	3.8	16.9	6.8	-	3.16
90"	RCCP	68	4.2	18.7	7.6	-	3.64
96"	RCCP	74	4.6	20.5	8.4	-	4.12
102"	RCCP	80	5.0	22.3	9.2	-	4.60

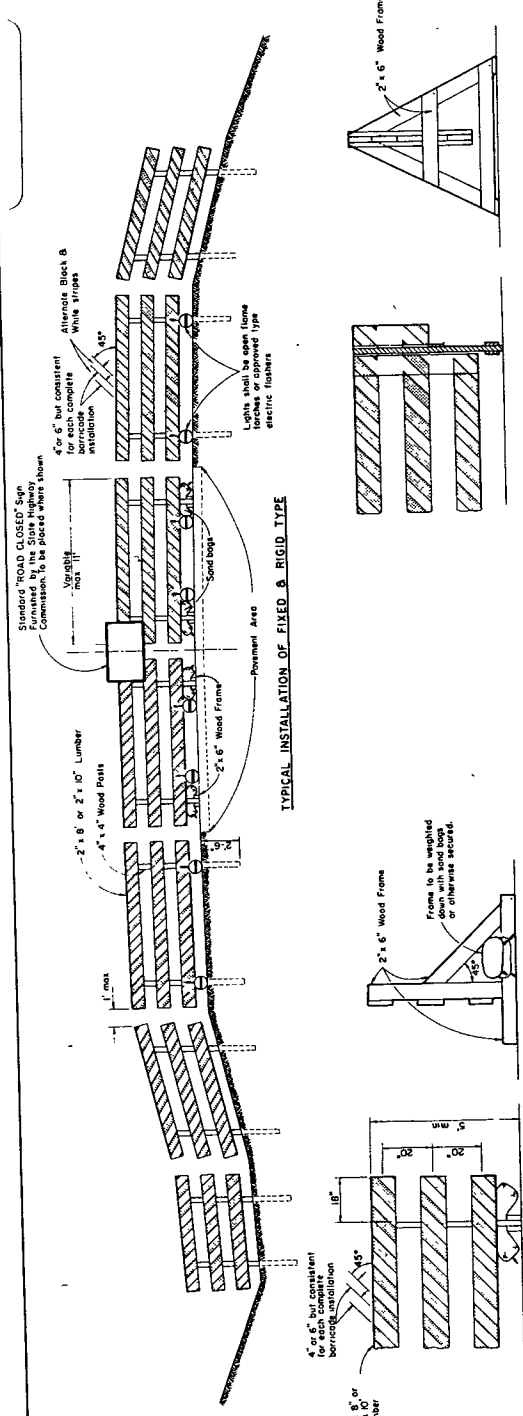
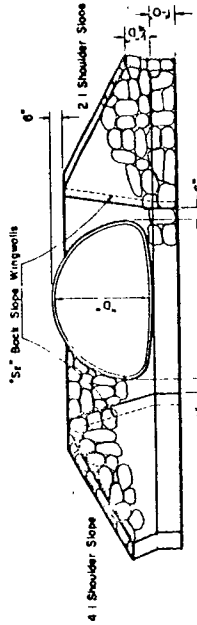
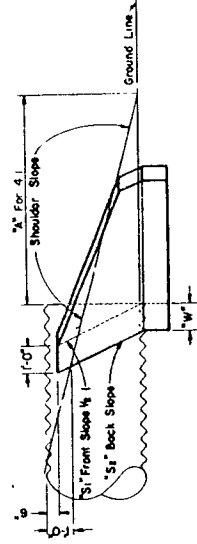
PIPE ARCH Size of Pipe	Type of Pipe	Cu Yds Mortar or Rubble Masonry per End Ell	"A" (Feet)	"B" (Feet)	Front Slope "S ₁ "	Back Slope "S ₂ "	Width of Footing at "A"
24"	RCCP	12	1.0	3.4	0.8	1/4	1.0
30"	RCCP	10	0.8	2.8	0.8	-	-
36"	RCCP	15	1.3	5.1	1.5	-	-
42"	RCCP	17	1.3	6.9	2.3	-	-
48"	RCCP	22	1.7	8.1	2.9	-	-
54"	RCCP	32	2.6	10.7	3.9	-	-
60"	RCCP	38	2.2	9.8	3.6	-	-
66"	RCCP	44	2.6	11.5	4.5	1/4	2.98
72"	RCCP	50	3.0	13.3	5.2	-	2.20
78"	RCCP	56	3.4	15.1	6.0	-	2.68
84"	RCCP	62	3.8	16.9	6.8	-	3.16
90"	RCCP	68	4.2	18.7	7.6	-	3.64
96"	RCCP	74	4.6	20.5	8.4	-	4.12
102"	RCCP	80	5.0	22.3	9.2	-	4.60

CATTLE PASS Size of Pipe	Type of Pipe	Cu Yds Mortar or Rubble Masonry per End Ell	"A" (Feet)	"B" (Feet)	Front Slope "S ₁ "	Back Slope "S ₂ "	Width of Footing at "A"
24"	RCCP	12	1.0	3.4	0.8	1/4	1.0
30"	RCCP	10	0.8	2.8	0.8	-	-
36"	RCCP	15	1.3	5.1	1.5	-	-
42"	RCCP	17	1.3	6.9	2.3	-	-
48"	RCCP	22	1.7	8.1	2.9	-	-
54"	RCCP	32	2.6	10.7	3.9	-	-
60"	RCCP	38	2.2	9.8	3.6	-	-
66"	RCCP	44	2.6	11.5	4.5	1/4	2.98
72"	RCCP	50	3.0	13.3	5.2	-	2.20
78"	RCCP	56	3.4	15.1	6.0	-	2.68
84"	RCCP	62	3.8	16.9	6.8	-	3.16
90"	RCCP	68	4.2	18.7	7.6	-	3.64
96"	RCCP	74	4.6	20.5	8.4	-	4.12
102"	RCCP	80	5.0	22.3	9.2	-	4.60

GENERAL NOTES
Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications, and the applicable Special Provisions.

CONCRETE MASONRY SUBSTITUTE
All items shown herein may be constructed of Class "A" Concrete in which case all sizes and dimensions shown shall obtain. Concrete masonry substitute work shall conform to the pertinent requirements of the Standard Specifications.

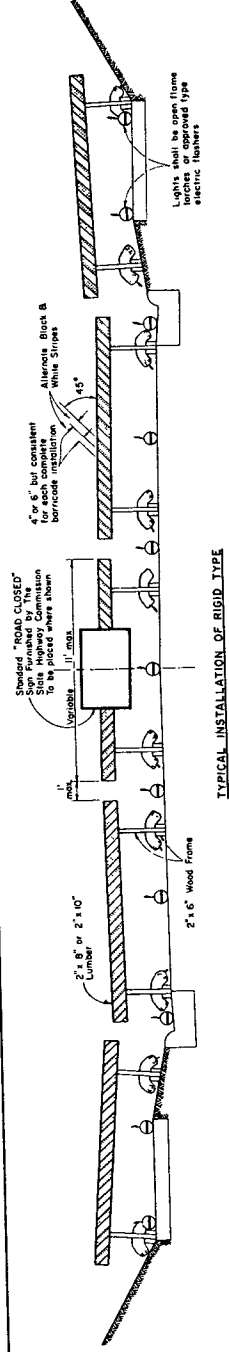
MORTAR RUBBLE MASONRY OR RIPRAP FOR CULVERT & CATTLE PASS ENDWALLS
STATE HIGHWAY COMMISSION OF WISCONSIN
RECOMMENDED FOR APPROVAL:
DATE: 2-5-62
APPROVED: J. L. Pelt
DATE: 2/4/62
STATE HIGHWAY ENGINEER
PLATE NO. 6-2.4.3



CLASS I BARRICADE

ALTERNATE TYPE INSTALLATION (RIGID)

ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)



ALTERNATE TYPE INSTALLATION (RIGID)

ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)

CLASS II BARRICADE

GENERAL NOTES
The Contractor shall construct, place and maintain barricades as shown on the drawing and as detailed in the Standard Specifications. Barricades shall be placed as shown herein and structurally maintained for maximum visibility at all times, for the duration of the respective project.

CLASS I BARRICADE
Barricades shall be constructed of concrete or masonry, or of other authorized materials, and shall be placed in the center of the roadway, or at the entrance of a restricted roadway, or for temporary detour of traffic.

CLASS II BARRICADE
Barricades shall be constructed of concrete or masonry, or of other authorized materials, and shall be placed in the center of the roadway, or at the entrance of a restricted roadway, or for temporary detour of traffic.

LUMBER & FABRICATION
Lumber shall be of good structural grade and sufficiently rigid to resist the impact of a vehicle. The fabrication of the barricade shall be in accordance with the working practices.

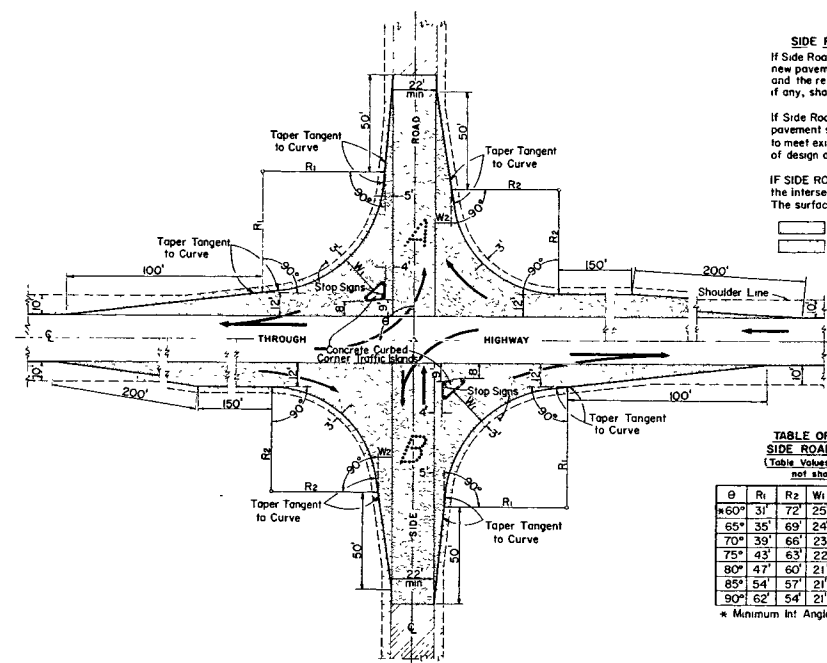
PAINTING
Barricades shall be painted as shown herein, or otherwise black and white stripes shall be painted on the front and back faces of the barricade. The stripes shall be painted in the center of the barricade, and shall be maintained in the center of the barricade at all times.

MEASUREMENT & PAYMENT
All barricades, unless otherwise provided for in the plans and/or special provisions shall be furnished, placed, and maintained at the expense of the Contractor. Payment shall be made for the quantity of barricades shown on the plans, at the price bid for other items.

NOTE
All dimensions for barricades shall conform to the requirements of the Standard Specifications.

NOTE
All lumber or timber dimensions shown herein are nominal.

CONSTRUCTION BARRICADE
STATE HIGHWAY COMMISSION OF WISCONSIN
RECOMMENDED FOR APPROVAL:
DATE: 2-5-62
APPROVED: J. L. Pelt
DATE: 2/4/62
STATE HIGHWAY ENGINEER
PLATE NO. 7-4.1.4



SIDE ROAD SURFACING NOTE

If Side Road is not presently surfaced, new pavement shall be placed as shown, and the remainder to construction limits, if any, shall be gravel or crushed stone surfaced.

If Side Road is presently paved, new pavement shall be placed only as necessary to meet existing pavement, and to limits of design as shown.

IF SIDE ROAD IS THE CONSTRUCTION PROJECT, the intersection geometrics remain as shown. The surfacing shall be same as for the project.

— Pavement
— Gravel or Crushed Stone

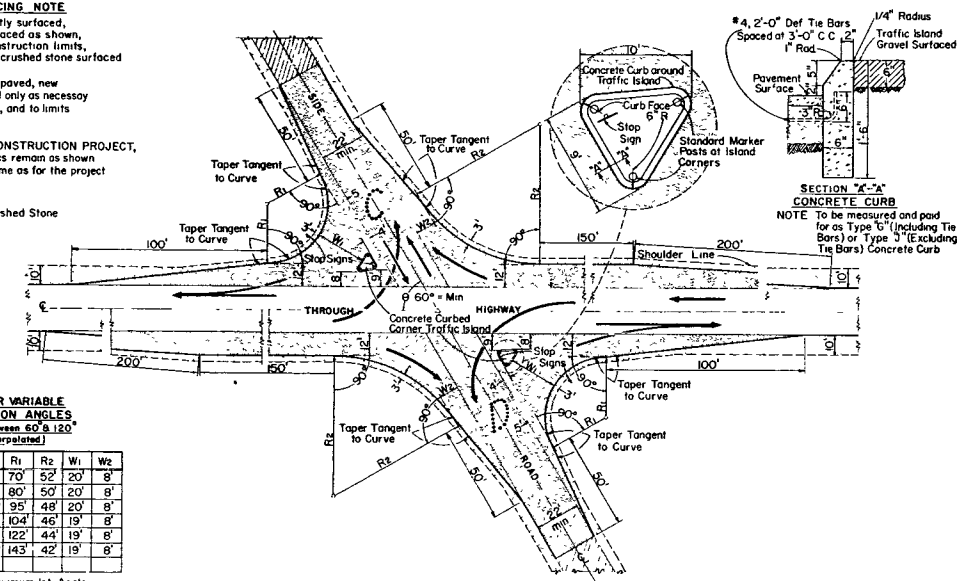
TABLE OF VALUES FOR VARIABLE SIDE ROAD INTERSECTION ANGLES

(Table Values for Angles between 60° & 120° not shown shall be interpolated)

θ	R ₁	R ₂	W ₁	W ₂	θ	R ₁	R ₂	W ₁	W ₂
60°	31'	72'	25'	10'	95°	70'	52'	20'	8'
65°	35'	69'	24'	9'	100°	80'	50'	20'	8'
70°	39'	66'	23'	8'	105°	95'	48'	20'	8'
75°	43'	63'	22'	8'	110°	104'	46'	19'	8'
80°	47'	60'	21'	8'	115°	122'	44'	19'	8'
85°	54'	57'	21'	8'	120°	143'	42'	19'	8'
90°	62'	54'	21'	8'					

* Minimum Int. Angle

** Maximum Int. Angle



SECTION "X-X" CONCRETE CURB

NOTE: To be measured and paid for as Type "U" (including Tie Bars) or Type "V" (excluding Tie Bars) Concrete Curb.

MAJOR SIDE ROAD INTERSECTION DESIGN DETAILS

To be used only when current ADT on Through Highway is 1500 or over, and on Side Road is Over 200

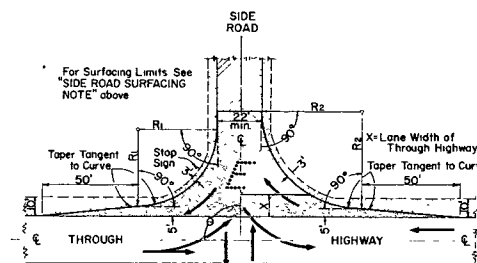


TABLE OF VALUES FOR VARIABLE SIDE ROAD INTERSECTION ANGLES

(Table Values for Angles between 60° & 120° not shown shall be interpolated)

θ	R ₁	R ₂	θ	R ₁	R ₂
60°	40'	50'	95°	45'	49'
65°	40'	50'	100°	50'	48'
70°	40'	50'	105°	55'	47'
75°	40'	50'	110°	60'	46'
80°	40'	50'	115°	65'	45'
85°	40'	50'	120°	70'	44'
90°	40'	50'			

* Minimum Int. Angle

** Maximum Int. Angle

MINOR SIDE ROAD INTERSECTION DESIGN DETAILS

To be used when current ADT on Through Highway is Less than 1500 or on Side Road is Less than 200

GENERAL NOTES

Designs "A" to "E" may be used interchangeably in combination or separately for any one complete intersection depending upon Traffic Volume, Intersection angle and Surfacing of each approach roadway.

Details on this drawing are for Minimum Design Only, and not applicable to Special Conditions, as shown elsewhere on the plans.

DESIGN B LAYOUT DETAILS FOR SIDE ROAD AT GRADE INTERSECTIONS

(RURAL IN CHARACTER)

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL

DATE: 5-63

APPROVED

DATE: 2/4/63

C. E. Rostetter

STATE ENGINEER

P. 114 NO. 9-114