Sheet Number	Total Sheets
1	

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PLAN AND PROFILE OF PROPOSED

Index of Sheets

ELLSWORTH - MARTELL ROAD

U.S.H. 63

PIERCE COUNTY

PROJECT IDENTIFICATION NUMBER	FEDERAL PROJECT DESIGNATION
7210-4-71	~~RS 0289(6)~~

ELLSWORTH - WAVERLY ROAD

U.S.H. 63 & S.T.H. 72

PIERCE COUNTY

PROJECT IDENTIFICATION NUMBER	FEDERAL PROJECT DESIGNATION
7105-4-71	~~RS 075(16)~~

AS BUILT

Scales { Plan 1 in. = 200 ft.

N

Design Designation

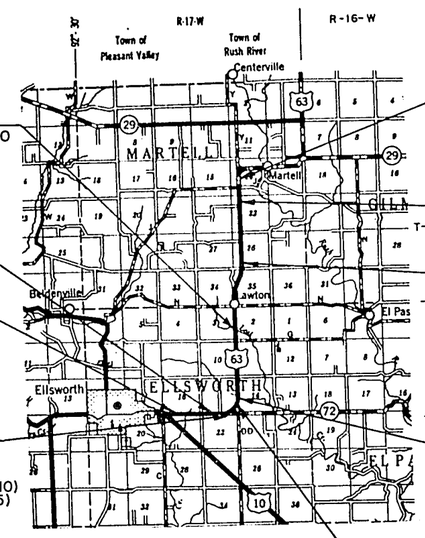
7105-4-71 / RS075(16)			7210-4-71 / RS0289(6)		
A.D.T.	1960	= 1971	A.D.T.	1170	= 1971
A.D.T.	3000	= 1990	A.D.T.	2000	= 1990
D.H.V.	450	=	D.H.V.	300	
D.	50-50	=	D.	50-50	
T.	10%	=	T	10%	
V.	60 M.P.H.	=	V	60 M.P.H.	

EXCEPTION TO NET ℄ LENGTH
STA. 226+54.50 TO STA. 227+31.50

EQUATION 69+26.38 BK. =
69+27.33 AH.

BEG. PROJ. 7105-4-71 / RS 075 (16)
STA. 18+51 50
= STA. 18+51.50 OF S075(9)(10)
N 337,500' ± 200)
E 1,362,700(±200)
APPROX. 1655' E. OF N.W. COR. OF
SEC. 21 T-26-N, R-17-W.

END PROJ 7105-4-71 / RS 075 (16)
BEG. PROJ. 72 0-4-71 / RS0289(6)
STA. 92+16.55
= STA. 92+16.55 END S075(9)(10)
= STA. 92+16.55 BEGIN S0289(4)(5)
N 336,400(±200)
E 1,370,800(±200')
APPROX. 1426' W. OF S.E. COR.
SEC. 15 T-26-N, R-17-W.



END PROJ. 7210-4-71 / RS0289(6)
STA. 463+00
= STA. 463+00 OF S0289(4)(5)
N 371,450 (±200)
E 1,374,500(±200)
APPROX. 1347'S AND 2140'E. OF
N.W. COR. SEC. 14, T-27-N, R-17-W.

EXCEPTION TO NET ℄ LENGTH
STA. 427+49.75 TO STA. 428+10.25

EQUATION 325+36.82 BK. =
335+65.78 AH

EXCEPTION TO NET ℄ LENGTH
STA. 131+53.25 TO STA. 132+26.75

EQUATION 114+60.3 BK. =
120+69.45 AH.

Conventional Signs

State Line
County Line
Township or Range Line
Section Line
New Right of Way Line
Present Right of Way Line
Wire Fence { Woven / Barbed
Lot Line
Corporate or City Limits
Property Line
Traveled Way or P.E.
Railroads
Base or Survey Line

Culverts in Place
Culverts Required
Drop Inlet
Power Pole
Telephone or Telegraph Pole
Right of Way Markers
Reference Stake for Hubs Only
Marsh
Hedge
Trees
Ground Elevation (Datum Line 739)
Grade Elevation (Datum Line 76.16)

Layout

Scale 0 1 2 MI.

LENGTH OF CENTERLINE = 1.395 MI. 7105-4-71 / RS 075(16)
LENGTH OF CENTERLINE = 6.673 MI. 7210-4-71 / RS 0289(6)
TOTAL NET LENGTH OF CENTERLINE = 8068 MI.

ALL CORDINATES SHOWN ON THIS PLAN ARE REFERENCED TO THE WISCONSIN CO-ORDINATE SYSTEM, CENTRAL ZONE, AND ARE SCALED FROM U.S.G.S. TOPOGRAPHIC MAPS, MAIDEN ROCK AND BALDWIN, WISCONSIN QUADRANGLES FOR IDENTIFICATION ONLY.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Surveyor E.J.E. Note Book
District Computer E.J.E M.O. Checker I.L.J.
District Checker P.R.B. Correct

Correct:

Date 4/16/73 M.J. Schaffner
Recommended for Approval: District Engineer

Date 5/4/73 J.C. Hennard
CHIEF OF FACILITIES ENGINEER

Approved:

Date 5/8/73 H.L. Fiedler
State Highway Engineer

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

REGION 4 WISCONSIN DIVISION

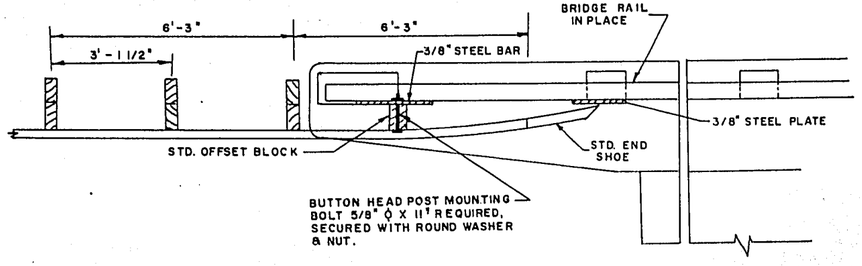
Approved:

Date _____ Division Engineer

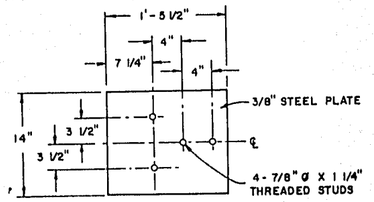
RS 0289(6)/7210-4-71 RS 075(16)7105-4-71

PROJECT DESIGNATION	SHEET NO.
7210-4-71 / RS 0289(6)	2

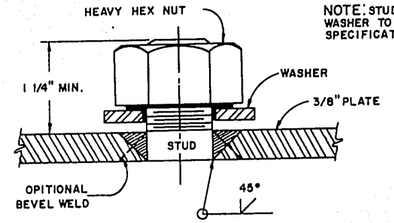
BEAM GUARD ATTACHMENT FOR EXISTING STRUCTURES



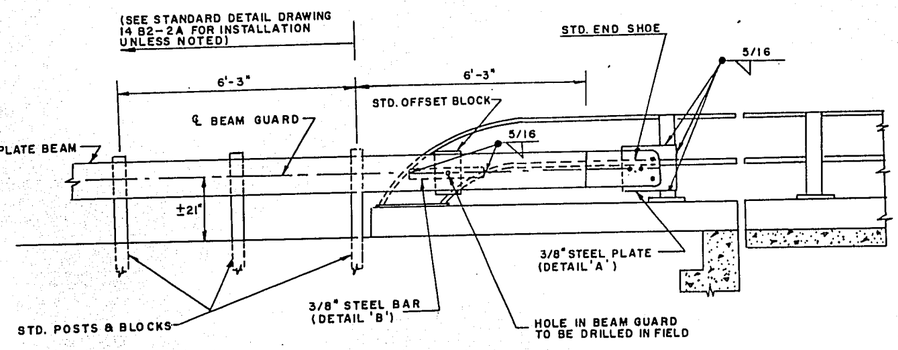
PLAN VIEW



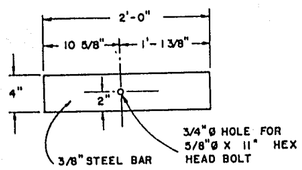
DETAIL A



TYPICAL STUD ATTACHMENT



FRONT VIEW

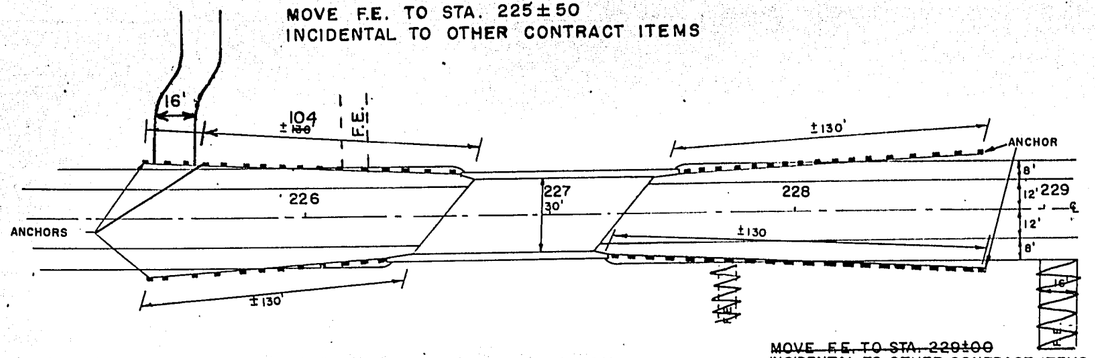


DETAIL B

PROJECT DESIGNATION	SHEET NO.
7210-4-71 / RS0289(6)	2.1

SPECIAL DETAIL
GUARD RAIL INSTALLATION

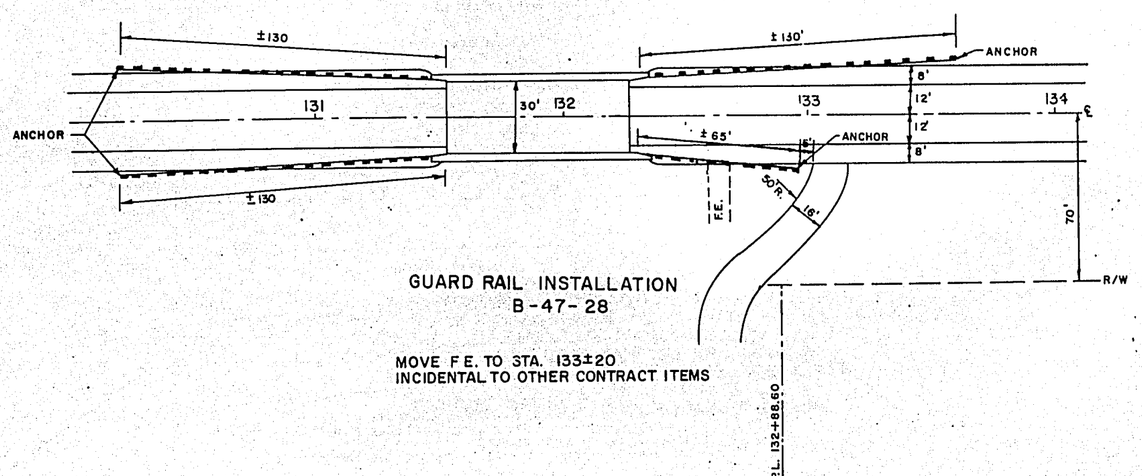
MOVE F.E. TO STA. 225±50
INCIDENTAL TO OTHER CONTRACT ITEMS



~~MOVE F.E. TO STA. 229±00~~
~~INCIDENTAL TO OTHER CONTRACT ITEMS~~

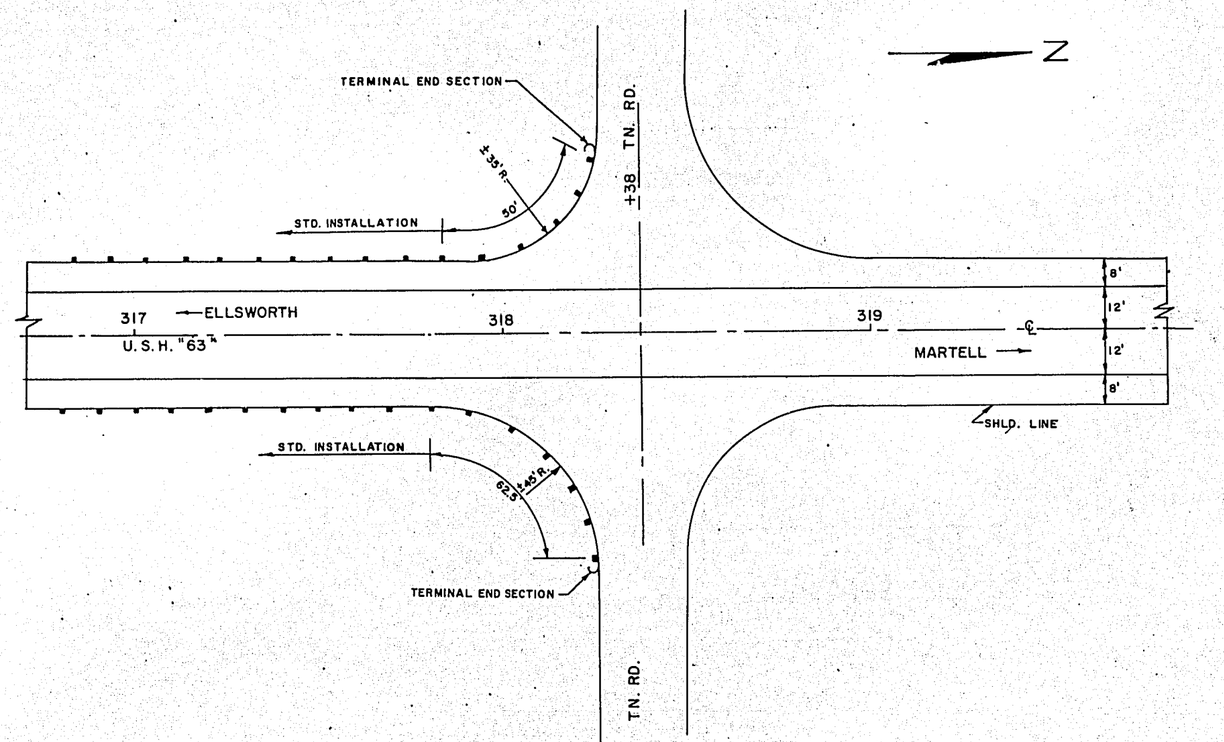
GUARD RAIL INSTALLATION
B-47-29

SEE DETAIL FOR ATTACHMENT TO STRUCTURES



GUARD RAIL INSTALLATION
B-47-28

MOVE F.E. TO STA. 133±20
INCIDENTAL TO OTHER CONTRACT ITEMS



GUARD RAIL INSTALLATION
TN. RD. 318+38

ESTIMATE OF QUANTITIES

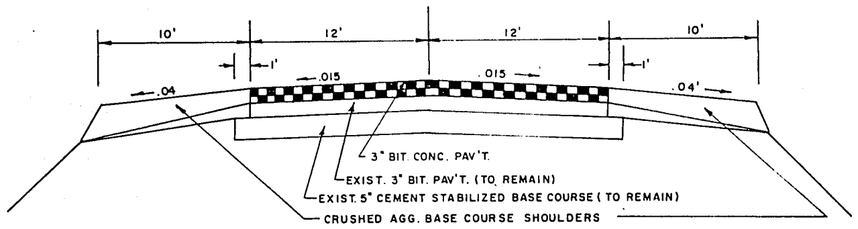
THIS PROJECT IS TO BE EXECUTED UNDER THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE WISCONSIN DIVISION OF HIGHWAYS - EDITION OF 1969, APPROVED MARCH 3, 1969; FEDERAL AID REQUIRED CONTRACT PROVISIONS APPROVED NOVEMBER 15, 1968, AND SPECIAL PROVISIONS AS ATTACHED TO PROPOSALS.

CONTRACT NO. 1
BITUMINOUS CONCRETE PAVEMENT

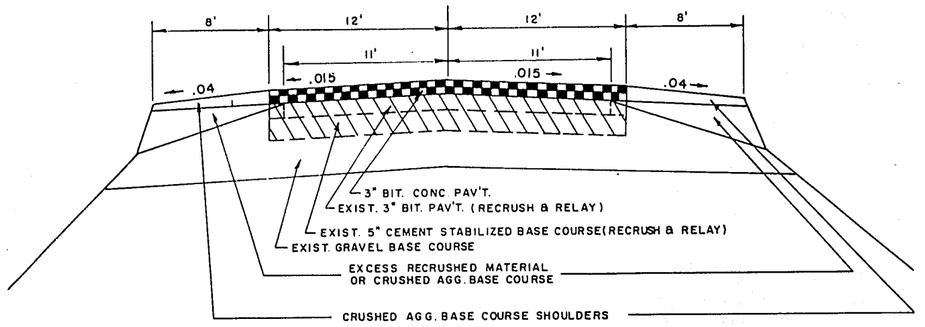
PROJECT DESIGNATION	SHEET NO.
7105-4-71/RS075(16)	3
7210-4-71/RS0289(6)	

SEC. NO.	STATION TO STATION		NET LENGTH OF CENTER LINE	REMOVING GUARD RAIL	CRUSHED AGGREGATE BASE COURSE	BITUMINOUS MATERIAL FOR PRIME COAT	BITUMINOUS CONCRETE PAVEMENT	BITUMINOUS MATERIAL FOR SURFACE COURSE	ANCHORAGES FOR STEEL PLATE BEAM GUARD	STEEL PLATE BEAM GUARD CLASS "A"	MAINTENANCE AND REPAIR OF HAUL ROADS PROJ. RS075(16)	FIELD OFFICE TYPE "B"	FIELD LABORATORY	CRUSH & RELAY EXISTING SURFACE AND BASE COURSE.	MAINTENANCE AND REPAIR OF HAUL ROADS PROJ. RS0289(6)
		ITEM NO.		20411	30404	40202	40701	40702	61406	61408	61802	64202	64210	90001	61803
		UNIT	LIN FT	L. F.	TON	GAL.	TON	TON	EACH	L.F.	L.S.	L.S.	L.S.	S.Y.	L.S.
	7105-4-71/RS075(16)														
1	18+51 - 92+16.55		7364.10	1000	5400		4300	275	4	1270	1				
	7210-4-71/RS0289(6)														
2	92+16.55 - 463+00		35234.34	3700	22250	23700	17550	1145	18	5210		1	1	87630	1
	TOTALS		42598.44	4700	27650	23700	21850	1420	22	6480	1 *	1	1	87630	1 *

* NO FEDERAL PARTICIPATION.

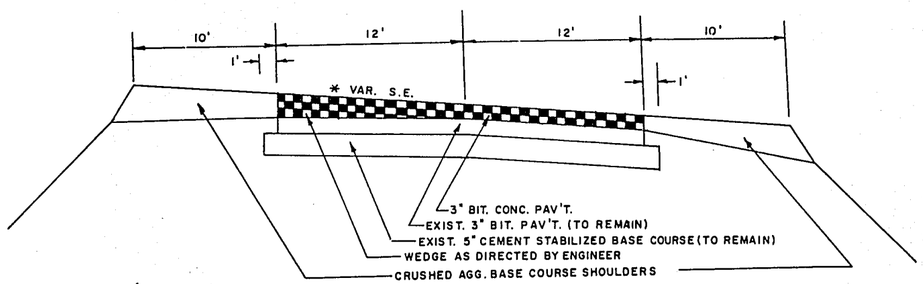


TYPICAL TANGENT SECTION
STA. 18+51.50 TO STA. 122+00

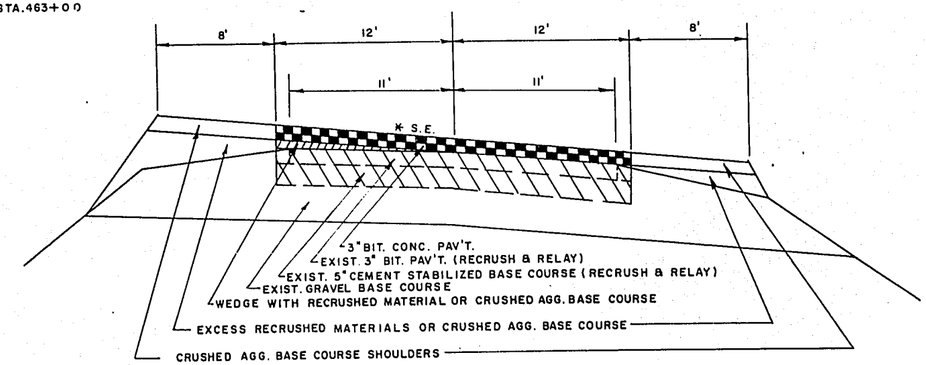


NOTE: THE GRADE PRIOR TO CRUSHING WILL BE THE FINISHED GRADE OF THE RELAID & RECRUSHED MATERIAL SUBJECT TO ADJUSTMENT AT THE DISCRETION OF THE ENGINEER.
PRIME ONLY FROM STA.122+00 TO STA.463+00

TYPICAL TANGENT SECTION
STA. 122+00 TO STA.463+00



TYPICAL CURVE SECTION
* STA. 39+42 TO STA. 45+26 1° 30' .035'/FT.
* STA. 49+80 TO STA. 56+18 2° 30' .06'/FT.
* STA. 59+33 TO STA. 69+26 0° 45' .02'/FT.
* STA. 92+16 TO STA. 114+60 4° 00' .08'/FT.



TYPICAL CURVE SECTION
* STA. 271+44 TO STA. 282+33 2°-00' 0.05'/, S.E.
* STA. 298+30 TO STA. 314+17 1°-30" 0.035'/,S.E.

PROJECT DESIGNATION	SHEET NO
7105-4-71 / RS075(16)	
7210-4-71 / RS0289(6)	3A

DETAIL SUMMARY SHEET OF MISCELLANEOUS QUANTITIES

REMOVE GUARD RAIL

Sec.	Station to Station		
1	62+50 - 66+50	400	61+30 - 67+58 R
	61+50 - 67+50	600	60+80 - 68+34 L
2	131+90 L & R Bridge	168	
	170+50 - 172+50 R	205	
	226+93 L & R Bridge	166	132+26 - 132+92 R
	282+50 - 287+50 R	505	168+15 - 173+56 R
	282+33 - 287+58 L	530	225+16 - 226+45 R
	307+50 - 317+75 R	1030	227+42 - 228+71 L
	308+50 - 317+75 L	930	227+22 - 228+51 R
	427+80 L & R Bridge	166	281+35 - 288+26 R
			281+50 - 288+16 L
			307+75 - 318+38 L
			306+75 - 318+38 R

STEEL PLATE BEAM

Sec.	Station to Station	L. F.	Anc.	
1	~~61+85 - 67+15 R~~	535	2	
	~~60+85 - 68+15 L~~	735	2	
2	* 130+24 - 131+53 L & R	258	2	
	* 132+26 - 133+55 L	129	1	
	* 132+26 - 132+55 R	28	1	
	169+85 - 173+15 R	334	2	
	* 225+25 - 226+54 L & R	258	2	225+61 - 226+65 L
	* 227+31 - 228+60 L	129	1	
	* 227+31 - 227+84 R	53	1	
	281+85 - 288+15 R	634	2	
	281+68 - 288+33 L	659	2	
	306+85 - 318+38 L	1155	1	
	307+85 - 318+38 R	1057	1	
	* 426+21 - 427+50 L & R	258	2	
	* 428+10 - 429+39 L & R	258	2	

* ATTACH TO EXISTING BRIDGE RAILINGS

BITUMINOUS CONCRETE PAVEMENT

Sec.	Station to Station	Tons
1	18+51.5 - 92+16.55	3435
	Twn. Rds.	150
	Curve Corr.	100
	Jct. '72'	615
2	92+16.55 - 463+00	16470
	Twn. Rds.	750
	Curve Corr.	330

GENERAL NOTES:

WHEN THE QUANTITY OF THE ITEMS OF SUBBASE, BASE OR SURFACE COURSE IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE COURSE SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

UNLESS OTHERWISE SHOWN ON PLANS, ALL INTERSECTIONS SHALL BE TYPE "C".

STANDARD DETAIL DRAWINGS

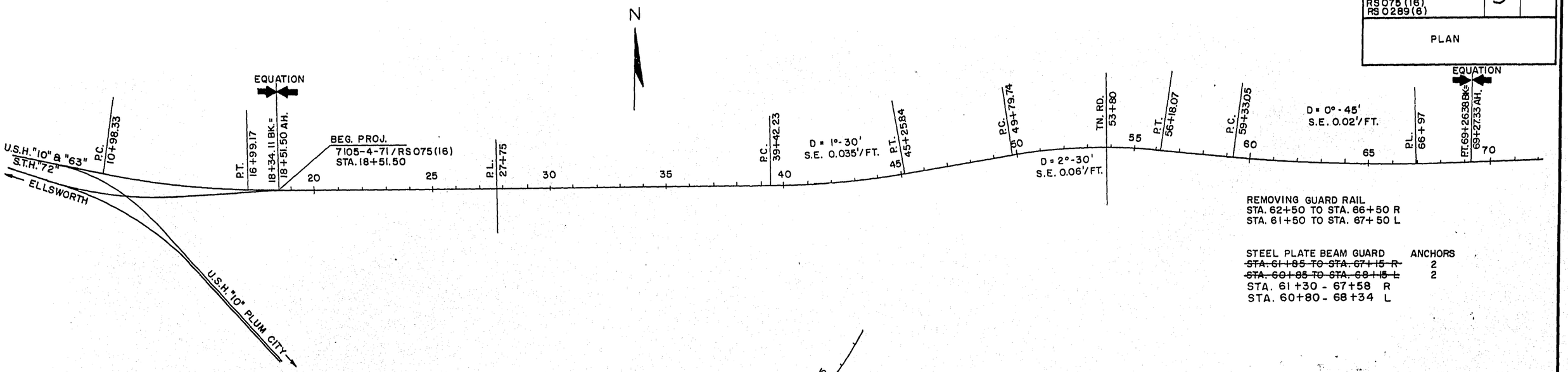
9A1-1	DESIGN AND LAYOUT DETAILS FOR SIDE ROAD AT-GRADE INTERSECTIONS.
14B2-2a&b	CLASS "A" STEEL PLATE BEAM GUARD & STEEL PLATE BEAM MEDIAN GUARD (2SHEETS).
15C1-2	CONSTRUCTION BARRICADE

STANDARD ABBREVIATIONS

A.D.T.	ANNUAL DAILY TRAFFIC
BIT.	BITUMINOUS
℄	CENTERLINE
CONC.	CONCRETE
CO.	COUNTY
CONST.	CONSTRUCTION
C.T.H.	COUNTY TRUNK HIGHWAY
C.	CUT
CU.	CUBIC
D.H.V.	DESIGN HOURLY VOLUME
ELEV.	ELEVATION
EXIST.	EXISTING
F.	FILL OR EMBANKMENT
F.L.	FLOW LINE
FT.	FEET
IN.	INCHES
IN. PL.	IN PLACE
LIN.	LINEAR
LT.	LEFT
MI.	MILE
NO.	NUMBER
PAV'T.	PAVEMENT
PROJ.	PROJECT
REQ'D.	REQUIRED
S.T.H.	STATE TRUNK HIGHWAY
STA.	STATION
STRUC.	STRUCTURE
SURF.	SURFACE
SQ.	SQUARE
YD.	YARD
SHLD'S.	SHOULDERS
L	LEFT
R	RIGHT
L.F.	LIN FT.
ANC.	ANCHOR
TWN. RDS.	TOWN ROADS
JCT.	JUNCTIONS
CORR.	CORRECTION
SEC.	SECTION
AGG.	AGGREGATE
S.Y.	SQUARE YARDS
L.S.	LUMP SUM
STD.	STANDARD

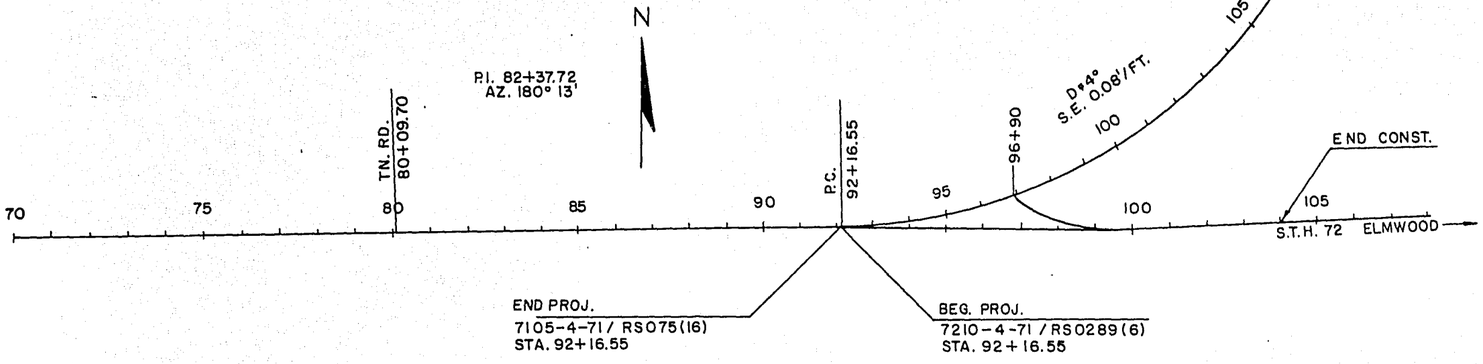
PROJECT I.D. 7105-4-71	SHEET NUMBER	TOTAL SHEETS
7210-4-71	5	
FEDERAL PROJECT DESIGNATION RS 075(16) RS 0289(6)		

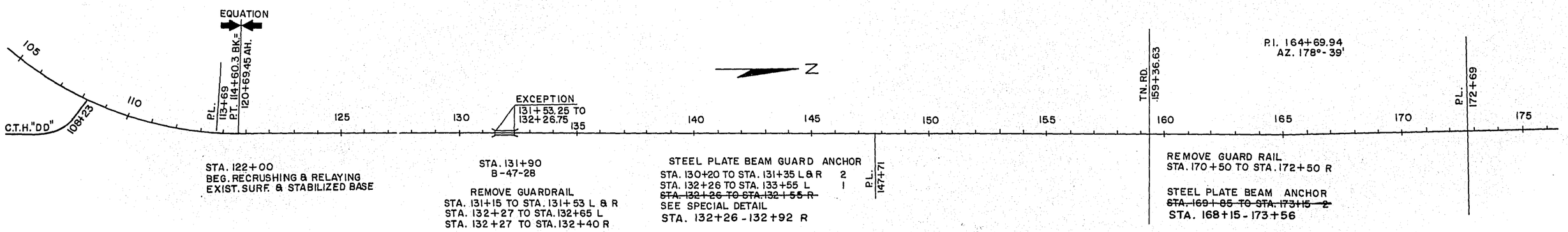
PLAN



REMOVING GUARD RAIL
STA. 62+50 TO STA. 66+50 R
STA. 61+50 TO STA. 67+50 L

STEEL PLATE BEAM GUARD	ANCHORS
~~STA. 61+85 TO STA. 67+15 R~~	2
~~STA. 60+85 TO STA. 68+15 L~~	2
STA. 61+30 - 67+58 R	
STA. 60+80 - 68+34 L	





STA. 122+00
BEG. RECRUSHING & RELAYING
EXIST. SURF. & STABILIZED BASE

STA. 131+90
B-47-28

REMOVE GUARDRAIL
STA. 131+15 TO STA. 131+53 L & R
STA. 132+27 TO STA. 132+65 L
STA. 132+27 TO STA. 132+40 R

STEEL PLATE BEAM GUARD ANCHOR	
STA. 130+20 TO STA. 131+35 L & R	2
STA. 132+26 TO STA. 133+55 L	1
~~STA. 132+26 TO STA. 132+55 R~~	

SEE SPECIAL DETAIL
STA. 132+26 - 132+92 R

REMOVE GUARD RAIL
STA. 170+50 TO STA. 172+50 R

STEEL PLATE BEAM ANCHOR
~~STA. 169+85 TO STA. 173+15 2~~
STA. 168+15 - 173+56

PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
7210-4-71	5.1	
FEDERAL PROJECT DESIGNATION: RS0289(6)		

PLAN

N

P.I. 196+74.15
AZ. 180°-38'

P.I. 217+20
AZ. 181° 45'

P.L. 185+87.20
P.L. 192+46
P.L. 199+07
TN. RD. 212+31.25
C.T.H. "G" 212+31.25

175 180 185 190 195 200 205 210 215 220 225 230 235

EXCEPTION
226+54.50 TO
227+31.50

STA. 226+93
B- 47-29

REMOVE GUARD RAIL
STA. 226+15 TO STA. 226+54 L & R
STA. 227+32 TO STA. 227+70 L & R

STEEL PLATE BEAM		ANCHORS
~~STA. 225+25 TO STA. 226+54 L & R~~		~~2~~
~~STA. 227+31 TO STA. 228+60 L~~		~~1~~
~~STA. 227+31 TO STA. 227+84 R~~		
SEE SPECIAL DETAILS		
STA. 225+16 - 226+45	R	1
STA. 225+61 - 226+65	L	1
STA. 227+22 - 228+51	R	1
STA. 227+42 - 228+71	L	1

N

C.T.H. "N"

235 240 245 250 255 260 265 270 275 280 285 290 295

P.L. 238+84
P.C. 246+98.14
D = 9°30'
P.T. 248+48.14
P.L. 254+80
C.T.H. "N" 263+84.65
P.C. 271+43.87
TN. RD. 274+00
D = 2°
S.E. 0.05'/FT.
P.T. 282+33.04

REMOVE GUARD RAIL
STA. 282+50 TO STA. 287+50 R
STA. 282+33 TO STA. 287+58 L

STEEL PLATE BEAM GUARD	ANCHORS
~~STA. 281+85 TO STA. 288+15 R~~	2
~~STA. 281+68 TO STA. 288+33 L~~	2
STA. 281+35 - 288+26 R	
STA. 281+50 - 288+16 L	

N

EQUATION

295 300 305 310 315 320 325 340 345 350 355 360 365

P.C. 298+30.03
D = 1° 30'
S.E. 0.035'/FT.
P.L. 298+24
P.T. 314+16.70
TN. RD. 318+38
325+36.82 BK. =
335+65.78 AH.
P.L. 341+69
P.I. 354+99.18
AZ. 180°-12'-30"
TN. RD. 368+29

REMOVE GUARD RAIL
STA. 307+50 TO STA. 317+75 R
STA. 308+50 TO STA. 317+75 L

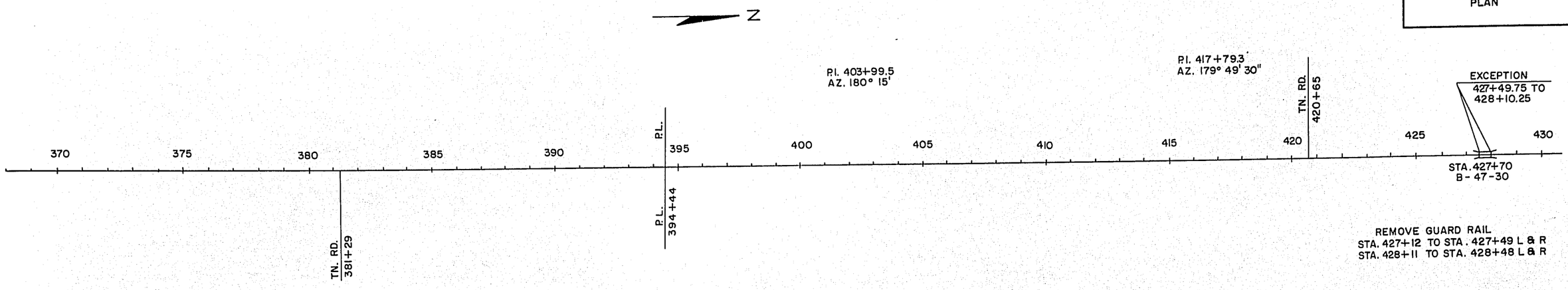
STEEL PLATE BEAM		ANCHORS
STA. 306+85 TO STA. 318+38	R	1
STA. 307+85 TO STA. 318+38	L	1
SEE SPECIAL DETAILS		

TN. RD. 318+38

P.L. 354+99.18

PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
7210-4-71	5.2	
FEDERAL PROJECT DESIGNATION: RS0289 (6)		

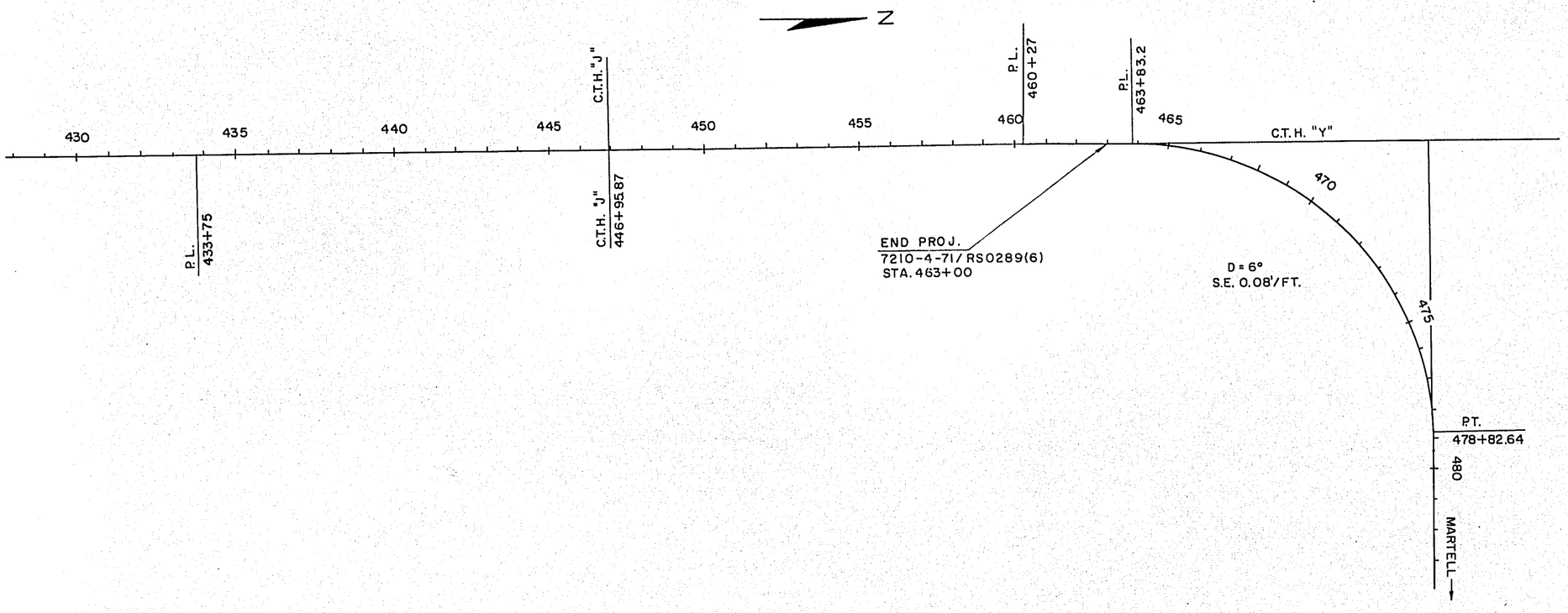
PLAN

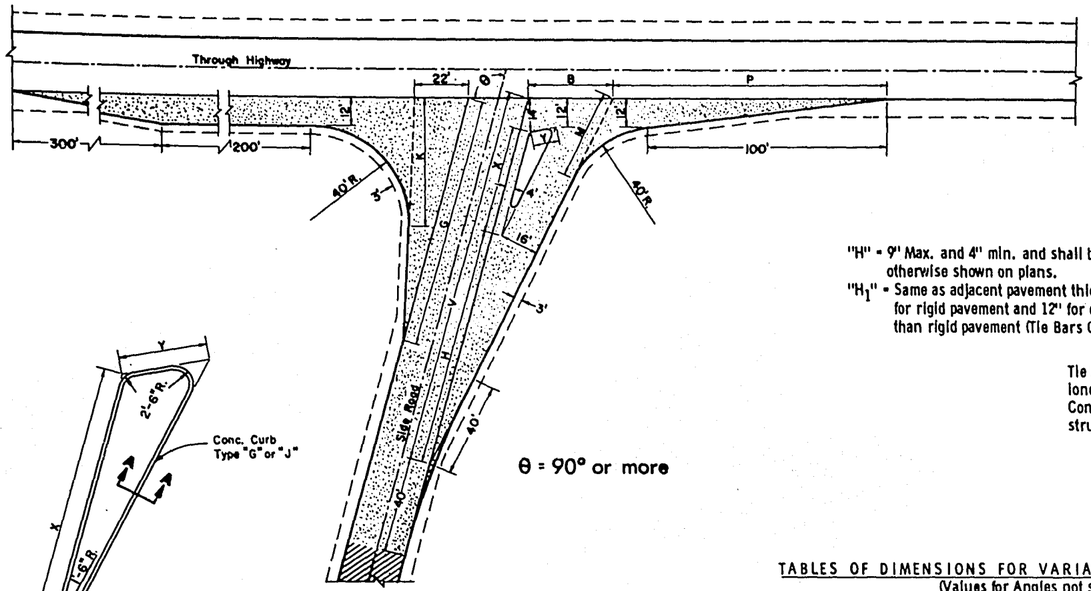


REMOVE GUARD RAIL
STA. 427+12 TO STA. 427+49 L & R
STA. 428+11 TO STA. 428+48 L & R

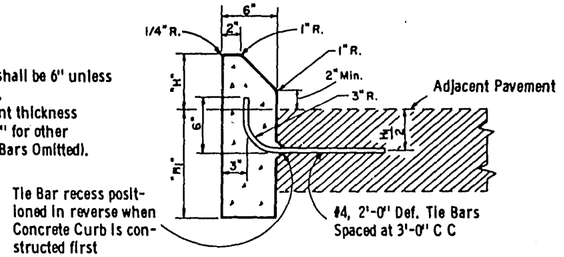
STEEL PLATE BEAM	ANCHORS
STA. 426+21 TO STA. 427+50 L & R	2
STA. 428+10 TO STA. 429+39 L & R	2

SEE SPECIAL DETAILS





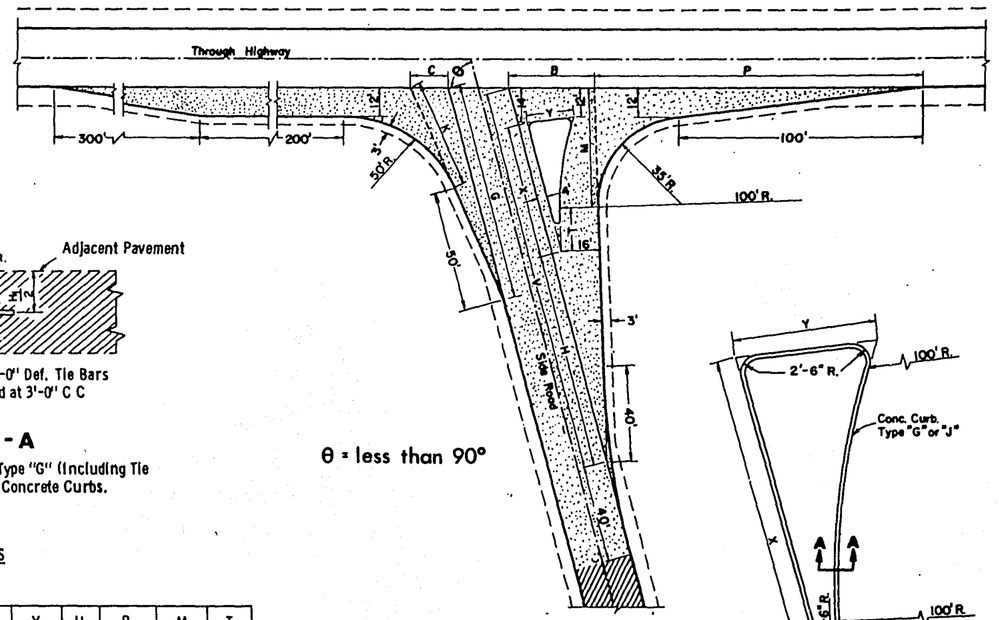
θ = 90° or more



"H" = 9" Max. and 4" min. and shall be 6" unless otherwise shown on plans.
"H_1" = Same as adjacent pavement thickness for rigid pavement and 12" for other than rigid pavement (Tie Bars Omitted).

SECTION **A - A**

Note: To be measured and paid for as Type "G" (Including Tie Bars) or Type "J" (Excluding Tie Bars) Concrete Curbs.



θ = less than 90°

TABLES OF DIMENSIONS FOR VARIABLE SIDE ROAD INTERSECTION ANGLES

(Values for Angles not shown shall be interpolated)

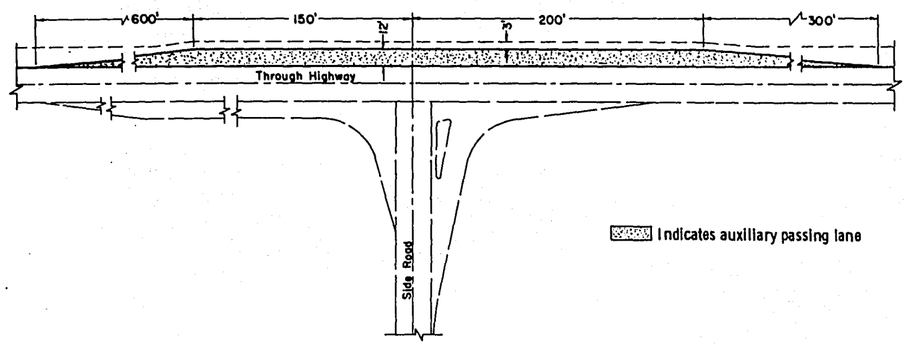
θ	G	K	B	V	H	X	Y	P	M
90	90	43.8	33.9	156.0	94	48.0	11.0	125.0	44.2
95	94	46.7	34.0	156.7	96	47.0	11.0	121.3	41.9
100	98	50.0	34.4	157.4	98	45.9	11.0	117.7	39.7
105	102	53.8	35.2	158.3	100	44.9	11.2	114.2	37.8
110	106	58.2	36.4	159.2	102	43.7	11.4	110.6	36.2
115	110	63.4	38.4	161.8	104	42.6	11.7	107.1	34.8
*120	114	69.4	40.1	161.2	106	41.4	12.2	103.4	33.7

*Maximum angle of intersection

θ	C	G	K	B	V	X	Y	H	P	M	T
*60	19.7	76.3	38.6	41.5	169.9	67.4	29.3	84	144.5	58.8	21.6
65	17.8	82.6	40.6	39.4	166.9	63.6	25.0	86	141.2	54.9	20.7
70	15.8	87.2	43.1	37.4	164.1	59.7	21.9	88	136.8	51.4	19.2
75	15.7	90.9	45.6	35.7	161.4	55.9	19.3	90	132.7	48.2	17.4
80	15.9	94.9	48.3	34.4	158.9	51.9	17.0	92	128.8	45.3	14.9
85	16.2	99.3	51.4	33.4	156.4	48.0	15.0	94	125.2	42.7	10.4

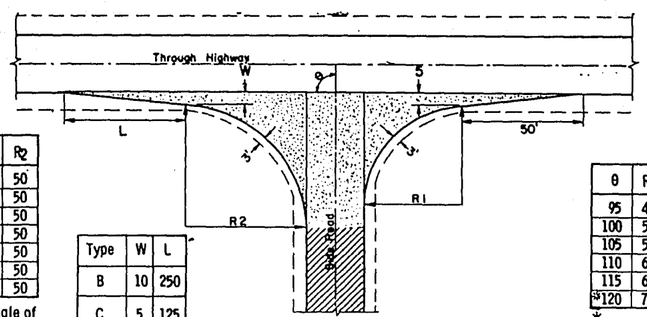
*Desirable Minimum angle of intersection

TYPE "A" SIDE ROAD INTERSECTION DETAILS



Indicates auxiliary passing lane

PASSING LANE DETAIL



θ	R1	R2
*60	40	50
65	40	50
70	40	50
75	40	50
80	40	50
85	40	50
90	40	50

*Min. Angle of Intersection

Type	W	L
B	10	250
C	5	125

θ	R1	R2
95	45	49
100	50	48
105	55	47
110	60	46
115	65	45
*120	70	44

*Max. Angle of Intersection

TYPE "B" & "C" SIDE ROAD INTERSECTION DETAILS

GENERAL NOTES

Designs may be used interchangeably in combination or separately for any one complete intersection depending upon 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.

SIDE ROAD SURFACING NOTE

If the side road is not presently paved, pavement shall be placed to the limits shown. In the case where the construction limits are beyond the paving limits, gravel or crushed stone surfacing shall be placed between the paving limits and construction limits.

If the side road is presently paved, new pavement shall be placed to the limits of design as shown and beyond, if necessary, to meet existing pavement.

If side road is the construction project, the intersection surfacing shall be the same as for the project.

New Pavement

Existing Surface

LAYOUT DETAILS FOR AT-GRADE SIDE ROAD INTERSECTIONS

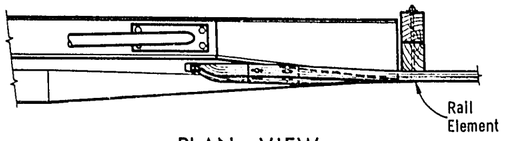
State Highway Commission of Wisconsin

RECOMMENDED FOR APPROVAL: 8/9/67 DATE — E. J. Bobel, CHIEF DESIGN ENGINEER

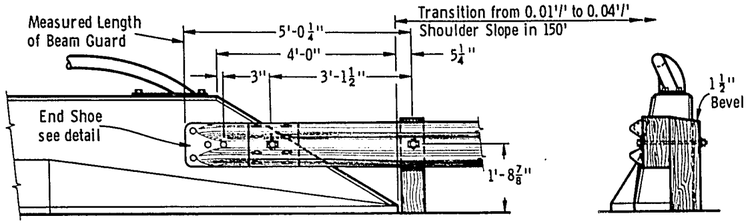
APPROVED: 8/9/67 DATE — A. Zimmerman, STATE HIGHWAY ENGINEER

S.D.D. 9A1-1

S.D.D. 9A1-1



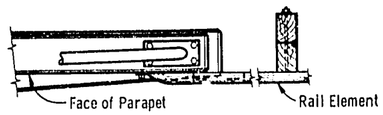
PLAN VIEW



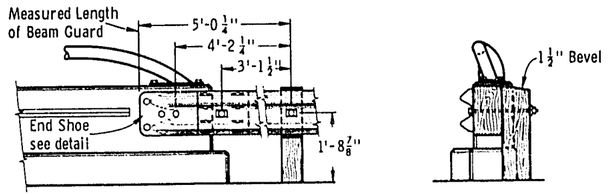
FRONT ELEVATION END ELEVATION

STRUCTURE MOUNTING DETAIL

SLOPING TYPE PARAPET WALL



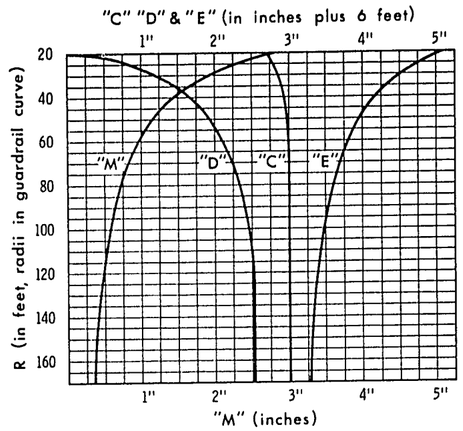
PLAN VIEW

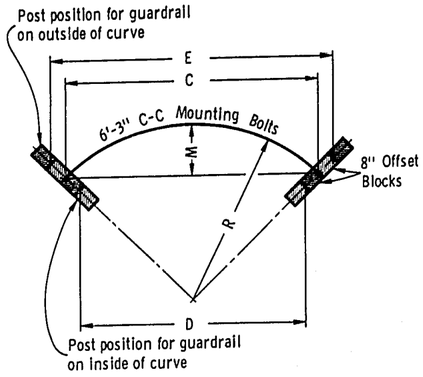


FRONT ELEVATION END ELEVATION

STRUCTURE MOUNTING DETAIL

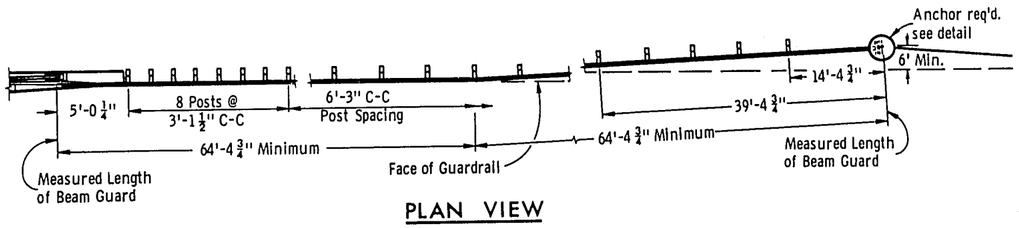
VERTICAL TYPE PARAPET WALL



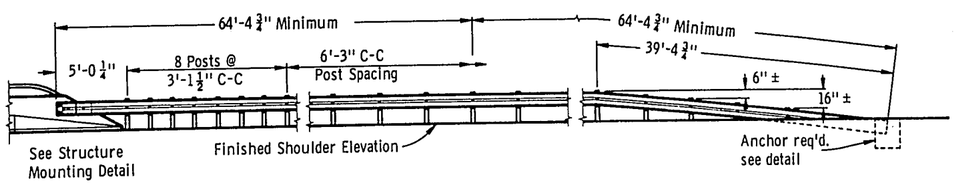


CHORD LENGTHS FOR POST SPACING AND MIDDLE ORDINATES FOR BEAM CURVING

CURVE DATA FOR POST SPACING AND BEAM CURVING

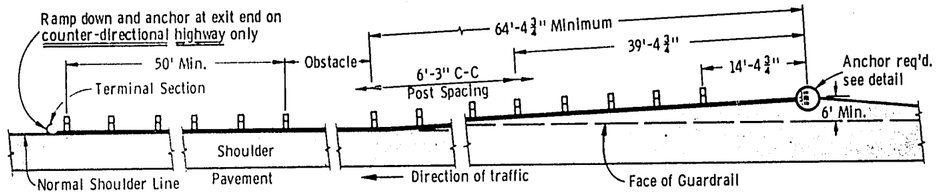


PLAN VIEW



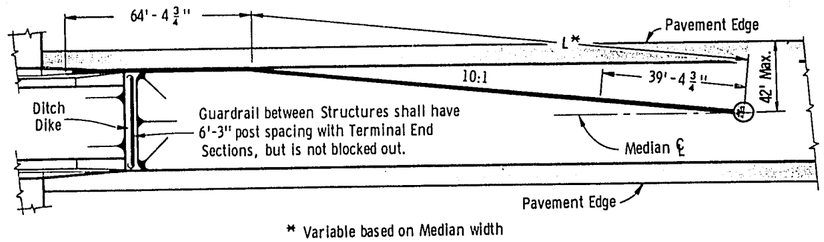
FRONT ELEVATION

TYPICAL OUTSIDE SHOULDER INSTALLATION AT STRUCTURES



PLAN VIEW

TYPICAL INSTALLATION AT LOCATIONS OTHER THAN STRUCTURES



* Variable based on Median width

PLAN VIEW

MEDIAN PROTECTION

GENERAL NOTES

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

The exact location of the beginning and end of each Guardrail installation shall be as shown on the plans or as directed by the Engineer.

Square anchor alternates will be permitted. Square anchors shall be a minimum of 24 inches x 24 inches.

The shoulder widening to accommodate the anchored end of the Guardrail shall be accomplished at a rate of widening not to exceed 50 to 1.

Upon approval of the Engineer, the 6 foot anchor offset may be reduced to nothing for replacement installations where existing conditions will not permit the desirable offset. However, when no offset greater than or equal to 3 feet can be provided, the minimum length of guardrail in advance of an obstacle (obstacle to anchor) shall be 150 feet.

The "Post Footing Details At Piers" shall be used when guardrail posts are over structure footings and less than 3 feet-6 inches of earth is provided over the top of the footing.

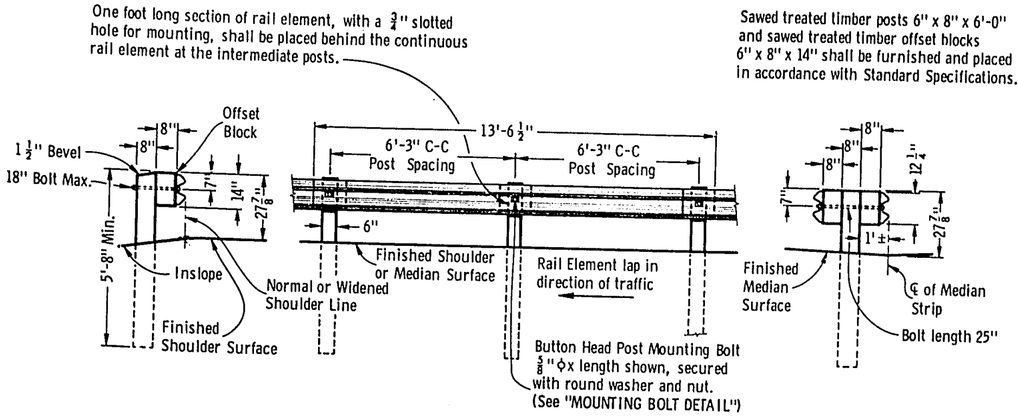
NOTE: This Standard Detail Drawing consists of two plates, and both plates are required when this Standard is called for in the plans.

CLASS "A"
STEEL PLATE BEAM GUARD &
STEEL PLATE BEAM MEDIAN GUARD

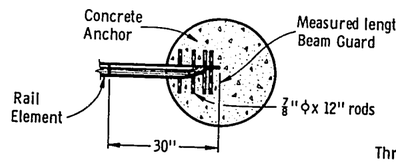
State of Wisconsin
Department of Transportation
Division of Highways

S.D.D. 14 B 2-2a

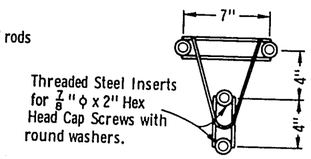
S.D.D. 14 B 2-2a



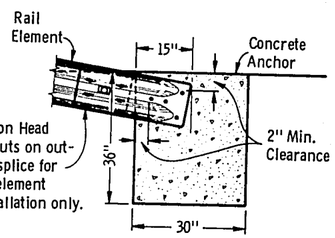
STEEL PLATE BEAM GUARD OR STEEL PLATE BEAM MEDIAN GUARD



PLAN VIEW



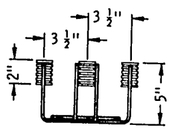
PLAN VIEW



SECTION VIEW

ANCHOR DETAIL

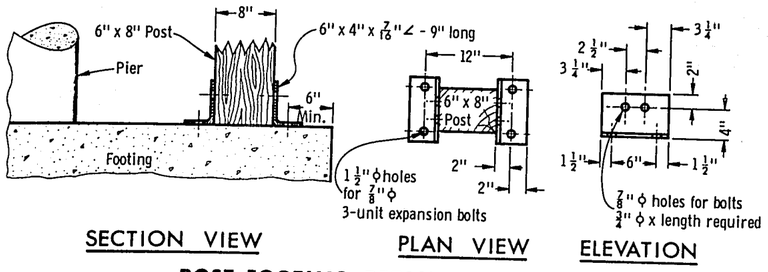
SINGLE RAIL ELEMENT INSTALLATION



ELEVATION

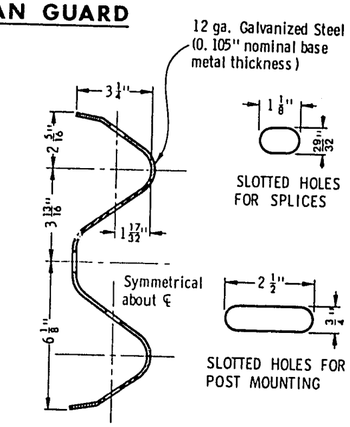
4 BOLT INSERT ASSEMBLY

NOTE: Installation of 4 Bolt Insert Assembly (with Cap Screws inserted) to be part of Bridge Contract.

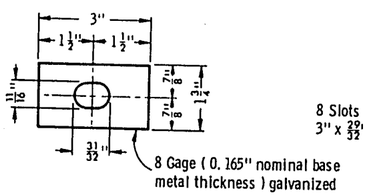


SECTION VIEW PLAN VIEW ELEVATION

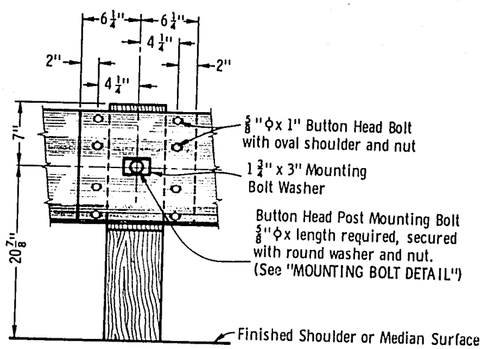
POST FOOTING DETAIL AT PIERS



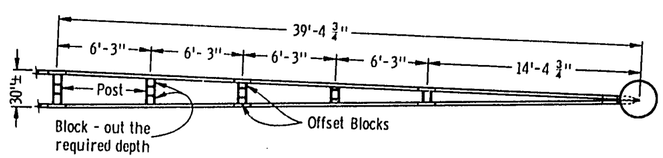
SECTION THRU RAIL ELEMENT



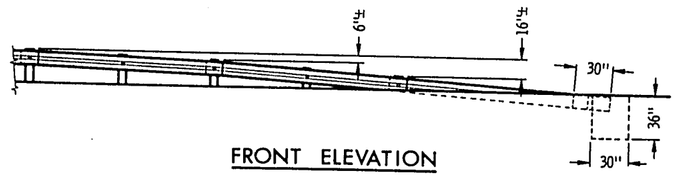
MOUNTING BOLT WASHER



RAIL ELEMENT SPLICING AND POST MOUNTING DETAIL

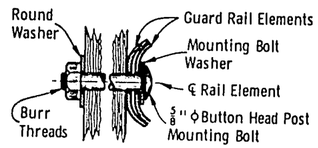


PLAN VIEW

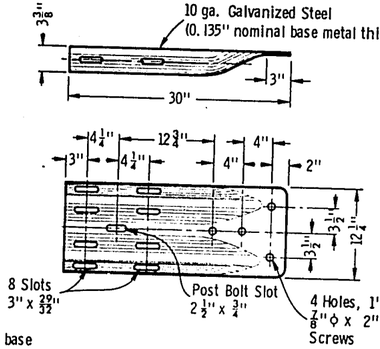


FRONT ELEVATION

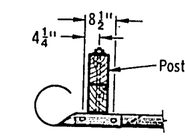
ANCHOR DETAIL FOR DOUBLE RAIL ELEMENT INSTALLATION



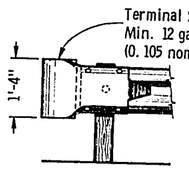
MOUNTING BOLT DETAIL



END SHOE DETAIL

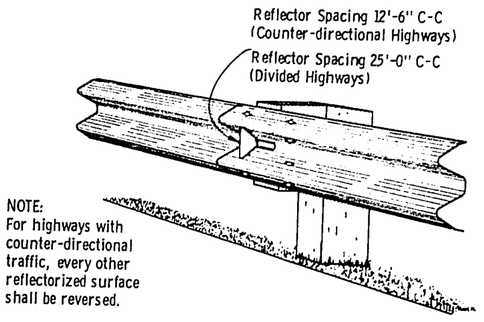


PLAN VIEW



FRONT ELEVATION

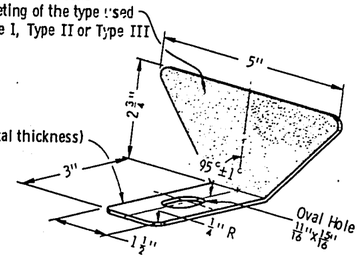
TERMINAL SECTION DETAILS



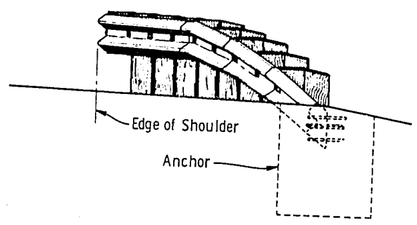
NOTE:
For highways with counter-directional traffic, every other reflectorized surface shall be reversed.

TYPICAL INSTALLATION

The reflectorized surface shall consist of Silver Reflective Sheeting of the type used as background on Type I, Type II or Type III signs.



REFLECTOR DETAIL



TYPICAL TERMINAL END ELEVATION

NOTE: This Standard Detail Drawing consists of two plates, and both plates are required when this Standard is called for in the plans.

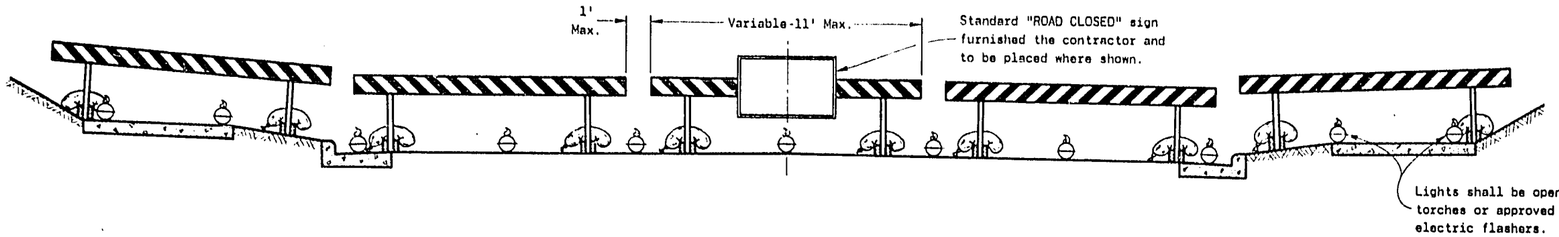
CLASS "A"
STEEL PLATE BEAM GUARD &
STEEL PLATE BEAM MEDIAN GUARD

State of Wisconsin
Department of Transportation
Division of Highways

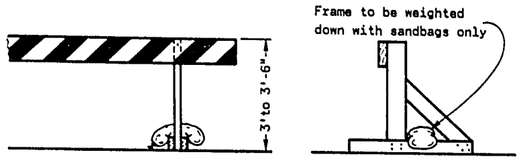
RECOMMENDED FOR APPROVAL
3/7/72 DATE — CHIEF DESIGN ENGINEER
APPROVED:
3/22/72 DATE — STATE HIGHWAY ENGINEER

S.D.D. 14 B 2-2b

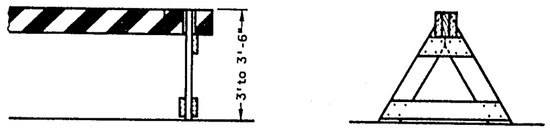
S.D.D. 14 B 2-2b



TYPICAL INSTALLATION SHOWING RIGID BARRICADES

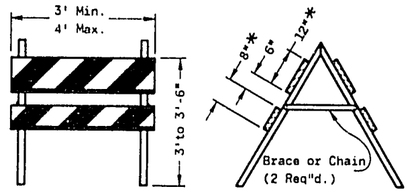


ALTERNATE TYPE INSTALLATION (RIGID)

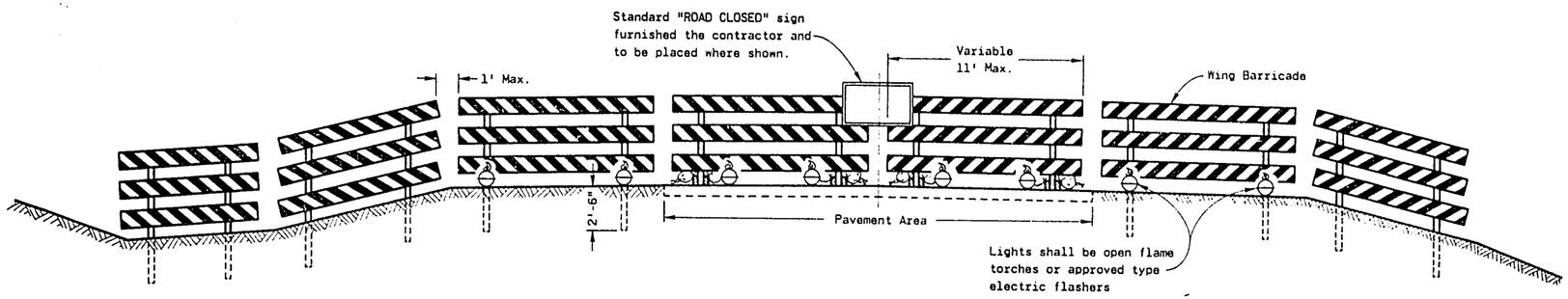


ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)

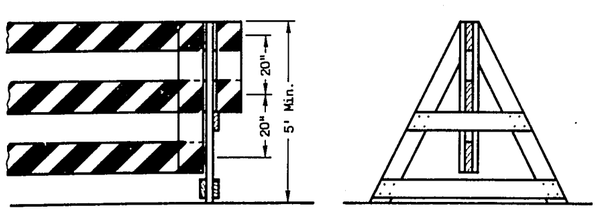
CLASS I BARRICADES



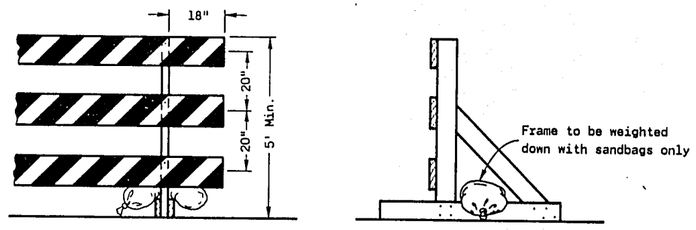
CLASS II BARRICADE



TYPICAL INSTALLATION SHOWING FIXED AND RIGID BARRICADES

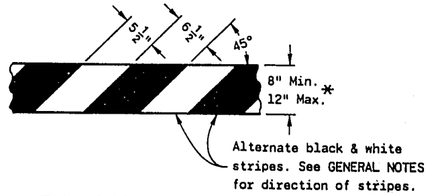


ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)



ALTERNATE TYPE INSTALLATION (RIGID)

CLASS III BARRICADES



TYPICAL RAIL

Applies to all Classes & Alternate Types of Barricades

GENERAL NOTES

The contractor shall construct, place and maintain barricades as shown on the drawing and as required by the Standard Specifications or applicable Special Provisions.

CLASS I OR CLASS II BARRICADES:
Class I or II Barricades shall be used only where the hazard to traffic is relatively small, and for the more or less continuous delimiting of a restricted roadway, or for temporary daytime use.

CLASS III BARRICADE:
Class III Barricades shall be of variable length as indicated, and long barricades shall be assembled from these units. The Class III Barricade is the type normally required for major operations, where the barricade will remain in place for extended periods. Class III Barricades shall be used at points where the road is closed to traffic. Gates or movable sections of a barricade shall be provided when necessary, for access of equipment or other authorized vehicles.
Wing Barricades are Class III Barricades erected on the shoulder on one or both sides of the pavement to give traffic the perceptive effect of a narrowing or restricted roadway. The ends closest to traffic of all three members of a Wing Barricade shall be in a verticle line. If used in a series, they should start at the outer edge of the shoulder and be brought progressively closer to the pavement. Wing Barricades may be used as a mounting for the advance warning or guide signs or for flashers. When used on two-way roadways, the back of the Wing Barricade shall be painted white.

MATERIAL AND FABRICATION:
Barricades may be constructed of wood, metal or other suitable material.
Lumber shall be of a grade structurally sound and sufficiently rigid to satisfactorily support and maintain the purpose and intent of a barricade facility.
Metal or other suitable material shall be sufficiently rigid to satisfactorily support and maintain the purpose and intent of a barricade facility.
The fabrication of the barricade shall be in accord with good pertinent woodworking and metalworking practices.

PAINTING:
All barricades shall have alternate 6½ inch black and 5½ inch white stripes at a 45 degree angle. Black stripes shall be painted with weather resistant and durable black paint. White stripes shall be primed, followed by a coat of white reflectorized paint or shall consist of reflective wide angle sheeting.

DIRECTION OF DIAGONAL STRIPES:
Where a barricade extends entirely across the roadway with no vehicle access provision, the stripes shall slope downward toward the highway centerline.
Where vehicle access is permitted, the stripes shall slope downward in the direction toward which vehicles must turn in detouring.
Where both right and left turns are provided for, the stripes shall slope downward in both directions from the center.
The stripes on Wing Barricades shall slope downward toward the roadway.

LIGHTING:
Lighting devices for barricades shall conform to the requirements of the Standard Specifications.

MEASUREMENT AND PAYMENT:
All barricades, unless otherwise provided for in the plans and/or Special Provisions shall be furnished, placed and maintained as noted above, and no additional compensation will be allowed, but shall be construed to be included in the price bid for other items.

* Nominal dimensions when barricade is constructed of lumber.

CONSTRUCTION BARRICADE

State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL:
6-7-72 DATE — L. C. Hamrick, CHIEF DESIGN ENGINEER

APPROVED
6-9-72 DATE — S. C. Hicks, STATE HIGHWAY ENGINEER

S.D.D. 15C 1-2

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