

BEAM GUARD AT SIDEROADS OR DRIVEWAYS

GENERAL NOTES

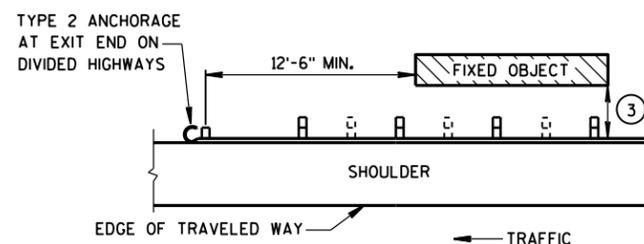
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE PERTINENT STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

W6 X 9 OR W6 X 8.5 STEEL POSTS WITH NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

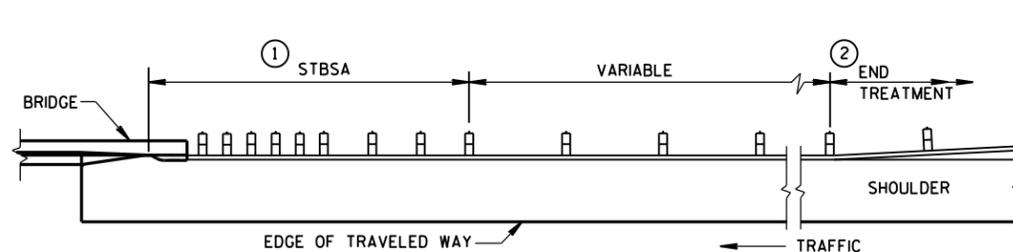
THE LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.

- ① STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.
- ② USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

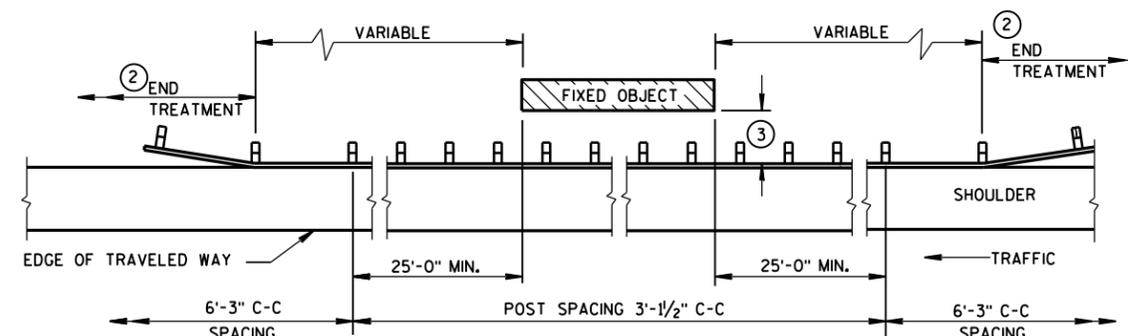
MINIMUM LATERAL DISTANCE FROM FACE OF BEAM GUARD TO FIXED OBJECT	POST SPACING
3'-6"	3' - 1/2"
4'-6"	6' - 3"



**BEAM GUARD AT OBSTACLES
EXIT END - ONE WAY TRAFFIC**



BEAM GUARD AT FULL WIDTH BRIDGES

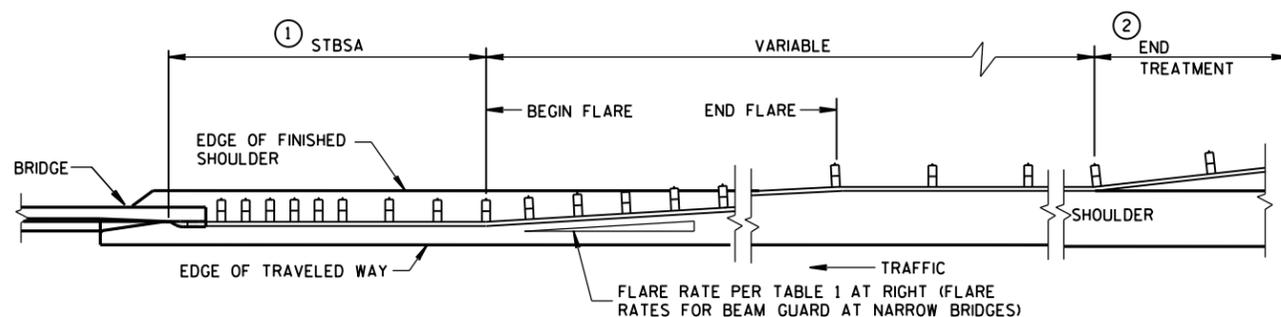


BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

(RAIL TO OBSTACLE CLEARANCE 3'-6" TO 4'-6")

**TABLE 1
FLARE RATES FOR BEAM
GUARD AT NARROW BRIDGES**

POSTED SPEED (MPH)	FLARE RATE
25	13:1
30	15:1
35	16:1
40	18:1
45	21:1
50	24:1
55	26:1
65	30:1



**BEAM GUARD AT NARROW BRIDGES
(FLARED TO SHOULDER EDGE, THEN PARALLEL TO ROADWAY)**

**STEEL PLATE BEAM GUARD
CLASS "A"
AT BRIDGES, OBSTACLES
AND SIDEROADS/DRIVEWAYS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-21-07 DATE /S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

Steel Plate Beam Guard, Class "A" (at Bridges, Obstacles and Sideroads/Driveways)**References:**[FDM 11-45-1](#)

AASHTO Roadside Design Guide

Bid items associated with this drawing:

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
614.0010	Barrier System Grading Shaping Finishing.....	EACH
614.0200	Steel Thrie Beam Structure Approach	LF
614.0305	Steel Plate Beam Guard Class A.....	LF
614.0370	Steel Plate Beam Guard Energy Absorbing Terminal	EACH

Standardized Special Provisions associated with this drawing:

<u>STSP NUMBER</u>	<u>TITLE</u>
NONE	

Other SDDs associated with this drawing:[SDD 14b15](#), SDD 14b18, and/or [SDD14b24](#).

Include this drawing, 14b18 sheet "a", whenever 14b15 sheet "a" or 14b16 are called for in the plans.

Design Notes:

Projects with PSE due August 2011 or later are required to install MGS beam guard (MGS) for new beam guard installations. Some exceptions allowing the installation of new non-MGS beam guard may be granted by Bureau of Project Development (BPD). A few of these exceptions require minimum documentation (e.g. there is no short radius version of MGS designer would need to install non-MGS beam guard). Other exceptions require more documentation and discussion with Bureau of Project Development. Projects on the NHS or subject to FHWA oversight are to review the use of MGS with FHWA.

For Non-Grading Type Projects with Beam Guard - (Resurfacing plus Beam Guard or Separate Beam Guard Project) use the Barrier System Grading Shaping Finishing bid item.

List all items of work and round up the quantities for individual items and note them as "For Bid Information Only." Following is suggested table format for use on the Miscellaneous Quantities Sheet:

BARRIER SYSTEM GRADING SHAPING FINISHING, ITEM 614.0010

Station Location (Anchorage Post # 1)	* Comm. Exc.	* Fill	* Borrow Exc.	* Salv. Topsoil	* Fert. Type ---	* Seeding	* Mulching	Each
	C.Y.	C.Y.	C.Y.	S.Y.	CWT.	L.B.	S.Y.	
Sta. _____								
Totals								

* Items & Quantities listed for Bid Information Only. For quantities shown be very clear how many units Each are included in the table.

Options to use in displaying quantities:

1. Show items and quantities for 1 Each, typical location.
2. List each anchor location separately with respective quantities.
3. Show items and quantities for all anchors inclusive, and indicate the quantity of anchors these totals are for.

The Energy Absorbing Terminal is recommended. The turn-down-end may be used on Non-NHS and Non-STH's if the roadway meets the criteria in FDM 11-45-1.

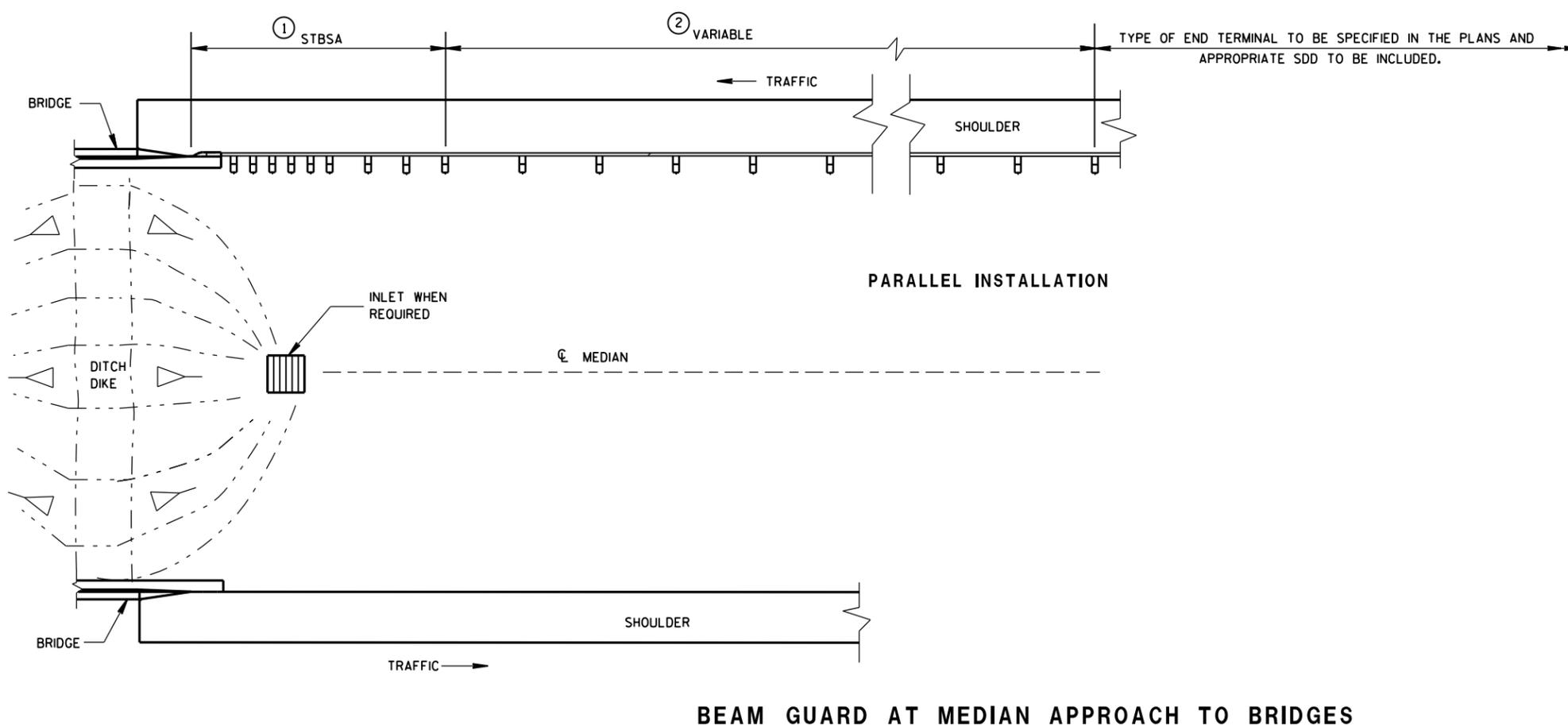
Contact Person:

Erik Emerson (608) 266-2842



GENERAL NOTES

- ① STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.
- ② LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.



6

6

S.D.D. 14 B 18-6b

S.D.D. 14 B 18-6b

STEEL PLATE BEAM GUARD CLASS "A" AT MEDIAN APPROACH TO BRIDGES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 8-21-07 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

Steel Plate Beam Guard, Class "A" at Median Approach to Bridges at Median Piers and Sign Supports

References:[FDM 11-45-1](#)

AASHTO Roadside Design Guide

Bid items associated with this drawing:

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
614.0010	Barrier System Grading Shaping Finishing.....	EACH
614.0200	Steel Thrie Beam Structure Approach	LF
614.0305	Steel Plate Beam Guard Class A.....	LF
614.0370	Steel Plate Beam Guard Energy Absorbing Terminal	EACH

Standardized Special Provisions associated with this drawing:

<u>STSP NUMBER</u>	<u>TITLE</u>
NONE	

Other SDDs associated with this drawing:[SDD 14B15](#), [SDD14B18](#), [SDD14B20](#), and/or [SDD 14B24](#).**Design Notes:**

Projects with PSE due August 2011 or later are required to install MGS beam guard (MGS) for new beam guard installations. Some exceptions allowing the installation of new non-MGS beam guard may be granted by Bureau of Project Development (BPD). A few of these exceptions require minimum documentation (e.g. there is no short radius version of MGS designer would need to install non-MGS beam guard). Other exceptions require more documentation and discussion with Bureau of Project Development. Projects on the NHS or subject to FHWA oversight are to review the use of MGS with FHWA.

The PARALLEL INSTALLATION is intended for use where the median width is greater than 50-feet.

For Non-Grading Type Projects with Beam Guard- (Resurfacing plus Beam Guard or Separate Beam Guard Project) use the Barrier System Grading Shaping Finishing bid item.

List all items of work and round up the quantities for individual items and note them as "For Bid Information Only." Following is suggested table format for use on the Miscellaneous Quantities Sheet:

Terminal/anchorage type to be noted on miscellaneous quantity sheet Beam Guard remarks column.

BARRIER SYSTEM GRADING SHAPING FINISHING, ITEM 614.0010

Station Location	* Comm. Exc.	* Fill	* Borrow Exc.	* Salv. Topsoil	* Fert. Type ---	* Seeding	* Mulching	Each
(Anchorage Post # 1)	C.Y.	C.Y.	C.Y.	S.Y.	CWT.	L.B.	S.Y.	
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