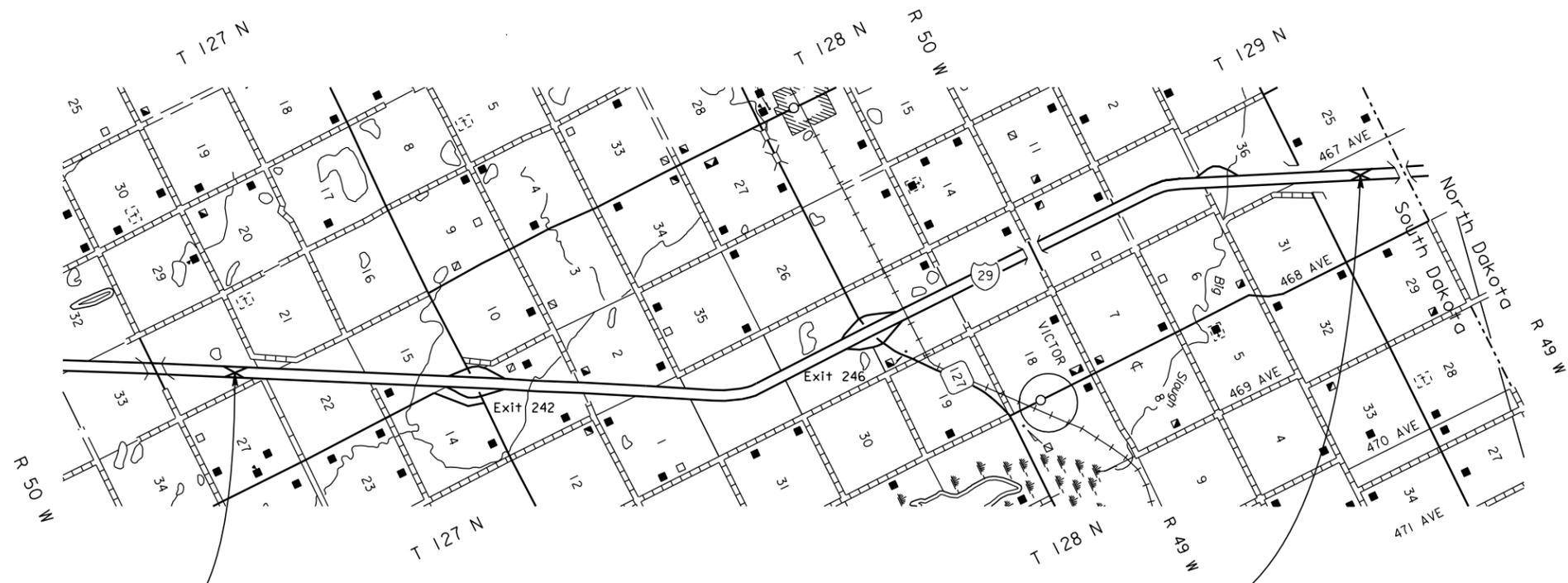
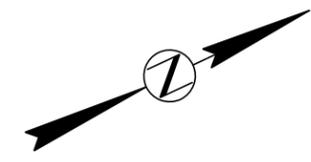


STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	IM 0299(68)239	C1	C5
Plotting Date: 12/05/2014			

SECTION C: TRAFFIC CONTROL

INDEX OF SHEETS

C1	General Layout with Index
C2 - C3	Estimate w/ General Notes and Tables
C4 - C5	Standard Plates



Sta. 188+00
Median Crossover
MRM 239.00 +.711

Sta. 32+00
Median Crossover
MRM 252.00 +.092

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	IM 0299(68)239	C2	C5
Plotting Date: 12/05/2014			

SECTION C ESTIMATE OF QUANTITIES

Bid Item Number	Item	Quantity	Unit
634E0010	Flagging	40	Hour
634E0100	Traffic Control	2,456	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	4	Each
634E0610	4" Temporary Pavement Marking Tape Type 2	7,200	Ft

SCOPE OF WORK

Work on this project includes, but is not limited to construction of median crossovers along Interstate 29.

MAINTENANCE OF TRAFFIC

Removing, relocating, covering, salvaging and resetting of existing traffic control devices, including delineation, shall be the responsibility of the Contractor. Cost of this work shall be incidental to the various contract bid items unless otherwise specified in the plans. Delineators and signs damaged or lost shall be replaced by the Contractor at no cost to the State.

Storage of vehicles and equipment shall be as near the right-of-way as possible. Contractor's employees should mobilize at a location off the right-of-way and arrive at the work sites in a minimum number of vehicles necessary to perform the work. Indiscriminate driving and parking of vehicles within the right-of-way will not be permitted. Any damage to the vegetation, surfacing, embankment, delineators and existing signs resulting from such indiscriminate use shall be repaired and/or restored by the Contractor, at no expense to the State, and to the satisfaction of the Engineer.

Work activities during non-daylight hours are subject to prior approval.

One lane of traffic shall be maintained in each direction on mainline construction.

Locations of signs on traffic control layouts are diagrammatic. Portable stands may be used on the shoulders or on driving lanes closed to traffic, if the duration is not more than 3 days. If the duration is more than 3 days, the signing shall be mounted on fixed location, ground mounted, breakaway supports. The bottom of signs on portable or temporary supports shall not be less than seven feet above the pavement in urban areas, and one foot above the pavement in rural areas.

All operations shall be confined to a 12 ft lane plus the shoulder, leaving the adjoining 12 ft lane open for thru traffic.

The Contractor shall provide documentation that all breakaway sign supports comply with FHWA NCHRP Report 350 or MASH crash-worthy requirements. The Contractor shall provide installation details at the preconstruction meeting for all breakaway sign support assemblies.

A maximum of four closures for divided highway will be measured and paid for. If more closures are utilized, additional cost of signing shall be at the Contractor's expense.

Not more than 4 Type C Advanced Arrow Panels will be measured and paid for. Payment will be made for actual number of arrow panels utilized on project. No payment will be made for panels being reused at different areas as determined by the Engineer.

Maintenance of existing delineators shall be the Contractor's responsibility.

If interchange on-ramp traffic will encounter construction activity before reaching the "ROAD WORK AHEAD" and "RT or LT LANE CLOSED AHEAD" mainline signs, a "ROAD WORK AHEAD" sign, "RT or LT LANE CLOSED AHEAD" sign, and a "SPEED LIMIT" sign shall be placed along the on-ramp before reaching mainline.

The traffic control signs designated on the standard plates for movement within the manned work area shall be maintained by the Contractor in a manner that will assure they are never permitted to be further than one (1) mile from the manned work activity. Furthermore, no speed limit sign shall be improperly displayed or left in place inappropriately.

The Contractor's equipment will be required to enter and leave the project only at interchanges. Crossing of the median will not be allowed.

ITEMIZED LIST FOR TRAFFIC CONTROL - IM 0299(68)239 PCN 03W1

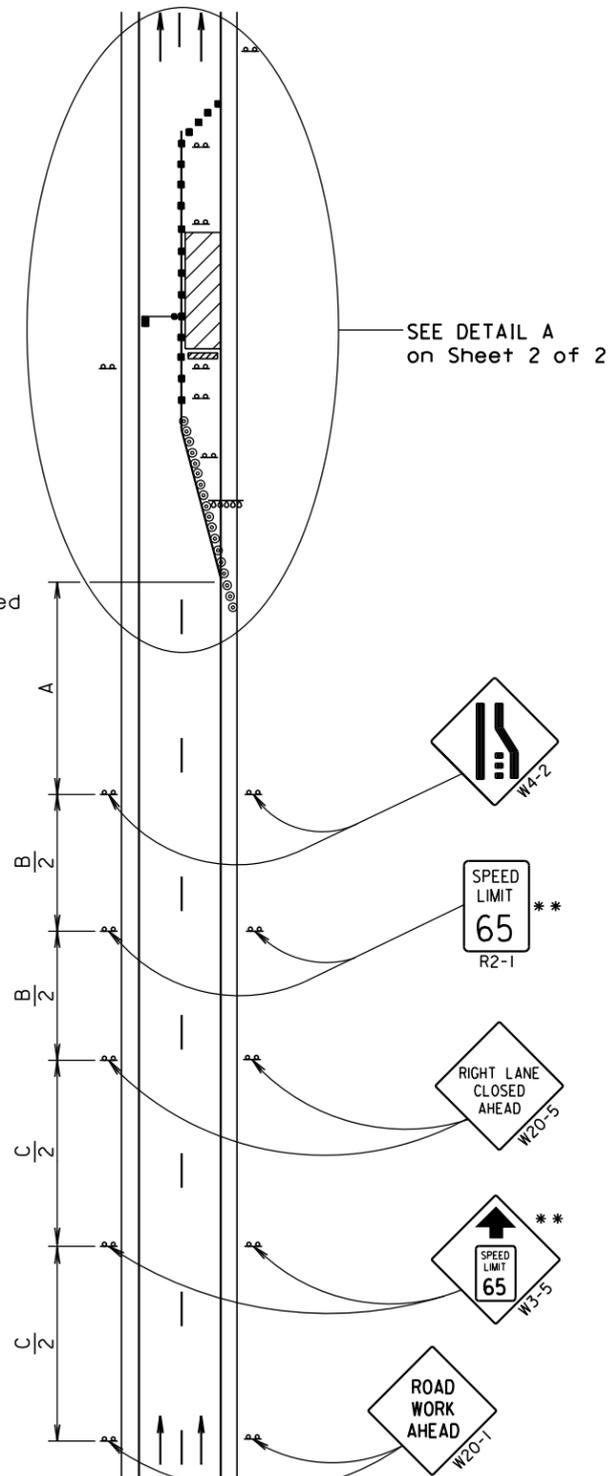
SIGN CODE	DESCRIPTION	EXPRESSWAY / INTERSTATE			
		NUMBER	SIGN SIZE	UNITS PER SIGN	UNITS
R2-1	SPEED LIMIT __	24	36" x 48"	29	696
R2-6aP	FINES DOUBLE (plaque)	4	36" x 24"	20	80
W3-5	SPEED REDUCTION AHEAD (__ MPH)	12	48" x 48"	34	408
W4-2	LEFT or RIGHT LANE ENDS (symbol)	8	48" x 48"	34	272
W20-1	ROAD WORK AHEAD	8	48" x 48"	34	272
W20-5	LEFT or RIGHT LANE CLOSED AHEAD	8	48" x 48"	34	272
W20-7	FLAGGER (symbol)	4	48" x 48"	34	136
G20-2	END ROAD WORK	4	48" x 24"	24	96
-	TYPE 3 BARRICADE - 8' double sided	4		56	224
TOTAL UNITS					2456

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet)		
	(A)	(B)	(C)
0 - 30	200		
35 - 40	350		
45 - 50	500		
55	750		
60 - 65	1000		
	(A)	(B)	(C)
70 - 75	1000	1500	2640

- ** Speed appropriate for location.
- ⊙ Reflectorized Drum
- Channelizing Device

ROAD WORK AHEAD sign is only required in advance of the first lane closure.

High speed is defined as having a posted speed limit greater than 45 mph.



September 22, 2014

Posted Speed Prior to Work (M.P.H.)	Spacing of Channelizing Devices (Feet)	Taper Length (Feet)
0 - 30	25	180
35 - 40	25	320
45 - 50	50 *	600
55	50 *	660
60 - 65	50 *	780
70 - 75	50 *	1125

- * Spacing is 40' for 42" cones.
- ** Speed appropriate for location.
- *** Use speed limit designated for the condition when workers are present in the work space. Signs shall be covered or removed when workers are not present.

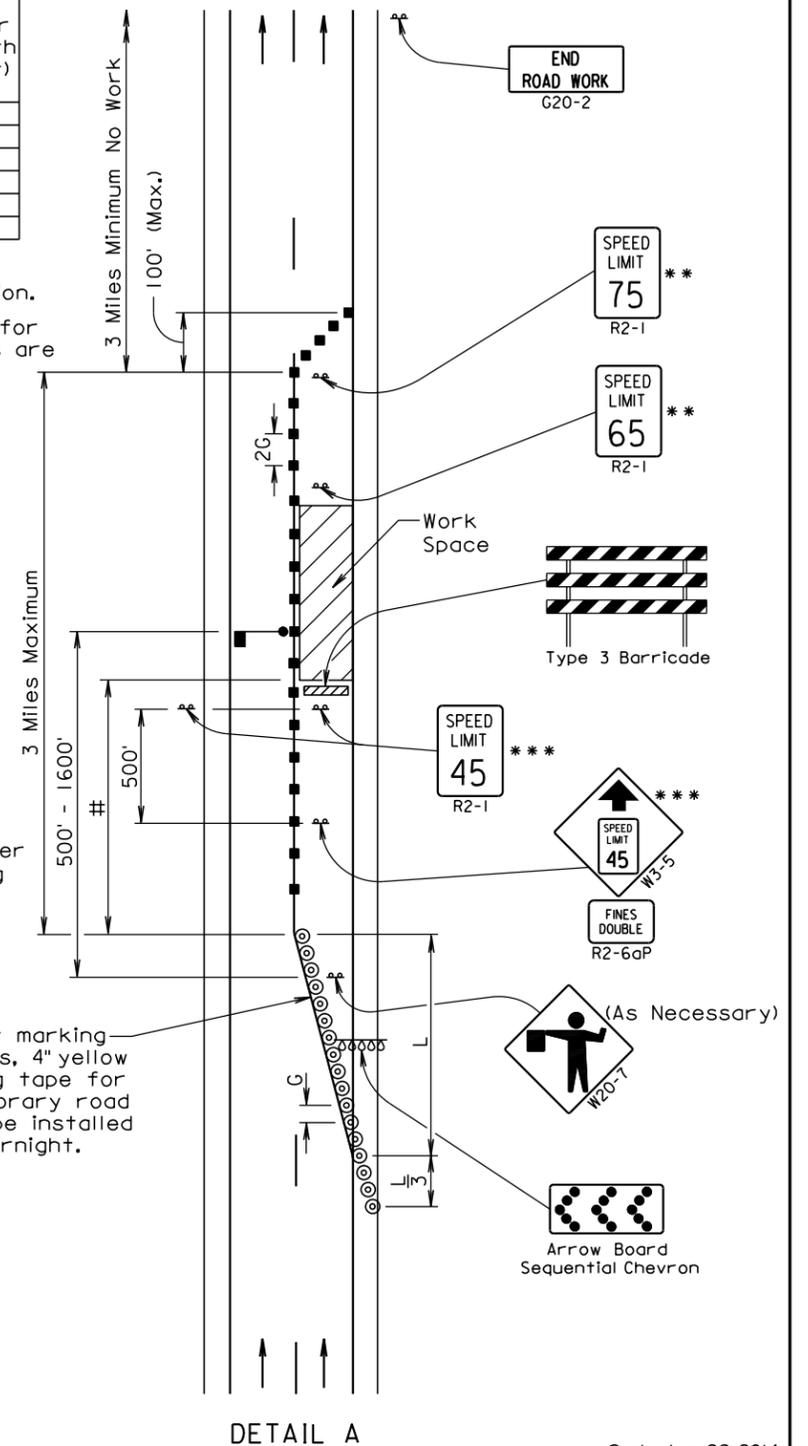
- Flagger (As Necessary)
- ⊙ Reflectorized Drum
- Channelizing Device
- # The Work Space shall be a minimum of 500' from the end of the taper.

The FLAGGER sign shall be used whenever there is a Flagger present.

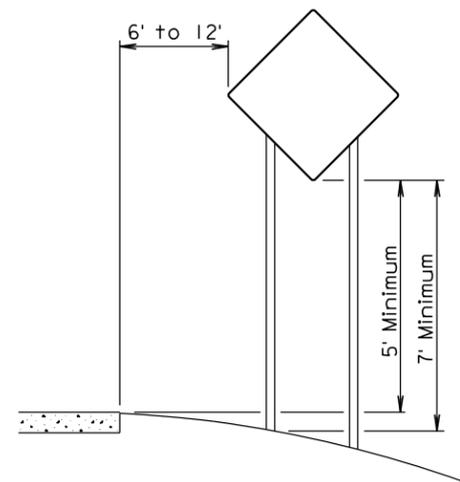
The channelizing devices shall be 42" cones or drums.

42" cones may be used in place of the drums shown in the taper if setup will not be used during night time hours.

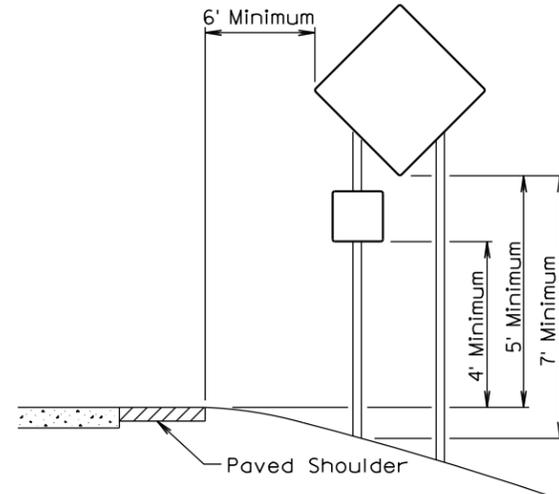
4" white temporary pavement marking tape for right lane closures, 4" yellow temporary pavement marking tape for left lane closures, or temporary road markers at 5' spacing shall be installed when the lane is closed overnight.



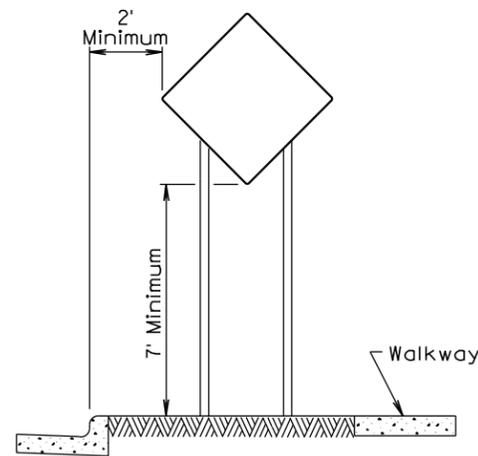
September 22, 2014



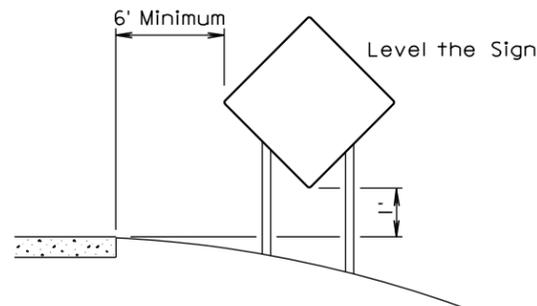
RURAL DISTRICT



RURAL DISTRICT WITH
SUPPLEMENTAL PLATE



URBAN DISTRICT



RURAL DISTRICT
3 DAY MAXIMUM

February 14, 2011

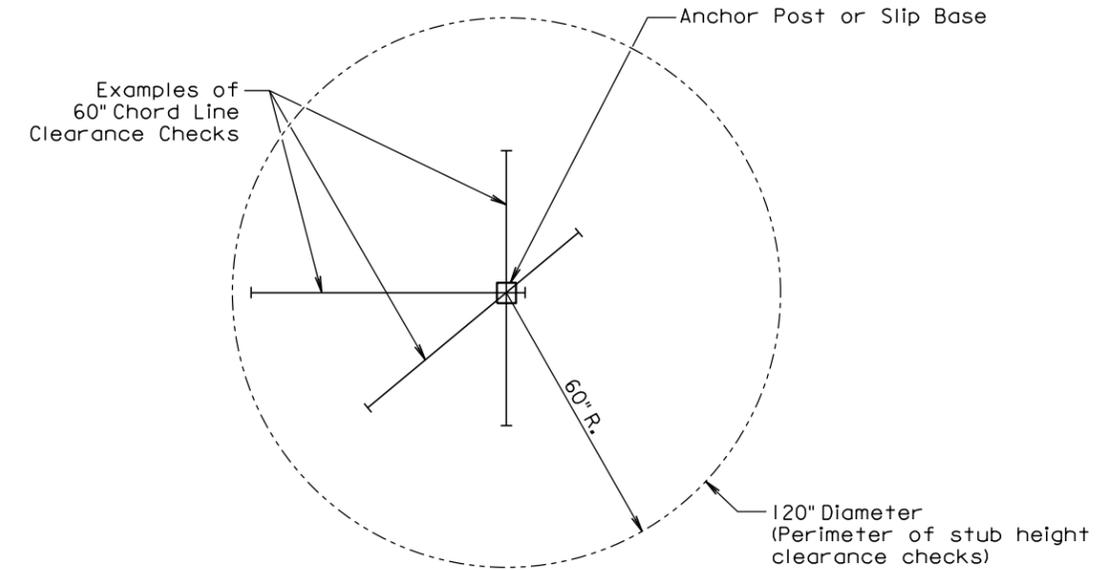
Published Date: 3rd Qtr. 2014

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CRASHWORTHY SIGN SUPPORTS
(Typical Construction Signing)

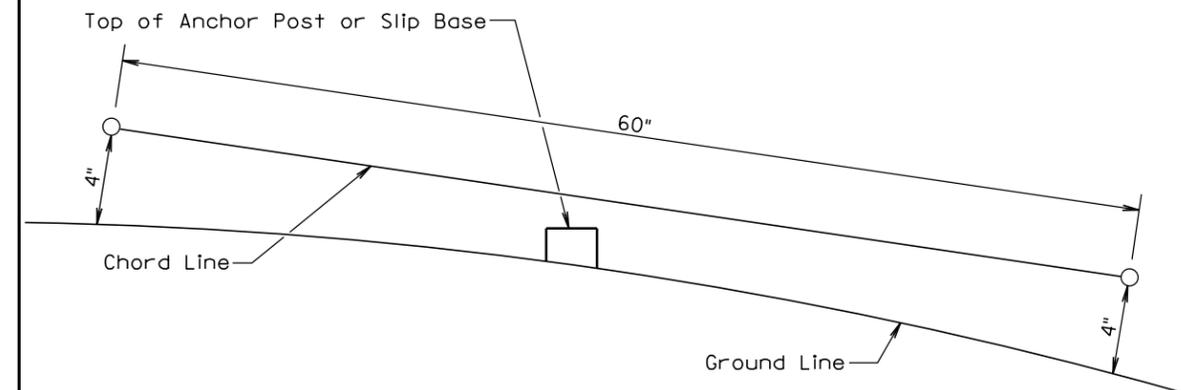
PLATE NUMBER
634.85

Sheet 1 of 1



PLAN VIEW

(Examples of stub height clearance checks)



ELEVATION VIEW

GENERAL NOTES:

The top of anchor posts and slip bases SHALL NOT extend above a 60" chord line within a 120" diameter circle around the post with ends 4" above the ground.

At locations where there is curb and gutter adjacent to the breakaway sign support, the stub height shall be a maximum of 4" above the ground line at the localized area adjacent to the breakaway support stub.

The 4" stub height clearance is not necessary for U-channel lap splices where the support is designed to yield (bend) at the base.

July 1, 2005

Published Date: 3rd Qtr. 2014

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BREAKAWAY SUPPORT STUB CLEARANCE

PLATE NUMBER
634.99

Sheet 1 of 1