

**GENERAL NOTES:**

**MATERIAL:** Use ASTM A615M, Grade 420 reinforcing bars, except for the loop bars (19D1, 19D2 and 19D3).

The loop bars (19D1, 19D2 and 19D3) shall be 19 mm smooth steel bars with a minimum yield of 420 MPa, a tensile strength of not less than 1.25 times the yield strength but a minimum of 550 MPa, a minimum 14% elongation in 203 mm, and passing a 180 degree bend test using a 3.5D pin bend diameter. The loops shall be installed within 3 mm of the plan dimensions.

Use Concrete Grade 35 (AE) throughout.

**SECTION:** The section furnished must generally comply with dimensions shown. Requests for minor variations in section geometry and attachments may be submitted to the Engineer for approval.

**LIFTING SLOTS:** Lifting slots shall be constructed where specified on the plans to facilitate the drainage of water after installation on the roadway.

**TEMPORARY CONCRETE SAFETY BARRIER:** One section of Taper Barrier shall be bid as one section of Type F3 Barrier. Type F3 barrier taper sections shall be used only for low speed (60 km/h or less) applications or where a barrier terminates beyond the roadway clear zone. Where a barrier terminates within the clear zone of a high speed roadway, an appropriate impact attenuator shall be installed on the approach end. Furnishing and placing of all materials when required and all labor and equipment required to position the temporary barrier shall be included in the Contract unit price bid for "Concrete Safety Barrier (Type F3)(Temporary)". Any relocation of the barrier required for the project shall be paid in accordance with the Special Provisions under the bid item "Concrete Safety Barrier (Type F3)(Temporary-Relocate)". Unless otherwise noted on the Plans, the Temporary Concrete Safety Barrier shall become the property of the Contractor and shall be removed from the site upon acceptance of the completed project. Approximate weight of one unit equals 1.2 Mg.

**SURFACE PREPARATION:** Barrier shall be placed on a paved surface. All loose dirt and sand shall be removed from the roadway surface just prior to placement of the barrier.

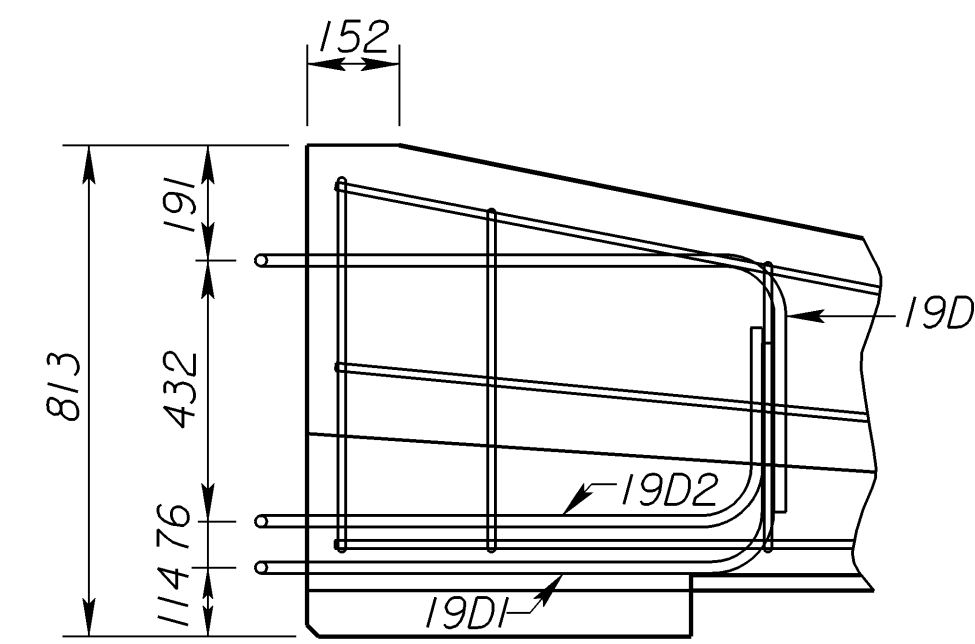
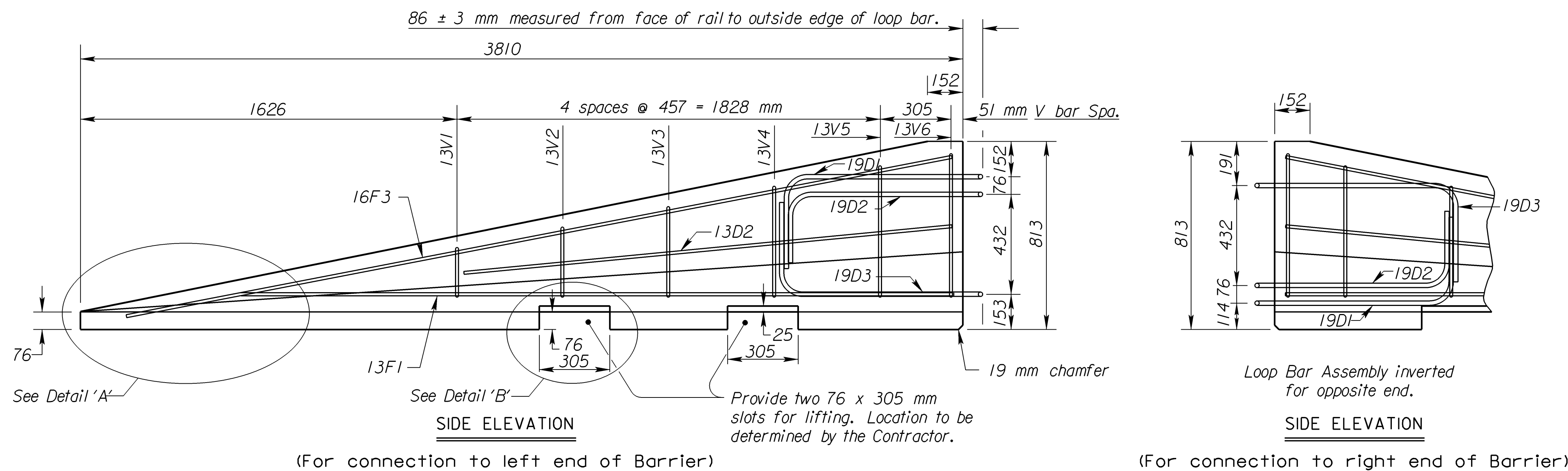
**DELINEATION:** See Standard Drawing RD640 S1 for delineator notes and details.

**MARKING:** Each barrier shall be permanently marked by stamping or forming into the barrier the following information:

- Type F3
- Manufacturer code (as specified by KDOT Bureau of Const. & Maint.)
- Date manufactured (month and year)

At no time shall the barriers be lifted, moved, etc by use of the loop bars: 19D1, 19D2 or 19D3.

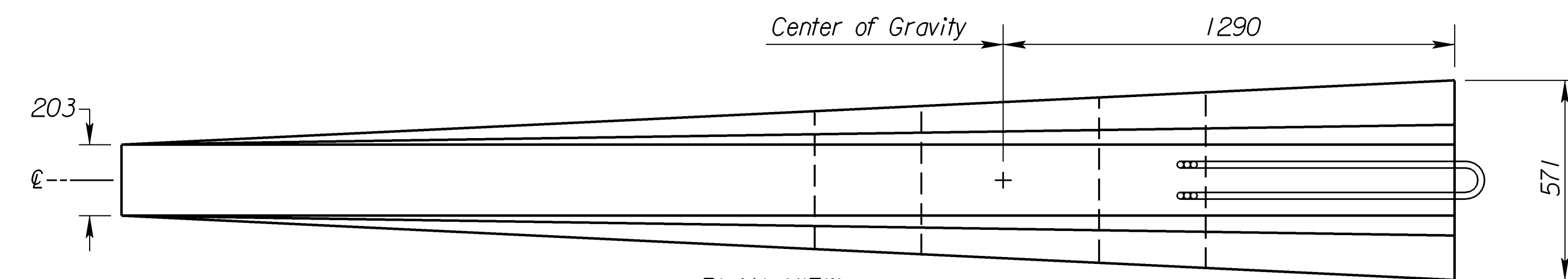
Concrete Quantity = 0.5 m<sup>3</sup>



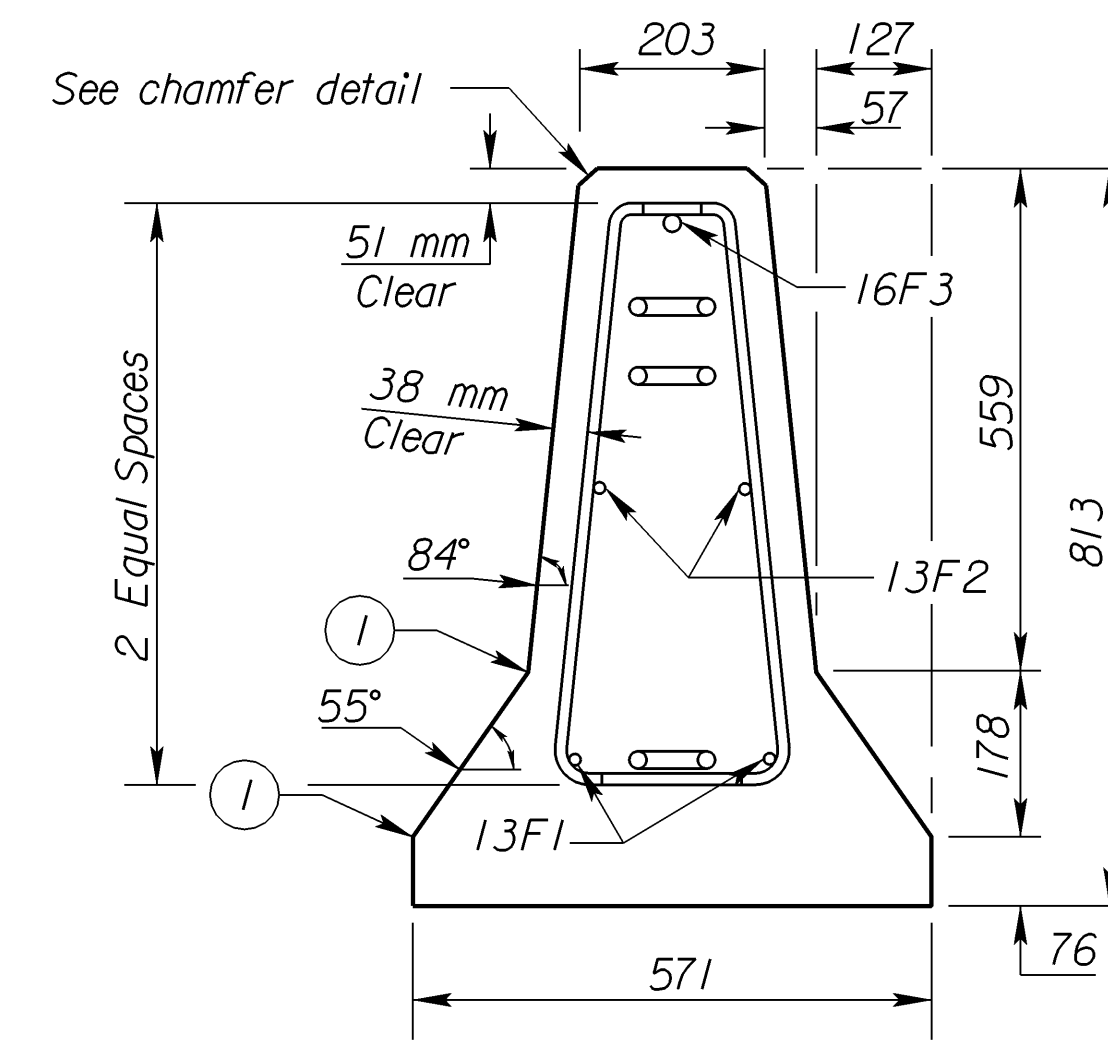
Loop Bar Assembly inverted for opposite end.

**SIDE ELEVATION**

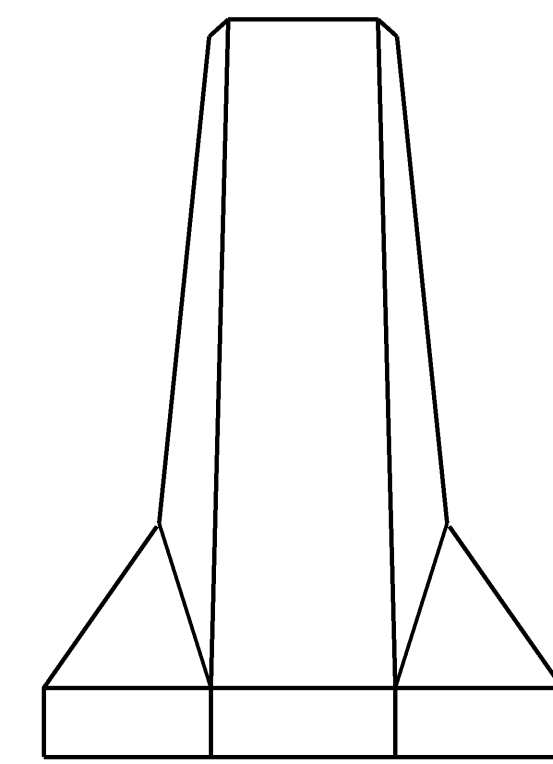
(For connection to right end of Barrier)



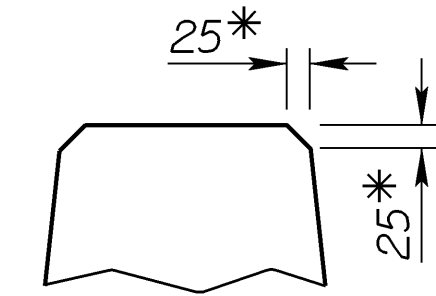
**PLAN VIEW**



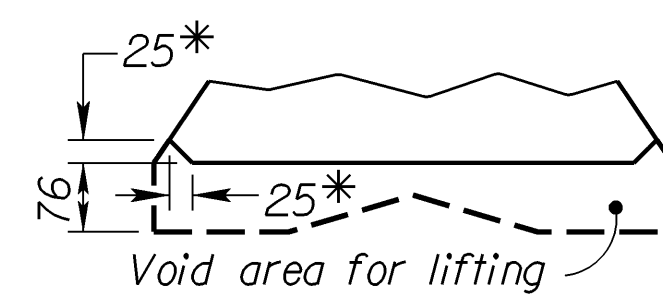
**END SECTION**



**FRONT ELEVATION**

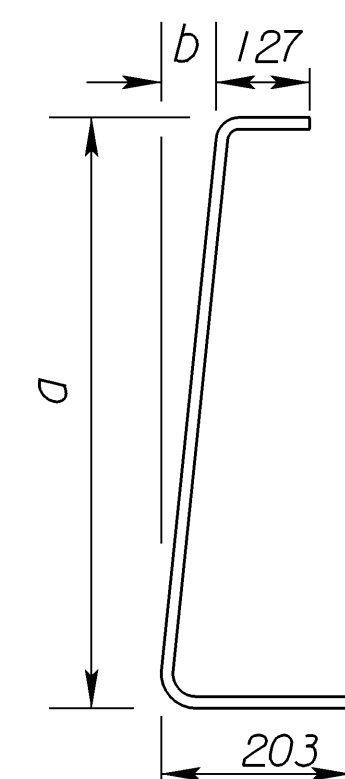


**CHAMFER DETAIL**



**DETAIL 'B' LIFTING SLOT DETAIL**

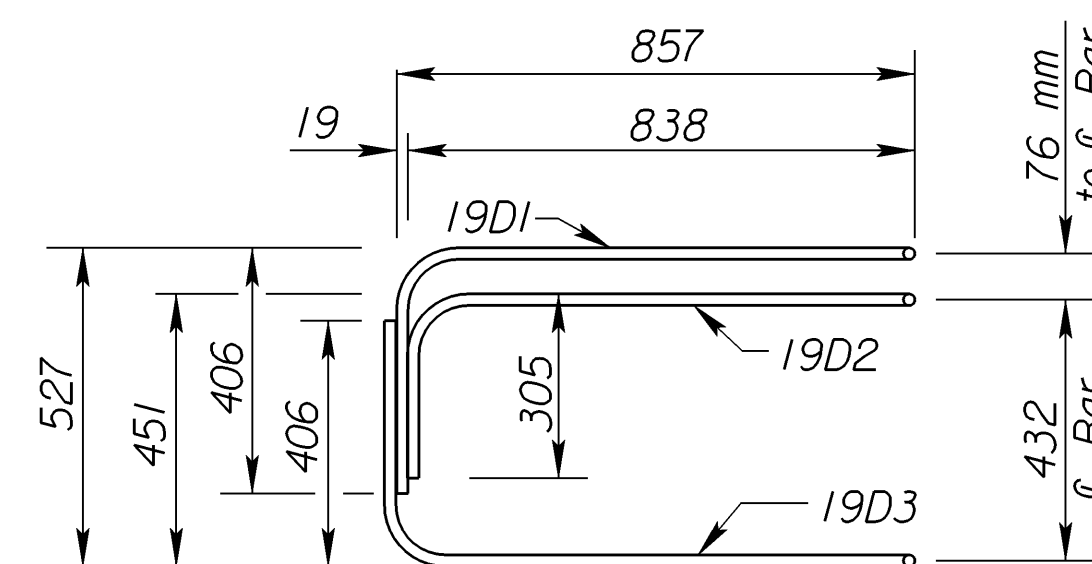
\* 25 mm Chamfer to prevent spalling



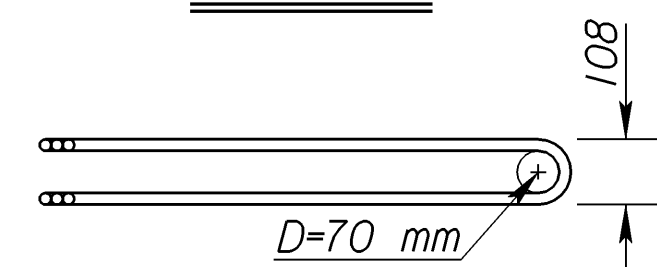
**13V bars**

2 at each size required for stirrup assembly

Bar	a	b
V1	254	25
V2	330	32
V3	432	41
V4	508	48
V5	622	60
V6	686	70



**Elevation**



**Plan**

**LOOP BAR ASSEMBLY**

(Left Barrier Connection shown, invert for other end)

**Per 3810 mm Barrier Taper Section**

REINFORCING A615M Gr. 420					
Bar	Bar Size	Shape	No. of Bars	Length mm	Weight kg
13V1	13	[	2	584	1.2
13V2	13	[	2	660	1.3
13V3	13	[	2	762	1.5
13V4	13	[	2	838	1.7
13V5	13	[	2	965	1.9
13V6	13	[	2	1016	2.0
13F1	13	—	2	3658	7.3
13F2	13	—	2	2286	4.5
16F3	16	—	1	3581	5.6
LOOP ASSEMBLY					
19D1	19	U	1	2565	5.7
19D2	19	U	1	2311	5.2
19D3	19	U	1	2591	5.8

Std. Base File: br si.dgn  
 Plotted By: unfiled  
 File: \$\$\$\$\$\$DGN\$SPEC\$  
 Plot Date: 2/19/2004

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

**KANSAS DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CONCRETE SAFETY BARRIER TAPER SECTION TYPE F3**

RD643 S1

FHWA APPROVAL	9-25-02	APP'D James O. Brewer
DESIGNED	DETAILED	QUANTITIES
DESIGN CK.	DETAIL CK.	QUAN. CK.