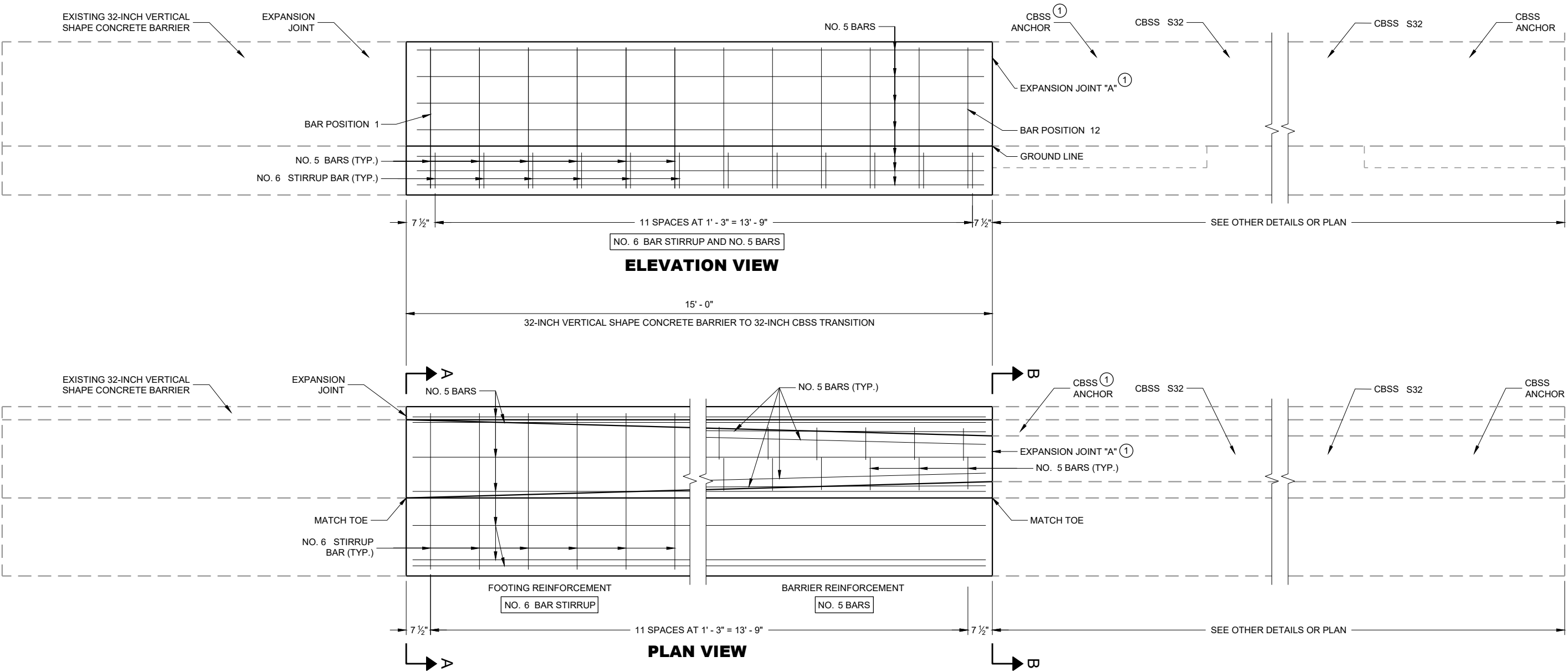




# SDD 14B40-a 32-Inch Vertical Shape Concrete Barrier to 32-Inch Single Slope Concrete Barrier Transition



## GENERAL NOTES

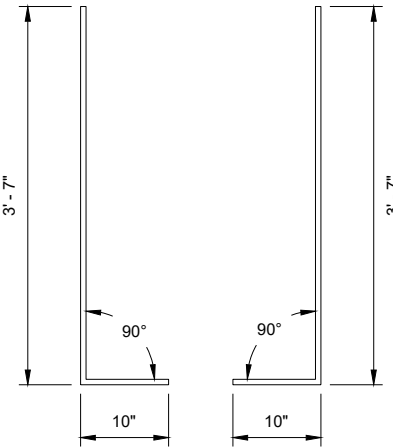
- CONSTRUCT PER STANDARD SPECIFICATION 603.
- SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS OTHERWISE NOTED.
- 4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS SECTION 501.
- USE 3/4" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.
- THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.
- 2" CLEAR COVER TYPICAL.
- ① EXPANSION JOINT "A" MAY BE REPLACED WITH A COLD JOINT PROVIDED THAT 3 FEET OF LAP OF LONGITUDINAL STEEL IS PROVIDED. IF COLD JOINT IS USED, ANCHOR IS NOT REQUIRED.

**32-INCH VERTICAL SHAPE  
CONCRETE BARRIER TO  
32-INCH SINGLE SLOPE  
CONCRETE BARRIER TRANSITION**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



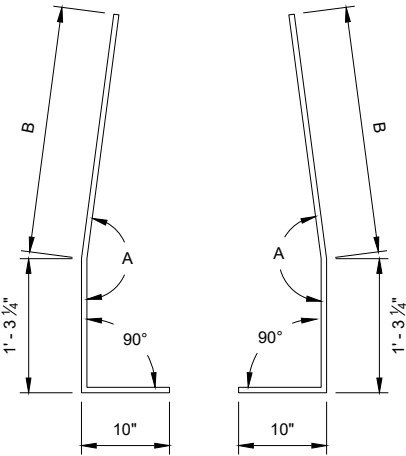
SDD 14B40-b 32-Inch Vertical Shape Concrete Barrier to 32-Inch Single Slope Concrete Barrier Transition - Steel Layout



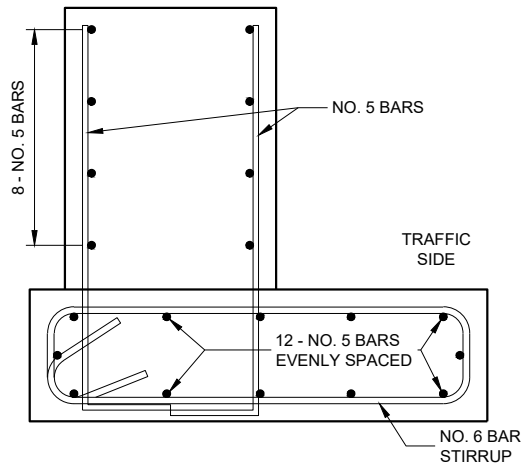
BENDING DETAIL  
BARS 1

BAR CHART  
BAR POSITIONS  
2 - 12

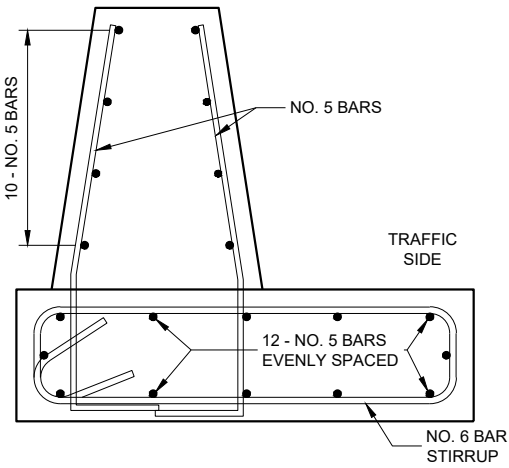
BAR	A	B
2	179°	2' - 3 3/4"
3	178°	2' - 3 3/4"
4	177°	2' - 3 3/4"
5	176°	2' - 4"
6	175°	2' - 3 3/4"
7	175°	2' - 3 3/4"
8	174°	2' - 3 3/4"
9	173°	2' - 3 3/4"
10	172°	2' - 4"
11	172°	2' - 4"
12	171°	2' - 4"



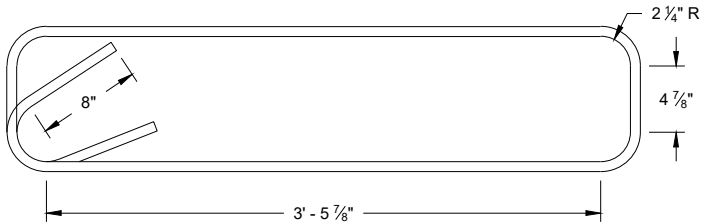
BENDING DETAIL  
BARS 2 - 12



BAR DETAIL  
BAR POSITION 1



BAR DETAIL  
BAR POSITIONS 2 - 12



STIRRUP BAR  
BENDING DETAIL

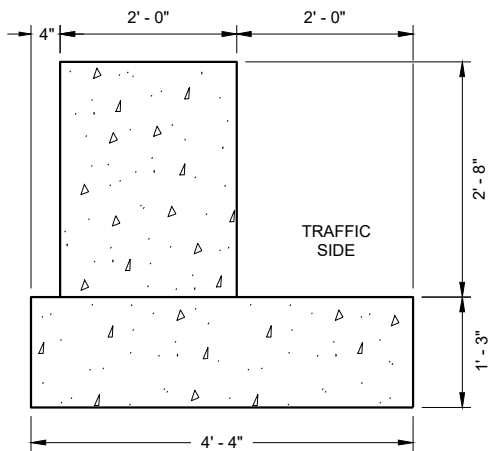
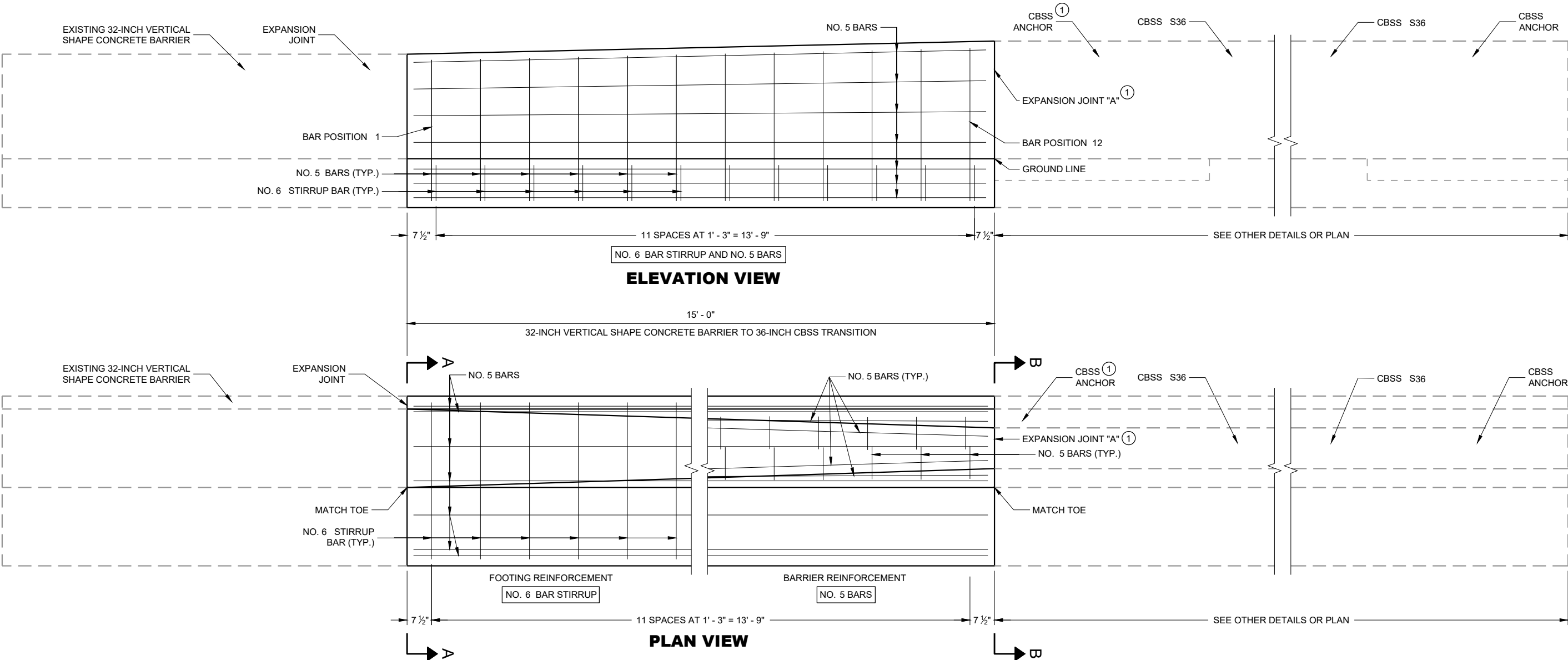
32-INCH VERTICAL SHAPE  
CONCRETE BARRIER TO  
32-INCH SINGLE SLOPE  
CONCRETE BARRIER TRANSITION

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

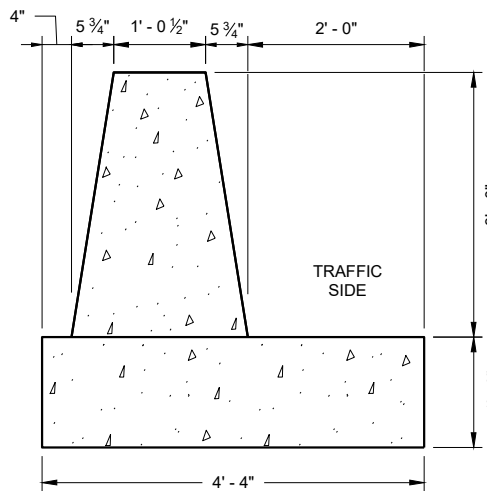
APPROVED  
February 2020  
DATE /S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER  
FHWA



# SDD 14B40-c 32-Inch Vertical Shape Concrete Barrier to 36-Inch Single Slope Concrete Barrier Transition



SECTION A - A



SECTION B - B

## GENERAL NOTES

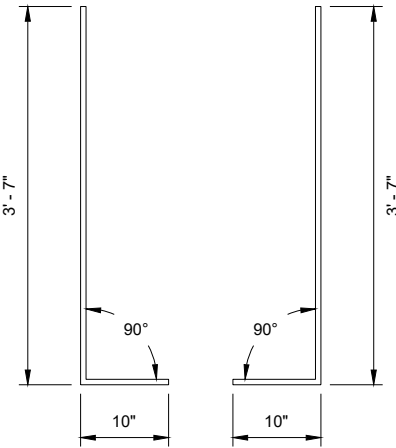
- CONSTRUCT PER STANDARD SPECIFICATION 603.
- SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS OTHERWISE NOTED.
- 4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS SECTION 501.
- USE 3/4" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.
- THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.
- 2" CLEAR COVER TYPICAL.
- ① EXPANSION JOINT "A" MAY BE REPLACED WITH A COLD JOINT PROVIDED THAT 3 FEET OF LAP OF LONGITUDINAL STEEL IS PROVIDED. IF COLD JOINT IS USED, ANCHOR IS NOT REQUIRED.

**32-INCH VERTICAL SHAPE  
CONCRETE BARRIER TO  
36-INCH SINGLE SLOPE  
CONCRETE BARRIER TRANSITION**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



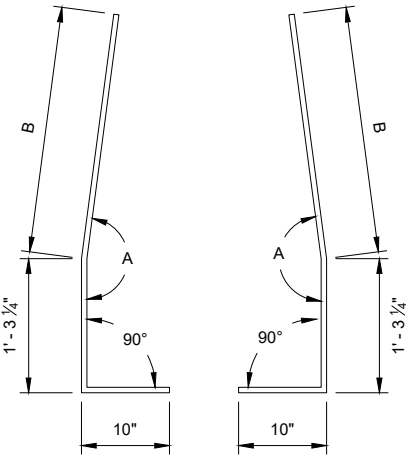
SDD 14B40-d 32-Inch Vertical Shape Concrete Barrier to 36-Inch Single Slope Concrete Barrier Transition - Steel Layout



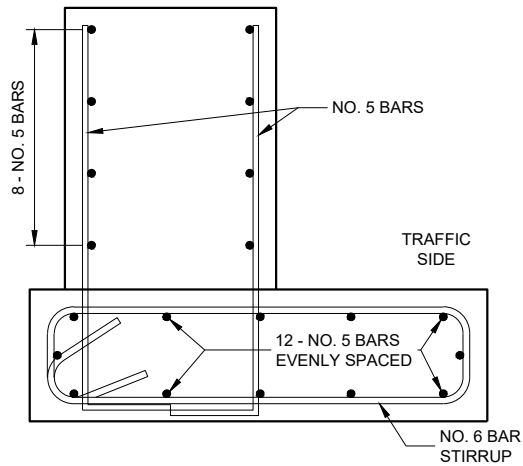
BENDING DETAIL  
BAR 1

BAR CHART  
BAR POSITIONS  
2 - 12

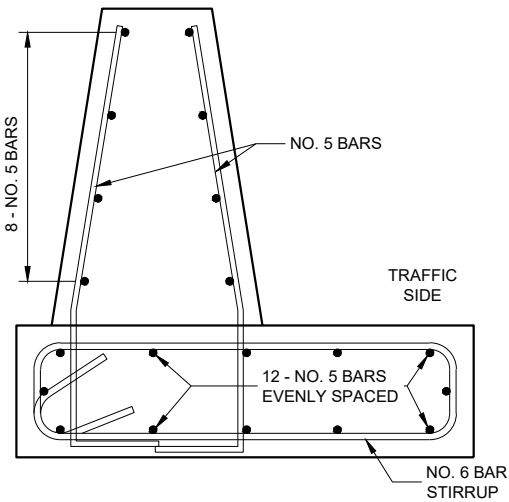
BAR	A	B
2	179°	2' - 4 1/4"
3	178°	2' - 4 1/2"
4	177°	2' - 4 3/4"
5	176°	2' - 5 1/4"
6	175°	2' - 5 1/2"
7	175°	2' - 6"
8	174°	2' - 6 1/4"
9	173°	2' - 6 3/4"
10	173°	2' - 7 1/4"
11	172°	2' - 7 1/2"
12	171°	2' - 8"



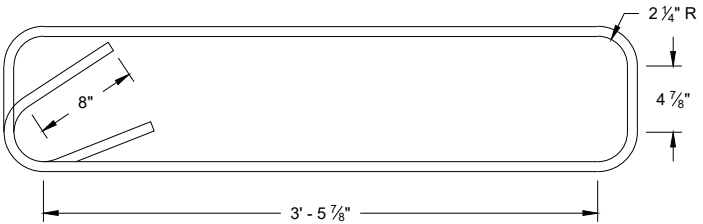
BENDING DETAIL  
BARS 2 - 12



BAR DETAIL  
BAR POSITION 1



BAR DETAIL  
BAR POSITIONS 2 - 12



STIRRUP BAR  
BENDING DETAIL

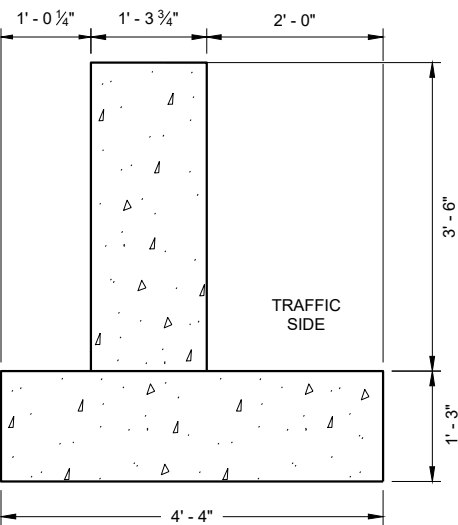
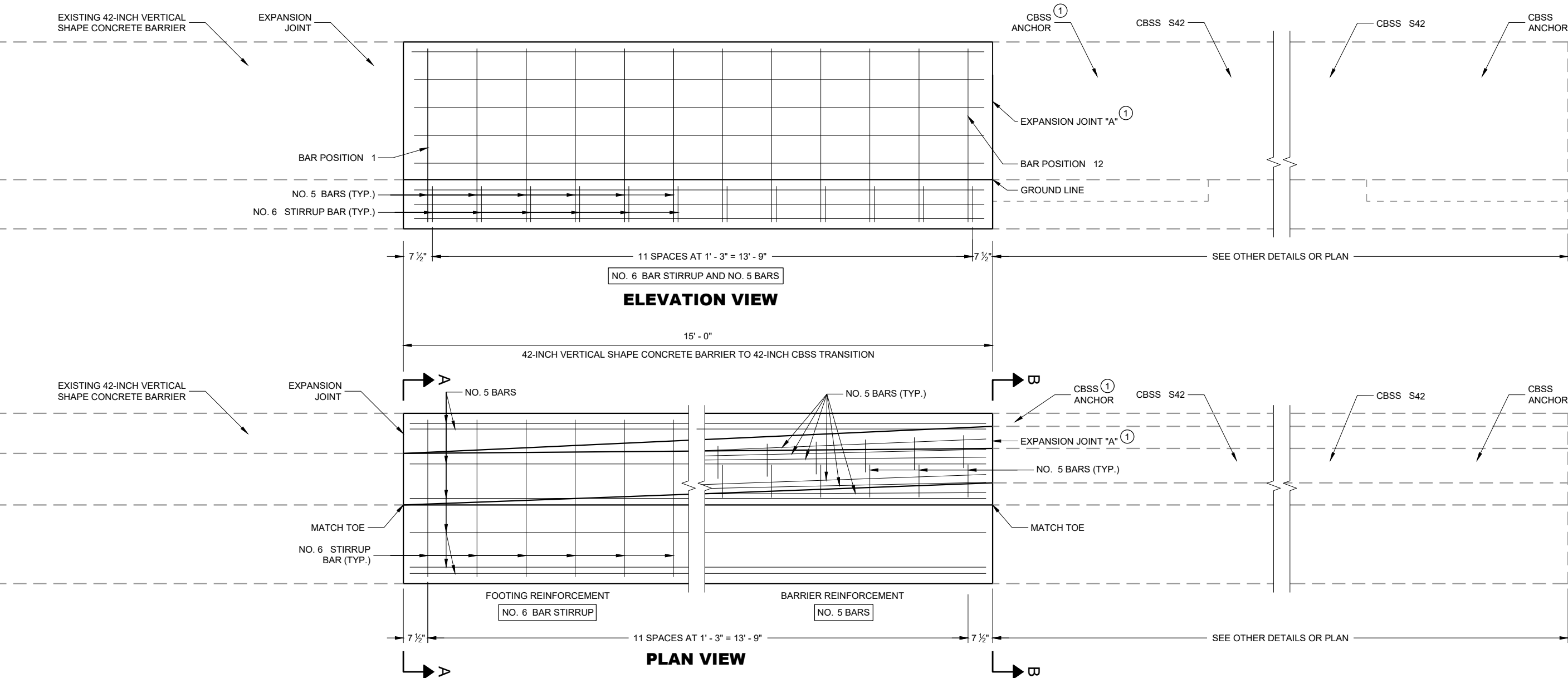
32-INCH VERTICAL SHAPE  
CONCRETE BARRIER TO  
36-INCH SINGLE SLOPE  
CONCRETE BARRIER TRANSITION

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

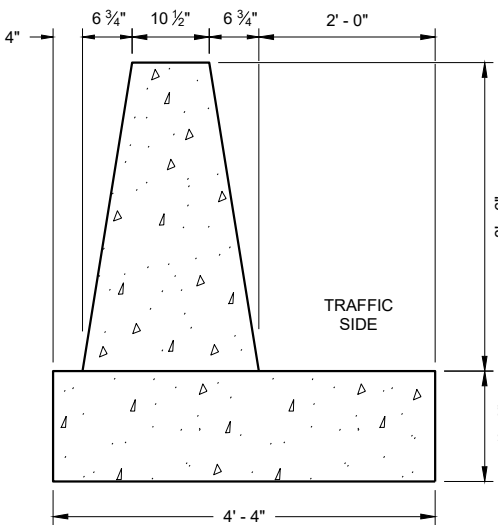
APPROVED  
February 2020 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT  
ENGINEER  
FHWA



# SDD 14B40-e 42-Inch Vertical Shape Concrete Barrier to 42-Inch Single Slope Concrete Barrier Transition



SECTION A - A



SECTION B - B

## GENERAL NOTES

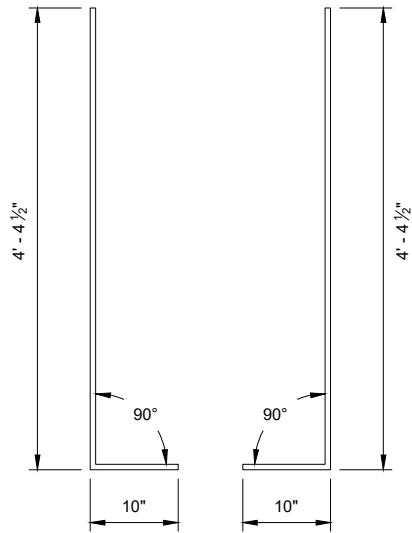
- CONSTRUCT PER STANDARD SPECIFICATION 603.
- SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS OTHERWISE NOTED.
- 4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS SECTION 501.
- USE 3/4" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.
- THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.
- 2" CLEAR COVER TYPICAL.
- ① EXPANSION JOINT "A" MAY BE REPLACED WITH A COLD JOINT PROVIDED THAT 3 FEET OF LAP OF LONGITUDINAL STEEL IS PROVIDED. IF COLD JOINT IS USED, ANCHOR IS NOT REQUIRED.

**42-INCH VERTICAL SHAPE  
CONCRETE BARRIER TO  
42-INCH SINGLE SLOPE  
CONCRETE BARRIER TRANSITION**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



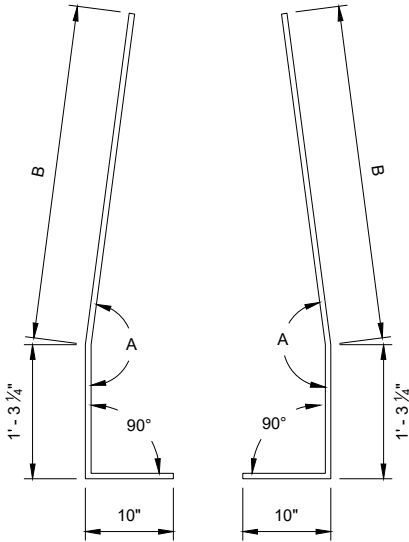
SDD 14B40-f 42-Inch Vertical Shape Concrete Barrier to 42-Inch Single Slope Concrete Barrier Transition - Steel Layout



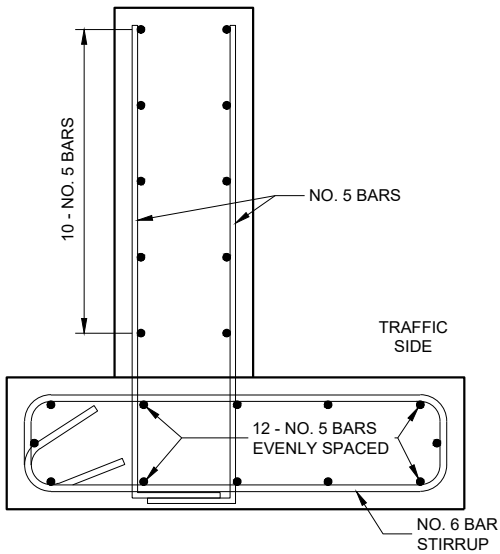
BENDING DETAIL  
BAR 1

BAR CHART  
BAR POSITIONS  
2 - 12

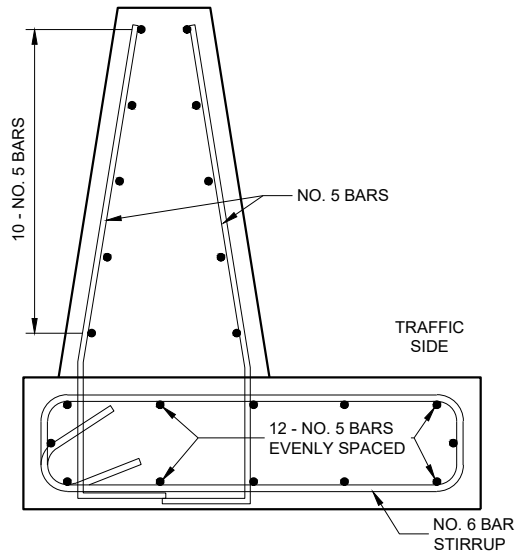
BAR	A	B
2	179°	3' - 1 3/4"
3	178°	3' - 1 3/4"
4	177°	3' - 1 3/4"
5	176°	3' - 2"
6	175°	3' - 1 3/4"
7	175°	3' - 1 3/4"
8	174°	3' - 1 3/4"
9	173°	3' - 2"
10	172°	3' - 2"
11	172°	3' - 2"
12	170°	3' - 2 1/4"



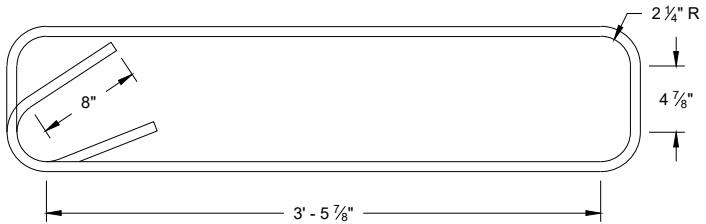
BENDING DETAIL  
BAR 2 - 12



BAR DETAIL  
BAR POSITION 1



BAR DETAIL  
BAR POSITIONS 2 - 12



STIRRUP BAR  
BENDING DETAIL

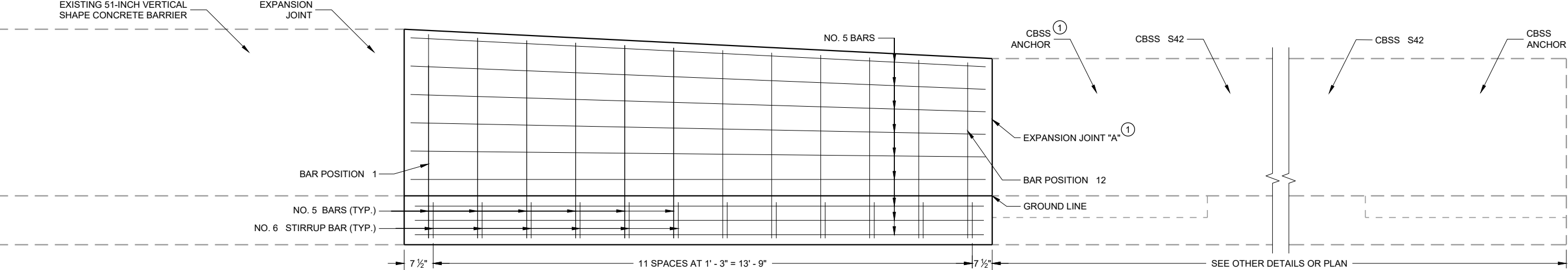
42-INCH VERTICAL SHAPE  
CONCRETE BARRIER TO  
42-INCH SINGLE SLOPE  
CONCRETE BARRIER TRANSITION

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

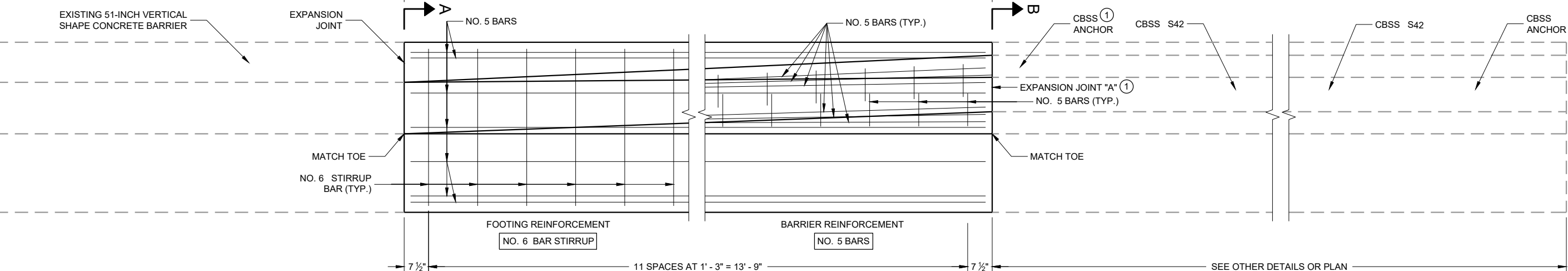
APPROVED  
February 2020  
DATE /S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER  
FHWA



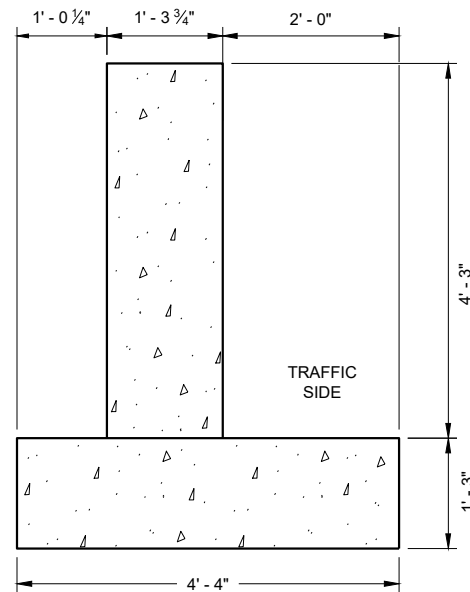
SDD 14B40-g 51-Inch Vertical Shape Concrete Barrier to 42-Inch Single Slope Concrete Barrier Transition



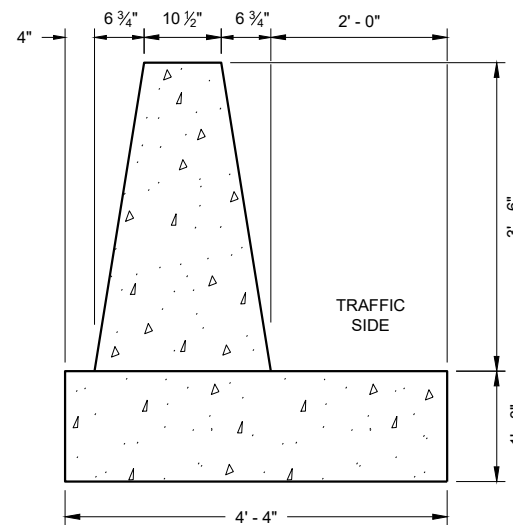
ELEVATION VIEW



PLAN VIEW



SECTION A - A



SECTION B - B

GENERAL NOTES

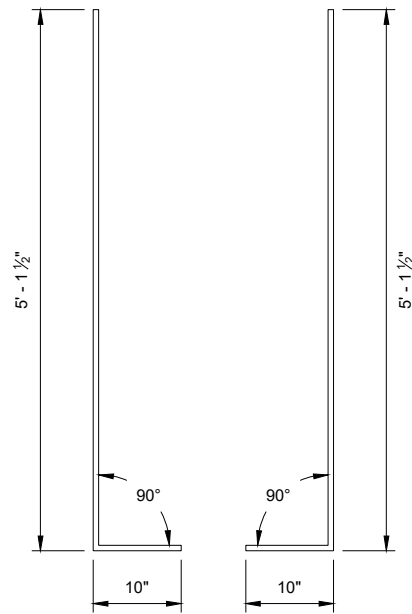
- CONSTRUCT PER STANDARD SPECIFICATION 603.
- SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS OTHERWISE NOTED.
- 4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS SECTION 501.
- USE 3/4" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.
- THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.
- 2" CLEAR COVER TYPICAL.
- ① EXPANSION JOINT "A" MAY BE REPLACED WITH A COLD JOINT PROVIDED THAT 3 FEET OF LAP OF LONGITUDINAL STEEL IS PROVIDED. IF COLD JOINT IS USED, ANCHOR IS NOT REQUIRED.

51-INCH VERTICAL SHAPE  
CONCRETE BARRIER TO  
42-INCH SINGLE SLOPE  
CONCRETE BARRIER TRANSITION

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



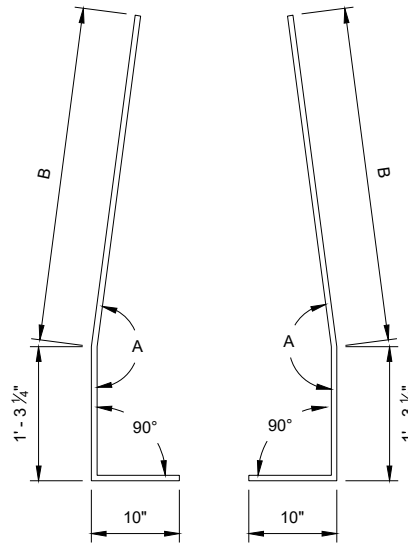
SDD 14B40-h 51-Inch Vertical Shape Concrete Barrier to 42-Inch Single Slope Concrete Barrier Transition - Steel Layout



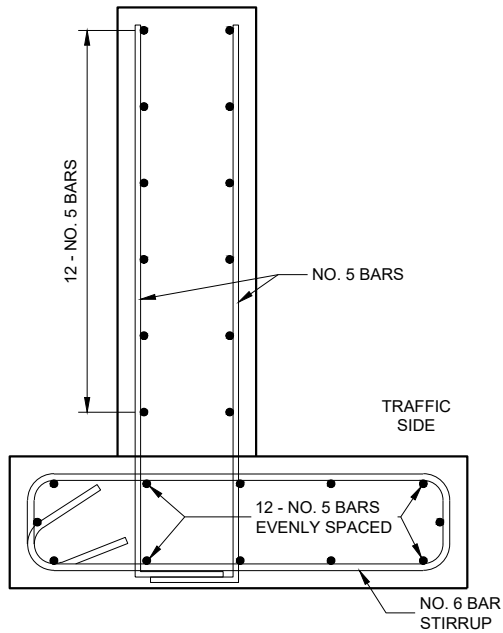
BENDING DETAIL  
BAR 1

BAR CHART  
BAR POSITIONS  
2 - 12

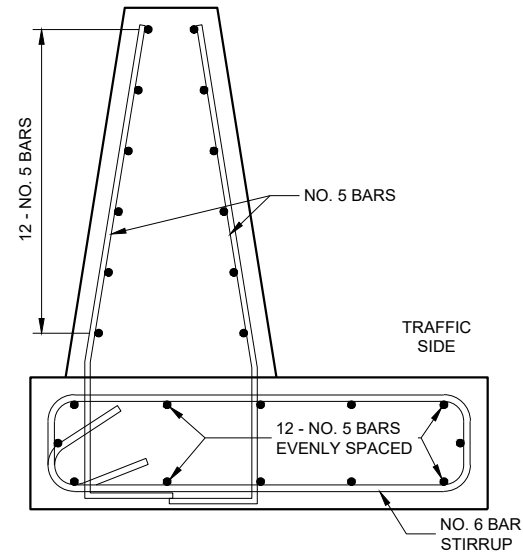
BAR	A	B
2	179°	3' - 9 1/2"
3	178°	3' - 8 3/4"
4	177°	3' - 8"
5	176°	3' - 7 1/2"
6	176°	3' - 6 3/4"
7	175°	3' - 6"
8	174°	3' - 5 1/4"
9	173°	3' - 4 1/2"
10	172°	3' - 3 3/4"
11	172°	3' - 3 1/4"
12	171°	3' - 2 1/2"



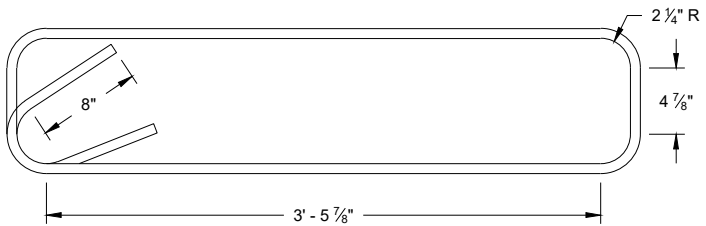
BENDING DETAIL  
BARS 2 - 12



BAR DETAIL  
BAR POSITION 1



BAR DETAIL  
BAR POSITIONS 2 - 12



STIRRUP BAR  
BENDING DETAIL

51-INCH VERTICAL SHAPE  
CONCRETE BARRIER TO  
42-INCH SINGLE SLOPE  
CONCRETE BARRIER TRANSITION

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

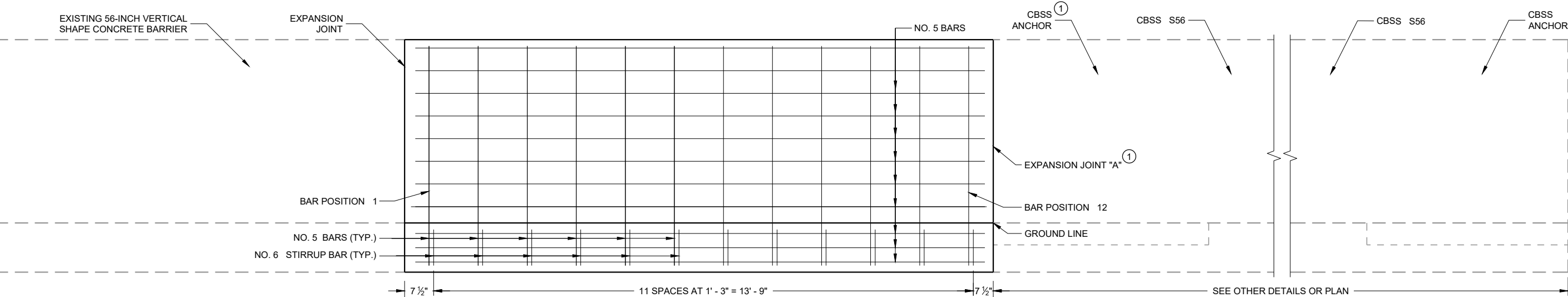
APPROVED  
February 2020  
DATE  
/S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER

FHWA

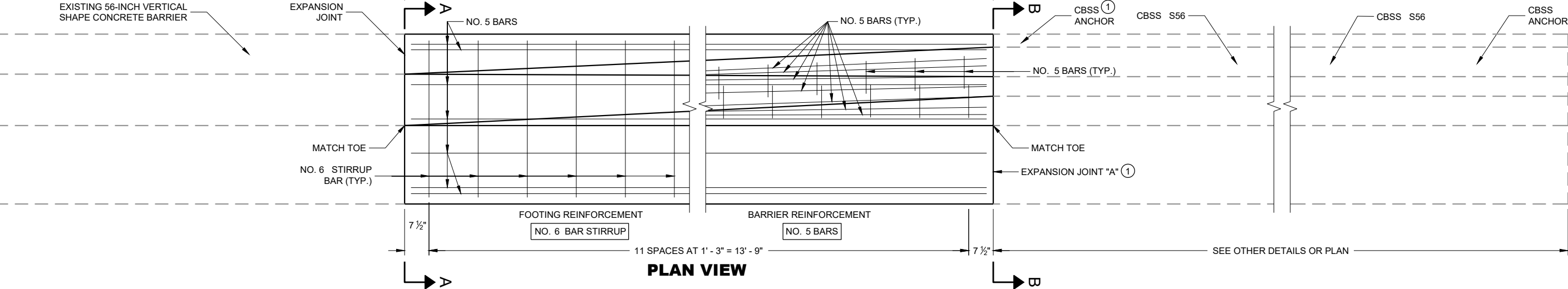




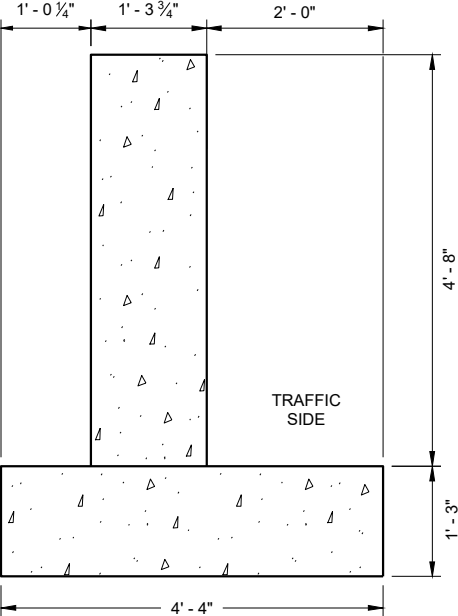
# SDD 14B40-i 56-Inch Vertical Shape Concrete Barrier to 56-Inch Single Slope Concrete Barrier Transition



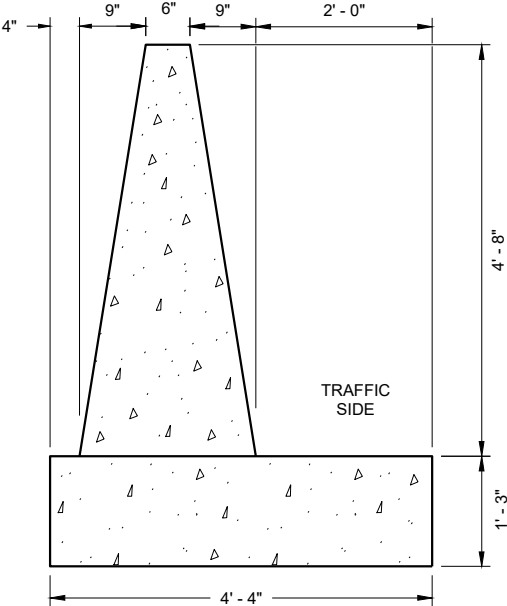
ELEVATION VIEW



PLAN VIEW



SECTION A - A



SECTION B - B

## GENERAL NOTES

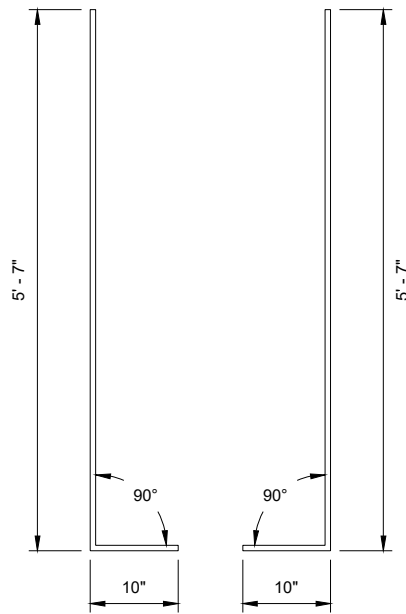
- CONSTRUCT PER STANDARD SPECIFICATION 603.
- SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS OTHERWISE NOTED.
- 4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS SECTION 501.
- USE 3/4" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.
- THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.
- 2" CLEAR COVER TYPICAL.
- ① EXPANSION JOINT "A" MAY BE REPLACED WITH A COLD JOINT PROVIDED THAT 3 FEET OF LAP OF LONGITUDINAL STEEL IS PROVIDED. IF COLD JOINT IS USED, ANCHOR IS NOT REQUIRED.

**56-INCH VERTICAL SHAPE  
CONCRETE BARRIER TO  
56-INCH SINGLE SLOPE  
CONCRETE BARRIER TRANSITION**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



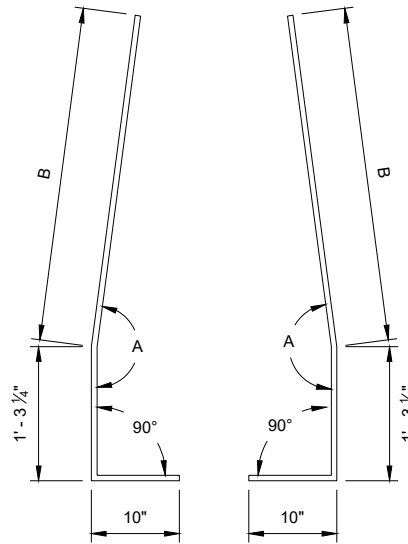
SDD 14B40-j 56-Inch Vertical Shape Concrete Barrier to 56-Inch Single Slope Concrete Barrier Transition - Steel Layout



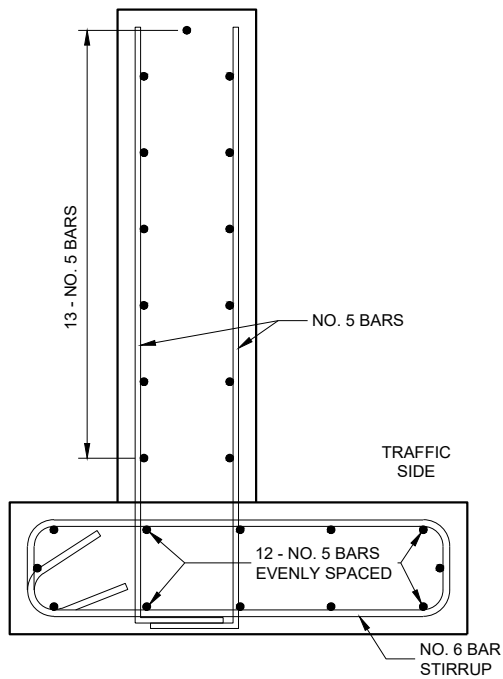
BENDING DETAIL  
BAR 1

BAR CHART  
BAR POSITIONS  
2 - 12

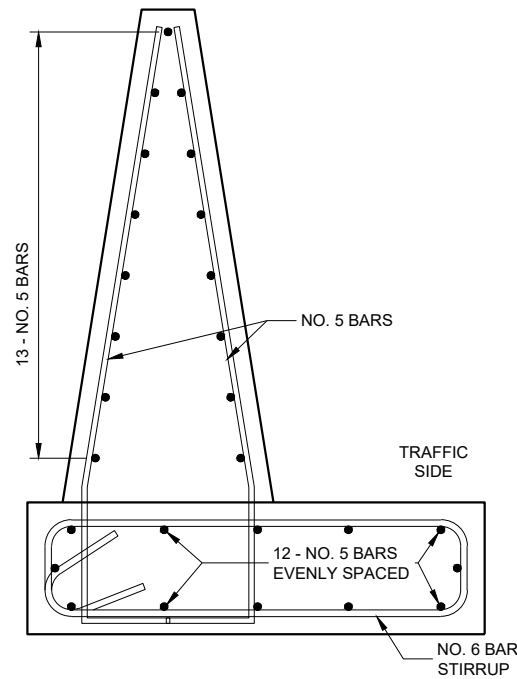
BAR	A	B
2	179°	4' - 3 3/4"
3	178°	4' - 3 3/4"
4	177°	4' - 3 3/4"
5	176°	4' - 3 3/4"
6	176°	4' - 3 3/4"
7	175°	4' - 4"
8	174°	4' - 4"
9	173°	4' - 4"
10	172°	4' - 4"
11	172°	4' - 4 1/4"
12	171°	4' - 4 1/2"



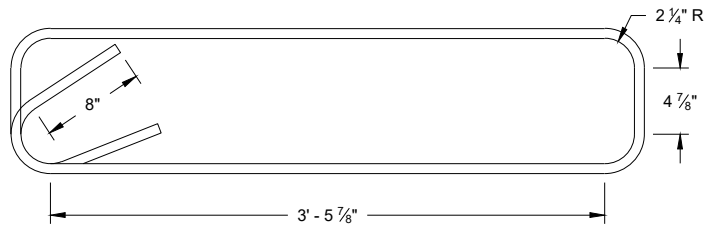
BENDING DETAIL  
BARS 2 - 12



BAR DETAIL  
BAR POSITION 1



BAR DETAIL  
BAR POSITIONS 2 - 12



STIRRUP BAR  
BENDING DETAIL

56-INCH VERTICAL SHAPE  
CONCRETE BARRIER TO  
56-INCH SINGLE SLOPE  
CONCRETE BARRIER TRANSITION

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2020  
DATE  
/S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER  
FHWA

**Vertical Faced Concrete Barrier to Single Slope Concrete Barrier Transitions****References:**

NONE

**Bid items associated with this drawing:**

Bid items for single slope barrier and associated transitions are encoded as follows:

BARRIER BID ITEM TYPES		DESCRIPTION	CODE	
<p>Shape ——— S 36 A</p> <p>Height in inches ———</p> <p>Class ———</p> <p><i>example: Concrete Barrier Type S36A is a 36" single sloped median retaining wall barrier</i></p>	SHAPE	New Jersey shape	NJ	
		F shape	F	
		Vertical	V	
		Single slope barrier	S	
TRANSITION BID ITEM TYPES				
<p>Shape ——— F 32 SF to S 32</p> <p>Height in inches ———</p> <p>Faces ———</p> <p>Shape ———</p> <p>Height in inches ———</p> <p><i>example: Concrete Barrier Transition Type F32SF to S32 is a transition from 32" single faced F barrier to a 32" single sloped barrier</i></p>	CLASS	Standard barrier section	none	
		Median retaining wall	A	
		Short barrier section	B	
		Roadside retaining wall	C	
		FACES	Double faced barrier	DF
			Single faced barrier	SF

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
603.3611	Concrete Barrier Transition Type V32 to S32 .....	EACH
603.3613	Concrete Barrier Transition Type V32 to S36 .....	EACH
603.3655	Concrete Barrier Transition Type V42 to S42 .....	EACH
603.3675	Concrete Barrier Transition Type V51 to S42 .....	EACH
603.3699	Concrete Barrier Transition Type V56 to S56 .....	EACH
603.3600 - 3699	Concrete Barrier Transition (type).....	EACH

**Standardized Special Provisions associated with this drawing:**

STSP NUMBER      TITLE  
NONE

**Other SDDs associated with this drawing:**

[SDD 14B32](#)      Concrete Barrier Single Slope  
[SDD 14B34](#)      Short Concrete Barrier Sections (Use for runs of less than 40')

**Design Notes:**

Use these details when a transition from a vertical faced barrier to a single slope barrier is needed.

**Contact Person:**

Erik Emerson (608) 266-2842