

## **Appendix C**

NSTIR Standard Details

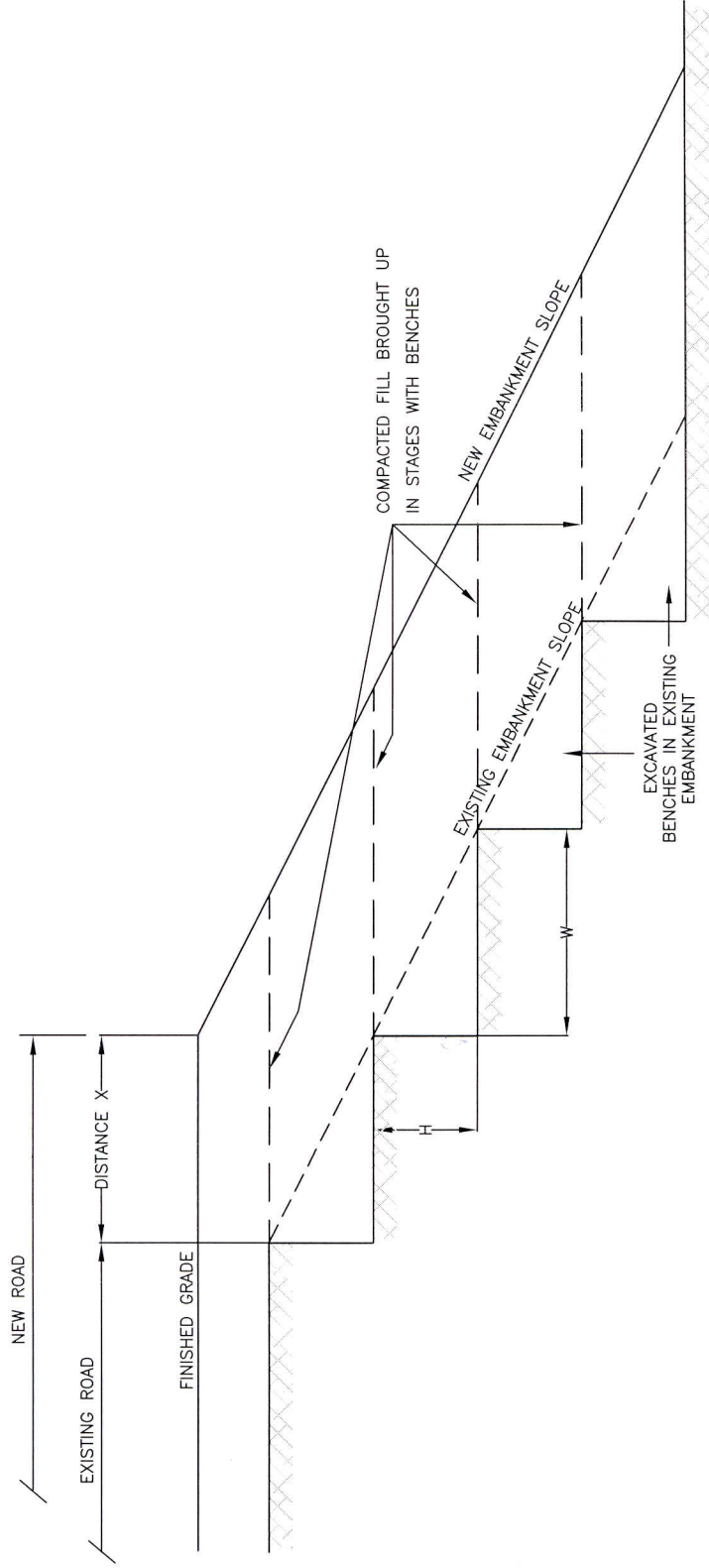
Sign Size	# of Posts	Post Size	Post Spacing	
			A	B
60 x 30 cm	1	10 x 10 cm	30 cm	
90 x 30 cm	1	10 x 10 cm	45 cm	
60 x 45 cm	1	10 x 10 cm	30 cm	
90 x 45 cm	1	10 x 10 cm	45 cm	
60 x 60 cm	1	10 x 10 cm	30 cm	
90 x 60 cm	1	10 x 10 cm	45 cm	
75 x 75 cm	1	10 x 10 cm	40 cm	
90 x 75 cm	1	10 x 10 cm	45 cm	
90 x 90 cm	1	10 x 10 cm	45 cm	
120 x 30 cm	2	10 x 10 cm	15 cm	90 cm
150 x 30 cm	2	10 x 10 cm	30 cm	90 cm
180 x 30 cm	2	10 x 10 cm	30 cm	120 cm
215 x 30 cm	2	10 x 10 cm	45 cm	120 cm
120 x 45 cm	2	10 x 10 cm	15 cm	90 cm
150 x 45 cm	2	10 x 10 cm	30 cm	90 cm
180 x 45 cm	2	10 x 10 cm	30 cm	120 cm
215 x 45 cm	2	10 x 10 cm	45 cm	120 cm
120 x 60 cm	2	10 x 10 cm	15 cm	90 cm
150 x 60 cm	2	10 x 10 cm	30 cm	90 cm
180 x 60 cm	2	10 x 10 cm	30 cm	120 cm
215 x 60 cm	2	10 x 10 cm	45 cm	120 cm
120 x 75 cm	2	10 x 10 cm	15 cm	90 cm
150 x 75 cm	2	10 x 10 cm	30 cm	90 cm
180 x 75 cm	2	10 x 10 cm	30 cm	120 cm
215 x 75 cm	2	10 x 10 cm	45 cm	120 cm
120 x 90 cm	2	10 x 10 cm	15 cm	90 cm
150 x 90 cm	2	10 x 10 cm	30 cm	90 cm

Sign Size	# of Posts	Post Size	Post Spacing		
			A	B	C
180 x 90 cm	2	10 x 10 cm	30 cm		120 cm
215 x 90 cm	2	10 x 10 cm	45 cm		120 cm
120 x 120 cm	2	10 x 10 cm	15 cm		90 cm
150 x 120 cm	2	10 x 10 cm	30 cm		90 cm
180 x 120 cm	2	10 x 10 cm	30 cm		120 cm
215 x 120 cm	2	10 x 10 cm	45 cm		120 cm
245 x 30 cm	3	10 x 10 cm	30 cm	90 cm	
245 x 45 cm	3	10 x 10 cm	30 cm	90 cm	
245 x 60 cm	3	10 x 10 cm	30 cm	90 cm	
245 x 75 cm	3	10 x 10 cm	30 cm	90 cm	
245 x 90 cm	3	10 x 10 cm	30 cm	90 cm	
275 x 90 cm	3	10 x 10 cm	45 cm	90 cm	
305 x 90 cm	3	15 x 15 cm	30 cm	120 cm	
335 x 90 cm	3	15 x 15 cm	45 cm	120 cm	
365 x 90 cm	3	15 x 15 cm	45 cm	135 cm	
245 x 120 cm	3	15 x 15 cm	30 cm	90 cm	
275 x 120 cm	3	15 x 15 cm	45 cm	90 cm	
305 x 120 cm	3	15 x 15 cm	30 cm	120 cm	
335 x 120 cm	3	15 x 15 cm	45 cm	120 cm	
365 x 120 cm	3	15 x 15 cm	45 cm	135 cm	
395 x 90 cm	4	15 x 15 cm	40 cm	105 cm	105 cm
425 x 90 cm	4	15 x 15 cm	40 cm	115 cm	115 cm
395 x 120 cm	4	15 x 15 cm	40 cm	105 cm	105 cm
425 x 120 cm	4	15 x 15 cm	40 cm	115 cm	115 cm
455 x 120 cm	4	15 x 15 cm	40 cm	125 cm	125 cm
485 x 120 cm	4	15 x 15 cm	40 cm	135 cm	135 cm

NOTES:

*[Signature]*  
Manager, Traffic Engineering Services  
*[Signature]*  
Director, Highway Engineering Services  
*[Signature]*  
Executive Director, Highway Engineering and Construction

# WOOD SIGN STRUCTURE POST SPACING CHART



MAXIMUM BENCH HEIGHT & WIDTH DIMENSIONS			
EXISTING SLOPES	FILLS $\geq 4.0\text{m}$	FILLS $< 4.0\text{m}$	
3:1 TO 2:1	W=2.5m H=VARIES	W=1.25m H=VARIES	
2:1	W=VARIES H=1.25m	W=VARIES H=0.75m	

NOTES:

1. THIS STANDARD APPLIES TO WIDENING OF EMBANKMENTS WHEN DISTANCE  $X \geq 1.0\text{m}$  AT FINISHED GRADE LEVEL OF NEW ROADBED.
2. BENCHING NOT REQUIRED ON SLOPES FLATTER THAN 3:1 OR WHERE FIELD CONDITIONS SHOW IT UNNECESSARY AS DETERMINED BY THE ENGINEER.
3. BENCHES TO BE EXCAVATED ONE LEVEL AT A TIME AND COMPACTED FILL BROUGHT UP BEFORE NEXT LEVEL IS EXCAVATED.

*Philip Cohen*  
 Manager Highway Planning and Design

*[Signature]*  
 Director Highway Engineering Services

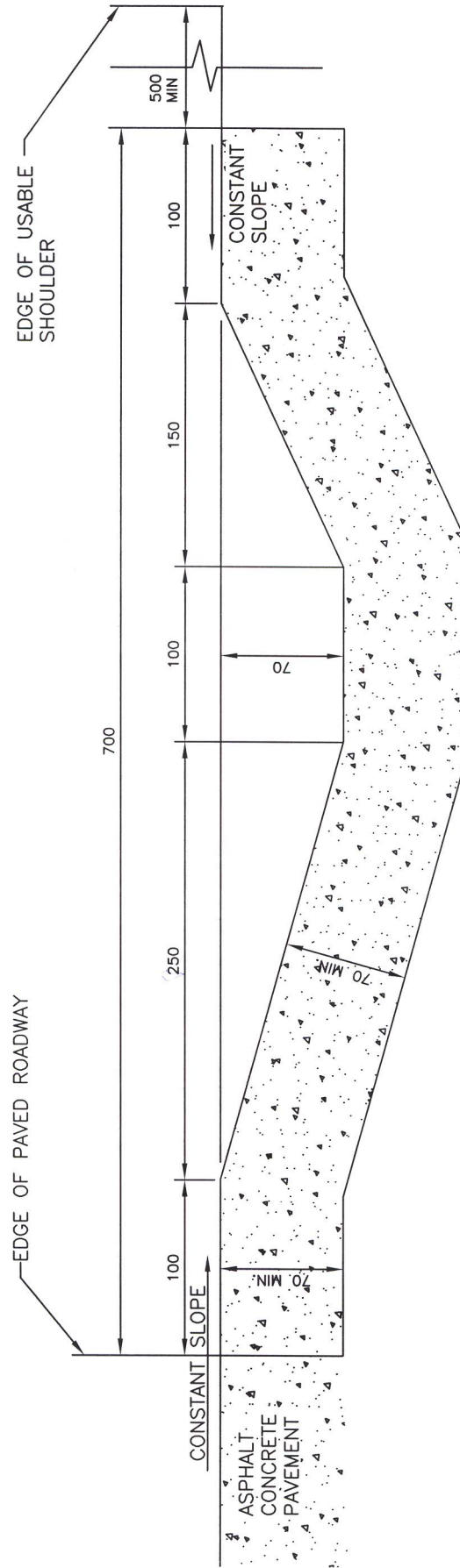
*[Signature]*  
 Executive Director Highway Engineering and Construction

**BENCHING OF EMBANKMENT SLOPES**

Scale : N.T.S.  
 Drawn by : M.LABRECHE  
 Checked by : K.BODDY  
 Date of Plan : AUG2009  
 File No. : S-2009-016

**NOVA SCOTIA**  
 Transportation and Infrastructure Renewal

No.	REVISION



NOTES:

NOTES:

1. OFFTAKЕ GUTTERS ARE TO BE CONSTRUCTED AT LOCATIONS SPECIFIED BY THE ENGINEER AND ARE TO EXTEND TO THE EDGE OF SHOULDER AND DOWN THE SLOPE 1m MINIMUM.
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

1	HS # ADDED TO TITLE	Scale : M.LABRECHE N.T.S.
		Drawn by : K.BODDY
		Checked by : AUG2009
		Date of Plan : S-2009-02
No.	REVISION	File No. :

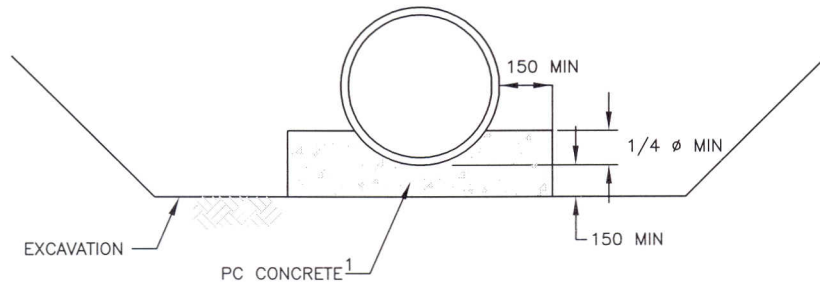
STAKE GUTTERS ARE TO BE CONSTRUCTED  
DOWN THE SLOPE 1m MINIMUM.  
ALL DIMENSIONS ARE IN MILLIMETRES UNLESS  
STATED OTHERWISE.

Manager Highway Planning and Design

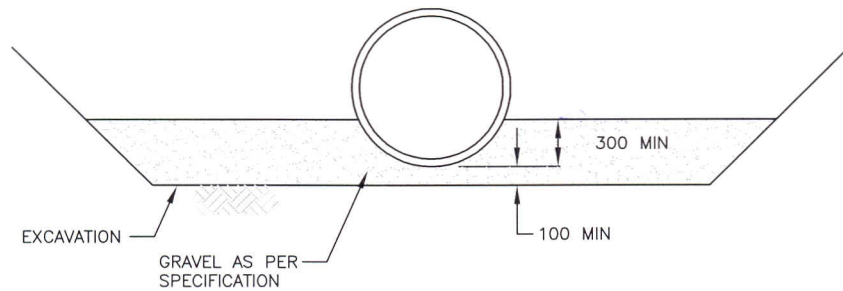
Director Highway Engineering Services

Executive Director Highway Engineering

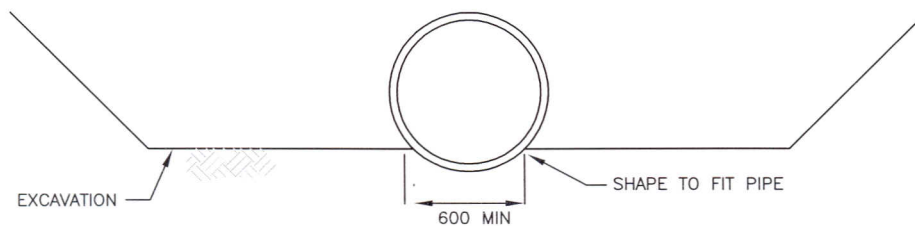
# ASPHALT CONCRETE GUTTER HS-403



CLASS A BEDDING



CLASS B BEDDING



CLASS C BEDDING

NOTES:

1. CRUSHED STONE OR GRAVEL INSTEAD OF CONCRETE PERMITTED ON ROCK FOUNDATION WITH METHOD OF LAYING AS PER CLASS B BEDDING.
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

Scale : N.T.S.  
 Drawn by : M.LABRECHE  
 Checked by : W.DEVEAU  
 Date of Plan : AUG2009  
 File No. : S-2009-051

*Philip Cohen*  
 Manager Highway Planning and Design

*W. Deveau*  
 Director Highway Engineering Services

*Philip Cohen*  
 Executive Director Highway Engineering and Construction

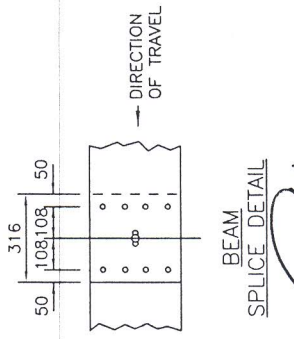
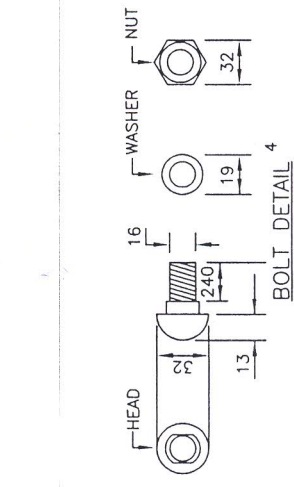
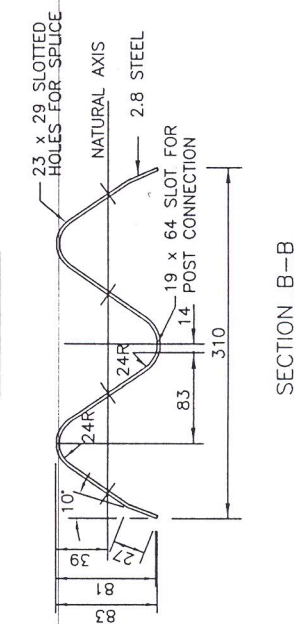
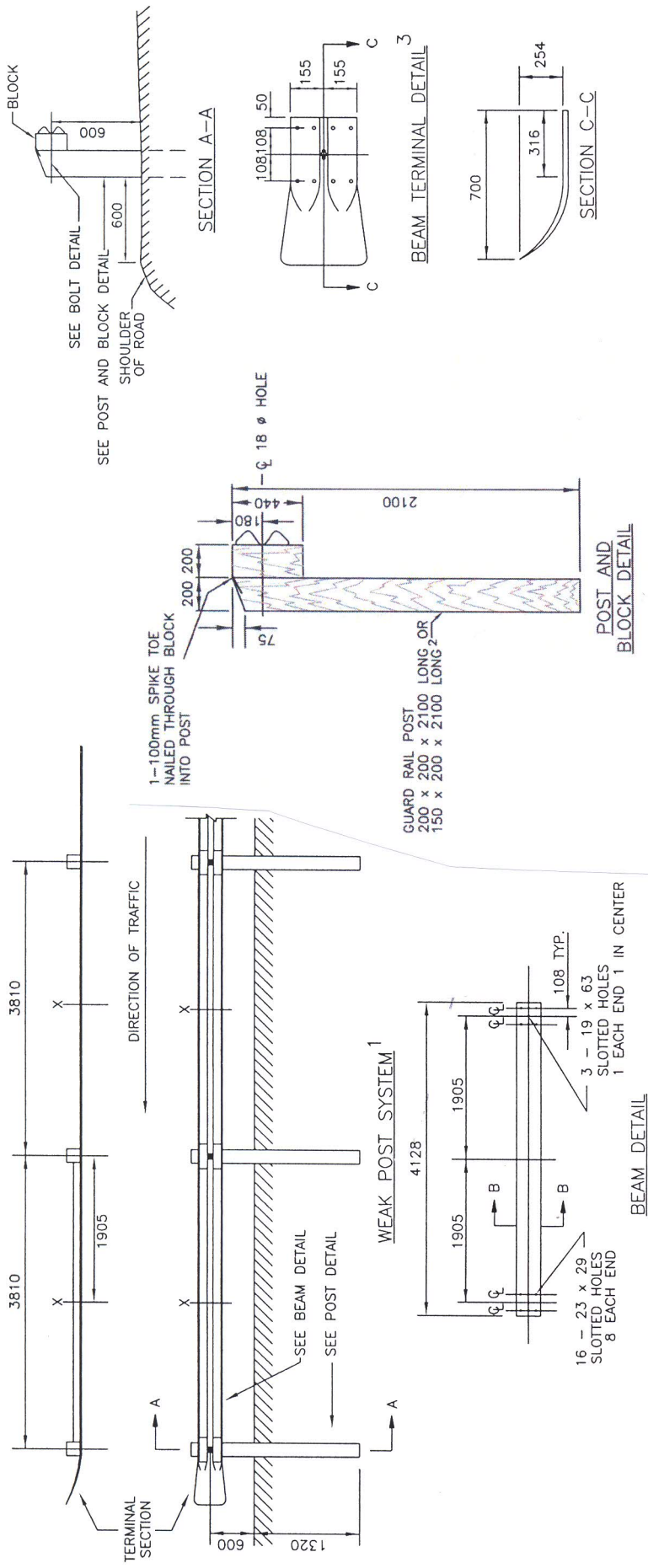
**NOVA SCOTIA**

Transportation and Infrastructure Renewal

No. REVISION

**BEDDING FOR CONCRETE PIPE**  
**HS506**





**NOTES:**

1. FOR STRONG POST SYSTEM, ADD POST AT POINT X.

2. IF 150 x 200 x 2100 LONG POSTS ARE USED, THE MATERIAL IS TO BE HARDWOOD.

3. TERMINAL SECTION ONLY APPROPRIATE FOR 4-LANE DIVIDED HIGHWAYS.

4. ALL BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED BY THE HOT DIP PROCESS. BOLTS SHALL BE CAPABLE OF WITHSTANDING 106 kN IN SINGLE SHEAR. 16mm SQUARENUT AND 19mm ROUND WASHERS ARE TO BE USED. ONE WASHER FOR EACH 240mm x 16mm BOLT. BOLTS ARE TO HAVE 75mm THREADS

5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

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Scale :	N.T.S.
Drawn by :	M.LABRECHE
Checked by :	J.RAE
Date of Plan :	AUG2009
File No. :	S-2009-071
No.	REVISION
2	BEAM SPLICE DETAIL MODIFIED /SEP10
1	DETAILS, NOTES, TITLES /FEB 10

*Philip Chiu*

Manager Highway Planning and Design

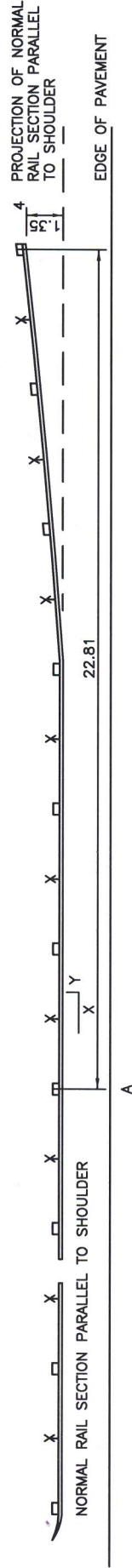
Director Highway Engineering Services

Executive Director Highway Engineering and Construction

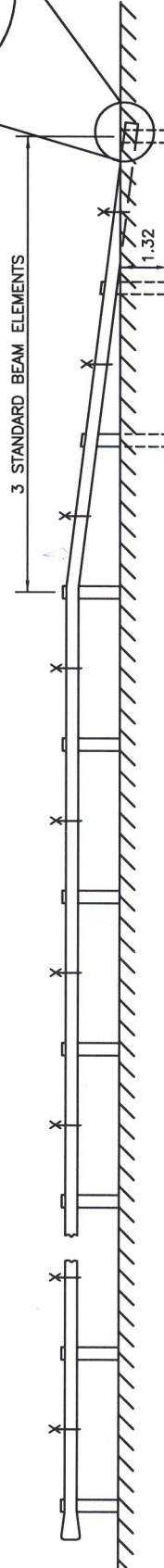
**GUARD RAIL AND POST DETAILS**

**HS518**

POST OFFSET TABLE		
FILL OR CUT		
X	Y <sup>3</sup>	
3.81	0.04	
7.62	0.15	
11.42	0.34	
15.22	0.60	
19.02	0.94	
22.81	1.35	



PLAN - FILL OR CUT  
DIVIDED HIGHWAY<sup>5</sup>



ELEVATION  
DIVIDED HIGHWAY<sup>5</sup>

1. FOR STRONG POST SYSTEM, ADD POST AT POINT "X"
2. THIS STANDARD DRAWING IS NOT APPLICABLE TO NEW 100 SERIES HIGHWAY CONSTRUCTION WHERE ENERGY ABSORBING GUARD RAIL TERMINALS (EAGRT) SYSTEMS ARE SPECIFIED.
3. MEASURED FROM FACE OF RAIL BASED ON NORMAL RAIL SECTION PARALLEL TO SHOULDER AT A.
4. GUARD RAIL MAY BE PLACED AS PRACTICABLE FROM EDGE OF SHOULDER. IN NO CASE MAY GUARD RAIL BE PLACED DOWN THE SLOPE.
5. FOR 2-LANE/ 2-WAY ROADWAYS, BURY BOTH ENDS OF GUARD RAIL.
6. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED.

No.	REVISION
4	Addition of EAGRT note - Feb 12
3	Addition of post bury depth - FEB 11
2	Addition of "X" for strong post system
1	Notes, Titles - Feb 10

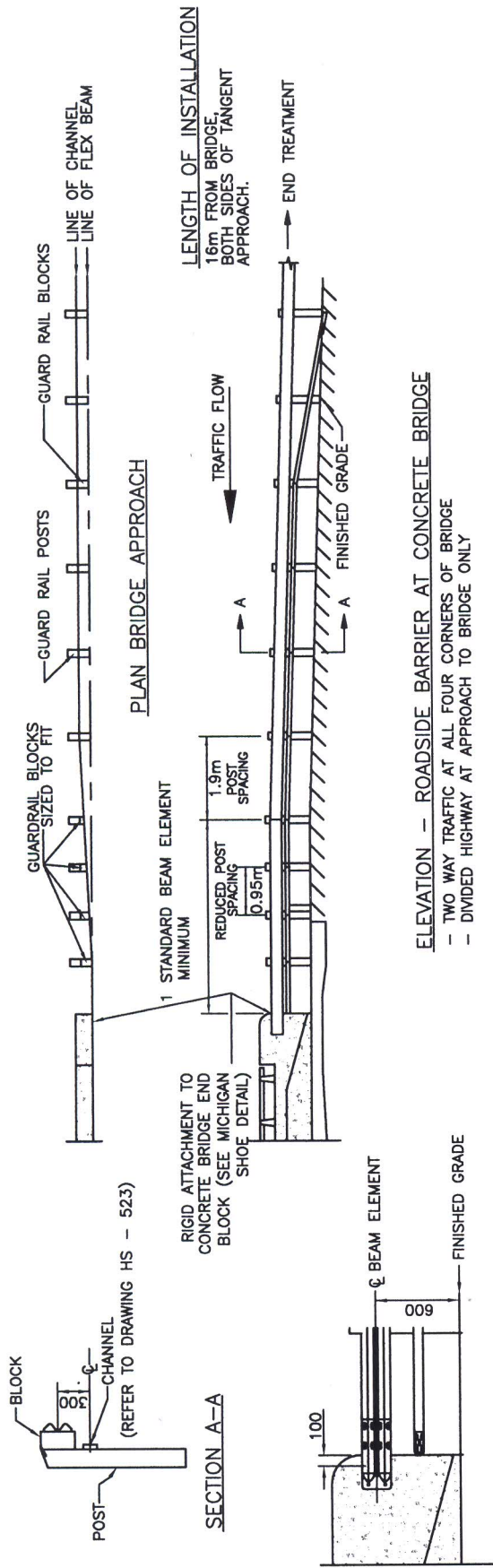
Scale : N.T.S.  
Drawn by : M.LABRECHE  
Checked by : J.RAE  
Date of Plan : AUG2009  
File No. : S-2009-072

**NOVASCOTIA**  
Transportation and Infrastructure Renewal

*Abdullah*  
Manager Highway Planning and Design  
*Abdullah*  
Director Highway Engineering Services  
*Abdullah*  
Executive Director Highway Engineering and Construction

STEEL BEAM GUARD RAIL  
END TREATMENT HS520





# **ELEVATION - ROADSIDE BARRIER AT CONCRETE BRIDGE**

- TWO WAY TRAFFIC AT ALL FOUR CORNERS OF BRIDGE
- DIVIDED HIGHWAY AT APPROACH TO BRIDGE ONLY

# **ELEVATION - ROADSIDE BARRIER AT CONCRETE BRIDGE (NO CHANNEL)**

- DIVIDED HIGHWAY AT DEPARTURE OF BRIDGE ONLY

NOTES:  
1. SEE BEAM DETAIL, BEAM TERMINAL DETAIL, BEAM SPICE DETAIL, POST AND BLOCK DETAIL, BOLT DETAIL, NOTE 2, NOTE 3, NOTE4 ON STANDARD DRAWING S-2009-071.  
2. SEE STANDARD DRAWING S-2009-072 FOR END TREATMENT.  
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

*[Signature]*  
Manager Highway Planning and Design

*[Signature]*  
Director Highway Engineering Services

*[Signature]*  
Executive Director Highway Engineering and Construction

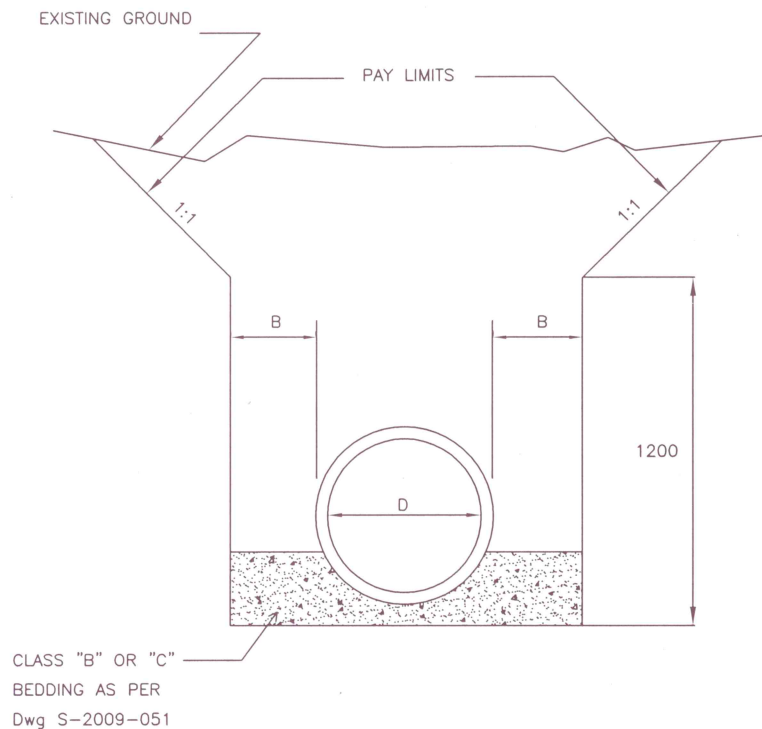
## **ROADSIDE BARRIER AT CONCRETE BRIDGE APPROACH HS521**

Scale : N.T.S.  
Drawn by : M.JABRECHE  
Checked by : J.RAE  
Date of Plan : AUG2009  
File No. : S-2009-073

4	Moved note 4 and 5 under headings - Jan 12
3	Length of installation note - Aug 11
2	Addition of Note 4 and 5 - Feb 11
1	SEC A-A, Notes - Feb 10
No.	REVISION

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Transportation and Infrastructure Renewal





PIPE DIAMETER, D (INSIDE)	DIMENSION B
UP TO 500	300
501 TO 1200	400
OVER 1200 OR ANY OTHER PRECAST SECTION	500

NOTES:

1. THE CROSS SECTION REPRESENTS MAXIMUM PAY LIMITS FOR FOUNDATION EXCAVATION. IF THE BOTTOM WIDTH IS LESS OR IF THE SIDE SLOPES ARE STEEPER THAN INDICATED, THE SECTIONAL AREA WILL BE COMPUTED ACCORDINGLY.
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED

Scale : N.T.S.  
 Drawn by : M.W.L.  
 Checked by :  
 Date of Plan : Sept. 2009  
 File No. : S-2009-144

*Paul Colburn*  
 Manager Highway Planning and Design

*[Signature]*  
 Director Highway Engineering Services

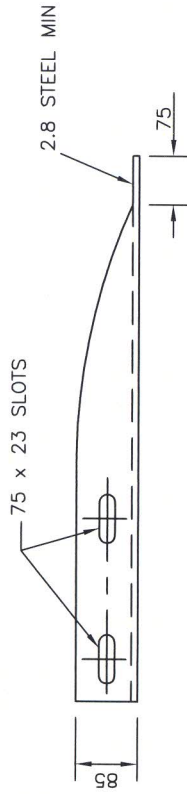
*[Signature]*  
 Executive Director Highway Engineering and Construction

**NOVA SCOTIA**

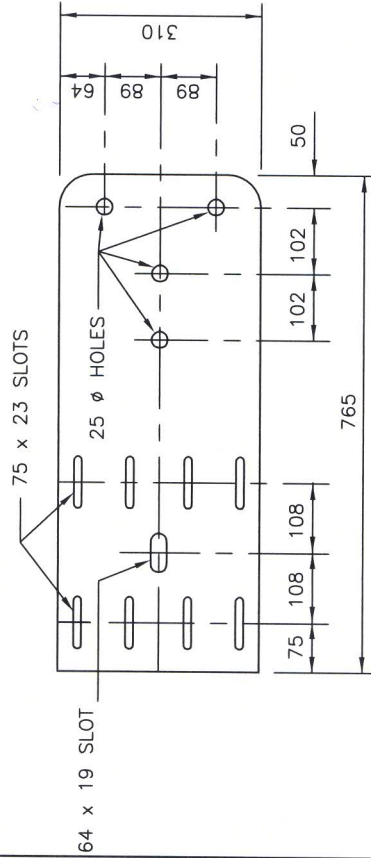
Transportation and Infrastructure Renewal

No.	1	HS # ADDED TO TITLE
REVISION		

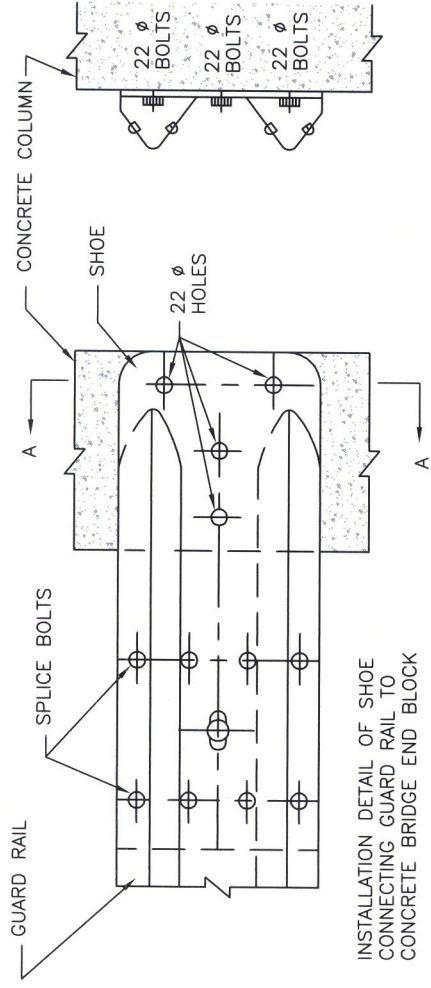
**FOUNDATION EXCAVATION LIMITS  
FOR CULVERTS HS-528**



PLAN DETAIL OF SHOE



ELEVATION DETAIL OF SHOE



ELEVATION DETAIL OF INSTALLED SHOE

SECTION A-A

NOTES:  
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

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Transportation and Infrastructure Renewal

Scale : N.T.S.  
Drawn by : M.LABRECHE  
Checked by : J.RAE  
Date of Plan : AUG2009  
File No. : S-2009-074

No.	REVISION
1	"HS" # ADDED TO TITLE

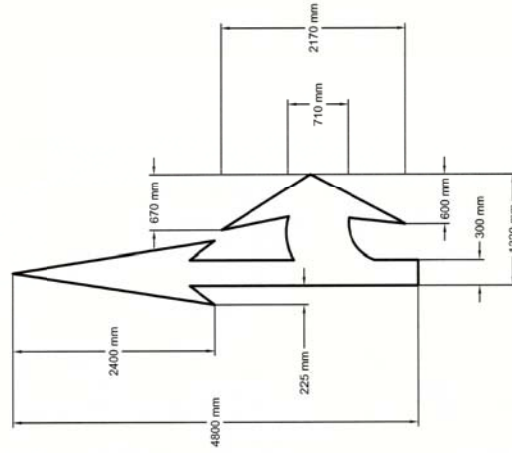
*Bob Labreche*  
Manager Highway Planning and Design  
*Bob Labreche*  
Director Highway Engineering Services  
*Bob Labreche*  
Executive Director Highway Engineering and Construction

**MICHIGAN SHOE DETAIL**  
**HS522**









## HIGHWAY PAVEMENT MARKINGS