

APPENDIX 'E'

PRECAST CONCRETE PORTABLE TRAFFIC BARRIER



185 DAWSON ROAD, WINNIPEG, MB R2J 0S6 PH:(204) 958-8333

MATERIAL DETAIL SHEET

Drawn By: **SB**

W.O: **931-18**

PAGE:

Checked: **IL**

Sheet

E44-02

Project: **STANDARD TRAFFIC BARRIER**

Date: **01.22.18**

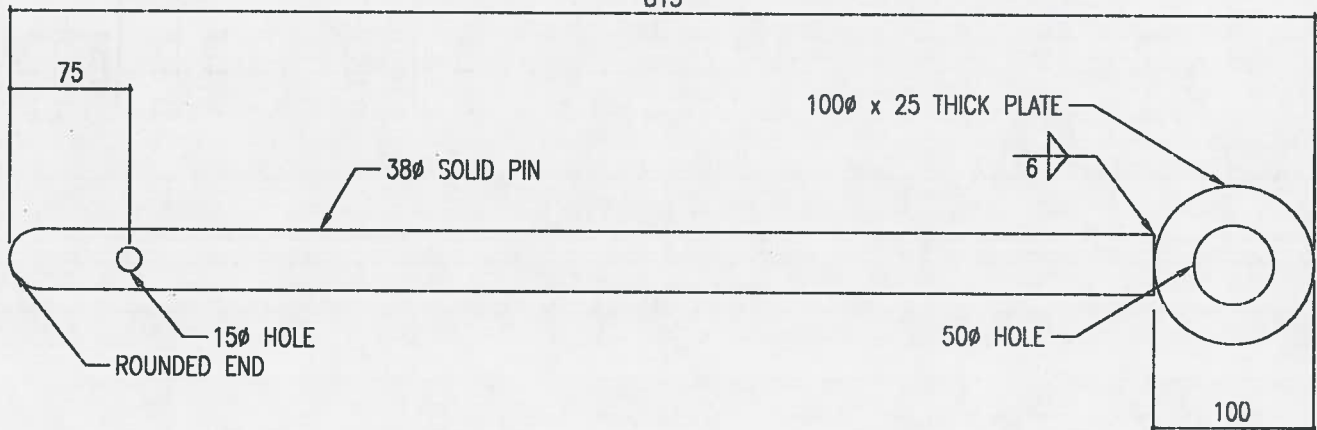
ENG: **IL IL**

GRADE	BAR GRADE	FINISH	REV.	BY	DATE	DESCRIPTION	QTY.	TOTAL
<input checked="" type="checkbox"/> W	<input type="checkbox"/> 300 Grade	<input type="checkbox"/> Plain	0			RELEASED FOR PRODUCTION	-	-
<input type="checkbox"/> 300 W	<input type="checkbox"/> 400W Grade	<input type="checkbox"/> Prime Coat						
<input type="checkbox"/> 350 W	<input type="checkbox"/> 400W Studs	<input type="checkbox"/> Zinc rich paint						
	<input type="checkbox"/> 550 Def. Bars	<input type="checkbox"/> Zinc plate						
	<input type="checkbox"/> 400W W Grade	<input type="checkbox"/> Galvanize						
Other _____	Other _____	Other _____						

BID OPPORTUNITY NO. 1104-2017

E44-02 38 DIA. X 813 LG STEEL RETAINING PIN

813





PRODUCTION HARDWARE LIST

PROJECT		STANDARD TRAFFIC BARRIER		PAGE
DRAWN SB		CHECKER IL		PM-1
REL.#1		REL.#4		W.O.#
REL.#2		REL.#5		931
REL.#3		REL.#6		
REL.#4		REL.#7		
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REL.#310		REL.#313		



MATERIAL DETAIL SHEET

185 DAWSON ROAD, WINNIPEG, MB R2J 0S8 PH:(204) 968-6333

Drawn By: *W* SB

W.O: 931-18

PAGE:

Checked: IL

Sheet

P44-01

Project: **STANDARD TRAFFIC BARRIER**

Date: **01.22.18**

ENG: IL *X*

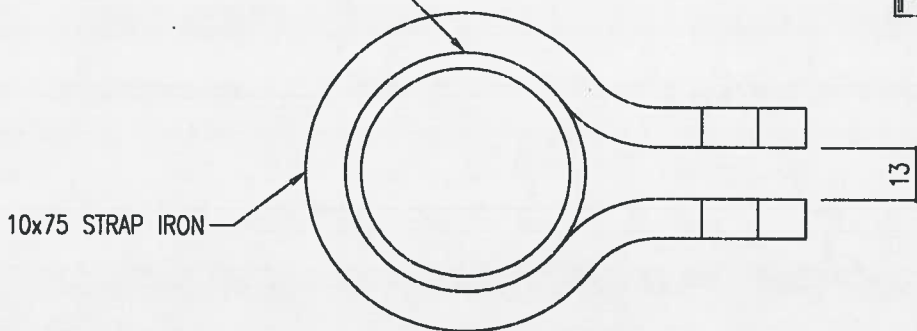
REV.	BY	DATE	DESCRIPTION	QTY.	TOTAL
0			RELEASED FOR PRODUCTION	-	-

GRADE	BAR GRADE	FINISH
<input type="checkbox"/> W	<input type="checkbox"/> 300 Grade	<input type="checkbox"/> Plain
<input type="checkbox"/> 300 W	<input type="checkbox"/> 400W Grade	<input type="checkbox"/> Prime Coat
<input type="checkbox"/> 350 W	<input type="checkbox"/> 400W Studs	<input type="checkbox"/> Zinc rich paint
	<input type="checkbox"/> 650 Def. Bars	<input type="checkbox"/> Zinc plate
	<input type="checkbox"/> 400W W Grade	<input type="checkbox"/> Galvanize
Other _____	Other _____	Other _____

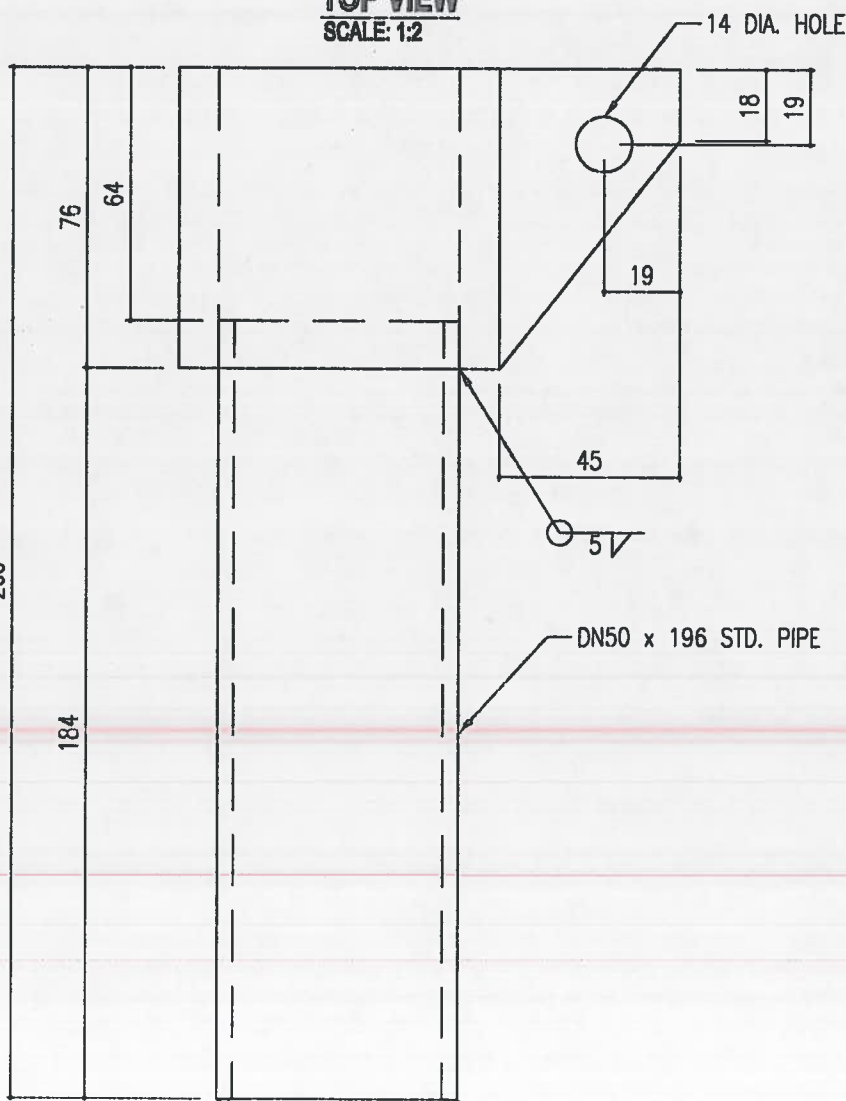
BID OPPORTUNITY NO. 1104-2017

DN50 x 196 STD. PIPE

P44-01 DN50 x 196 STEEL
PIPE C/E (1) PLUG &
(1) 10x75 STRAP IRON
W/ (2) 14 DIA. HOLE



TOP VIEW
SCALE: 1:2



SIDE VIEW
SCALE: 1:2

JAN 26 2018
RELEASED FOR PRODUCTION



185 DAWSON ROAD, WINNIPEG, MB R2J 0S6 PH:(204) 953-8333

MATERIAL DETAIL SHEET

Drawn By: **SB**
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W.O: **931-18**
Sheet: **-**

PAGE:

P44-02

Project: **STANDARD TRAFFIC BARRIER**

Date: **01.22.18**

ENG: **IL**

GRADE	BAR GRADE	FINISH	REV.	BY	DATE	DESCRIPTION	QTY.	TOTAL
<input type="checkbox"/> W	<input type="checkbox"/> 300 Grade	<input type="checkbox"/> Plain	0			RELEASED FOR PRODUCTION	-	-
<input type="checkbox"/> 300 W	<input type="checkbox"/> 400W Grade	<input type="checkbox"/> Prime Coat						
<input type="checkbox"/> 350 W	<input type="checkbox"/> 400W Studs	<input type="checkbox"/> Zinc rich paint						
	<input type="checkbox"/> 560 Def. Bars	<input type="checkbox"/> Zinc plate						
	<input type="checkbox"/> 400W W Grade	<input type="checkbox"/> Galvanize						
Other _____	Other _____	Other _____						

NAME	EC-2	SYSTEM SIZE	1"	BID OPPORTUNITY NO. 1104-2017
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COIL
LIFTING
INSERTS

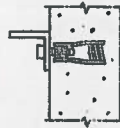


Type EC-2



INSERT TYPE	DIA.	LENGTH Inch (mm)	WIDTH Inch (mm)	WASHER THICKNESS Inch (mm)
EC-2	3/4"	4 3/4" (115)	2 1/4" (67)	1/8" (270)
EC-2	1"	5 1/2" (140)	2 5/8" (67)	3/16" (270)

4:1 Approximate Safety Factor



BRACKETS

BOLT DIAMETER AND SYMBOL	MIN. CONC. THICKNESS Inch (mm)	INSERT LENGTH Inch (L-mm)	INSERT WIDTH Inch (D-mm)	WASHER THICKNESS Inch (T-mm)	WORKING LOAD lbs (kN)	
					SHEAR	TENSION
3/4" 2 Strut Type EC-2	6" (150)	4 3/4" (121)	2 1/4" (67)	1/8" (3.10)	3,525 lbs. (15.65)	4,500 lbs. (20.00)
1" 2 Strut Type EC-2	6" (150)	5 1/4" (146)	2 5/8" (67)	3/16" (4.70)	6,000 lbs. (26.70)	8,000 lbs. (26.70)

4:1 Approximate Safety Factor

FORCE IN kN (lbs) FOR EDGE DISTANCE - CENTERLINE OF INSERT TO NEAREST EDGE

SIZE AND TYPE	FORCE IN kN (lbs) FOR EDGE DISTANCE - CENTERLINE OF INSERT TO NEAREST EDGE																	
	1 1/2" (40mm)		2" (50mm)		3" (75mm)		4" (100mm)		5" (125mm)		6" (150mm)		8" (200mm)		9" (225mm)			
	TENSION	SHEAR	TENSION	SHEAR	TENSION	SHEAR	TENSION	SHEAR	TENSION	SHEAR	TENSION	SHEAR	TENSION	SHEAR	TENSION	SHEAR		
3/4" Type EC-2 2 Strut	1,125	375	2,250	800	3,180	975	3,975	1,360	4,500*	3,375	15,600*	(3,525*)			4,500*	3,525*	(20.00*) (15.00*)	
1" Type EC-2 2 Strut					3,375	1,500	4,125	2,250	5,250	3,375	8,000*	4,600			8,000*	8,000*	8,000*	(26.70*) (26.70*) (26.70*)

Type EC-4



INSERT TYPE	DIA.	LENGTH Inch (mm)	WIDTH Inch (mm)	WASHER THICKNESS Inch (mm)
EC-4	1 1/4"	7 5/8" (191)	3 1/4" (83)	7/32" (270)

4:1 Approximate Safety Factor



PRECAST ANCHORING TO STEEL

BOLT DIAMETER AND SYMBOL	MIN. CONC. THICKNESS Inch (mm)	INSERT LENGTH Inch (L-mm)	INSERT WIDTH Inch (D-mm)	WASHER THICKNESS Inch (T-mm)	WORKING LOAD lbs (kN)	
					SHEAR	TENSION
1 1/4" 4 Strut Type EC-4	8" (200)	7 5/8" (194)	3 1/4" (83)	7/32" (5.50)	9,000 lbs. (40.00)	12,000 lbs. (53.00)

4:1 Approximate Safety Factor

FORCE IN kN (lbs) FOR EDGE DISTANCE - CENTERLINE OF INSERT TO NEAREST EDGE

SIZE AND TYPE	FORCE IN kN (lbs) FOR EDGE DISTANCE - CENTERLINE OF INSERT TO NEAREST EDGE																	
	1 1/2" (40mm)		2" (50mm)		3" (75mm)		4" (100mm)		5" (125mm)		6" (150mm)		8" (200mm)		9" (225mm)			
	TENSION	SHEAR	TENSION	SHEAR	TENSION	SHEAR	TENSION	SHEAR	TENSION	SHEAR	TENSION	SHEAR	TENSION	SHEAR	TENSION	SHEAR		
1 1/4" Type EC-4 4 Strut								6,000	2,400	7,500	3,750	9,000	5,625	11,250	8,250	12,000*	9,000*	(26.70) (10.60) (33.30) (16.50) (40.00) (25.00) (50.00) (36.50) (53.00*) (40.00*)

LAFARGE
 JAN 26 2018
 RELEASED FOR PRODUCTION