

TrafficGuard[®], Inc.

"The Original Multifunction Bollard"

Standard Features Include:

Ease of use in 5 easy steps:

1. Remove padlock
2. Remove locking pin
3. Lower bollard post
4. Replace locking pin
5. Allows vehicle access

Safety:

30" overall height and "Safety Yellow" finish are standard for high visibility. Custom colors available upon request.

Heavy Duty:

Closed Steel Pipe Construction
Stainless Steel Locking Pin

Proven Performance:

References Available Upon Request

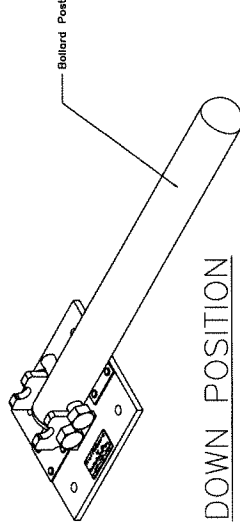
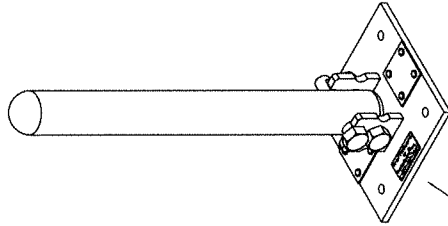
Low Maintenance

Warranty

\$1,000,000 Liability Coverage

Orders for "Safety Yellow" shipped in 48 hours.

HINGED ROUND POST BOLLARD (HRP)



PRODUCT HIGHLIGHTS

Traditional Round Post Bollard appearance

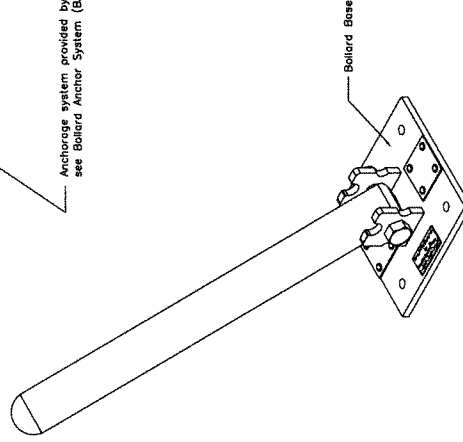
Features single locking pin for easy access

Clearance Height 4" in lowered position

Single Post design with 2-1/2" steel pipe

48" Tall

45 DEGREE POSITION



HINGED ROUND POST BOLLARD				TRAFFIC GUARD, INC.			
ISOMETRIC DISPLAY DRAWING				P.O. Box 201, Geneva, IL 60134			
CONSULTING ENGINEER				Boll. 877-727-7347 Fax: 800-814-7154			
ZABEL ENGINEERING				Minimum Shipping Weight			
1				D			
Rev. 1				Drawing Number			
HRP & TRAFFIC GUARD				HRPA1			
Rev. 1				Scale: 1 = 4'			
Date				Drawing Date: 8-4-2002			
Description				Sheet: 1 of 2			

INSTALLATION INSTRUCTIONS FOR:

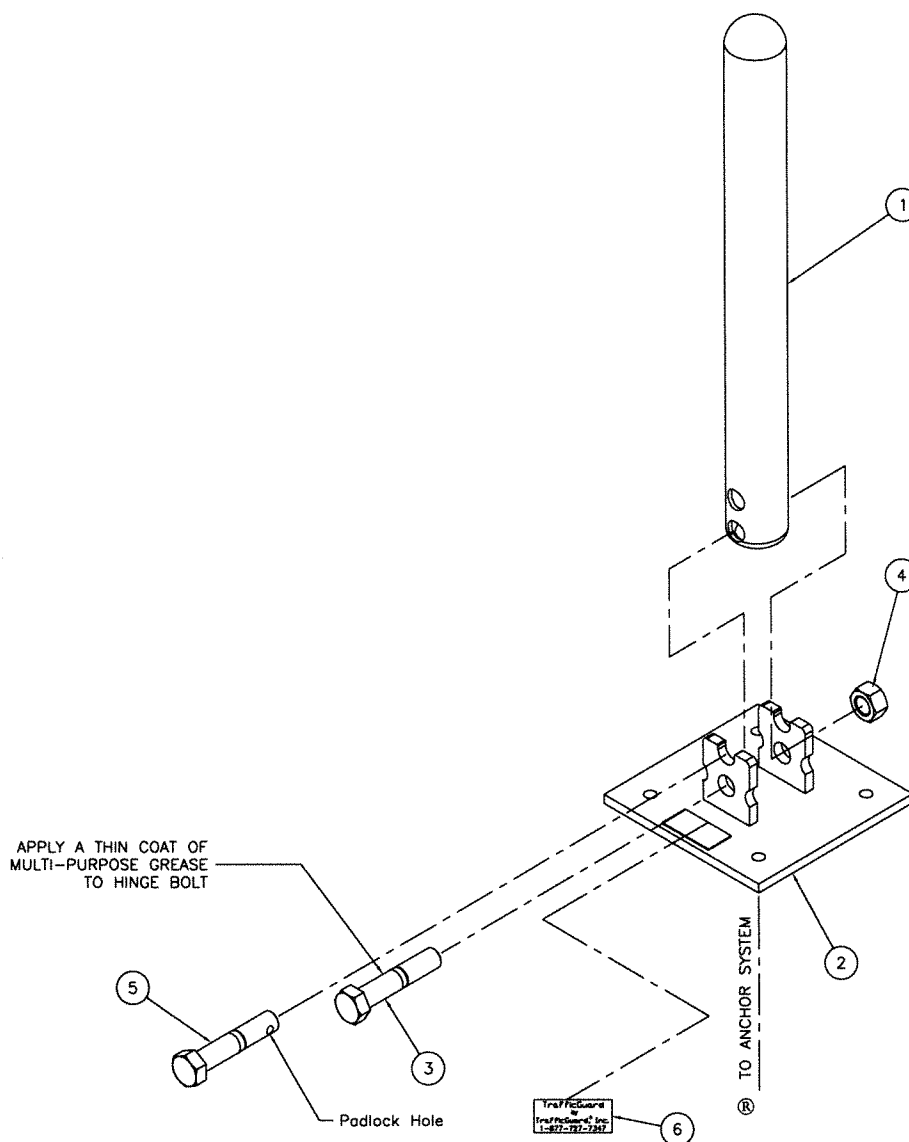
HINGED ROUND POST BOLLARD

1. Verify that all Hinged Round Post Bollard parts are in the shipment package as shown on the "Bill of Material".
2. Provide Hinged Hinged Round Bollard Anchor System (see included Anchor System Drawing-3BAS) of your choice at a location to suit your specific needs.
3. Install HRP Base (Item 2) true and level on your selected Anchor System using the flat washers and hex nuts included in your Anchor System Kit. Use S.S. shims to level if needed. Torque hex nuts to Minimum 30 ft-lbs for CPAS10 Anchor System. Torque hex nuts for other Anchor Systems to Manufacturers Specification.
5. Install HRP Post (Item 1) to HRP Base (Item 2) using Hinge Bolt (Item 3) and Hex Nut (Item 4) as shown. Tack Weld Hex Nut to Hinge Bolt or Chisel Hinge Bolt Threads such that Hex Nut cannot be easily removed.
6. Install HRP Locking Pin (Item 5) thru UP Position Bollard Post, and install Padlock at padlock hole.
7. Install the Label at the location shown.
8. Check the functional operation of the Hinged Bollard Post.

• Note: S.S. shims, tools, grease, and padlock are not provided.

BILL OF MATERIAL

ITEM	PART #	DESCRIPTION	QTY.
1	HRPF1	HRPF1	1
2	HRPF2	HRP BASE - WELDMENT	1
3	0019	1-8 UNC-2A5" HINGE BOLT SS 18-8	1
4	0020	1-8 UNC-2B HEX NUT - SS 316	1
5	4004	HRP LOCKING PIN	1
6	0105	LABEL	1



General Specifications and Notes for all Parts and Weldments

1. All Steel Work shall conform to the AISC "Specification for the Design, Fabrication and Erection of Structural Steel for Buildings" - Latest Edition unless noted on the drawing.
2. All Welding shall be performed by qualified welders and shall conform to the American Welding Society AWS D1.1 - Latest Edition of the Structural Welding Code - Steel.
3. All Material shall be new and shall be as noted on the drawing and/or in the Bill of Material. SS indicates Stainless Steel and HDG indicates Hot Dip Galvanized.
4. All Painting Work shall conform to the manufacturer's specification and installation instructions and the SSPC (Steel Structures Painting Council) and as noted on the drawing.
5. All hole center dimensions shall have a tolerance of 1/16 inch± and other dimensions shall have a tolerance of 1/8 inch± unless noted on the drawing.
6. All work shall be packaged and shipped per specific instructions by Traffic Guard Direct.

HINGED ROUND POST BOLLARD ASSEMBLY DRAWING

CONSULTING ENGINEER: ZE Job # 04-118
ZABEL ENGINEERING
CONSULTING ENGINEERS
203 South Rosedale Av., Aurora, IL 60006
Bus: 630-892-0690 Fax: 630-892-1087

Rev.	by	Date	Description
1	WKZ	9-13-04	TORQUE

THIRD ANGLE
PROJECTION
Do not scale from drawing

TrafficGuard, Inc.
P.O. Box 201, Geneva, IL 60134
Bus: 877-727-7347 Fax: 800-814-7194

Action	by	SIZE	Weldment Shipping Weight	Drawing Number
Design	WKZ	D	35.50 Pounds	HRPA2-1
Drawn	CJD			
Checked	WKZ			

Scale: 1 = 4 Drawing Date: 8-4-2002 Sheet: 2 of 2

BILL OF MATERIAL
FOR OPTIONAL CPAS10 KIT IF ORDERED

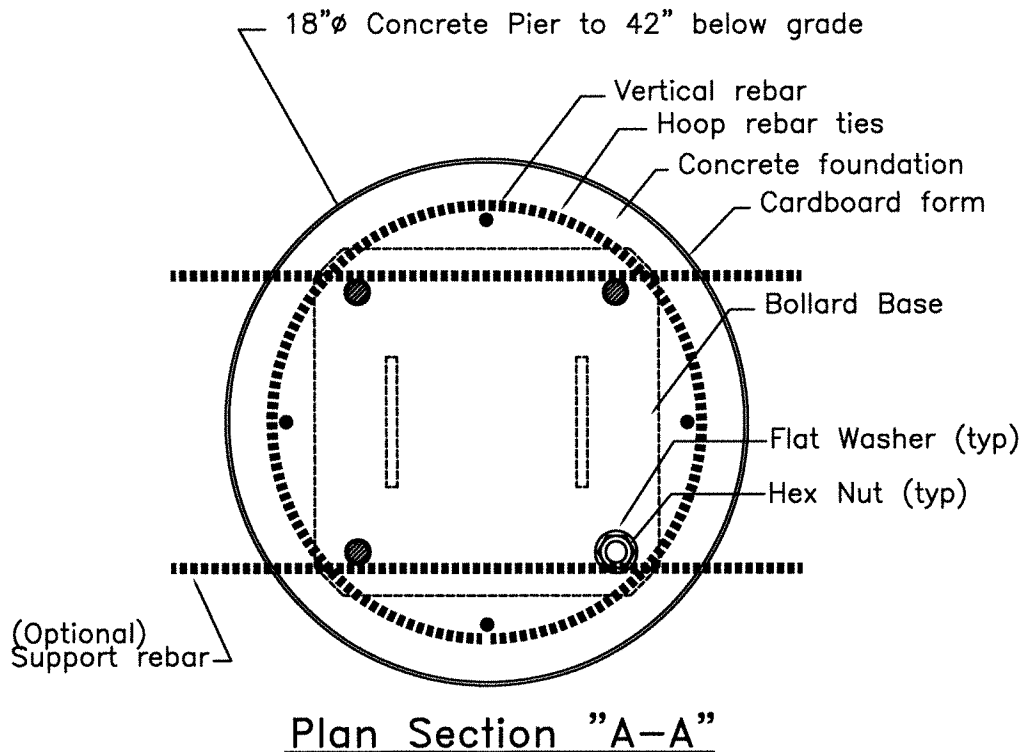
ITEM	PART #	DESCRIPTION	QTY.
*	9005	CPAS10 KIT - INCLUDES THE FOLLOWING PART NUMBERS	*
1	0021	ø1/2" x 12" TYPE L ANCHOR BOLT-H.D.G.	4
2	0022	ø1/2" FLAT WASHER, TYPE A NARROW -GALVANIZED STEEL	4
3	0026	ø1/2" HEX NUT GALVANIZED STEEL	4

NOTE: CONCRETE. FORM AND REBAR PROVIDED BY OTHERS

NOTE: CONCRETE, FORM AND REBAR PROVIDED BY OTHERS

				Action	by	Bus: 1.877.727.7347 Fax: 1.800.814.7194		
2	11.14.10	wkz	Locking Pins & Note	Design	wkz	Dwg. Scale: nts	Assembly Shipping Weight	Drawing Number:
1	-	-	-	Drawn	wkz	Copywrite: 2010	84 Pounds	CPAS10
Rev.	Date	by	Description	Checked	wkz	Dwg. Size: Letter	Drawing Date: 12.10.10	Sheet: 1 of 2

The drawing illustrates the construction of a bollard base. The main components shown are the **Bollard**, **Bollard Base**, and **Concrete Foundation**. The concrete foundation is specified with a typical compressive strength of $F'_c = 4,000$ psi at 28 days. Reinforcement details include **Four 15" ϕ #3 rebar hoop ties with 12" lap**, one at the bottom, one at the middle, and two at the top. An **(Optional) Cardboard Form 18" ϕ** is also indicated. The cross-section shows **ANCHOR BOLTS** and **Four #4 rebar at 37" long**. A note mentions an **(Optional) Install #3 rebar thru the form for support (typ)**. The drawing is labeled **Front Elevation Section**.



CPAS10 COLLASPIBLE POST ANCHOR SYSTEM DETAILS

These Anchorage systems are designed for the noted loading based on a quality substrate material and proper installation, by the customer's contractor. The installation shall conform to the drawing and the manufacturer's instructions. The customer is responsible to determine the adequate quality of new or existing concrete and the earth substrate. The concrete shall be solid and uncracked with adequate thickness for the anchors and a compressive strength of $F_c'(\text{minimum})=4,000$ pounds per square inch. The earth shall have an unconfined strength of $Q_u(\text{minimum})=4,000$ pounds per square foot. If you have questionable substrates, contact your local structural engineer for appropriate anchorage evaluation and/or anchorage design. A test installation may be required to determine the adequacy of the anchorage system for your specific installation. Call for guidance, if needed.

				Action	by	Bus: 1.877.727.7347 Fax: 1.800.814.7194		
2	11.14.10	wkz	Locking Pins & Note	Design	wkz	Dwg. Scale: nts	Assembly Shipping Weight	Drawing Number:
1	-	-	-	Drawn	wkz	Copywrite: 2010	84 Pounds	CPAS10
Rev.	Date	by	Description	Checked	wkz	Dwg. Size: Letter	Drawing Date: 12.10.10	Sheet: 2 of 2