



MaxiForce Steel Bollard Base Installation Schedule

For Universal, Simple, Removable, and EZ Bases

| Engineered Anchorage System for MaxiForce Steel Bollard Bases - Single Footing (For Universal, Simple, Removable and EZ Bases) | | | | |
|---|------------------------------|----------------------------|---------------------------|---|
| Base Type | Concrete Pier Diameter (In.) | Concrete Pier Height (In.) | Concrete Pier Reinforcing | Bollard Base/Embedment at Concrete Pier |
| Universal | 12" | 39" | 2 - #4 Vert. | 8" Min |
| Simple | 12" | 39" | 2 - #4 Vert. | 8" Min |
| Removable | 12" | 39" | 2 - #4 Vert. | 8" Min |
| EZ | 12" | 39" | 2 - #4 Vert. | 6" Min |

| Engineered Anchorage System for MaxiForce™ Steel Bollard Bases - Continuous Beam Footing (For Universal, Simple, Removable and EZ Bases) | | | | |
|---|---------------------------------|----------------------------------|---------------------------------|---|
| Base Type | Concrete Grade Beam Width (In.) | Concrete Grade Beam Height (In.) | Concrete Grade Beam Reinforcing | Bollard Base/Embedment at Concrete Grade Beam |
| Universal | 12" | 22" | 3 - #4 Cont. | 8" Min |
| Simple | 12" | 22" | 3 - #4 Cont. | 8" Min |
| Removable | 12" | 22" | 3 - #4 Cont. | 8" Min |
| EZ | 12" | 22" | 3 - #4 Cont. | 6" Min |

Design and Construction Notes

- 1.0 For continuous concrete grade beam footing, pipe bollards shall be spaced 4' - 0" O.C. maximum.
- 2.0 Allowable Foundation Pressure = 2,000 psf. Allowable Lateral Bearing = 150/psf. Assumed in-place soil, Sand, Silty Sand, Clayey Sand, Silty Gravel, or Clayey Gravel. For higher soil allowable design values, site soil investigation by a Registered Geotechnical Engineer is required.
- 3.0 See supplemental concrete footing details for additional information.
- 4.0 Material Specifications: Concrete = 3,000 psi (28-day min); Reinforcing ASTM A615 (60 ksi for all bars #5 and larger 40 ksi for all bars #4 and smaller).

Drawing Rev.
2

Created
11/19/2020

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MaxiForce Bollards

Title

U/S/R/EZ Base Installation Schedule

C

DO NOT SCALE DRAWING

SHEET 1 OF 1

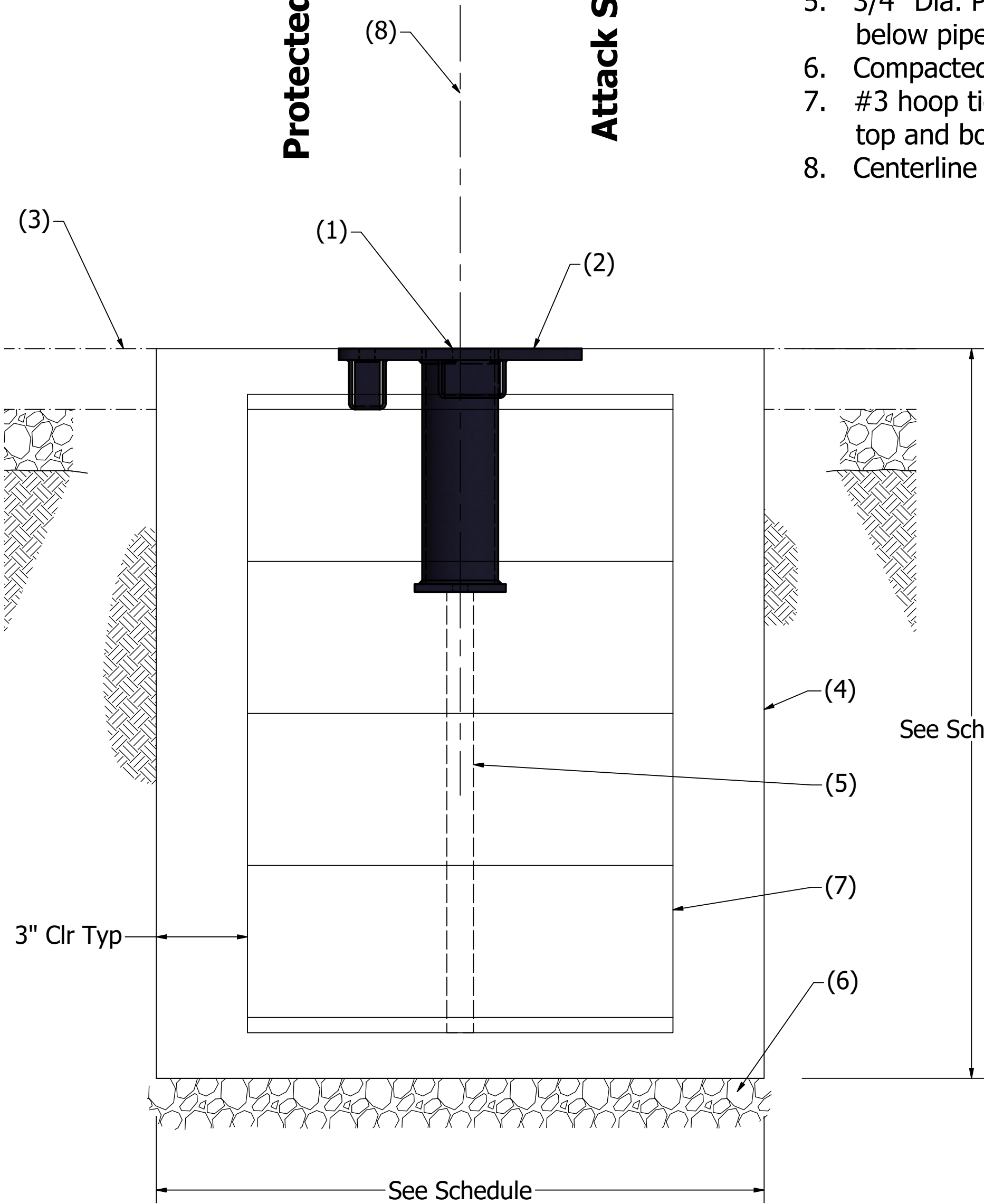


Engineered Anchorage System for the MaxiForce Removable Base Circular Concrete Pier Footing

Protected Side

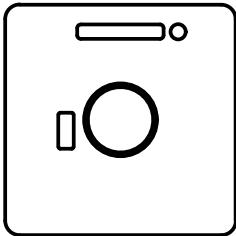
Attack Side

1. MaxiForce Steel pipe bollard per specification.
2. MaxiForce Removable Base assembly per Blue Ember Technologies.
3. Finished grade or pavement.
4. Concrete base pier per schedule, at each pipe sleeve.
5. 3/4" Dia. PVC pipe as needed for drainage below pipe sleeve.
6. Compacted gravel bed (3" minimum).
7. #3 hoop ties at 12" O.C. and 2 - #3 ties at top and bottom of concrete pier.
8. Centerline of bollard and concrete base pier.




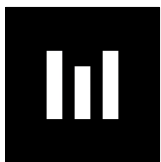
Installation Orientation

Protected Side



Attack Side

| | | | |
|---|-----------------------|--|----------------------|
| Drawing Rev. 1 | Created 11/19/2020 | <div><div>MaxiForce</div><div>7560 Main Street Sykesville, MD 21784 tel: +1 (410) 552 9888 sales@maxiforcebollards.com www.maxiforcebollards.com</div></div> <div><div>MaxiForce Bollards</div></div> | |
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| | | C | DO NOT SCALE DRAWING |



Engineered Anchorage System for the MaxiForce Removable Base Continuous Beam Footing

