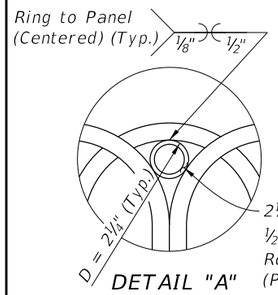

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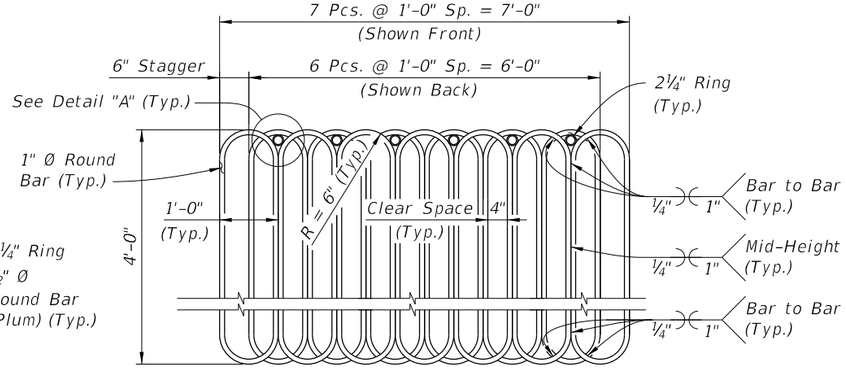
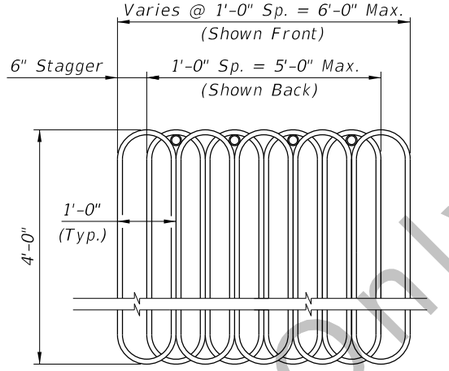
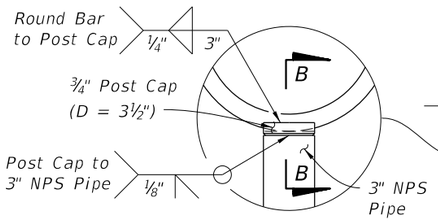


STANDARD 6 FOOT PANEL
TYPE A (Without Base Mount)



CUSTOM LENGTH PANEL
TYPE A (Without Base Mount)



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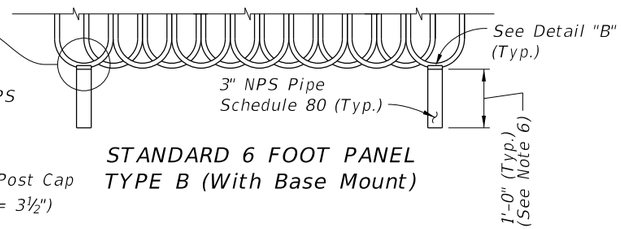
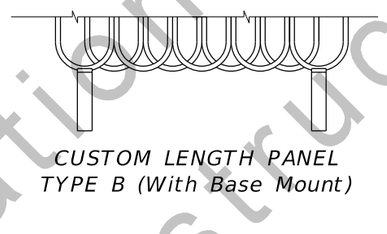
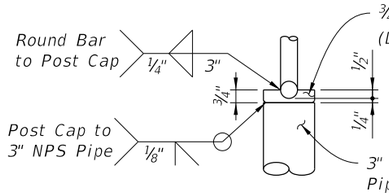


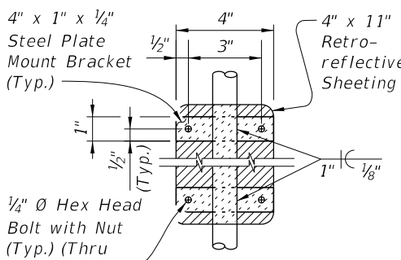
STANDARD 6 FOOT PANEL
TYPE B (With Base Mount)



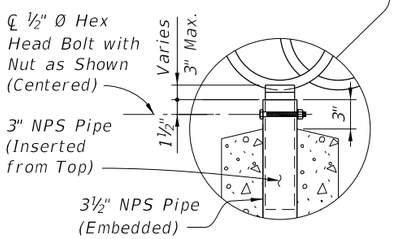
CUSTOM LENGTH PANEL
TYPE B (With Base Mount)



SECTION B-B



SECTION C-C
(Retroreflective Sheet)



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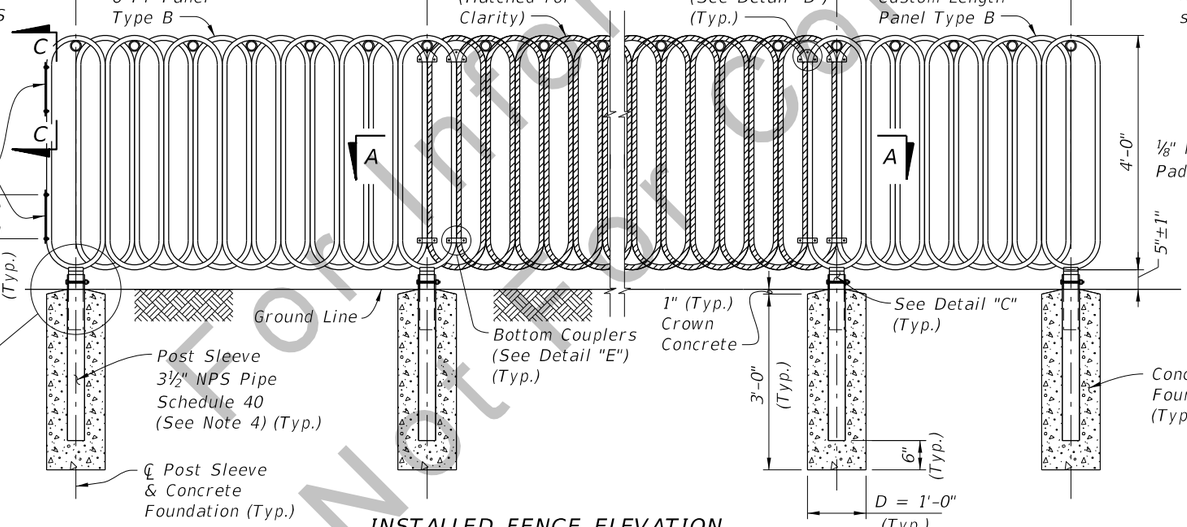
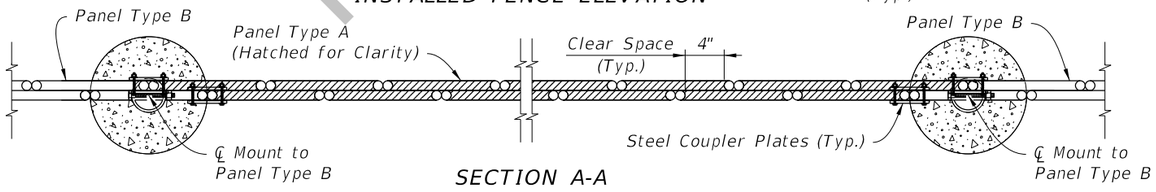
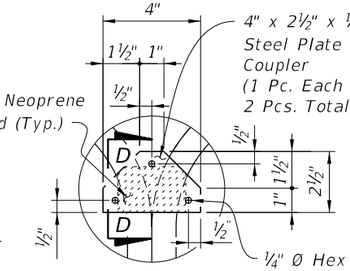


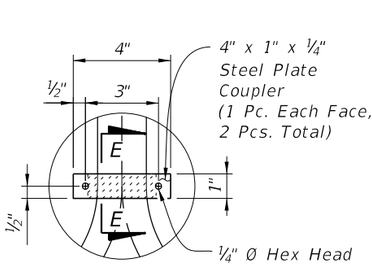
INSTALLED FENCE ELEVATION



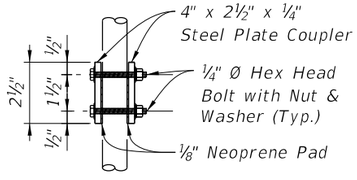
SECTION A-A



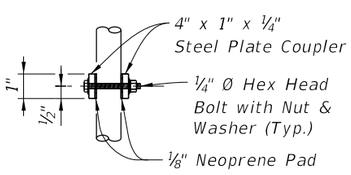
DETAIL "D"
(Top
Coupler)



DETAIL "E"
(Bottom
Coupler)



SECTION D-D



SECTION E-E

NOTES:

1. BARS, POST CAPS, AND COUPLER PLATES: Use smooth bars, post caps, and plates in conformance with ASTM A36.
2. POST SLEEVE AND POST PIPES: Use steel pipe material for foundation mounting posts in conformance with ASTM F1083, excluding hot-dip galvanization.
3. CONCRETE FOUNDATIONS: Use either Class NS concrete as specified in Specification Section 347 or a dry packaged material meeting the requirements of concrete under ASTM C387. Proportion materials by volume and/or weight.
4. INSTALLATION TOLERANCE: Set sleeve ±1" from ℄ concrete foundation as needed to accommodate fencing location. Install fencing plumb, ±1" from nominal ℄ of fence.
5. FOUNDATION OPTIONS: Use foundations shown herein or alternative shallower depth options shown on Sheet 3.
6. SIDEWALK MOUNTING: For sidewalk mounting using the Anchor Plate Detail on Sheet 3, reduce the 3" NPS Pipe length to 4⅛".
7. WELDING: Weld in accordance with the American Welding Society Structural Welding Code (Steel) ANSI/AWS D1.1 (current edition). Use metal conforming to E60XX or E70XX. Nondestructive testing of welds is not required.
8. NEOPRENE PADS: Use Neoprene Pads in accordance with Specification Section 932, except that testing of the finished pads is not required.
9. GALVANIZING: Cold galvanize all Steel Bars, Rings, Pipes, Post Sleeves, Post Caps, and Plates the Federal Standard No. 595, Color 27038 (Semi-Gloss Black) in accordance with Specification Section 561. Cold galvanize surfaces after respective welding operations are complete. For bolt hardware, see Note 12.
10. COUPLER MOUNT: Tighten couple mounts to deformation, providing sufficient vertical support for Panel Type A.
11. RING PLACEMENT: For Panels Type A, place rings in the pattern shown starting with the second loop. For Panels Type B, place rings in the pattern shown starting with the first loop.
12. NUTS, BOLTS, AND WASHERS: Use hot-dipped zinc-coated: self-locking nuts in accordance with ASTM A563, bolts in accordance with ASTM A307, and washers in accordance with ASTM F436. Tack welds may be used in place of self-locking nuts. Snug tighten nuts and distort bolt threads to prevent removal of nuts. Galvanize distorted threads and tack welds in accordance with the Specification Section 561.
13. RETROREFLECTIVE SHEETING: Install sheeting at the start or end of the fence where the retroreflective surface is directly visible to oncoming traffic in adjacent travel lane. Use Type IV retroreflective sheeting adhered to 0.040" aluminum backing in accordance with Specification Section 993-1 and matching the 4" x 11" dimension shown. Round corners of sheeting and backing with a ½" radius.

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TYPE P1 - STEEL LOOP FENCE

LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
10/10/14			FDOT DEVELOPMENTAL DESIGN STANDARDS	PEDESTRIAN CHANNELIZATION BARRIER	D804	1 of 4

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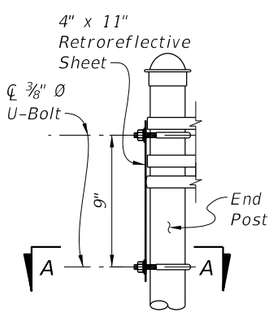
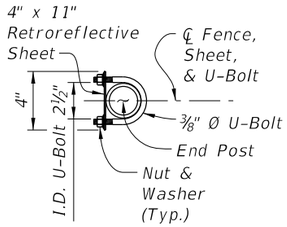
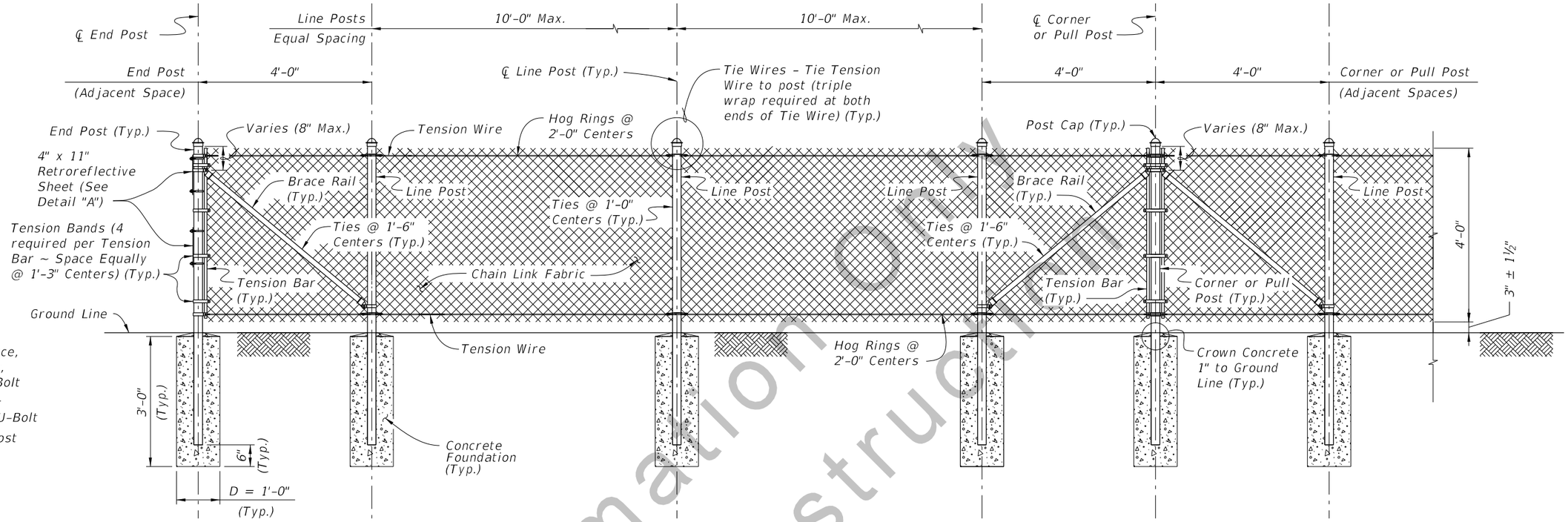
8/10/2015



DETAIL "A" (Typical Retroreflective Sheet)



SECTION A-A



INSTALLED FENCE ELEVATION

NOTES:

1. MATERIALS: Use component materials as specified in the Table of Chain Link Fence Components. For the Concrete Foundations shown, use either Class NS concrete as specified in Specification Section 347 or a dry packaged material meeting the requirements of a concrete under ASTM C 387. Proportion materials by volume and/or weight.

2. FOUNDATION MOUNTS: Set Line Posts in Concrete Foundations as shown or alternatively set with the following methods:
   (a) In accordance with project-specific details described in the contract plans
   (b) In accordance with ASTM F567 Subsections 5.4 through 5.10 as approved by the Engineer
   (c) In accordance with the Anchor Plate Detail shown on Sheet 3

   Set End Posts, Pull Posts, and Corner Posts with the same methods as Line Posts, except that Concrete Foundations must be used for all soil conditions other than solid rock.

   As an alternative to the Concrete Foundations shown herein, shallower mount foundations shown on Sheet 3 may be used. Adjust post lengths as needed to maintain fence height shown.

3. POST USAGE: Use post types (End, Line, Corner, and Pull Posts) as specified in the plans, including the typical adjacent brace assemblies shown. Nominal post lengths are typically 7'-1", where the post height extends 3" above the chain link height.

4. COLD GALVANIZING: Cold galvanize all Posts (pipes), Post Caps, Brace Rails, Tensions Bars, and Bands with the Federal Standard No. 595, Color No. 27038 (Semi-Gloss Black) in accordance with Specification Section 561.

5. POST SET TOLERANCE: Set Post in concrete with the Post ℄ at ±1" from the ℄ of the installed Concrete Foundation.

6. MESH ORIENTATION: Place mesh on the side of the fence nearest the roadway, between the roadway and the brace rails.

7. GENERAL FENCE INSTALLATION/TOLERANCE: Install posts plumb, within a tolerance of ±1" from nominal ℄ of post. Assemble fence hardware in accordance with ASTM F567.

8. NUTS, BOLTS, AND WASHERS: Use as defined on Sheet 1.

9. RETROREFLECTIVE SHEETING: Use as defined on Sheet 1. Place two Retroreflective Sheets, one sheet with its center approximately 1'-6" above the Ground Line and one sheet with its center approximately 3'-2" above the Ground Line.

TABLE OF CHAIN LINK FENCE COMPONENTS

COMPONENT	ASTM NO.	COMPONENT INFORMATION
Posts	F 1083	Steel Pipe - 2" NPS, Schedule 80 - Not hot-dip galvanized (Outer Diameter 2.38", 0.218" Wall Thickness)
Chain Link Fabric 2" Mesh	A 392	Polyvinyl Chloride (PVC) Coated Steel - No. 9 gage Zinc Coated Wire (Metallic coated core wire diameter) - Polymer coating color Federal Standard 595 color Semi-Gloss Black FS27038 - Knuckled Selvage (Top and Bottom)
Tie Wires	F 626	Zinc Coated Steel Wire - No. 9 gage
Tension Wire	A 824	Type II (Zinc Coated Steel Wire) - No. 7 gage, Class 4 Coating
Brace Rails	F 1083	Steel Pipe - 1¼" NPS, Schedule 40 - Not hot-dip galvanized (1.660" Outside Diameter, 0.140" Wall Thickness)
Brace Rail Bands	F 626	No. 12 gage (Min. thickness) x ¾" (Min. width) Steel Bands (Beveled or Heavy)
Tension Bars	F 626	3/16" (Min. thickness) x ¾" (Min. width) x 3'-11" (Min. height) Steel Bars
Tension Bands	F 626	No. 14 gage (Min. thickness) x ¾" (Min. width) Steel Bands
Hog Rings	F 626	Zinc Coated Steel Wire - No. 12 gage
Miscellaneous Fence Components	F 626	Zinc Coated Steel - Includes post or loop caps, horizontal and brace rail ends, and all other fittings and hardware

TYPE P2 - STEEL CHAIN LINK FENCE

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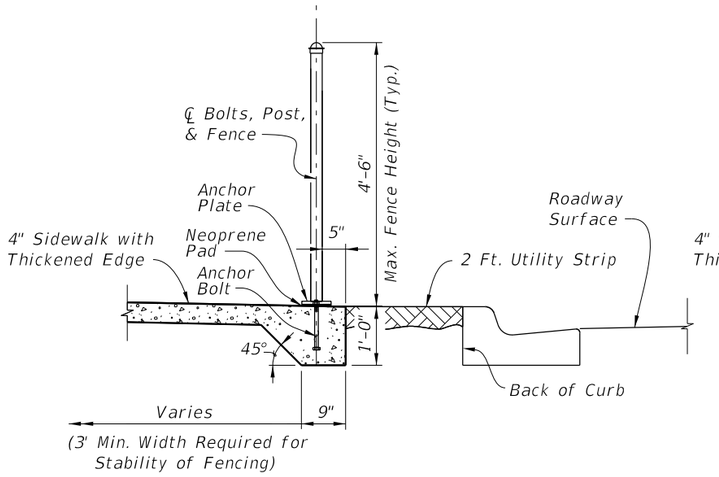
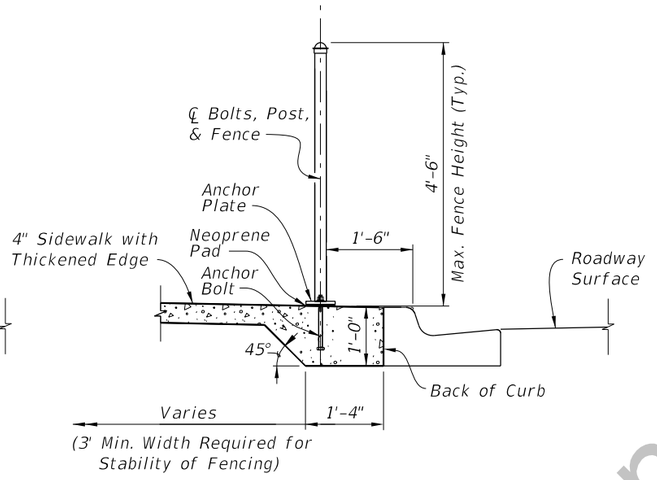
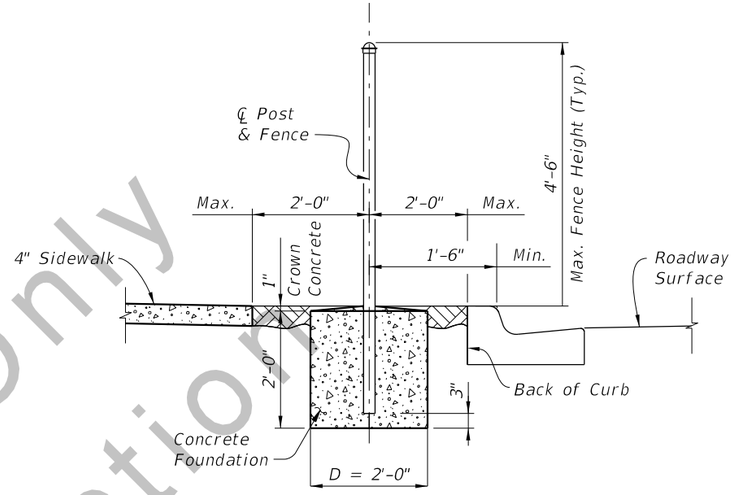


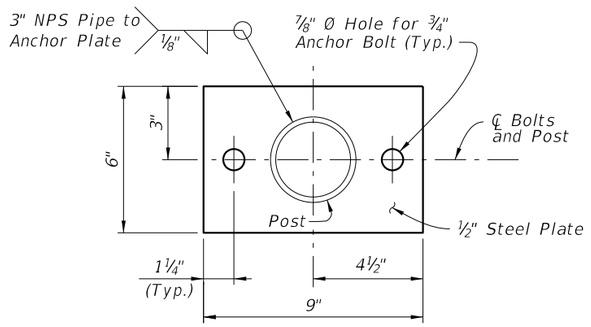
OPTION 1 - NEW CONSTRUCTION SECTION WITH UTILITY STRIP



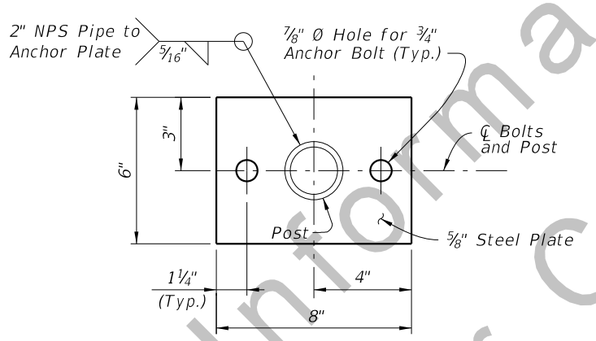
OPTION 2 - NEW CONSTRUCTION SECTION WITHOUT UTILITY STRIP



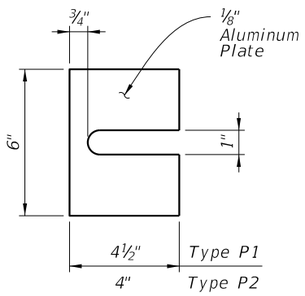
OPTION 3 - NEW OR EXISTING SIDEWALK SHALLOW CONCRETE FOUNDATION



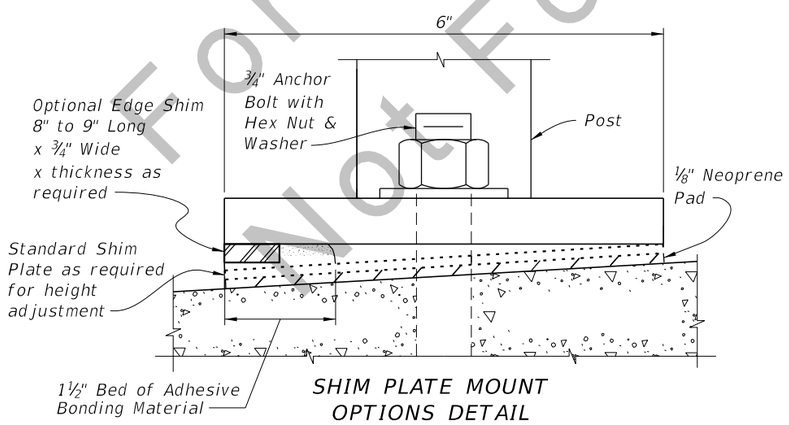
TYPE P1 FENCE ANCHOR PLATE DETAIL



TYPE P2 FENCE ANCHOR PLATE DETAIL



STANDARD SHIM PLATE DETAIL



SHIM PLATE MOUNT OPTIONS DETAIL

NOTES:

1. *SIDEWALK MOUNTS: For direct mounts of fencing to sidewalk, use either Option 1 or Option 2 for conditions with or without a utility strip, respectively.*
   For Fence Type P1, do not use Mount Sleeves and change 3" NPS Pipe length per Note 6 of Sheet 1.
   For Fence Type P2, adjust post length to a nominal 4'-5½"

2. *ANCHOR PLATES: Use anchor plates shown with the corresponding fence types on Sheet 1 and 2. Use galvanized steel anchor plates in accordance with ASTM A36.*

3. *SHIM PLATES: Use aluminum shim plates in accordance with ASTM B209 or B221, Alloy 6061 or 6063. Use shim plates for foundation height adjustments greater than ¼" and localized irregularities greater than ⅛". Field trim shim plates when necessary to match sidewalk contours. Beveled plates may be used in place of flat plates shown. Stacked plates must be bonded together with adhesive bonding material meeting the requirements of Specification Section 937. Increase bolt length to accommodate shims where required.*

4. *NEOPRENE PADS: Use ⅛" thick Neoprene Pads, matching the plan dimensions of the Anchor Plate. Place between the sidewalk and Anchor Plate. Use Neoprene Pads in accordance with Specification Section 932, except that testing of the finished pads is not required.*

5. *ANCHOR BOLTS:*
   Use galvanized steel anchor bolts with either of the following options:

   (a) ¾" Bolt, Headed: 11" Length Cast-In-Place with 9" embedment
   (b) ¾" Bolt, Headless: 8½" Length Adhesive Anchors with 6½" embedment, threaded full length, using drilled holes and an Adhesive Material System in accordance with Specifications Section 416 and 937

   Use Anchor Bolts in accordance with ASTM F1554 Grade 36. Use anchor bolts with single self-locking hex nuts. Tack welding of the nut to the anchor bolt may be used in place of self-locking nuts. Use nuts in accordance with ASTM A563 or ASTM A194. Use flat washers in accordance with ASTM F436. After the nuts have been tightened, distort the anchor bolt threads to prevent removal of the nuts. Galvanize distorted threads and tack welds in accordance with the Specification Section 561.

6. *SHALLOW CONCRETE FOUNDATION: The Option 3 foundation may be used in place of foundations shown on Sheets 1 and 2 where adjacent concrete or asphalt structures overtop the soil within 1'-0" of the foundation edge shown for increased soil stability.*
   For Fence Type P1, reduce the Post Sleeve length shown on Sheet 1 by 3".
   For Fence Type P2, reduce the post length given on Sheet 2 to 6'-4".

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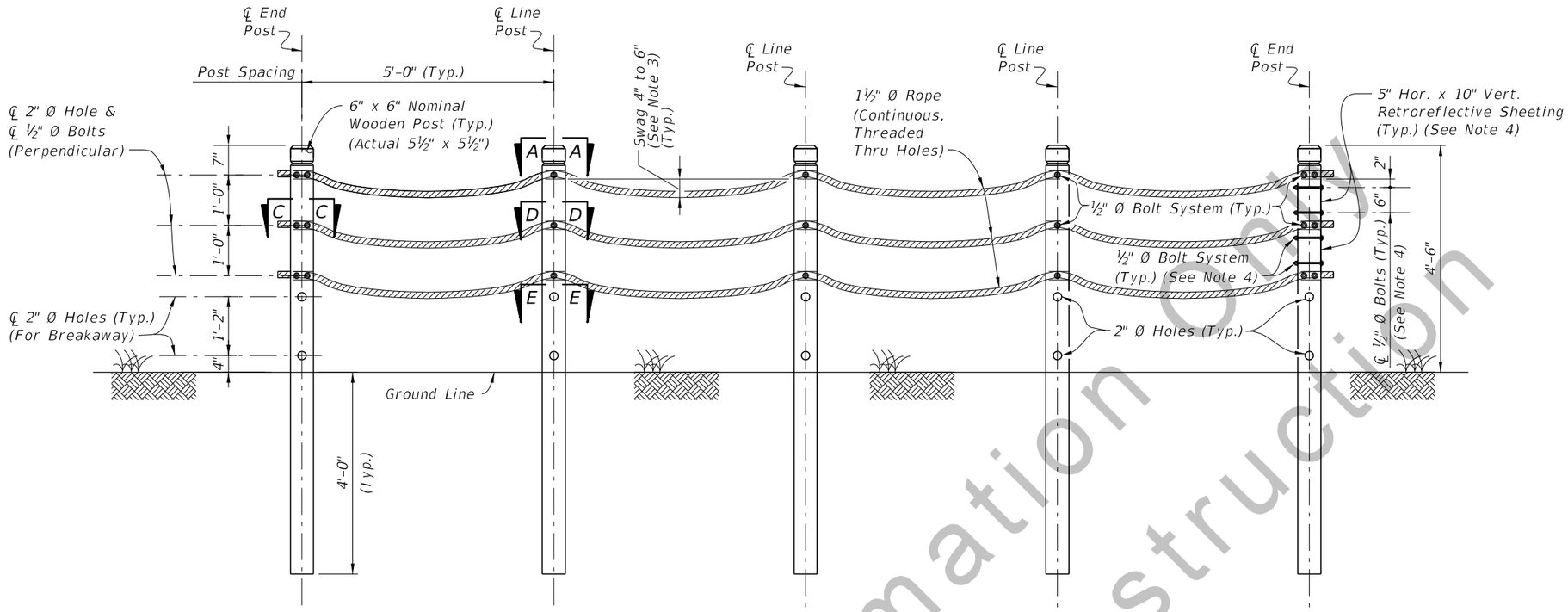
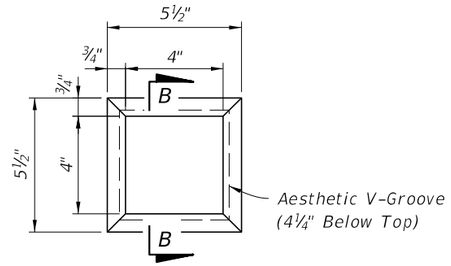
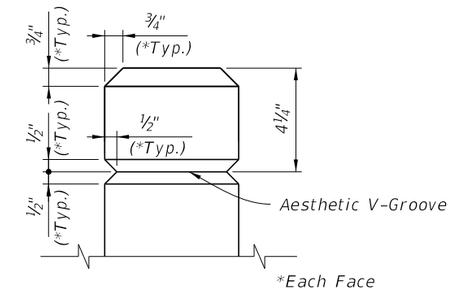
ADJACENT SIDEWALK MOUNTING OPTIONS



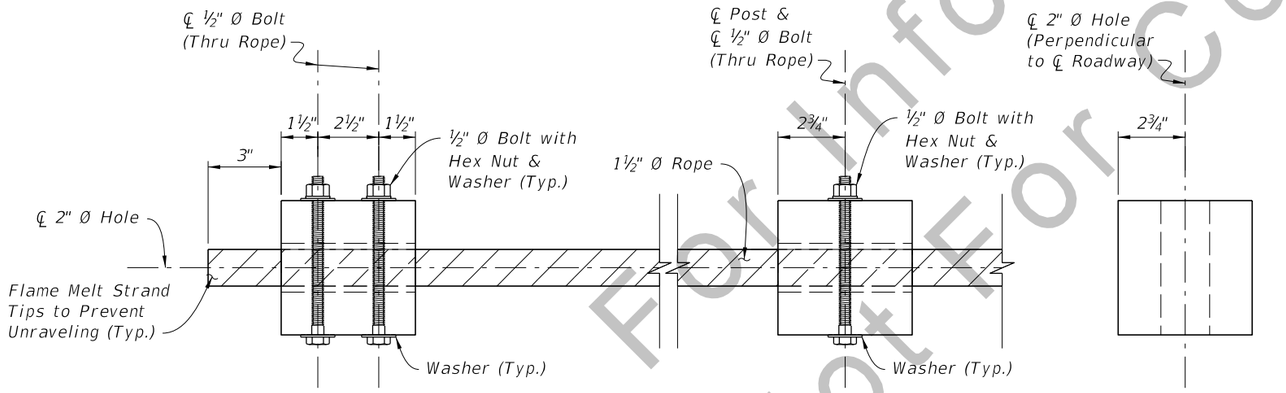
INSTALLED FENCE ELEVATION



SECTION A-A
(Typical Plan - Post Top Chamfers)



SECTION B-B
(Typical Profile - Post Top Chamfers)



SECTION C-C
(End Post Bolts for Rope Mounting)

SECTION D-D
(Line Post Bolts for Rope Mounting)

SECTION E-E
(Typical Holes for Breakaway)

NOTES:

1. POSTS: Use timber post material in accordance with Specification Section 954.

   Set posts in accordance with Specification Section 550. When digging post holes and using soil backfill only, fill holes completely and tamp soil firmly into place. If driving posts, ensure that the method does not damage the post. Set posts plumb and within a tolerance of ± 1" from nominal spacing and fence ℄.

2. NUTS, BOLTS, AND WASHERS: Use self-locking nuts in accordance with ASTM A563, bolts in accordance with ASTM A307, and washers in accordance with ASTM F436. Tack welds may be used in place of self-locking nuts. Snug tighten nuts and distort bolt threads to prevent removal of nuts.

3. ROPE: Use tan or manilla colored, 3-strand, twisted 1½" Ø polypropylene rope.

   Secure the rope to the post by threading continuously through each post hole indicated and then passing the perpendicular bolts through the rope. The bolt must have a snung fit within the rope, with the bolt ℄ within ⅛" of the rope ℄. Do not damage the rope more than 10% beyond the bolt hole cross section required. Position the rope correctly for swags prior to drilling bolt holes through the rope.

   Use consistent rope swag dimensions. The rope swag may be set at a dimension ranging from 4" to 6" below the post hole bottom, but all swags must conform to the selected dimension within a tolerance of ±½" relative to each other.

   Rope must be continuous over the length of the fence. At the beginning and end of fence, flame-melt strand tips of rope to bond together and prevent unraveling; do not burn post.

4. RETROREFLECTIVE SHEETING: Use as defined on Sheet 1. Mount two sheets, with each sheet centered horizontally on the ℄ of the End Post and centered vertically between the 2" Ø Holes as shown. Mount sheets using the ½" Ø Bolts as shown with a washer and nut. Place bolts on the ℄ of the End Post (2 bolts per sheet).

TYPE P3 - ROPE FENCE

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LAST REVISION	REVISION	DESCRIPTION:		INDEX NO.	SHEET NO.
10/10/14			DEVELOPMENTAL DESIGN STANDARDS	D804	4 of 4

PEDESTRIAN CHANNELIZATION BARRIER