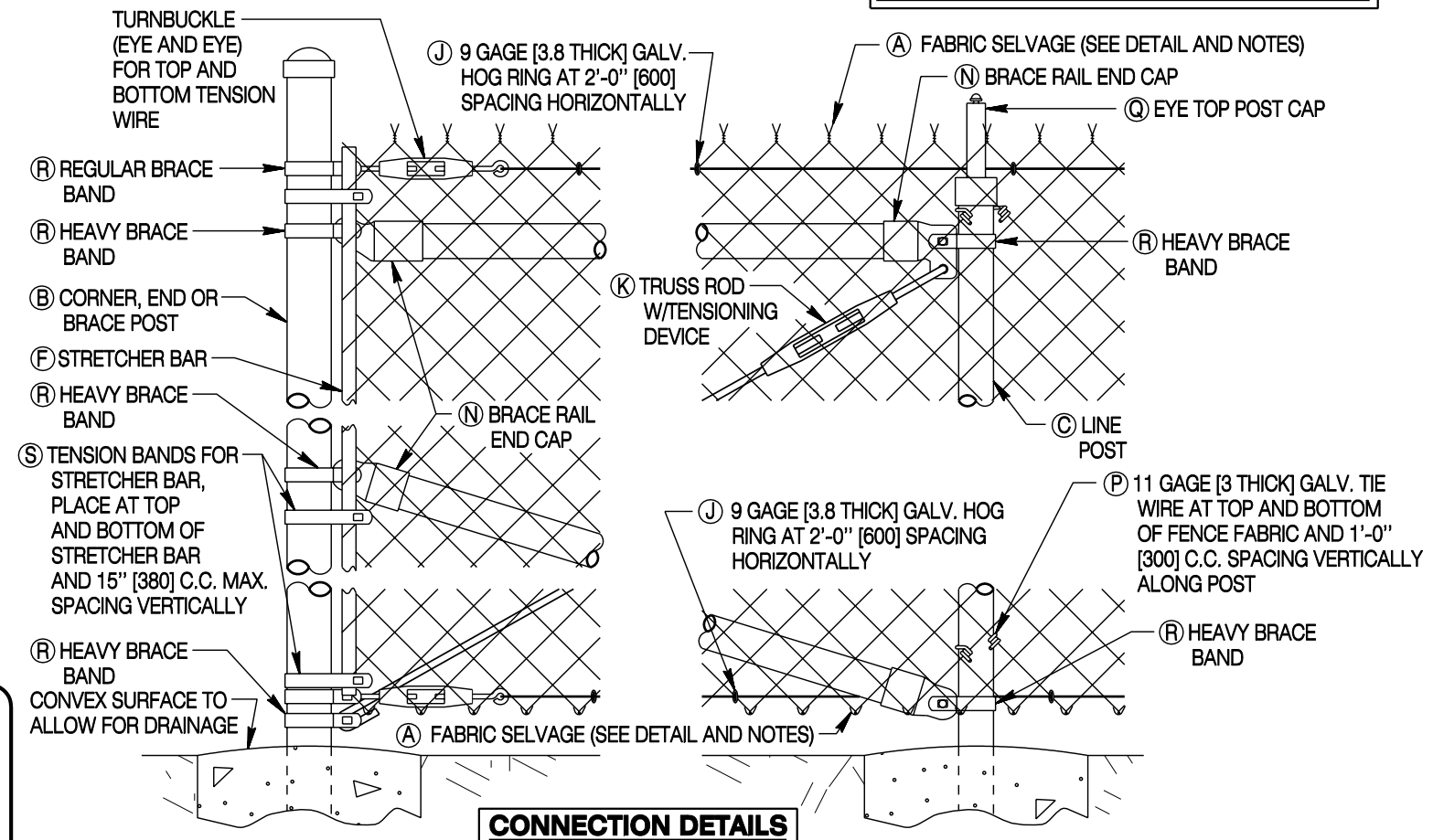


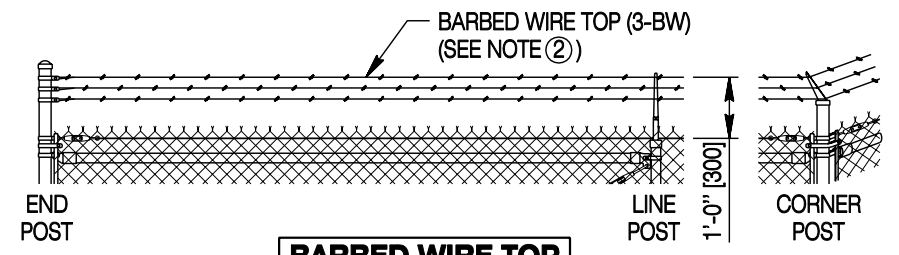
CONCRETE CYLINDER ANCHOR LENGTH

FENCE HEIGHT	LINE POST	END, CORNER, BRACE POST
UP TO 4' [1.2 m]	28" [710]	34" [860]
OVER 4' [1.2 m]	40" [1015]	40" [1015]

GENERAL CHAIN LINK FENCE LAYOUT



CONNECTION DETAILS



BARBED WIRE TOP

(USE ONLY WHEN SPECIFIED ON PLANS)

GENERAL NOTES FOR INDUSTRIAL FENCE

- Provide the top tension wire as shown. Where the contract requires the top tension wire to be replaced with a continuous top rail, provide a continuous top rail meeting the same requirements for cross-braces. Provide industry standard sleeves and end caps when connecting top rail elements. The department will only specify a top rail when there is virtually no chance for a vehicle to impact the fence longitudinally regardless of location inside or outside the clear zone.
- When specified, provide a barbed wire top. Slope the barbed wire 45° towards the side of the fence where potential fence climbing should be deterred. For Interstate Highways, slope the barbed wire toward the outside of the right-of-way. In Urban areas, it may need to be sloped toward the right-of-way to act as a deterrent to pedestrians entering private property.

Designed by: WBW
 Drawn by: GLD
 Checked by: WBW
 Previous Dep. No. 607-02C

GENERAL REQUIREMENTS

Note: Units shown in brackets [] are metric and are in millimeters (mm) unless other units are shown.



INDUSTRIAL FENCE

STANDARD PLAN

STANDARD PLAN NUMBER
607-2
 SHEET 1 of 2
 Issued by: ENGINEERING SERVICES
 Date Issued: NOVEMBER, 2004
 FILE: j:\StanDual_Std_Vwk6072_01.dgn

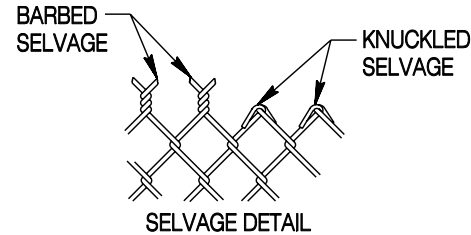
MATERIALS NOTES

Provide fence components meeting AASHTO M181 unless otherwise specified below. **PROVIDE:**

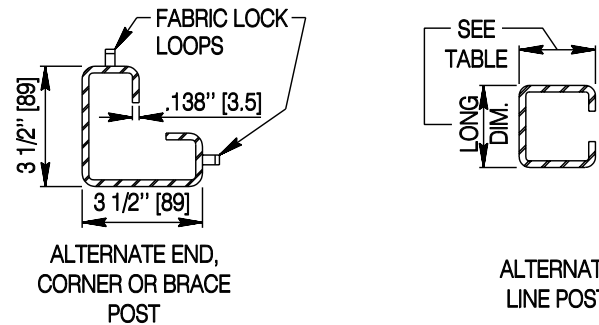
- (A) **FABRIC** - 2 in. [50] by 2 in. [50] mesh meeting the requirements of AASHTO M181 of gage and selvage shown below:

Fence Height under 5 ft. [1.5 m]: 11 Gage [3 thick] Fabric
 Fence Height 5 ft. [1.5 m] and over: 9 Gage [3.8 thick] Fabric

Fence Height under 6 ft. [1.8 m]: Top & Bottom knuckled selvage
 Fence Height 6 ft. [1.8 m] and over: Top - Barbed selvage, Bottom - Knuckled selvage



- (B) **END, CORNER, BRACE, LINE POSTS AND BRACE RAILS** - standard pipe meeting AASHTO M181, steel pipe meeting ASTM A569, or roll-formed C-sections shown herein and in accordance with the plans and specifications. Galvanize roll-form posts in accordance with ASTM 123. Where roll-formed sections are selected, provide all connection hardware to meet industry standard for rolled form sections and provide equal or greater strength than connection components required for round pipe. See table for dimensions.



- (F) **STRETCHER BARS** - (use for securing the fence fabric) 3/16 in x 3/4 in [4.7 x 20] galvanized steel.

- (G) **TENSION WIRE** - 7 gage [4.5 thick] galvanized coil spring wire meeting AASHTO M181. Provide an eye to eye turnbuckle for each run of tension wire as a tightening device. Secure tension wire to end posts and middle brace posts with tension bands.

- (K) **TRUSS RODS** - 3/8 in [10] diameter galvanized steel rod with an industrial truss tightener or turnbuckle tensioning device.

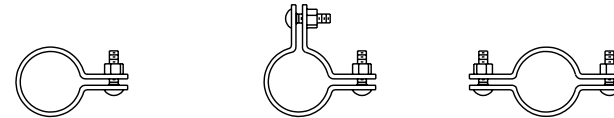


- (M) **CONCRETE CYLINDER ANCHORS** - (for posts) Class B concrete or better.

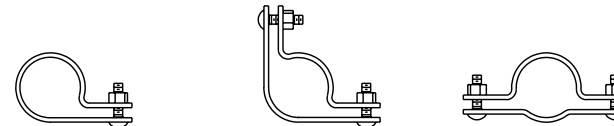
- (N) **BRACE RAIL END CONNECTION CAPS** - (use for brace rails) fit tightly on the brace rail and made from pressed steel only.

- (Q) **POST CAPS** - for all pipe posts and certain roll-formed C-posts. Provide eye-top caps for all posts carrying a tension wire top or top rail (only when permitted in the plans) through the post. Provide rounded tops for all other round posts. Where a barbed wire top is specified, provide a 45 degree 3-wire barbed base with eye hole at base for all post styles except at end posts (see barbed wire top detail, sheet 1). Post caps to fit tightly on posts to prevent removal.

- (R) **BRACE BANDS** - (use for brace rails and truss rods) heavy duty 1/8 in x 1 in [3 x 25] pressed steel with a 3/8 in x 1 1/4 in [10 x 30] carriage bolt. Provide brace bands for tension wire - standard 12 gage x 3/4 in [2.8 thick x 20] pressed steel with a 5/16 in x 1 1/4 in [8 x 30] carriage bolt.



- (S) **TENSION BANDS** - (use to secure the fabric stretcher bar) 14 gage x 3/4 in [2 thick x 20] pressed steel with a 5/16 in x 1 1/4 in [8 x 30] carriage bolt.



ALTERNATIVE HIGH STRENGTH PIPE DIMENSIONS (50,000 PSI [345 mPa] - ASTM A569)

NOMINAL PIPE SIZE		OUTSIDE DIA.		WALL THICKNESS		MIN. WEIGHT	
IN	mm	IN	mm	IN	mm	LBS PER FT	kg/m
1 1/4	30	1.660	42	0.111	2.8	1.836	2.73
1 1/2	40	1.900	48	0.120	3.1	2.281	3.39
2	50	2.375	60	0.130	3.3	3.117	4.64
2 1/2	65	2.875	73	0.160	4.1	4.640	6.91

STANDARD PIPE DIMENSIONS, WEIGHTS AND MINIMUM TOLERANCES (ASTM A53)

NOMINAL PIPE SIZE		OUTSIDE DIA.				ACTUAL INSIDE DIA.		WALL THICKNESS				WEIGHT			
		NOM.		MIN.				NOM.		MIN.		NOM.		MIN.	
IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	LBS PER FT	kg/m	LBS PER FT	kg/m
1 1/4	30	1.660	42	1.629	41	1.380	35	0.140	3.6	0.122	3.1	2.27	3.38	2.16	3.21
1 1/2	40	1.900	48	1.869	47	1.610	41	0.145	3.7	0.127	3.2	2.72	4.05	2.58	3.84
2	50	2.375	60	2.351	60	2.067	53	0.154	3.9	0.135	3.4	3.65	5.43	3.47	5.16
2 1/2	65	2.875	73	2.846	72	2.469	63	0.203	5.2	0.178	4.5	5.79	8.62	5.50	8.18

POST AND BRACE RAIL DIAMETERS

HEIGHT OF FENCE FABRIC	(B) END, CORNER OR BRACE POST		(C) LINE POST				(D) BRACE RAIL	
	NOMINAL DIA.	ALTERNATE C-SECTION	NOMINAL DIA.	ALTERNATE C-SECTION		NOMINAL DIA.	ALTERNATE C-SECTION	
				MIN.	MAX.			
TO 6' [1.8 m]	2" [50]	3.50" x 3.50" x 0.138" [89 x 89 x 3.5]	1 1/2" [40]	1.875" x 1.625" x .121" [48 x 41 x 3.1] 2.28 LBS./FT. [3.40 kg/m]		1 1/2" [40]	1.250" x 1.625" x .111" [32 x 41 x 2.8] 2.08 LBS./FT. [3.10 kg/m]	
OVER 6' [1.8 m] TO 12' [3.6] (INCL.)	2 1/2" [65]	5.10 LBS./FT. [7.60 kg/m]	2" [50]	2.25" x 1.70" x .121" [57 x 43 x 3.1] 2.64 LBS./FT. [3.93 kg/m]				

Designed by: VBW
 Drawn by: GLD
 Checked by: VBW
 Previous Dwg. No. 607-02C

INDUSTRIAL FENCE COMPONENTS

Note: Units shown in brackets [] are metric and are in millimeters (mm) unless other units are shown.



INDUSTRIAL FENCE

STANDARD PLAN

STANDARD PLAN NUMBER
607-2
 SHEET 2 of 2

Issued by: ENGINEERING SERVICES
 Date Issued: NOVEMBER, 2004
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