

TABLE FOR CONCRETE BLOCKING (250 PSI TEST PRESSURE)

MINIMUM DIMENSIONS OF BLOCKING

FITTING	SIZE	DEPTH (FT.)	LENGTH (FT.)	"C" (IN.)	WIDTH (FT.)	VOLUME (C.Y.)	THRUST (LB.)
11 1/4" BEND	6"	1.0	2.0	6	1.0	0.04	1,385
11 1/4" BEND	8"	1.0	2.0	7	1.0	0.05	2,485
11 1/4" BEND	10"	1.0	2.0	9	1.0	0.07	3,850
11 1/4" BEND	12"	1.0	2.5	11	1.5	0.12	5,650
11 1/4" BEND	16"	2.0	2.5	12	2.1	0.26	9,860
11 1/4" BEND	20"	2.0	3.5	15	2.5	0.48	15,408
11 1/4" BEND	24"	2.0	4.0	18	3.0	0.70	22,185
22 1/2" BEND	6"	1.0	2.0	6	1.0	0.04	2,760
22 1/2" BEND	8"	1.0	2.0	7	1.5	0.05	4,905
22 1/2" BEND	10"	1.0	2.0	9	2.0	0.10	7,665
22 1/2" BEND	12"	1.0	3.0	11	2.0	0.16	11,040
22 1/2" BEND	16"	2.0	3.5	12	3.0	0.45	19,525
22 1/2" BEND	20"	2.0	4.0	15	4.0	0.74	30,665
22 1/2" BEND	24"	3.0	5.0	18	4.5	1.47	44,160
45° BEND	6"	1.0	2.0	6	1.5	0.06	5,415
45° BEND	8"	1.0	2.5	7	2.0	0.10	9,625
45° BEND	10"	2.0	3.5	9	2.5	0.31	15,040
45° BEND	12"	2.0	3.5	11	3.0	0.41	21,855
45° BEND	16"	3.0	5.0	12	4.0	1.45	38,495
45° BEND	20"	4.0	6.0	15	5.0	2.05	60,145
45° BEND	24"	4.0	7.5	18	6.5	3.35	91,610
90° BEND	6"	1.0	2.5	12	2.0	0.13	10,005
90° BEND	8"	2.0	3.0	14	3.0	0.38	17,785
90° BEND	10"	2.5	4.5	18	3.0	0.74	27,785
90° BEND	12"	3.0	5.0	20	4.0	1.24	40,000
90° BEND	16"	4.0	6.5	26	5.5	2.91	71,125
90° BEND	20"	4.0	8.0	32	7.0	4.69	111,135
90° BEND	24"	5.0	10.0	40	8.0	8.50	160,035

- NOTES:**
1. SOIL BEARING STRENGTH OF 2000 PSF IS ASSUMED IN THE CALCULATIONS ABOVE.
 2. COVER GLANDS AND BOLTS WITH POLYETHYLENE BEFORE PLACING CONCRETE.
 3. ALLOW CONCRETE TO SET UP A MINIMUM OF 6 HOURS BEFORE PLACING BACKFILL.
 4. CONCRETE SHALL BE 3000 PSI, CLASS A.
 5. ALL IRON FITTINGS SHALL BE BLOCKED AND SUPPORTED AS SHOWN ABOVE.

CONCRETE BLOCKING-VERTICAL BENDS-DOWNWARD THRUST

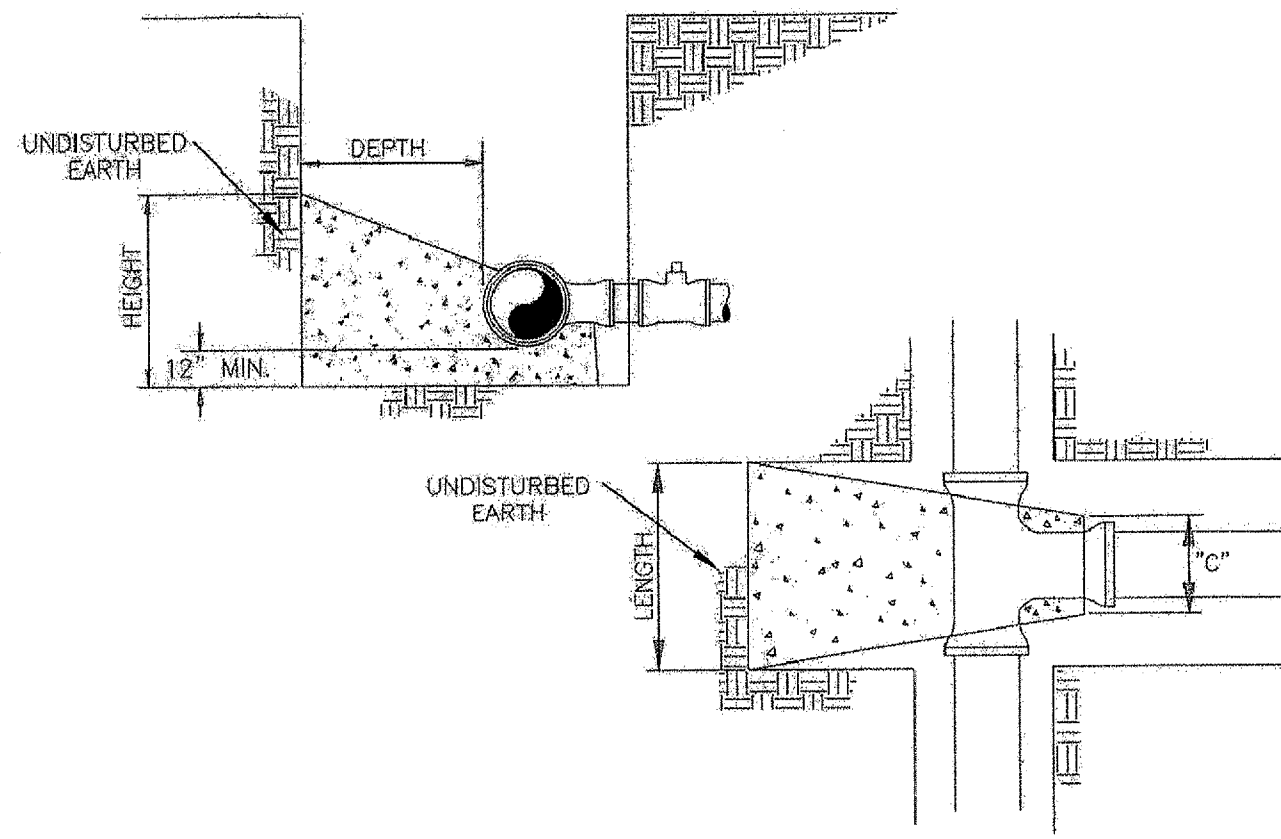


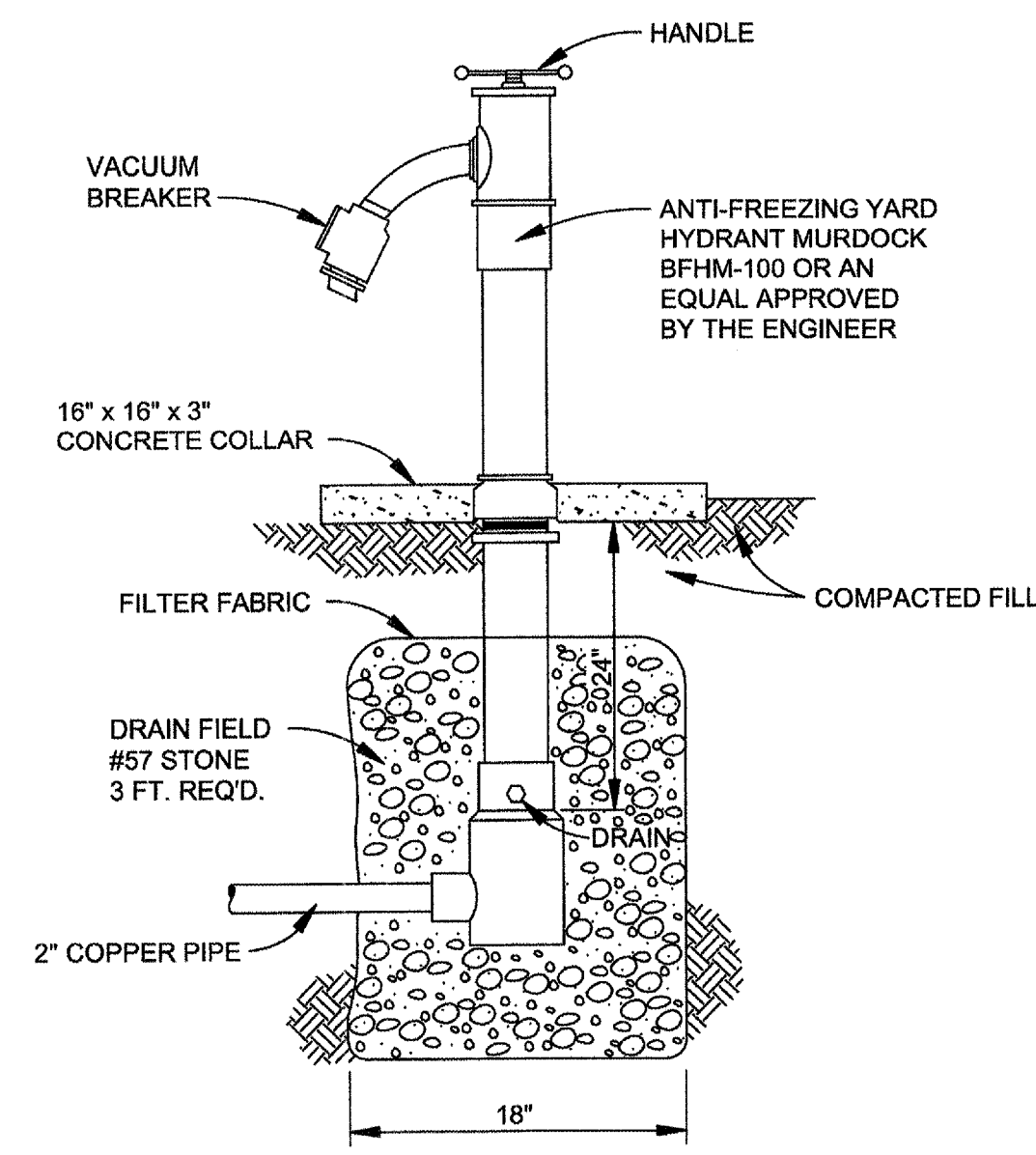
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SIZE	DEPTH (FT.)	LENGTH (FT.)	"C" (IN.)	HEIGHT (FT.)	VOLUME (C.Y.)	THRUST (LB.)
6"	1.0	2.5	12	1.5	0.10	7,070
8"	1.7	3.25	14	2.0	0.27	12,958
10"	2.0	4.0	18	2.5	0.50	19,635
12"	2.5	4.5	20	3.25	0.91	28,275
16"	3.0	5.0	26	5.0	1.77	50,265
20"	4.0	7.0	32	5.75	3.69	78,540
24"	6.0	9.0	40	6.5	7.94	113,100

- NOTES:**
1. SOIL BEARING STRENGTH OF 2000 PSF IS ASSUMED IN THE CALCULATIONS ABOVE.
 2. COVER GLANDS AND BOLTS WITH POLYETHYLENE BEFORE PLACING CONCRETE.
 3. ALLOW CONCRETE TO SET UP A MINIMUM OF 6 HOURS BEFORE PLACING BACKFILL.
 4. CONCRETE SHALL BE 3000 PSI, CLASS A.
 5. ALL IRON FITTINGS SHALL BE BLOCKED AND SUPPORTED AS SHOWN ABOVE.

CONCRETE BLOCKING FOR TEES AND PLUGS



NON-FREEZE YARD HYDRANT
NTS

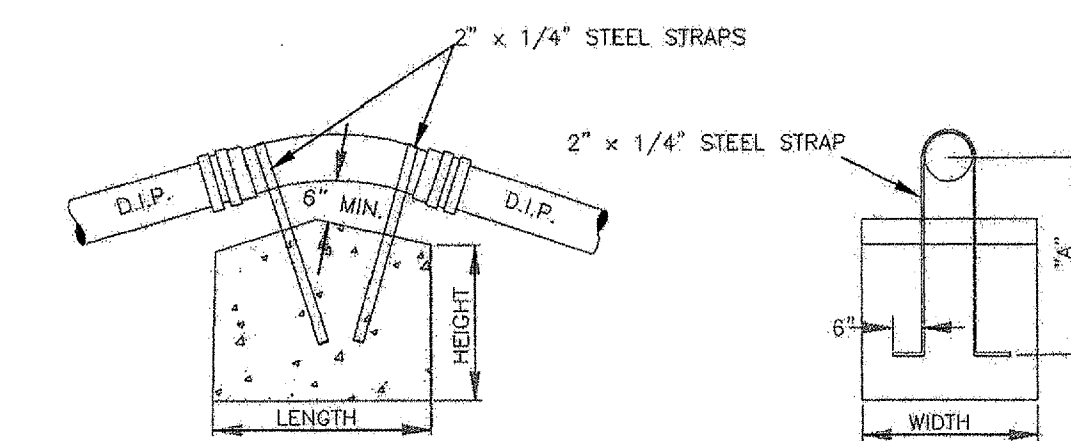


TABLE FOR CONCRETE BLOCKING (250 PSI TEST PRESSURE)

MINIMUM DIMENSIONS OF BLOCKING

FITTING	SIZE	HEIGHT (FT.)	LENGTH (FT.)	WIDTH (FT.)	VOLUME (C.Y.)	"A" (IN.)	LENGTH OF STRAP (IN.)
11 1/4" BEND	6"	2.0	2.0	2.5	0.37	24	69.5
11 1/4" BEND	8"	3.0	2.2	2.5	0.61	24	72.5
11 1/4" BEND	10"	3.0	3.0	3.0	1.00	26	80.0
11 1/4" BEND	12"	3.0	4.0	3.0	1.33	30	91.0
11 1/4" BEND	16"	3.0	5.0	4.5	2.30	30	97.0
11 1/4" BEND	20"	3.3	6.0	5.0	3.67	36	115.0
11 1/4" BEND	24"	4.0	6.5	5.5	5.30	36	122.0
22 1/2" BEND	6"	2.5	3.0	2.5	0.59	24	69.5
22 1/2" BEND	8"	3.1	3.5	3.0	1.21	24	72.5
22 1/2" BEND	10"	3.2	4.0	4.0	1.90	26	80.0
22 1/2" BEND	12"	3.5	5.0	4.5	2.92	30	91.0
22 1/2" BEND	16"	4.7	5.5	5.0	4.79	36	109.0
22 1/2" BEND	20"	6.0	6.0	5.7	7.60	45	133.0
22 1/2" BEND	24"	8.0	6.7	6.5	10.98	60	170.0

- NOTES:**
1. COVER GLANDS AND BOLTS WITH POLYETHYLENE BEFORE PLACING CONCRETE.
 2. ALLOW CONCRETE TO SET UP A MINIMUM OF 6 HOURS BEFORE PLACING BACKFILL.
 3. CONCRETE SHALL BE 3000 PSI, CLASS A.
 4. ALL IRON FITTINGS SHALL BE BLOCKED AND SUPPORTED AS SHOWN ABOVE.

CONCRETE BLOCKING-VERTICAL BENDS-UPWARD THRUST

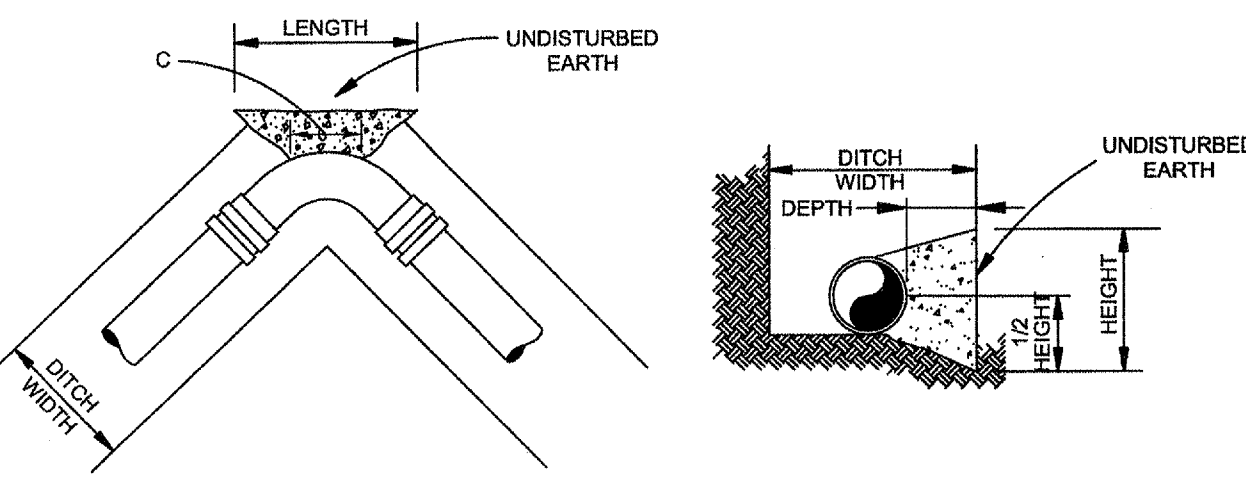


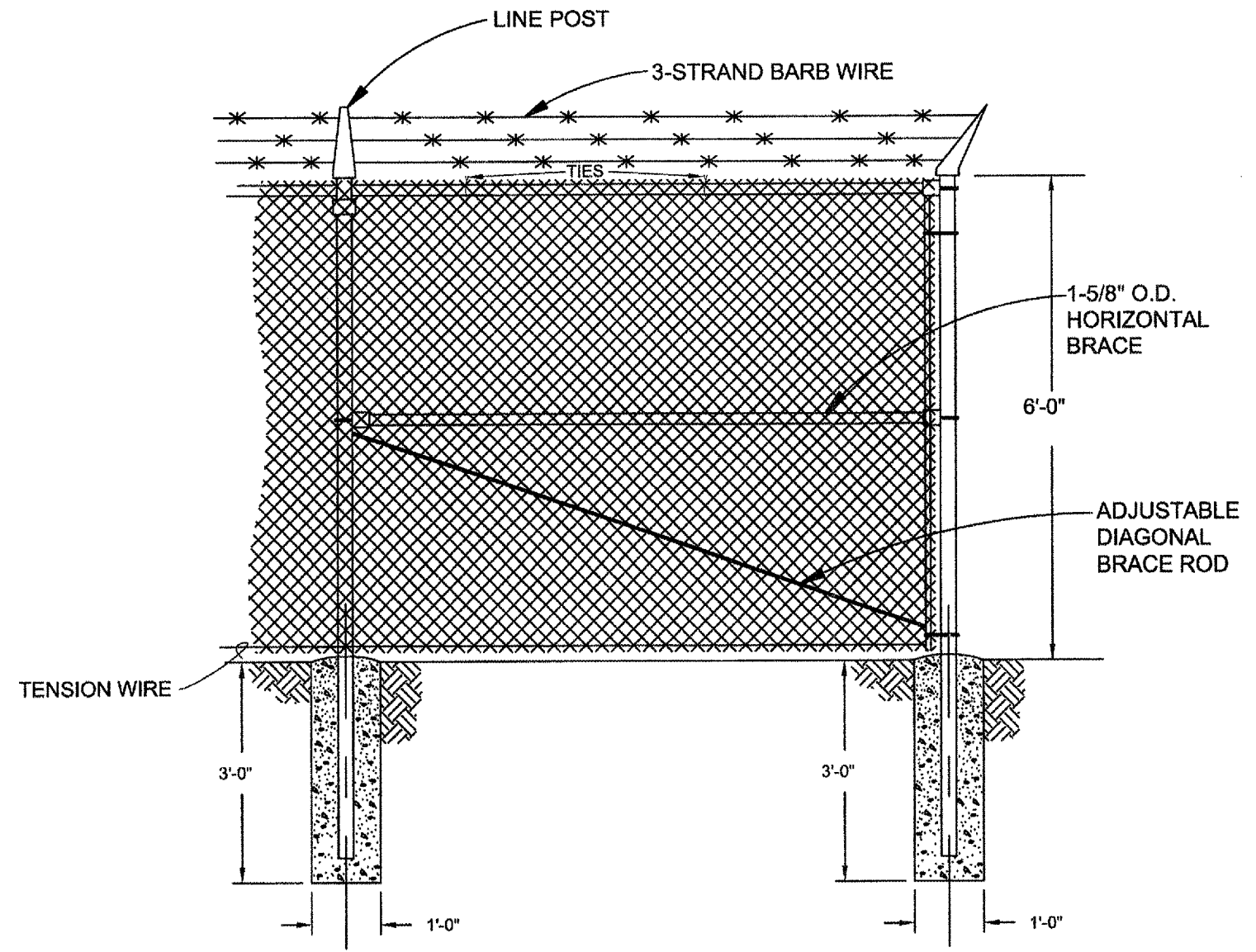
TABLE FOR CONCRETE BLOCKING (250 PSI TEST PRESSURE)

MINIMUM DIMENSIONS OF BLOCKING

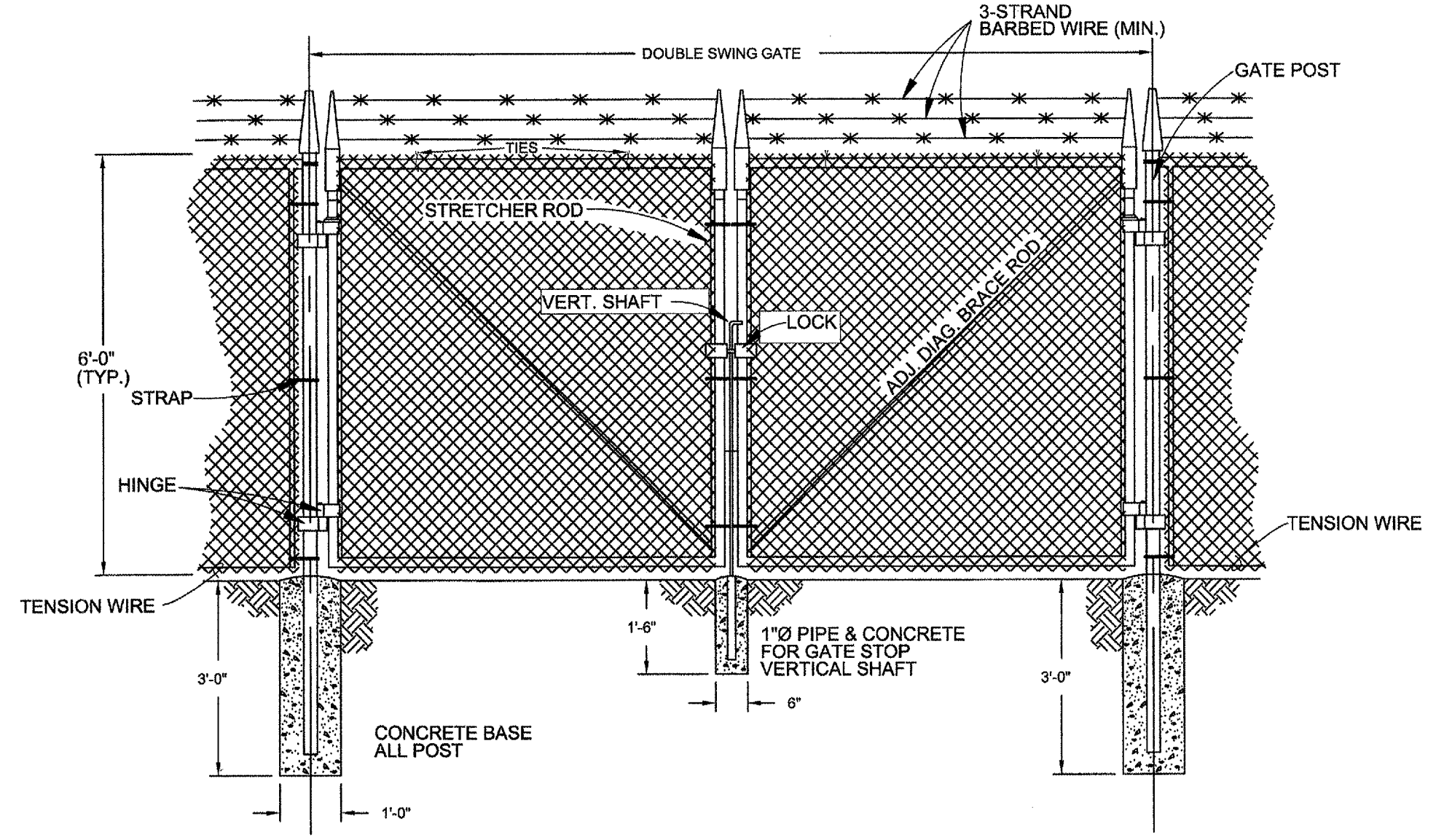
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 2. COVER GLANDS AND BOLTS WITH POLYETHYLENE BEFORE PLACING CONCRETE.
 3. ALLOW CONCRETE TO SET UP A MINIMUM OF 6 HOURS BEFORE PLACING BACKFILL.
 4. CONCRETE SHALL BE 3000 PSI, CLASS A.
 5. ALL IRON FITTINGS SHALL BE BLOCKED AND SUPPORTED AS SHOWN ABOVE.
 6. VERTICAL BENDS WITH AN UPWARD THRUST SHALL BE RESTRAINED AS SHOWN IN STANDARD W712.
 7. VERTICAL BENDS WITH A DOWNWARD THRUST SHALL BE RESTRAINED AS SHOWN IN STANDARD W713.

CONCRETE BLOCKING FOR BENDS



CHAIN LINK FENCE DETAIL
NTS



FENCE AND GATE DETAIL
NTS



ATKINS

192 Anderson Street, Suite 150
Marietta, Ga 30060
P: 770-422-1902 F: 770-426-5316

DATE	REVISION

PROJ. NO.: 100034005
DESIGNED BY: W.F.L.
DRAWN BY: M.R.T.
CHECKED BY: W.F.L.
APPROVED BY: W.F.L.
DATE: AUGUST, 2013
SCALE: NTS

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY
HOLLY SPRINGS
DOWNTOWN SANITARY SEWER SYSTEM
SEWER DETAILS

SHEET NO.
D-06