



VOLUME OF CONCRETE ANCHOR IN CUBIC YARDS			
FITTING SIZE	45° BEND	22-1/2° BEND	11-1/4° BEND
4"	1.00	0.50	0.25
6"	2.25	1.00	0.50
8"	3.75	2.00	1.00
12"	7.75	4.00	2.00
16"	5.50	3.00	1.50

- NOTES:
1. DIMENSIONS ARE BASED ON 200 PSI STATIC PRESSURE PLUS AWWA WATER HAMMER (FS=1.5).
  2. ALL CONCRETE SHALL BE 3,000 PSI @ 28 DAYS, READY-MIX ASTM C-94.
  3. KEEP CONCRETE CLEAR OF JOINT & JOINT ACCESSORIES.
  4. USE DUCTILE IRON PIPE 5 FEET (MIN.) ON EACH SIDE OF FITTING.

**CITY OF  
EMERSON**

WATER & SEWER DEPARTMENT

**VERTICAL THRUST  
BLOCKING**

CONSTRUCTION STANDARD

DATE: 8/15/2008

REVISION DATE

REVISION DATE

REVISION DATE

REVISION DATE

STANDARD  
DETAIL  
NO.

5.05