

REVISIONS	
DATE	DESCRIPTION

**TOWN OF KNIGHTDALE  
STANDARD DETAILS**

**NOTE:**

1. ALL DIMENSIONS FOR WING WALLS NOT LISTED ABOVE SHALL BE AS SHOWN FOR SINGLE PIPE HEADWALLS.
2. THE MINIMUM DISTANCE BETWEEN PIPES IN A DOUBLE PIPE HEADWALL IS 2'-0".

**DIMENSIONS FOR HEADWALL WITH WINGWALLS**

DIMENSIONS FOR SINGLE PIPE HEADWALLS						CUBIC YARDS OF CONC.
PIPE SIZE	BACK FACE		SLAB REINFORCEMENT	FRONT FACE		
	HORIZONTAL	VERTICAL		HORIZONTAL	AND VERTICAL	
15"	No.3 @ 12" O.C.	No.3 @ 12" O.C.	6-6 X10-10 WW	No.4 @ 18" O.C.		1.61
18"	"	"	"	"	"	1.96
24"	"	"	"	"	"	2.67
30"	"	"	"	"	"	3.49
36"	"	"	"	"	"	4.21
42"	"	"	"	"	"	1.9
48"	"	"	"	"	"	6.33
54"	"	No.4 @ 12" O.C.	"	"	"	7.23
60"	"	"	"	"	"	11.25
66"	No.4 @ 12" O.C.	"	6-6 X 6-6 WW	"	"	14.67
72"	"	"	"	"	"	15.75
78"	"	"	"	No.4 @ 12" O.C.	"	18.04
84"	"	No.5 @ 12" O.C.	"	"	"	19.32
90"	"	"	"	"	"	21.92
96"	No.5 @ 12" O.C.	No.6 @ 12" O.C.	"	"	"	26.38
102"	"	"	"	"	"	32.26
108"	"	"	"	"	"	34.21
114"	"	No.8 @ 12" O.C.	"	"	"	40.78
120"	"	"	"	"	"	44.97

DIMENSIONS FOR DOUBLE PIPE HEADWALLS					CUBIC YARDS OF CONC.
H	I	J	K		
8'-6"	13'-0"	7'-3"	8'-9"	2.24	
9'-4"	14'-4"	7'-10"	9'-5"	2.7	
10'-10"	16'-10"	9'-0"	10'-7"	3.64	
12'-4"	19'-4"	9'-2"	11'-9"	4.72	
13'-1"	20'-9"	11'-4"	12'-11"	5.75	
14'-7"	23'-3"	12'-6"	14'-1"	7.05	
16'-2"	25'-9"	13'-8"	15'-3"	8.52	
17'-6"	27'-2"	14'-10"	16'-5"	9.74	
18'-10"	30'-5"	16'-0"	18'-4"	14.74	
20'-4"	32'-11"	17'-2"	19'-6"	19.44	
21'-7"	34'-3"	18'-4"	20'-8"	20.96	
23'-1"	36'-9"	19'-6"	21'-10"	23.89	
24'-3"	38'-1"	20'-8"	23'-0"	25.59	
25'-9"	40'-8"	21'-10"	24'-2"	28.95	
27'-4"	42'-0"	23'-0"	25'-4"	35.30	
29'-0"	44'-11"	24'-2"	26'-11"	42.53	
30'-2"	46'-4"	25'-4"	28'-1"	45.15	
31'-8"	49'-1"	26'-6"	29'-6"	53.26	
33'-3"	51'-8"	27'-8"	30'-9"	58.59	