

REVISIONS	
DATE	DESCRIPTION

TOWN OF KNIGHTDALE
STANDARD DETAILS

DIMENSIONS FOR SINGLE PIPE HEADWALLS

PIPE SIZE	SHELL THICKNESS	WALL THICKNESS	SLAB THICKNESS	A	B	C	D	E	F	G	H	I	J	K
15"	2 1/2"	8"	6"	4'-10"	9'-4"	3'-7"	4'-2"	1'-0"	1'-6"	3'-8"	8"	5'-8"	2'-7"	1'-0"
18"	2 1/2"	8"	6"	5'-5"	10'-5"	3'-11"	4'-11"	1'-0"	1'-6"	4'-5"	6'	6'-3"	2'-11"	1'-0"
24"	3"	8"	6"	6'-4"	12'-4"	4'-6"	6'-3"	1'-0"	1'-6"	5'-9"	6'	7'-5"	3'-6"	1'-0"
30"	3 1/2"	8"	6"	7'-3"	14'-3"	5'-1"	7'-7"	1'-0"	1'-6"	7'-1"	6'	8'-7"	4'-1"	1'-0"
36"	4"	8"	6"	7'-5"	15'-1"	5'-8"	7'-10"	1'-6"	2'-0"	7'-4"	6'	9'-4"	4'-8"	1'-6"
42"	4 1/2"	8"	6"	8'-4"	17'-0"	6'-3"	9'-2"	1'-6"	2'-0"	8'-9"	6'	10'-6"	5'-3"	1'-6"
48"	5"	8"	6"	9'-4"	18'-11"	6'-10"	10'-6"	1'-6"	2'-0"	10'-0"	6'	11'-7"	5'-10"	1'-6"
54"	5 1/2"	8"	6"	10'-1"	19'-9"	7'-5"	10'-9"	1'-6"	2'-0"	10'-3"	8"	11'-10"	6'-5"	2'-0"
60"	6"	12"	6"	10'-10"	22'-5"	8'-0"	12'-1"	2'-0"	2'-6"	11'-7"	8"	14'-0"	7'-0"	2'-0"
66"	6 1/2"	12"	8"	11'-9"	24'-4"	8'-7"	13'-5"	2'-0"	2'-6"	12'-11"	8"	15'-2"	7'-7"	2'-0"
72"	7"	12"	8"	12'-5"	25'-1"	9'-2"	13'-7"	2'-0"	2'-6"	13'-1"	8"	15'-3"	8'-2"	2'-6"
78"	7 1/2"	12"	8"	13'-4"	27'-0"	9'-9"	14'-11"	2'-0"	2'-6"	14'-5"	8"	16'-5"	8'-9"	2'-6"
84"	8"	12"	8"	13'-11"	27'-9"	10'-4"	15'-1"	2'-0"	2'-6"	14'-7"	8"	16'-7"	9'-4"	3'-0"
90"	8 1/2"	12"	8"	14'-10"	29'-9"	10'-11"	16'-6"	2'-0"	2'-6"	16'-0"	8"	17'-10"	9'-11"	3'-0"
96"	9"	12"	10"	15'-10"	30'-6"	11'-6"	16'-8"	2'-0"	2'-6"	16'-2"	12"	17'-11"	10'-6"	3'-6"
102"	9 1/2"	12"	10"	16'-11"	32'-10"	12'-1"	18'-0"	2'-0"	2'-6"	17'-6"	12"	19'-4"	11'-1"	3'-6"
108"	10"	12"	10"	17'-6"	33'-8"	12'-8"	18'-3"	2'-0"	2'-6"	17'-9"	12"	19'-7"	11'-8"	4'-0"
114"	10 1/2"	12"	10"	18'-5"	35'-10"	13'-3"	19'-7"	2'-0"	2'-6"	19'-1"	12"	21'-0"	12'-3"	4'-0"
120"	11"	12"	10"	19'-5"	37'-10"	13'-10"	20'-11"	2'-0"	2'-6"	20'-0"	12"	22'-2"	12'-10"	4'-0"

DIMENSIONS FOR HEADWALL WITH WINGWALLS

REVISIONS	
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**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			
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