

STATE HIGHWAY CROSSINGS

TYPICAL HIGHWAY CROSSING FOR WATER LINES OVER 12 in. (30.5 cm)

PLAN VIEW SECTION A-A

TUNNEL APPROACHES

ENCASUREMENT PIPE SPECIFICATIONS LIST TABLE

GENERAL NOTES

TYPICAL HIGHWAY CROSSING FOR ALL SEWER LINES & FOR WATER LINES 12 in. (30.5 cm) & UNDER

GENERAL NOTES

CONSTRUCTION DETAILS

SECTION SHOWING HOLD-DOWN JACKS IN CONCRETE ADJACENT TO OR 5' FROM CURB

SECTION SHOWING HOLD-DOWN JACKS IN ENCASEMENT PIPE

HOLD-DOWN JACKS

TABLE 1

ENC. PIPE	2" FLANGE LINE	4" FLANGE LINE	CONCRETE METAL	COUPLING	R.C. CULVERT PIPE FOR OPEN CUT
ID	OD	OD	OD	OD	OD
12" (305)	12" (305)	12" (305)	12" (305)	12" (305)	12" (305)
15" (381)	15" (381)	15" (381)	15" (381)	15" (381)	15" (381)
18" (457)	18" (457)	18" (457)	18" (457)	18" (457)	18" (457)
21" (533)	21" (533)	21" (533)	21" (533)	21" (533)	21" (533)
24" (610)	24" (610)	24" (610)	24" (610)	24" (610)	24" (610)
27" (688)	27" (688)	27" (688)	27" (688)	27" (688)	27" (688)
30" (762)	30" (762)	30" (762)	30" (762)	30" (762)	30" (762)
36" (914)	36" (914)	36" (914)	36" (914)	36" (914)	36" (914)
42" (1067)	42" (1067)	42" (1067)	42" (1067)	42" (1067)	42" (1067)
48" (1219)	48" (1219)	48" (1219)	48" (1219)	48" (1219)	48" (1219)
54" (1372)	54" (1372)	54" (1372)	54" (1372)	54" (1372)	54" (1372)
60" (1524)	60" (1524)	60" (1524)	60" (1524)	60" (1524)	60" (1524)
66" (1677)	66" (1677)	66" (1677)	66" (1677)	66" (1677)	66" (1677)
72" (1829)	72" (1829)	72" (1829)	72" (1829)	72" (1829)	72" (1829)
78" (1982)	78" (1982)	78" (1982)	78" (1982)	78" (1982)	78" (1982)
84" (2134)	84" (2134)	84" (2134)	84" (2134)	84" (2134)	84" (2134)
90" (2287)	90" (2287)	90" (2287)	90" (2287)	90" (2287)	90" (2287)
96" (2439)	96" (2439)	96" (2439)	96" (2439)	96" (2439)	96" (2439)
102" (2592)	102" (2592)	102" (2592)	102" (2592)	102" (2592)	102" (2592)
108" (2744)	108" (2744)	108" (2744)	108" (2744)	108" (2744)	108" (2744)
114" (2897)	114" (2897)	114" (2897)	114" (2897)	114" (2897)	114" (2897)
120" (3049)	120" (3049)	120" (3049)	120" (3049)	120" (3049)	120" (3049)

APPURTENANCE SHEET
WATER & SEWER CROSSINGS
OF STATE HIGHWAYS
DALLAS WATER UTILITIES DEPT.
CITY OF DALLAS, TEXAS

DATE: 1/15/80
SCALE: 1/4" = 1'-0"

HORIZONTAL BENDS

ID	G	EARTH		ROCK		ID	G	EARTH		ROCK		ID	G	EARTH		ROCK	
		Thrust	Volume	Thrust	Volume			Thrust	Volume	Thrust	Volume			Thrust	Volume		
12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"
15"	15"	15"	15"	15"	15"	15"	15"	15"	15"	15"	15"	15"	15"	15"	15"	15"	15"
18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"
21"	21"	21"	21"	21"	21"	21"	21"	21"	21"	21"	21"	21"	21"	21"	21"	21"	21"
24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"
27"	27"	27"	27"	27"	27"	27"	27"	27"	27"	27"	27"	27"	27"	27"	27"	27"	27"
30"	30"	30"	30"	30"	30"	30"	30"	30"	30"	30"	30"	30"	30"	30"	30"	30"	30"
36"	36"	36"	36"	36"	36"	36"	36"	36"	36"	36"	36"	36"	36"	36"	36"	36"	36"
42"	42"	42"	42"	42"	42"	42"	42"	42"	42"	42"	42"	42"	42"	42"	42"	42"	42"
48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"
54"	54"	54"	54"	54"	54"	54"	54"	54"	54"	54"	54"	54"	54"	54"	54"	54"	54"
60"	60"	60"	60"	60"	60"	60"	60"	60"	60"	60"	60"	60"	60"	60"	60"	60"	60"
66"	66"	66"	66"	66"	66"	66"	66"	66"	66"	66"	66"	66"	66"	66"	66"	66"	66"
72"	72"	72"	72"	72"	72"	72"	72"	72"	72"	72"	72"	72"	72"	72"	72"	72"	72"
78"	78"	78"	78"	78"	78"	78"	78"	78"	78"	78"	78"	78"	78"	78"	78"	78"	78"
84"	84"	84"	84"	84"	84"	84"	84"	84"	84"	84"	84"	84"	84"	84"	84"	84"	84"
90"	90"	90"	90"	90"	90"	90"	90"	90"	90"	90"	90"	90"	90"	90"	90"	90"	90"
96"	96"	96"	96"	96"	96"	96"	96"	96"	96"	96"	96"	96"	96"	96"	96"	96"	96"
102"	102"	102"	102"	102"	102"	102"	102"	102"	102"	102"	102"	102"	102"	102"	102"	102"	102"
108"	108"	108"	108"	108"	108"	108"	108"	108"	108"	108"	108"	108"	108"	108"	108"	108"	108"
114"	114"	114"	114"	114"	114"	114"	114"	114"	114"	114"	114"	114"	114"	114"	114"	114"	114"
120"	120"	120"	120"	120"	120"	120"	120"	120"	120"	120"	120"	120"	120"	120"	120"	120"	120"

TEES & PLUGS

TYPICAL HORIZONTAL THRUST BLOCK

PLAN SECTION A-A

TABLE 1

ID	G	EARTH		ROCK		ID	G	EARTH		ROCK	
		Thrust	Volume	Thrust	Volume			Thrust	Volume	Thrust	Volume
12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"
15"	15"	15"	15"	15"	15"	15"	15"	15"	15"	15"	15"
18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"
21"	21"	21"	21"	21"	21"	21"	21"	21"	21"	21"	21"
24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"
27"	27"	27"	27"	27"	27"	27"	27"	27"	27"	27"	27"
30"	30"	30"	30"	30"	30"	30"	30"	30"	30"	30"	30"
36"	36"	36"	36"	36"	36"	36"	36"	36"	36"	36"	36"
42"	42"	42"	42"	42"	42"	42"	42"	42"	42"	42"	42"
48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"
54"	54"	54"	54"	54"	54"	54"	54"	54"	54"	54"	54"
60"	60"	60"	60"	60"	60"	60"	60"	60"	60"	60"	60"
66"	66"	66"	66"	66"	66"	66"	66"	66"	66"	66"	66"
72"	72"	72"	72"	72"	72"	72"	72"	72"	72"	72"	72"
78"	78"	78"	78"	78"	78"	78"	78"	78"	78"	78"	78"
84"	84"	84"	84"	84"	84"	84"	84"	84"	84"	84"	84"
90"	90"	90"	90"	90"	90"	90"	90"	90"	90"	90"	90"
96"	96"	96"	96"	96"	96"	96"	96"	96"	96"	96"	96"
102"	102"	102"	102"	102"	102"	102"	102"	102"	102"	102"	102"
108"	108"	108"	108"	108"	108"	108"	108"	108"	108"	108"	108"
114"	114"	114"	114"	114"	114"	114"	114"	114"	114"	114"	114"
120"	120"	120"	120"	120"	120"	120"	120"	120"	120"	120"	120"

APPURTENANCE SHEET
TEES & PLUGS
FOR PIPE BENDS
DALLAS WATER UTILITIES DEPT.
CITY OF DALLAS, TEXAS

DATE: 1/15/80
SCALE: 1/4" = 1'-0"

VERTICAL BENDS

TYPICAL VERTICAL BEND THRUST BLOCK

ELEVATION A-A SECTION B-B

TABLE 1

ID	G	EARTH		ROCK		ID	G	EARTH		ROCK	
		Thrust	Volume	Thrust	Volume			Thrust	Volume	Thrust	Volume
12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"
15"	15"	15"	15"	15"	15"	15"	15"	15"	15"	15"	15"
18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"
21"	21"	21"	21"	21"	21"	21"	21"	21"	21"	21"	21"
24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"
27"	27"	27"	27"	27"	27"	27"	27"	27"	27"	27"	27"
30"	30"	30"	30"	30"	30"	30"	30"	30"	30"	30"	30"
36"	36"	36"	36"	36"	36"	36"	36"	36"	36"	36"	36"
42"	42"	42"	42"	42"	42"	42"	42"	42"	42"	42"	42"
48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"
54"	54"	54"	54"	54"	54"	54"	54"	54"	54"	54"	54"
60"	60"	60"	60"	60"	60"	60"	60"	60"	60"	60"	60"
66"	66"	66"	66"	66"	66"	66"	66"	66"	66"	66"	66"
72"	72"	72"	72"	72"	72"	72"	72"	72"	72"	72"	72"
78"	78"	78"	78"	78"	78"	78"	78"	78"	78"	78"	78"
84"	84"	84"	84"	84"	84"	84"	84"	84"	84"	84"	84"
90"	90"	90"	90"	90"	90"	90"	90"	90"	90"	90"	90"
96"	96"	96"	96"	96"	96"	96"	96"	96"	96"	96"	96"
102"	102"	102"	102"	102"	102"	102"	102"	102"	102"	102"	102"
108"	108"	108"	108"	108"	108"	108"	108"	108"	108"	108"	108"
114"	114"	114"	114"	114"	114"	114"	114"	114"	114"	114"	114"
120"	120"	120"	120"	120"	120"	120"	120"	120"	120"	120"	120"

APPURTENANCE SHEET
TABLE OF QUANTITIES & EMBEDMENT
FOR WATER
DALLAS WATER UTILITIES DEPT.
CITY OF DALLAS, TEXAS

DATE: 1/15/80
SCALE: 1/4" = 1'-0"

APPURTENANCE SHEET

WATER SERVICE INSTALLATIONS

TYPICAL 3/4" WATER SERVICE INSTALLATION
SIDEWALK ADJACENT TO OR 5' FROM CURB

TYPICAL 1" WATER SERVICE INSTALLATION
SIDEWALK ADJACENT TO OR 5' FROM CURB

TYPICAL 1 1/2" WATER SERVICE INSTALLATION
SIDEWALK ADJACENT TO OR 5' FROM CURB

TYPICAL 2" WATER SERVICE INSTALLATION
SIDEWALK ADJACENT TO OR 5' FROM CURB

TYPICAL 3" WATER SERVICE INSTALLATION
SIDEWALK ADJACENT TO OR 5' FROM CURB

TYPICAL 4" WATER SERVICE INSTALLATION
SIDEWALK ADJACENT TO OR 5' FROM CURB

TYPICAL 6" WATER SERVICE INSTALLATION
SIDEWALK ADJACENT TO OR 5' FROM CURB

TYPICAL 8" WATER SERVICE INSTALLATION
SIDEWALK ADJACENT TO OR 5' FROM CURB

BELL HEAD SERVICES

BELL HEAD SERVICES

APPURTENANCE SHEET
WATER SERVICE INSTALLATIONS
DALLAS WATER UTILITIES DEPT.
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