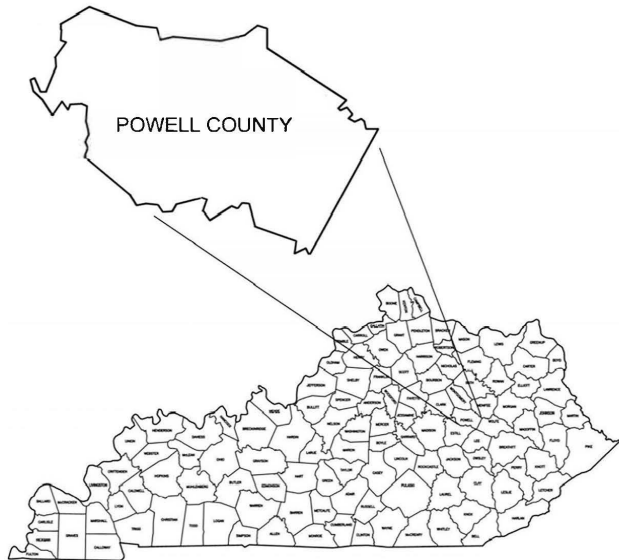


# POWELLS VALLEY WATER DISTRICT

## POWELL COUNTY, KENTUCKY

### ZONE METERS AND BOXES

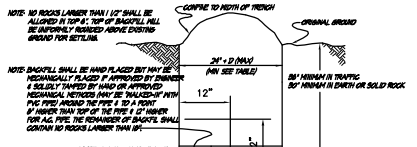


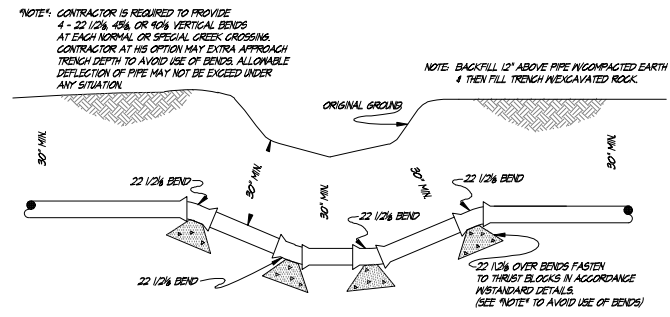
APRIL 2026

Sheet Titles	INDEX	Sheet Nos.
STANDARD WATER DETAILS #1		WD-1
STANDARD WATER DETAILS #2		WD-2



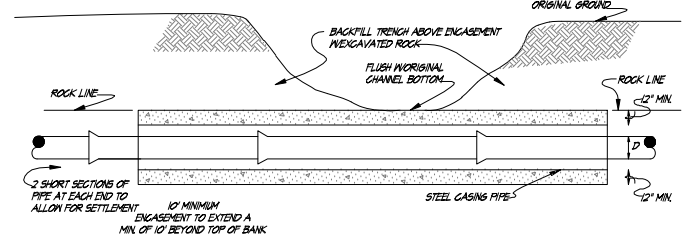
PIPE SIZE	MINIMUM TRENCH WIDTH	MAXIMUM PAY WIDTH
1/2" - 2"	12"	12"
3" - 4"	18"	18"
6" - 8"	24"	24"
10" - 12"	30"	30"
15" - 18"	36"	36"
21" - 24"	42"	42"
27" - 30"	48"	48"
36" - 42"	54"	54"
48" - 54"	60"	60"
60" - 72"	66"	66"
72" - 84"	72"	72"
90" - 108"	78"	78"
108" - 126"	84"	84"
126" - 144"	90"	90"
144" - 162"	96"	96"
162" - 180"	102"	102"
180" - 216"	108"	108"
216" - 252"	114"	114"
252" - 288"	120"	120"
288" - 324"	126"	126"
324" - 360"	132"	132"
360" - 408"	138"	138"
408" - 456"	144"	144"
456" - 504"	150"	150"
504" - 540"	156"	156"
540" - 576"	162"	162"
576" - 612"	168"	168"
612" - 648"	174"	174"
648" - 684"	180"	180"
684" - 720"	186"	186"
720" - 756"	192"	192"
756" - 792"	198"	198"
792" - 828"	204"	204"
828" - 864"	210"	210"
864" - 900"	216"	216"
900" - 936"	222"	222"
936" - 972"	228"	228"
972" - 1008"	234"	234"
1008" - 1044"	240"	240"
1044" - 1080"	246"	246"
1080" - 1116"	252"	252"
1116" - 1152"	258"	258"
1152" - 1188"	264"	264"
1188" - 1224"	270"	270"
1224" - 1260"	276"	276"
1260" - 1296"	282"	282"
1296" - 1332"	288"	288"
1332" - 1368"	294"	294"
1368" - 1404"	300"	300"
1404" - 1440"	306"	306"
1440" - 1476"	312"	312"
1476" - 1512"	318"	318"
1512" - 1548"	324"	324"
1548" - 1584"	330"	330"
1584" - 1620"	336"	336"
1620" - 1656"	342"	342"
1656" - 1692"	348"	348"
1692" - 1728"	354"	354"
1728" - 1764"	360"	360"
1764" - 1800"	366"	366"
1800" - 1836"	372"	372"
1836" - 1872"	378"	378"
1872" - 1908"	384"	384"
1908" - 1944"	390"	390"
1944" - 1980"	396"	396"
1980" - 2016"	402"	402"
2016" - 2052"	408"	408"
2052" - 2088"	414"	414"
2088" - 2124"	420"	420"
2124" - 2160"	426"	426"
2160" - 2196"	432"	432"
2196" - 2232"	438"	438"
2232" - 2268"	444"	444"
2268" - 2304"	450"	450"
2304" - 2340"	456"	456"
2340" - 2376"	462"	462"
2376" - 2412"	468"	468"
2412" - 2448"	474"	474"
2448" - 2484"	480"	480"
2484" - 2520"	486"	486"
2520" - 2556"	492"	492"
2556" - 2592"	498"	498"
2592" - 2628"	504"	504"
2628" - 2664"	510"	510"
2664" - 2700"	516"	516"
2700" - 2736"	522"	522"
2736" - 2772"	528"	528"
2772" - 2808"	534"	534"
2808" - 2844"	540"	540"
2844" - 2880"	546"	546"
2880" - 2916"	552"	552"
2916" - 2952"	558"	558"
2952" - 2988"	564"	564"
2988" - 3024"	570"	570"
3024" - 3060"	576"	576"
3060" - 3096"	582"	582"
3096" - 3132"	588"	588"
3132" - 3168"	594"	594"
3168" - 3204"	600"	600"
3204" - 3240"	606"	606"
3240" - 3276"	612"	612"
3276" - 3312"	618"	618"
3312" - 3348"	624"	624"
3348" - 3384"	630"	630"
3384" - 3420"	636"	636"
3420" - 3456"	642"	642"
3456" - 3492"	648"	648"
3492" - 3528"	654"	654"
3528" - 3564"	660"	660"
3564" - 3600"	666"	666"
3600" - 3636"	672"	672"
3636" - 3672"	678"	678"
3672" - 3708"	684"	684"
3708" - 3744"	690"	690"
3744" - 3780"	696"	696"
3780" - 3816"	702"	702"
3816" - 3852"	708"	708"
3852" - 3888"	714"	714"
3888" - 3924"	720"	720"
3924" - 3960"	726"	726"
3960" - 3996"	732"	732"
3996" - 4032"	738"	738"
4032" - 4068"	744"	744"
4068" - 4104"	750"	750"
4104" - 4140"	756"	756"
4140" - 4176"	762"	762"
4176" - 4212"	768"	768"
4212" - 4248"	774"	774"
4248" - 4284"	780"	780"
4284" - 4320"	786"	786"
4320" - 4356"	792"	792"
4356" - 4392"	798"	798"
4392" - 4428"	804"	804"
4428" - 4464"	810"	810"
4464" - 4500"	816"	816"
4500" - 4536"	822"	822"
4536" - 4572"	828"	828"
4572" - 4608"	834"	834"
4608" - 4644"	840"	840"
4644" - 4680"	846"	846"
4680" - 4716"	852"	852"
4716" - 4752"	858"	858"
4752" - 4788"	864"	864"
4788" - 4824"	870"	870"
4824" - 4860"	876"	876"
4860" - 4896"	882"	882"
4896" - 4932"	888"	888"
4932" - 4968"	894"	894"
4968" - 5004"	900"	900"
5004" - 5040"	906"	906"
5040" - 5076"	912"	912"
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5112" - 5148"	924"	924"
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5184" - 5220"	936"	936"
5220" - 5256"	942"	942"
5256" - 5292"	948"	948"
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5328" - 5364"	960"	960"
5364" - 5400"	966"	966"
5400" - 5436"	972"	972"
5436" - 5472"	978"	978"
5472" - 5508"	984"	984"
5508" - 5544"	990"	990"
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5904" - 5940"	1056"	1056"
5940" - 5976"	1062"	1062"
5976" - 6012"	1068"	1068"
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6048" - 6084"	1080"	1080"
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6192" - 6228"	1104"	1104"
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6264" - 6300"	1116"	1116"
6300" - 6336"	1122"	1122"
6336" - 6372"	1128"	1128"
6372" - 6408"	1134"	1134"
6408" - 6444"	1140"	1140"
6444" - 6480"	1146"	1146"
6480" - 6516"	1152"	1152"
6516" - 6552"	1158"	1158"
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6588" - 6624"	1170"	1170"
6624" - 6660"	1176"	1176"
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6732" - 6768"	1194"	1194"
6768" - 6804"	1200"	1200"
6804" - 6840"	1206"	1206"
6840" - 6876"	1212"	1212"
6876" - 6912"	1218"	1218"
6912" - 6948"	1224"	1224"
6948" - 6984"	1230"	1230"
6984" - 7020"	1236"	1236"
7020" - 7056"	1242"	1242"
7056" - 7092"	1248"	1248"
7092" - 7128"	1254"	1254"
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7416" - 7452"	1308"	1308"
7452" - 7488"	1314"	1314"
7488" - 7524"	1320"	1320"
7524" - 7560"	1326"	1326"
7560" - 7596"	1332"	1332"
7596" - 7632"	1338"	1338"
7632" - 7668"	1344"	1344"
7668" - 7704"	1350"	1350"
7704" - 7740"	1356"	1356"
7740" - 7776"	1362"	1362"
7776" - 7812"	1368"	1368"
7812" - 7848"	1374"	1374"
7848" - 7884"	1380"	1380"
7884" - 7920"	1386"	1386"
7920" - 7956"	1392"	1392"
7956" - 7992"	1398"	1398"
7992" - 8028"	1404"	1404"
8028" - 8064"	1410"	1410"
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8208" - 8244"	1440"	1440"
8244" - 8280"	1446"	1446"
8280" - 8316"	1452"	1452"
8316" - 8352"	1458"	1458"
8352" - 8388"	1464"	1464"
8388" - 8424"	1470"	1470"
8424" - 8460"	1476"	1476"
8460" - 8496"	1482"	1482"
8496" - 8532"	1488"	1488"
8532" - 8568"	1494"	1494"
8568" - 8604"	1500"	1500"
8604" - 8640"	1506"	1506"
8640" - 8676"	1512"	1512"
8676" - 8712"	1518"	1518"
8712" - 8748"	1524"	1524"
8748" - 8784"	1530"	1530"
8784" - 8820"	1536"	1536"
8820" - 8856"	1542"	1542"
8856" - 8892"	1548"	1548"
8892" - 8928"	1554"	1554"
8928" - 8964"	1560"	1560"
8964" - 9000"	1566"	1566"
9000" - 9036"	1572"	1572"
9036" - 9072"	1578"	1578"
9072" - 9108"	1584"	1584"
9108" - 9144"	1590"	1590"
9144" - 9180"	1596"	1596"
9180" - 9216"	1602"	1602"
9216" - 9252"	1608"	1608"
9252" - 9288"	1614"	1614"
9288" - 9324"	1620"	1620"
9324" - 9360"	1626"	1626"
9360" - 9396"	1632"	1632"
9396" - 9432"	1638"	1638"
9432" - 9468"	1644"	1644"
9468" - 9504"	1650"	1650"
9504" - 9540"	1656"	1656"
9540" - 9576"	1662"	1662"
9576" - 9612"	1668"	1668"
9612" - 9648"	1674"	1674"
9648" - 9684"	1680"	1680"
9684" - 9720"	1686"	1686"
9720" - 9756"	1692"	1692"
9756" - 9792"	1698"	1698"
9792" - 9828"	1704"	1704"
9828" - 9864"	1710"	1710"
9864" - 9900"	1716"	1716"
9900" - 9936"	1722"	1722"
9936" - 9972"	1728"	1728"
9972" - 10008"	1734"	1734"





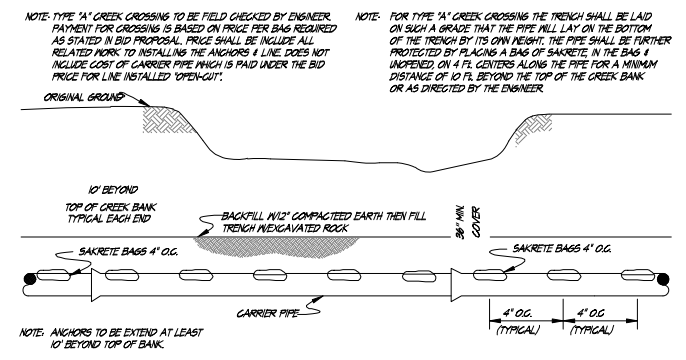
DETAIL OF NORMAL DITCH OR STABLE BED CREEK CROSSING WITHOUT ENGAGEMENT

N.T.S. (NO EXTRA PAYMENT) 803-01



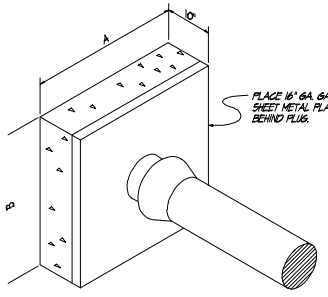
SPECIAL CREEK CROSSING TYPE "B" IN SOLID ROCK

N.T.S. 803-01



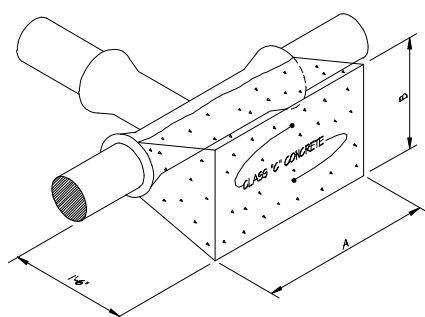
TYPICAL INSTALLATION OF LINE ANCHORS FOR SPECIAL CREEK CROSSING TYPE "A" IN LOOSE ROCK OR UNSTABLE MATERIAL

N.T.S. 803-01



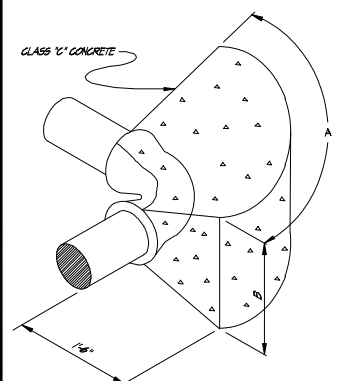
THRUST BLOCK FOR PLUGGED DEADEND LINE

N.T.S. 803-01



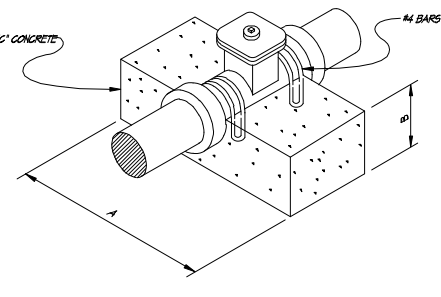
THRUST BLOCK FOR TEE

N.T.S. 803-01



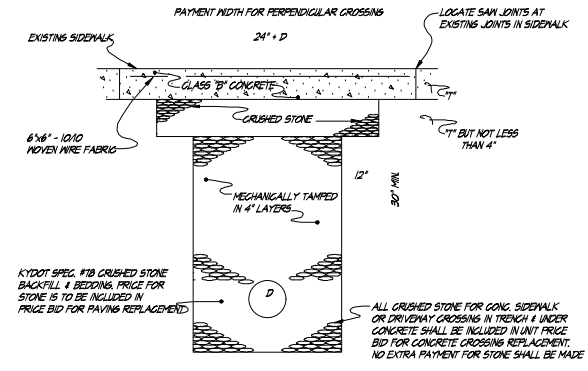
THRUST BLOCK FOR HORIZONTAL 90° BEND

N.T.S. 803-01



THRUST BLOCK FOR GATE VALVE

N.T.S. 803-01

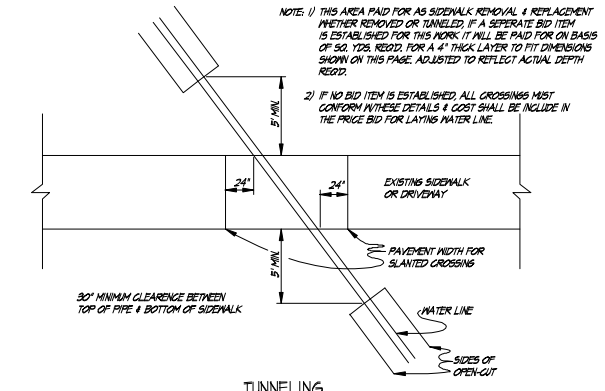


CONCRETE SIDEWALK OR DRIVEWAY CROSSING REPLACEMENT

N.T.S. 803-01

CLASS	P.S.I.
A	4000
B	3000
C	2500
D	2000
E	NO 28 DAY STD

28 DAYS CONCRETE STRENGTH 803-01



TUNNELING ALTERNATE SIDEWALK CROSSING

N.T.S. 803-01

SOFT-SANDY CLAY SOIL (BEARING STRENGTH = 2,000#/FT.)

PIPE SIZE	BEARING AREA 10% BEND	90° BEND		TEE, GATE VALVE & DEADEND	
		3"	4"	3"	4"
1 1/2"	0.35 FT <sup>2</sup>	12"	4"	0.16 FT <sup>2</sup>	8"
2"	0.52 FT <sup>2</sup>	12"	7"	0.26 FT <sup>2</sup>	12"
2 1/2"	0.75 FT <sup>2</sup>	12"	9"	0.41 FT <sup>2</sup>	12"
3"	1.12 FT <sup>2</sup>	18"	9"	0.61 FT <sup>2</sup>	12"
4"	1.84 FT <sup>2</sup>	24"	12"	1.00 FT <sup>2</sup>	18"
6"	3.96 FT <sup>2</sup>	36"	16"	2.14 FT <sup>2</sup>	26"
8"	6.70 FT <sup>2</sup>	54"	18"	3.68 FT <sup>2</sup>	30"
10"	12.00 FT <sup>2</sup>	60"	24"	5.41 FT <sup>2</sup>	44"
12"	13.61 FT <sup>2</sup>	60"	33"	7.41 FT <sup>2</sup>	36"
14"	16.35 FT <sup>2</sup>	66"	36"	9.35 FT <sup>2</sup>	40"
16"	19.55 FT <sup>2</sup>	72"	40"	11.35 FT <sup>2</sup>	60"

THRUST BLOCKS (160 P.S.I. DESIGNED)

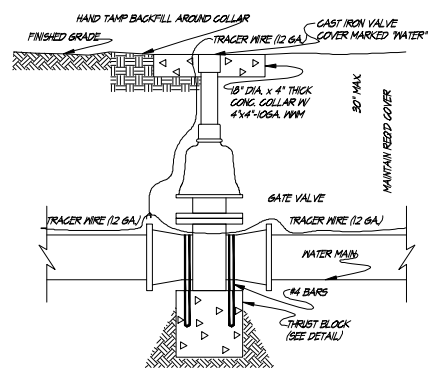
803-01

SOLID-SAND & GRAVEL CEMENTED M/CLAY (BEARING STRENGTH = 4,000 #/FT.)

PIPE SIZE	BEARING AREA 10% BEND	90° BEND		TEE, GATE VALVE & DEADEND	
		3"	4"	3"	4"
1 1/2"	0.17 FT <sup>2</sup>	6"	4"	0.10 FT <sup>2</sup>	4"
2"	0.26 FT <sup>2</sup>	10"	4"	0.14 FT <sup>2</sup>	6"
2 1/2"	0.23 FT <sup>2</sup>	12"	5"	0.20 FT <sup>2</sup>	6"
3"	0.36 FT <sup>2</sup>	12"	7"	0.30 FT <sup>2</sup>	6"
4"	0.42 FT <sup>2</sup>	18"	8"	0.50 FT <sup>2</sup>	4"
6"	1.46 FT <sup>2</sup>	24"	12"	1.07 FT <sup>2</sup>	16"
8"	3.35 FT <sup>2</sup>	42"	12"	1.82 FT <sup>2</sup>	22"
10"	5.00 FT <sup>2</sup>	40"	18"	2.71 FT <sup>2</sup>	22"
12"	6.85 FT <sup>2</sup>	42"	24"	3.71 FT <sup>2</sup>	30"
14"	8.80 FT <sup>2</sup>	48"	30"	4.61 FT <sup>2</sup>	36"
16"	11.20 FT <sup>2</sup>	62"	27"	5.66 FT <sup>2</sup>	44"

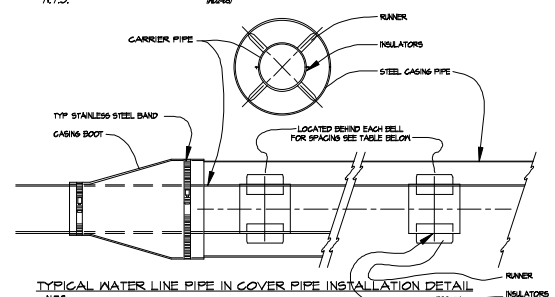
THRUST BLOCKS (160 P.S.I. DESIGNED)

803-01



GATE VALVE SETTING

N.T.S. 803-01

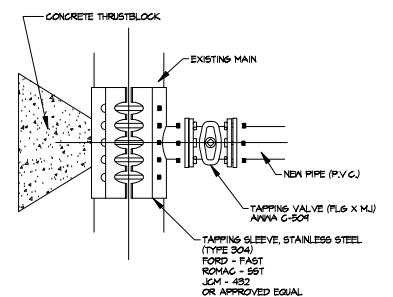


TYPICAL WATER LINE PIPE IN COVER PIPE INSTALLATION DETAIL

N.T.S. 803-01

PIPELINE DIAMETER (IN)	MAXIMUM SPACING (FT)
4" - 8"	10'
10" - 24"	12'

3. END SEALS UPON COMPLETION OF INSTALLATION OF THE CARRIER PIPE, THE ANNUAL SPACING AT THE ENDS OF THE COVER PIPE SHALL BE SEALED TO PREVENT THE ENTRANCE OF GROUNDWATER, SILT, ETC., INTO THE COVER PIPE. THE SEAL SHALL BE A MANUFACTURED PRODUCT SPECIALLY MADE FOR THIS PURPOSE. THE SEAL SHALL BE CONSTRUCTED OF SYNTHETIC RUBBER WITH STAINLESS STEEL BANDING STRIPS.



NET TAPPING SLEEVE ASSEMBLY

N.T.S. (NET TAP CONNECTIONS) 803-01

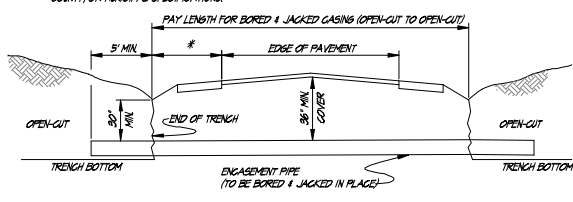
CARRIER PIPE NOMINAL SIZE	MINIMUM I.D. OF CASING PIPE FOR:	MAX. SPACER SUPPORT SPACING L.F. APART
3/4"	1-1/4"	
1-1/4"-1-1/2"	2"	
1-1/2"	3"	
2"	3-1/2"	
2-1/2"	4"	
3"	5"	4.7'
4"	8"	5.5'
5"	8"	6.3'
6"	10"	7.4'
8"	12"	8.5'
10"	15-1/2"	9.6'
12"	17-1/2"	10.7'
14"	19-1/2"	11.7'
16"	21-1/2"	12.7'

WATERLINE CASING PIPE SCHEDULE

NOTE: UNDER ROAD CROSSINGS STEEL CASING PIPE SHALL BE REQUIRED PIPES 4" & LESS SHALL BE NEW SCHEDULE 40 PIPES LARGER THAN 4" SHALL HAVE MINIMUM WALL THICKNESS OF 0.280". ALL BORED & JACKED ENGAGEMENT PIPE SHALL BE INSTALLED IN BORE HOLES NO LARGER THAN THE OUTSIDE DIAMETER OF THE ENGAGEMENT PIPE.

NOTE: ALL JOINTS TO BE SOLIDLY WELDED, END OF CASING TO BE SEALED W/CONCRETE AFTER LINE HAS BEEN INSTALLED & TESTED.

NOTE: OPEN TRENCH NO CLOSER THAN THE DITCHLINE FROM THE EDGE OF THE PAVEMENT OR AS DIRECTED BY STATE, COUNTY, OR MUNICIPAL SPECIFICATIONS.



SECTION VIEW OF ROAD CROSSING

N.T.S. 803-01

# STANDARD WATER DETAILS

WATER-SEWER-ACCESS INFRASTRUCTURE FOR SMALL BUSINESS AREA  
 LOT 11-SPRINGFIELD WASHINGTON COUNTY COMMERCE CENTER  
 SPRINGFIELD WASHINGTON COUNTY ECONOMIC DEVELOPMENT AUTHORITY  
 WASHINGTON COUNTY, KENTUCKY

PROJECT NO. \_\_\_\_\_  
 DESIGNED BY D.S.T.  
 DRAWN BY G.M.S./J.M.P.  
 CHECKED BY D.S.T.  
 DATE JANUARY 2017  
 SCALE AS NOTED

Engineers Architects Planners  
**nse**  
 OF KENTUCKY, INC.  
 624 Wellington Way  
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