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for

DOUBLE CHECK VALVE BACKFLOW PREVENTERS

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
PREPARED BY:			STANDARD DETAILS:	
DESCRIPTION:	Assemblies. Units shall be manufacturer's model nu percent zinc. Copper allo by AWWA C510. Effective	e in compliance umber as given y UNS No. shall e January 1, 20: ting "NL" in the	with applicable provisions of below. Copper alloy parts (bro be shown on permanent exte L3, valves purchased for City for	Check Valve Detector Backflow Prevention AWWA C510 and shall be the appropriate nze and brass) shall contain not more than 16 rnal marking in addition to markings required press shall be "lead free" and marked by ds acceptable to City. Effective January 4,

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	WATTS REGULATOR CO.	• Model 719QT (½" − 2")	
	P.O. Box 628	● Model 709 OS&Y RW (2½" – 10")	
	Lawrence, MA 01842	 Model 709DCDA OS&Y RW (DC Detector Assembly 3" – 10") 	
	ZURN-WILKINS	● Model 950XL (¾" – 2")	
	1747 Commerce Way	• Model 350 (2½" – 12")	
	Paso Robles, CA 93446	 Model 350DA (DC Detector Assembly 2½" – 12") 	
	APOLLO VALVES/CONBRACO	Model DC4S (½" & 10")	
	INDUSTRIES	 Model DC40 (¾" − 2") 	
	P.O. Box 247	 Model DC4SG (2½" – 8") 	
	Matthews, NC 28106	Model DCDA4SG (Detector Check Valve 2½" – 8")	

- 1. Listed assemblies are the only ones permitted for use on City of Pflugerville property. Their use where required on private property is at the discretion of the Owner and Owner's Engineer.
- 2. The manufacturer shall provide verification of approval by the University of Southern California Foundation for Cross Connection Control and Hydraulic Research (USC, FCCC&HR).
- 3. Valves must be installed in the orientation (horizontal or vertical) as indicated by (USC, FCCC&HR).
- 4. Valves other than those defined by above description may be used if equivalent.



for

REDUCED PRESSURE BACKFLOW PREVENTER

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
PREPARED BY:			STANDARD DETAILS:	
DESCRIPTION:	Assemblies. Units shall be manufacturer's model n percent zinc. Copper allows AWWA C511. Effective	oe in compliance wit umber as given belo by UNS No. shall be s re January 1, 2013, v sting "NL" in the ma		511, and shall be the appropriate brass) shall contain not more than 16 king in addition to markings required ll be "lead free" and marked by

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	WATTS REGULATOR CO. P.O. Box 628 Lawrence, MA 01842	 Model 919Qt (¾" – 2" sizes) Model 909RW (2½" – 10" sizes) Model 909RPDA OS&Y RW (RP Detector Assembly 2½" – 10") 	
	ZURN-WILKINS 1747 Commerce Way Paso Robles, CA 93446	 Model 975XL (½" – 2") Model 375 (2½" – 10") Model 375 DA (Detector Check Valve 2½" – 10") 	
	APOLLO VALVES/CONBRACO INDUSTRIES P.O. Box 247 Matthews, NC 28106	 Model RP40 (1/4" – 10") Model RPDA40 (RP Detector Assembly 3" – 10") 	

- 1. Listed assemblies are the only ones permitted for use on City of Austin property. Their use where required on private property is at the discretion of the Owner and Owner's Engineer.
- 2. The manufacturer shall provide verification of approval by the University of Southern California Foundation for Cross Connection Control and Hydraulic Research (USC, FCCC&HR)
- 3. Valves must be installed in the orientation (horizontal or vertical) as indicated by (USC, FCCC&HR)
- 4. Valve types other than those defined by above description may be used if equivalent.



for

BALL VALVES FOR CURB STOPS

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:	
PREPARED BY:			STANDARI	D DETAILS:			
DESCRIPTION:	Valves, Ball for Curb Stops	complying with	n AWWA C800). Inside iron pipe t	hread both	ends. Effective Jar	nuary 1, 2013,
valves purchased for City forces shall be "lead free" and marked by stamping, etching, or casting "NL" in the main						n the main	
	body or by other methods	acceptable to (City. Effective	January 4, 2014, a	ll valves mu	st be "lead free."	

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	FORD METER BOX CO., INC. P.O. Box 443 Wabash, IN 46992-0443	360 degree rotation and 2" sq. operating nuts • 1½" BQT-11-66R • 2" BQT-11-777R	
	FORD METER BOX CO., INC.	 1½" straight ball valve with 3-5/8" handle, No. B11-666-HT-67 2" straight ball valve with 3-5/8" handle, No. B11-777-HT-67 	
	FORD METER BOX CO., INC.	HT-34, ¾" and 1" straight ball valves with handle	

NOTES:

1. Valve types other than those defined by above description may be used if equivalent.



for

BALL VALVES FOR PROPERTY OWNER'S CUT OFF

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
PREPARED BY:			STANDARD DETAILS:	
DESCRIPTION:	specification MSS-SP-110. with chrome-plated bronz	Threaded ends te ball. Effective ing, or casting '	January 1, 2013, valves purchased (NL" in the main body or by other n	owner's cut off. Conforms to GA certified. All valves shall be full port for City forces shall be "lead free" and nethods acceptable to City. Effective

LISTING	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
DATE			
	MIDLAND METAL MFG	IPS ball valves, full port, 600 WOG with stainless steel tee (wing style)	
	2021 Forest Ave.	handle and nut	
	Kansas City, MO 64108	• ¾" – 948-154ST	
		• 1" – 948-155ST	
	NIBCO	IPS ball valves, full port, SWP 600 CWP with stainless steel lever handle and	
	P.O. Box 1167	nut (use only in rectangular or square valve box providing clearance for	
	Elkhart, IN 46515-1167	handle)	
		• ¾" – T-585-70-SSHN	
		• 1" – T-585-70-SSHN	
		• 1½" – T-585-70-SSHN	
		• 2" – T-585-70-SSHN	
	MATCO-NORCA	IPS ball valves, full port, 600 WOG with stainless steel tee (wing style)	
	P.O. Box 27, Route 22	handle, nut and washer	
	Brewster, NY 10509	• ¾" – 759T04TS	
		• 1" – 759T05TS	
	WEBSTONE CO., INC.	IPS ball valves, full port, 600 WOG with stainless steel tee (wing style)	
	P.O. Box 59	handle, nut and washer	
	Worchester, MA 01613	• ¾" – 41703SSW	
		• 1" – 41704SSW	
		• 1½" – 41706SSW	
		• 2" – 41707SSW	
	B & K (MUELLER) INDUSTRIES, INC.	¾" and 1" IPS ball valves, full port, 600 WOG with stainless steel tee (wing	
	2600 Elmhurst Road	style) handle	
	Elk Grove, IL 60007	• ¾" – 107-824TNL	
		• 1" – 107-825TNL	

NOTES:

1. Valve types other than those defined by above description may be used if equivalent.



for BRASS GOODS

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
PREPARED BY:			STANDARD DETAILS:	
DESCRIPTION:	coupling bends, water m yokes. Service tubing co polyethylene tubing, tub applicable. Effective Jan	neter couplings, corp nnections shall be m oular stainless steel i uary 1, 2013, all bras sting "NL" in the mai	oration stop couplings, branch co ade with approved grip type com nsert stiffeners shall be used. Sha is goods purchased for City force	orb stops, angle stops, couplings, connections and water meter relocation in pression connections. When used with all conform to AWWA C800, where is shall be "lead free" and marked by eptable to the City. Effective January 4,

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	FORD METER BOX COMPANY	Series G compression connection required for service tubing.	
	P.O. Box 443		
	Wabash, IN 46992-0443		
	ELKHART PRODUCTS CORPORATION	TECTITE product line (limited to couplings, coupling bends)	
	1255 Oat Street		
	Elkhart, IN 46514		

- 1. Brass types other than those defined by above description may be used if equivalent.
- 2. All corporation stops shall have a 2" square operating nut.



for

CASING SPACERS

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:						
PREPARED BY:			STANDARD DETAILS:							
DESCRIPTION:	gauge risers (0.135") sha shall have insulating line to 12" diameter, spacers shall be 12" long with 2"	all be Type 304 stai ers; runners shall be s shall be 8" long w minimum width re	nless steel; all fasteners and ex e reinforced plastic, Dupont Co. ith 1" minimum width runners;	t pipe. 14 gauge bands (0.075") and 10 posed metal shall be stainless steel; bands "Rynite" or approved equal. For pipe up for pipe larger than 12" diameter, spacers ther above the riser shall be 1½". Number be multiples of two.						

LISTING	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
DATE			
	GPT INDUSTRIES	Model S8G-2 for pipe to 12" diameter	
	P.O. Box 14481	 Model S12G-2 for pipe larger than 12" 	
	Houston, TX 77221-4481		
	ADVANCE PRODUCTS & SYSTEMS,	Model SSI8-1CR for pipe to 12" diameter	
	INC.	 Model SSI12-2CR for pipe larger than 12" per shop details. 	
	P.O. Box 60399		
	Lafayette, LA 70596-0399		
	POWER-SEAL CORP.	Model 4810 - AT stainless steel - with 8" band for pipe to 12" diameter and	
	P.O. Box 2014	12" band for pipe larger than 12"	
	Wichita Falls, TX 76307		
	J-FOUR PIPELINE PRODUCTS	Model 63SS for pipe to 12" diameter	
	C/o HOFF COMPANY, INC.	Model 59SS for pipe larger than 12"	
	2312 Goodrich	(UHMW polymer runners for all sizes.)	
	Pearland, TX 77581		
	CCI PIPING SYSTEMS	Model CSS stainless steel - with 8" band for pipe to 12" diameter and 12"	
	1058 O'Neal Drive	band for pipe larger than 12" (UHMW polymer runners for all sizes.	
	Breaux Bridge, LA 70517		
	THE BWM COMPANY	Model BWM SS stainless steel - with 8" band for pipe to 12" diameter and	
	P.O. Box 414	12" band for pipe larger than 12" (UHMW polymer runners for all sizes.)	
	Forest City, NC 28043		
	CASCADE WATERWORKS MFG.	Style CCS stainless steel - with 8" band for pipe to 12" diameter and 12"	
	1213 Badger Street	band for pipe larger than 12" (UHMW polymer runners for all sizes.)	
	Yorkville, IL 60560		

- 1. Casing Spacer configuration and spacing shall follow manufacturer's recommendations and shall be shown on CONTRACTOR'S PROJECT SUBMITTAL, as approved by the Engineer, covering the specific work.
- 2. End seals must also be shown on the drawings.
- 3. Field modification of casing spacers is prohibited.



for

CONCRETE STEEL CYLINDER PIPE

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:		
PREPARED BY:	EED BY: STANDARD DETAILS:							
DESCRIPTION:	Pipe, concrete steel cylin	der:						
	AWWA C-301 (any size)							
	AWWA C-303 (24" maximum diameter: not permitted in easements on private property)							

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	HANSON CONCRETE PRODUCS	See Notes	
	P.O. Box 47470		
	Dallas, TX 75247		

NOTES:

1. For pipe larger than 24" diameter, manufacturer must provide one of the following with project submittal: a) evidence of current ISO registration, b) evidence of current City of Pflugerville-approved quality control program, or c) name and qualifications of independent, third party firm that will test and inspect pipe produced for City of Pflugerville.



for

DISINFECTING CHEMICALS FOR POTABLE WATER LINES

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:		
PREPARED BY:	STANDARD DETAILS:							
DESCRIPTION:	Sodium Hypochlorite and C	Calcium Hypod	hlorite for disi	nfecting potable w	ater mains and	appurtenance	s, meeting	
	AWWA B300 and being NSF 60 certified: Chemicals may be in the form of tablets, granules, or liquids and shall not							
	contain sequestering agents.							

LISTING	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
DATE			
	ALLCHEM PERFORMANCE PRODUCT	Clor Mor Cal Shock	
	6010 Northwest First Place		
	Gainesville, FL 32607		
	ARCH CHEMICALS, INC.	Dry Tec Granular	
	Smyma, GA 30080		

- 1. Containers shall have markings indicating that the contents meet AWWA B300 and are NSF 60 certified.
- 2. Products used for disinfecting pools and spas may be used for disinfecting potable water lines as long as those products meet AWWA B300, are NSF 60 certified, and do not contain sequestering agents.
- 3. Sodium Hypochlorite and Calcium Hypochlorite brands other than those defined by above description may be used if equivalent.



for

FITTING WEIGHT SCHEDULE

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:	
PREPARED BY:	STANDARD DETAILS:						
DESCRIPTION:	Fitting weights for payment The listed weights are based meeting AWWA C153. Bolts,	on AWWA C	153 (compact due	ctile iron fittings) ar	id manufacture		

48x36

48x42

1641

1426

TEES AND CROSSES			TEES AND CROSSES				
SIZ	ZE (IN.)	WEIG	HT (LB.)	SIZE (IN.)		WEIGHT (LB)	
RUN	BRANCH	TEE	CROSS	RUN	BRANCH	TEE	CROSS
4	4	32	40	42	12	2200	
6	4	46	65		16	2220	
	6	56	75		24	2270	2350
8	4	60	85		30	2425	2920
	6	72	100		36	3000	3675
	8	86	105		42	3175	4090
12	4	94	115	48	12	2800	
	6	110	135		16	2820	
	8	125	175		24	2870	3200
	12	160	210		30	3050	3785
16	6	228	250		36	3900	5045
	8	248	270		42	4100	5465
•	12	280	335		48	4250	6220
	16	322	385				

	8	248	270	42	4100
	12	280	335	48	4250
	16	322	385		
20	6	315	350		
	8	345	380		
	12	395	415	REI	DUCERS
	16	465	550	SIZE(IN.)	WEIGHT (LB)
	20	535	600	6x4	24
24	6	415	650	8x4	32
	8	445	575	8x6	36
	12	500	625	12x4	58
	16	580	675	12x6	60
	20	660	925	12x8	60
	24	720	950	16x6	124
30	8	739	650	16x8	124
	12	830	800	16x12	124
	16	959	900	20x12	205
	20	995	1220	20x16	200
	24	1060	1500	24x12	305
	30	1323	1775	24x16	320
36	8	1420		24x20	300
	12	1430		30x16	633
	16	1440		30x20	628
	24	1498	1865	30x24	478
	30	1555	2580	36x20	975
	36	1900	2735	36x24	770
				36x30	650
				42x24	1356
				42x30	1083
				42x36	1114
				48x30	1779

	SLEEVES	CAPS	PLUGS
SIZE (IN.)		WEIGHT (LE	3)
4	17	9	10
6	28	15	16
8	38	22	26
12	56	42	46
16	130	92	95
20	195	125	135
24	255	166	175
30	500	345	355
36	725	628	688
42	875	900	1200
48	1400	1075	1550

	BENDS								
	90°	45°	22.5°	11.25°					
SIZE (IN.)	WEIGHT								
4	27	23	18	16					
6	39	32	32	30					
8	57	46	46	42					
12	108	86	84	74					
16		202	178	158					
20		305	310	245					
24		405	412	315					
30		780	665	300					
36		1135	960	820					
42		1610	1350	1180					
48		2090	1760	1475					





for

DUCTILE IRON PIPE & FITTINGS

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:				
PREPARED BY:			STANDARD DETAILS:					
	· · · · · · · · · · · · · · · · · · ·							
DESCRIPTION:	Iron Water Pipe complying shall be asphalt coated and	; with AWWA (d cement-mort	151 and Ductile Iron Fittings comp	ron complying with AWWA C110. Ductile lying with AWWA C110. Pipe and fittings mplying with AWWA C104. Alternately, NA C116. Not for use in gravity				

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	AMERICAN CAST IRON PIPE CO.	See notes below	
	P.O. Box 2727		
	Birmingham, AL 35202		
	U.S. PIPE & FOUNDRY CO.	See notes below	
	P.O. Box 10406		
	Birmingham, AL 35202		
	TYLER PIPE/UNION FOUNDRY	See notes below	
	P.O. Box 2027		
	Tyler, TX 75710		
	GRIFFIN PIPE PRODUCTS CO.	Pipe only	
	2601 Ninth Avenue		
	Council Bluffs, IA 51501		
	McWANE, INC.	See notes below	
	(ATLANTIC STATES PIPE CO, CLOW PIPE, AND PACIFIC		
	STATES PIPE CO.)		
	P.O. Box 607		
	Birmingham, AL 35201		
	C-1 FOUNDRY (CHINA), WFD, EC, SC, JX, XD, HD, EC	Fittings only (MJ and Flanged)	
	FOUNDRIES (INDIA), HJ FOUNDRIES (KOREA)	See notes	
	STAR PIPE PRODUCTS		
	4018 Westhollow Parkway		
	Houston, TX 77082		
	METALFIT (Mexico)	Fittings only (Flanged)	
	5583 Snowflake Way	See notes	
	Parker, CO 80134		
	SHANXI YUANSHENG China) ACCUCAST	Fittings only (Flanged)	
	415 S. 21st Ave.	See notes	
	Waco, TX 76706		
	CALCUTTA SPRINGS FOUNDRY (India), XYF FOUNDRY	Fittings only (Flanged)	
	(China)	See notes	
	SIGMA CORPORATION		
	5000 Askins		
	Houston, TX 77093		



DUCTILE IRON PIPE & FITTINGS

- 1. Ductile Iron Water Pipe, except flanged pipe, to 12" diameter shall be Class 350 as defined by AWWA C150; sizes 16 inch and larger shall be Class 250 minimum. Flanged D.I. pipe shall be Special Thickness Class 53 meeting AWWA C115.
- 2. Materials shall meet applicable specification requirements. Acceptable sizes are 4", 6", 8", 12", (14" for repair only), 16", (18" for repair only), 20", 24", 30" and multiples of 6" in larger sizes.
- 3. Submittal shall include results of independent laboratory testing showing that seal coating on pipe meets test requirements of Section 5.2 of AWWA Standard C104, and is in compliance with Section 4.11 of that Standard.
- 4. Approved tapping clamp shall be used for tapping D.I. pipe 12" diameter and smaller.
- 5. For pipe larger than 24" diameter, manufacturer must provide one of the following with PROJECT submittal: a) evidence of current ISO registration, b) evidence of current City of Pflugerville approved quality control program, or c) evidence of current City of Pflugerville approved independent, third party firm that will test and inspect pipe produced for the City of Pflugerville.





for

COMPACT DUCTILE IRON FITTINGS

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:	
PREPARED BY:			STANDARD DETAILS:		
DESCRIPTION:	Fittings, Compact Ductile Iron complying with AWWA C153 in 4", 6", 8", 12", 16", 20" and 24" sizes. All fittings sha have markings cast on the body as required by AWWA C153. Fittings complying with AWWA C153 shall be asphalt coated and cement-mortar lined with asphaltic seal coat complying with AWWA C104, or fusion-bonded epoxy coated and lined (inside and outside) complying with AWWA C116. Fusion-bonded epoxy must be red and shall comply with requirements of NSF 61. Not for use in gravity wastewater applications.				

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	TYLER PIPE CO.	All Series; no retainer glands	
	P.O. Box 2027		
	Tyler, TX 75710		
	US PIPE AND FOUNDRY CO.	All Series	
	P.O. Box 10406		
	Birmingham, AL 35202		
	A-1 FOUNDRY (China)/SIGMA CORPORATION	All Fittings	
	P.O. Box 300; Rt. 537 Goldman Road		
	Cream Ridge, NJ 08514		
	UNION FOUNDRY CO./DIVISION OF McWANE	All Series	
	P.O. Box 309		
	Anniston, AL 36202		
	SOMEP (SMP/BRAZIL) / STAR PIPE PRODUCTS	All Fittings	
	4018 Westhollow Pkwy.	Includes series 100 MJ x MJ Adaptor (bolt-through MJ restraint)	
	Houston, TX 77082		
	AMERICAN FLOW CONTROL	4" through 12"	
	P.O. Box 2727		
	Birmingham, AL 35202-2727		
	SHANXI YUANSHENG (China) ACCUCAST	4" through 12"	
	415 S. 21st Ave.		
	Waco, TX 76706		
	GAOMI ZHONGYIDE (China) ACCUCAST	4" through 12"	
		MJ x MJ Accu Adaptor (bolt-through MJ restraint)	
	METALFIT (MEXICO)	All Fittings - Markings include Griffin or Metalfit	
	METALFIT		
	5583 Snowflake Way		
	Parker, CO 80134		
	BEIJING CHENGHONG WATER WORKS	All Fittings	
	FOUNDRY (China)		
	SERAMPORE (SIP) INDUSTRIES		
	2900 Patio Drive		
	Houston, TX 77017		

NOTES: 1. Products other than those defined by above description may be used if equivalent



for

FLANGED DUCTILE IRON PIPE AWWA C115

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:		REVISED:	
PREPARED BY:			STANDARD DETAILS:			
DESCRIPTION:	Water Pipe, Ductile Iron, Flanged, meeting AWWA C115, cement-mortar lined with asphalt seal coat, and asphalt coated, except when specified otherwise. Machined flange faces shall have a rust-preventative coating. Not for use					
	in gravity wastewater ap	plications.				

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	FAST FABRICATORS, INC (formerly B & R Pipe Fabrication)	SEE NOTES	
	800 Burlington Road		
	Saginaw, TX 76179		
	FOUNDRY SERVICES, INC.	SEE NOTES	
	4309 North 26th Street		
	Omaha, NE 68111		
	CUSTOM FAB (San Antonio facility)	SEE NOTES	
	109 Fifth Street		
	Orlando, FL 32824		
	METRO-TEX FABRICATORS, INC.	SEE NOTES	
	5107 Brookglen		
	Houston, TX 77017		
	U.S. PIPE & FOUNDRY CO.	SEE NOTES	
	P.O. Box 10406		
	Birmingham, AL 35202		

- 1. Acceptable sizes are 4", 6", 8", 12", 16", 20", 24", 30", and multiples of 6" in larger sizes.
- 2. D.I. Pipe by U.S. manufacturer.
- 3. Certification required for testing of each joint to 300 psi minimum.
- 4. For pipe larger than 24" diameter, manufacturer must provide one of the following with project submittal: a) evidence of current ISO registration, b) evidence of current City of Pflugerville approved quality control program, or c) name and qualifications of independent, third party firm that will test and inspect pipe produced for City of Pflugerville.



or

RESTRAINED JOINT DUCTILE IRON PIPE AND FITTINGS

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
			·	
PREPARED BY:			STANDARD DETAILS:	
DESCRIPTION:	factory welded-on restra gaskets designed specific cement-mortar lined wit system as pipe or shall h be asphalt coated and ce epoxy-coated and -lined	int ring or bead e cally to be compa h asphaltic seal c ave compatible in ement-mortar line (inside and outsi	NWWA C151, with special restrained jo except for field cut pipe, which shall be tible with the restrained joint bell. Pip to to complying with AWWA C104. Fitting tegral system, shall comply with AWW and with asphaltic seal coat complying with C116. Fusion. Not for use in gravity wastewater approximation.	e restrained using special restraint he shall be asphalt coated and high shall have same restrained joint WA C153 or AWWA C110, and shall with AWWA C104 or fusion-bonded on-bonded epoxy must be red and

LISTING	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
DATE			
	U.S. PIPE & FOUNDRY CO. P.O. Box 10406 Birmingham, AL 35202	 TR FLEX 4" - 36" TR FLEX GRIPPER RING for field cut pipe or closure pieces HP LOK 30" - 64" 	
	GRIFFIN PIPE PRODUCTS 2601 Ninth Avenue Council Bluffs, IA 51501	 SNAP-LOK 6" - 48" SNAP-LOK FC for field cut pipe or closure pieces BOLT-LOK 4" - 48" for connecting factory-restrained-spigot to MJ-bell 	
	AMERICAN CAST IRON PIPE P.O. Box 2727 Birmingham, AL 35202	 FLEX-RING 4" - 48" LOK-RING 54" - 64" FIELD FLEX-RING for field-cut pipe or closure pieces MJ COUPLED JOINT for connecting factory-restrained-spigot to MJ-bell 	
	McWANE, INC. (ATLANTIC STATES PIPE, CLOW PIPE, PACIFIC STATES PIPE) 1201 Vanderbilt Road Birmingham, AL 35234	 TR FLEX 6" – 36" TR FLEX GRIPPER RING for field cut pipe or closure pieces THRUST-LOCK 6" - 30" THRUST-LOCK for field cut pipe or closure pieces MJ-LOCK for connecting factory-restrained-spigot to MJ-bell 	

NOTES:

- 1. Warning tape shall be placed on the polyethylene wrap on top of the pipe for the full length of restrained joint pipe. The warning tape shall be yellow and shall have black lettering at least 2 inches high that states "Restrained Joint / Junta de Restriccion" at intervals not exceeding 24 inches. The warning tape shall be polypropylene having a minimum thickness of 2 mils, a minimum width of 3 inches, and adhesive backing on the side opposite the lettering.
- 2. Field welded-on restraint rings or beads are not allowed.
- 3. For pipe larger than 24" diameter, contractor's/manufacturer's PROJECT submittal must include one of the following:
 - a. evidence of current ISO registration,
 - b. evidence of current City of Pflugerville approved quality control program, or
 - c. name and qualifications of independent, third party firm that will test and inspect pipe produced for the City of Pflugerville.

[Inspector-show location of restrained pipe and fittings on intersection drawings. Also show on record drawings along with manufacturer's name.]



for

POLYETHYLENE ENCASEMENT FOR DUCTILE IRON PIPE

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:	REVISED:	
PREPARED BY:			STANDARD	DETAILS:		
DESCRIPTION:	Polyethylene encasement minimum thickness of 0.0 wastewater	•			 , ,	•

LISTING	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
DATE			
	MOUNTAIN STATES PLASTICS	SEE NOTES	
	Three Industrial Parkway	Manufacturer's Marking: MSP	
	P.O. Box 1470		
	Johnstown, CO 80535		
	TYCO PLASTICS	SEE NOTES	
	1401 West 94th Street	Manufacturer's Marking: Tyco Plastics	
	Minneapolis, MN 55431		
	AEP INDUSTRIES	SEE NOTES	
	625 North Hwy. 35E	Manufacturer's Marking: AEP	
	Waxahachie, TX 75165		
	FLEXSOL PACKAGING CORP.	SEE NOTES	
	1531 NW 12th Avenue	Manufacturer's Marking: Flexsol	
	Pompano Beach, FL 33069		
	INFINITY PLASTICS	SEE NOTES	
	P.O. Box 65	Manufacturer's Marking: Infinity Plastics LLC	
	Cannon Falls, MN 55009		

- 1. Standard Marking: At least every two feet along its length, the polyethylene film shall be marked with the following information: Manufacturer's name or trademark, year of manufacture, ANSI/AWWA/C105/A21.5, minimum film thickness (0.008" or 8 mils is required) and material type (LLDPE is required), applicable range of nominal pipe diameter sizes, Warning Corrosion Protection Repair any damage.
- 2. Special marking: In addition to the above information, the marking on polyethylene encasement used for reclaimed water shall contain "Reclaimed Water," and encasement used for wastewater shall contain "Wastewater."
- 3. Any missing information is cause for rejection of the material.



for

LININGS FOR DUCTILE IRON WASTEWATER FORCE MAIN PIPE

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:		REVISED:	
PREPARED BY:			STANDARD DETAILS:			
DESCRIPTION:	Corrosion Resistant Linin	gs for Ductile Iro	n Wastewater Pipe and Fitt	ngs for Force Mair	ns: Pipe Meeting	g AWWA
	C151, Fittings Meeting A	WWA C110 or C	L53. Pipe or fitting manufac	curer remains fully	responsible for	satisfactory
	performance of the lined wastewater pipe and fittings. Not for use in gravity wastewater applications.					

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
DAIL	MADISON CHEMICAL INDUSTRIES INC.	Corropipe II Wasteliner or Polythane	
	490 McGreachie Drive	Polyurethane Lining	
	Milton, Ontario L9T 3Y5		
	INDURON PROTECTIVE COATINGS	Protecto 401 Epoxy Lining Ceramic	
	c/o Vulcan Painters, Inc.		
	Bessemer, AL 35021		
	SUPERIOR ENVIR. PRODUCTS	SP-2000W	
	c/o Fast Fabricators, Inc. (formerly B & R Pipe Fabrication)		
	800 Burlington Road		
	Saginaw, TX 76179		
	KERNEOS, INC.	SewPerCoat	
	1316 Priority Lane		
	Chesapeake, VA 23324		

- 1. Ductile Iron Force Main Pipe, except flanged pipe, to 12-inch diameter shall be Class 350; sizes 16-inch and larger shall be Class 250 minimum.
- 2. All flanged D.I. Pipe shall be Special Thickness Class 53 meeting AWWA C115.
- 3. Materials shall meet applicable specification requirements. Acceptable pipe sizes are 4" through 12" diameter, and all larger D.I. Pipe sizes.
- 4. Type and brand of lining shall be marked on each pipe or fitting.
- 5. Only one type and brand of lining shall be used for fittings on a project.
- 6. Only one type and brand of lining shall be used for pipe on a project.



for

DUCTILE IRON WASTEWATER PIPE

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:	1
PREPARED BY:			STANDARD DETAILS:		
DESCRIPTION:	Fittings shall be lined with type, brand, and lot number for any project. This pipe is	approved corrosicer marked on each	WWA C151 and Fittings, DI, AW on resistant material. Lining to be pipe and fitting. No more than r gravity flow wastewater lines coropriate; it may be used only if	e used shall be shown on su one type or brand of lining except when in the opinion	ubmittal, with shall be used of the

LISTING	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
DATE			
	AMERICAN DUCTILE IRON PIPE CO.	SEE NOTES	
	P.O. Box 270987		
	Dallas, TX 75227-0987		
	UNITED STATES PIPE & FOUNDRY CO.	SEE NOTES	
	P.O. Box 10406		
	Birmingham, AL 35202		
	TYLER PIPE	SEE NOTES	
	P.O. Box 2027		
	Tyler, TX 75701		
	GRIFFIN PIPE PRODUCTS CO.	SEE NOTES	
	2601 Ninth Avenue		
	Council Bluffs, IA 51501		
	FAST FABRICATORS, INC (formerly	Flanged D.I. Pipe Only AWWA C115; D.I. Pipe by U.S. Mfgr.; certification	
	B&R Pipe Fabrication)	required for testing of each joint to 300psi minimum.	
	800 Burlington Road	SEE NOTES	
	Saginaw, TX 76179		
	McWANE CAST IRON PIPE CO.	SEE NOTES	
	First National Bank Building		
	Suite 712		
	Temple, TX 76501		
	UNION FOUNDRY, CO.	D.I. Fittings only, having AWWA C110 dimensions	
	Division of McWane, Inc.	SEE NOTES	
	P.O. Box 309		
	Anniston, AL 36202		
	CUSTOM FAB (San Antonio Facility)	Flanged D.I. Pipe Only AWWA C115; D.I. Pipe by U.S. Mfgr.; certification	
	109 Fifth Street	required for testing of each joint to 300 psi minimum.	
	Orlando, FL 32824	SEE NOTES	

- 1. Ductile Iron Water Pipe, except flanged pipe, to 12" diameter shall be Class 350 as defined by AWWA C150; 16" and larger shall be Class 250 minimum. Flanged D.I. pipe shall be special Class 53 meeting AWWA C115.
- 2. Materials shall meet applicable specification requirements. Acceptable sizes are 4", 6", 8", 10", 12", 16", 20", 24", 30", and multiples of 6" in larger sizes.
- 3. Pipe Manufacturer shall certify that the lining will withstand, without damage, high pressure jet washing that is used to flush lines prior to CCTV inspection and as required for normal maintenance purposes.
- 4. Approved tapping clamp required for tapping DI force main 12" and smaller.

5. For pipe larger than 24" diameter, manufacturer must provide one of the following with project submittal: a) evidence of current ISO registration, b) evidence of current City of Pflugerville approved quality control program, or c) name and qualifications of independent, third party firm that will test and inspect pipe produced for City of Pflugerville.





for

END CAPS FOR WASTEWATER SERVICE LINES

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:				
PREPARED BY:			STANDARI	DETAILS:						
DESCRIPTION:	End caps, rubber or appro	ved equal, for	temporary cap	ping of wastewate	er service lines.	Secured				
	by stainless steel worm-ge	ear clamp.			by stainless steel worm-gear clamp.					

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
DATE			
	CHERNE INDUSTRIES	Test-Kaps	
	5700 Lincoln Drive		
	Minneapolis, MN 55436-1608		
	MISSION RUBBER	Band-Seal End Caps	
	P.O. Box 2349		
	Corona, CA 92878-2349		



for

FIBERGLASS PIPE FOR WASTEWATER

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:		
		1				
PREPARED BY:		S	TANDARD DETAILS:			
DESCRIPTION:	Pipe, Fiberglass, Cast Centrifically or with Continuously Advancing Mandrel, for wastewater service, 24 inch through 96 inch diameter, Glass Fiber Reinforced Plastic Mortar Pipe made of thermosetting polyester resins, aggregates and fiberglass meeting the requirements of AWWA C950 and ASTM Standards as follows: D 3262 for Sewer Pipe having minimum stiffness of 72 lbs per inch of length per inch of deflection (psi), D 3840 for Fittings, D 4161 for Joints having elastomeric seals, and F 477 for Gaskets. Pipe shall have Cell Designation 111 or 123, PS 72 as defined by ASTM D 3262. This SPL does not apply to jacking pipe.					

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	HOBAS, USA, Inc.	Hobas Pipe (OD-controlled) ISO certified (see Note 2)	
	1413 Richey Road		
	Houston, TX 77073		
	US COMPOSITE PIPE SOUTH	Flowtite Pipe (ID-controlled) ISO certified (see Note 2)	
	18585 Samuels Rd.		
	Zachary, LA 70791		

- 1. For each project, Design Engineer shall submit to the City of Pflugerville deflection calculations based upon actual installation conditions as required by Sec. 217 of TCEQ rules. Installations will be considered for approval on a case-by-case basis.
- 2. For pipe larger than 24" diameter, manufacturer must provide one of the following with each PROJECT SUBMITTAL: a) evidence of CURRENT ISO registration, b) evidence that the City of Pflugerville approved the manufacturer's quality control program prior to bidding project, or c) evidence that the City of Pflugerville approved the manufacturer's independent, third party quality control firm prior to bidding project.
- 3. Deflection testing is required and shall be conducted after final backfill has been in place at least 30 days. A rigid mandrel shall be used. Mandrel sizes are as follows:

	95% Mandrel Dia	meter, inches
Nominal	OD – Controlled Pipe	ID – Controlled
Diameter,		Pipe
Inches		
24	23.25	23.53
30	28.88	29.22
36	34.60	34.99
42	40.25	40.64
48	45.97	46.41
54	51.69	52.61
60	56.96	56.34
72	68.31	66.25
78	73.96	73.61
84	78.87	80.96
90	85.50	N/A
96	90.22	88.32



for FIRE HYDRANTS

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:	
DDEDARED BY	1		CTANDADI	DETAILS:	1		
PREPARED BY:			STANDARI	DETAILS:			
DESCRIPTION	Te: 11 1	20 : 1 1	1				0500
DESCRIPTION:	Fire Hydrants – 5 ¼ inch, 20					•	
	Hydrants shall have approx	0 /			•		, , ·
	shall be minimum of 4 feet	and maximu	m of 5 feet. Foເ	City forces only, b	ury depth may	vary as require	ed. Operating
	rod travel stop nuts not to	be provided.					

LISTING	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
DATE			
	AMERICAN FLOW CONTROL	B84B, Drawing	
	P.O. Box 2727	No. 94-20177 Rev. 12/11/96	
	Birmingham, AL 35202-2727	(Hydrants to be marked City of Pflugerville, TX)	
	-	Lubricant:	
		Fuchs FM Grease 387	
		CITGO Clarion FM Grease #2	
		ExxonMobil FM 222	
		Lubriplate Super FGL-2	
	MUELLER COMPANY	Super Centurion 250	
	500 West Eldorado St.	Drawing No. FH 85 (Revised 05/15/97)	
	Decatur, IL 62525	Includes optional AquaGrip Shoe	
		Lubricant: Penreco Drakeol Light Mineral Oil N.F.	
	CLOW CORPORATION	Medallion Hydrant F2545	
	P.O. Box 350	Dwgs. D-21476 with D-21477 and D-20323 Rev. 6/98	
	Oskaloosa, IA 52577	Lubricant: CITGO Clarion FM Grease #2	

- 1. Only manufacturer's catalog numbers indicated shall be used. Use of other items must have prior approval by the using department.
- 2. All Fire hydrants must have bronze-to-bronze seat retainer to insure easy removal of main valve. Copper alloy parts (bronze or brass) shall contain not over 16 percent zinc. Copper alloy UNS No. shall be shown on permanent external markings.
- 3. Exterior surfaces of hydrants above ground shall be coated with Rustoleum 5200 System DTM Acrylic (Product Number 5264402 Safety Red), Sherwin Williams DTM Acrylic (Product Number SW4081 Safety Red), or approved equal.
- 4. At time of installation, installer shall re-lubricate operating mechanism and nozzle threads using the brand and type of lubricant listed for each hydrant, which are manufacturer-recommended lubricants. Substitution of other brands or types of lubricants is not permitted.
- 5. Required markings cast into upper barrel: Manufacturer's name, initial, insignia, or abbreviations in common usage; designated size of main valve, year of manufacture.



for **PAINT**

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
PREPARED BY:			STANDARD DETAILS:	
DESCRIPTION:	Enamel, quick dry for ex and other applications, a		ions of fire hydrants, drain valve	assemblies, air valve ventilation pipes,

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	RUSTOLEUM CORPORATION	5200 System DTM Acrylic	
	11 Hawthorn Parkway	Color Codes:	
	Vernon Hills, IL 60601	• 5264402 Safety Red	
		5255402 Safety Orange	
		5233402 Safety Green	
		• 5225402 Safety Blue	
		For potable water applications	
	SHERWIN WILLIAMS	DTM Acrylic Coating	
	101 Prospect Avenue N.E.	Color Codes:	
	Cleveland, OH 44101	SW4081 Safety Red	
		SW4083 Safety Orange	
		SW4085 Safety Green	
		SW4086 Safety Blue	
		For potable water applications	

- 1. Paint applied on objects extending out of the ground shall be applied also at least 12 inches below final grade.
- 2. Surface shall be prepared according to paint manufacturer recommendations.



for

JOINT RESTRAINT DEVICES, 4 INCH THROUGH 16 INCH DIAMETER

USING DEPAI	RTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
PREPARED B	/ :			STANDARD DETAILS:	
DESCRIPTION: Restraint Devices for joints on pipe, fittings, and valves. Devices shall be 1) wedge-action lugtype mechan (MJ) Retainer Glands, 2) split, full-circle grip-ring type with High Strength Low Alloy (HSLA) threaded thru nuts and stainless steel clamping bolts and nuts, or 3) single-piece, solid-body bolt-through type. For use 4" – 16" Ductile Iron (DI) pipe or 4"–12" AWWA C900 (PVC) pipe as indicated and color-coded as noted. devices shall have a working pressure rating that equals or exceeds the pressure of the pipe, fittings, or which they are used. The only approved products are those having the exact same identification as listed.					
LISTING DATE	M	ANUFACTURER		PRODUCT IDENTIFICATION/COMM	MENT APPROVAL

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	EBAA IRON, INC. Box 857 Eastland, TX 76448	Megalug: • 1104 to 1116, Black MJ retainer gland for DI pipe • 1704 to 1716, Black Bell Joint Restraint Harness for DI pipe w/push-on joints • 2004PV to 2012PV, Red MJ retainer gland for PVC pipe Megaflange: • 2104 to 2112, Red MJ retainer gland for PVC pipe, not for buried installation • PVC Bell Restraint Harness 1500, Red split full-circle grip rings w/HSLA threaded rods and stainless steel clamping bolts	
	UNI-FLANGE/DIVISION OF FORD METER BOX CO. P.O. Box 443 Wabash, IN 46992-0443	 Uni-Flange: UFR 1300 C-4 to C-8, Split full-circle grip-rings w/HSLA bolts and stainless steel clamping bolts. Black for DI, red for PVC. UFR 1390 C-4 to C-8, Split full-circle grip-rings w/HSLA threaded rods and stainless steel clamping bolts. Black for DI, red for PVC. UFR 1400 D-4 to D-16, Black MJ retainer gland for DI pipe UFR 1450 D-4 to D-16, Black MJ retainer gland for DI pipe with push-on joints UFR 1500 CA-4 to CA-12, Red MJ retainer gland for PVC pipe 	
	JL, RR, CD, EF, DMY, QB, HX, YS FOUNDRIES (CHINA) STAR PIPE PRODUCTS, INC. 4018 Westhollow Pkwy. Houston, TX 77082	 Stargrip: 3000, Black MJ retainer gland for DI pipe, 4" - 16" 4000, Red MJ retainer gland for PVC pipe, 4" - 12" PVCgrip: 3500, Red MJ retainer gland for PVC pipe, 4" - 12" PVC Pipe Restrainers 1000, Red split full-circle grip-rings w/HSLA threaded rods and stainless steel clamping bolts for PVC pipe, 4" - 12" 1100, Red split full-circle grip-rings w/HSLA threaded rods and stainless steel clamping bolts for PVC pipe, 4" - 12" Bolt-through Type: Series 100 MJ x MJ Adaptor Super Flange Series 7200, 4" - 12" Red MJ retainer gland for PVC pipe, Black for DI pipe, not for buried installations 	



for

JOINT RESTRAINT DEVICES, 4 INCH THROUGH 16 INCH DIAMETER

LISTING	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
DATE			
	ROMAC INDUSTRIES, INC.	GripRing, Yellow MJ retainer gland w/black split fullcircle grip-	
	P.O. Box 3212	rings for DI or PVC pipe, 4" - 12"	
	Seattle, WA 98114	 RomaGrip, Black MJ retainer gland for DI pipe, 4" - 16" 	
		 RomaGrip, Red MJ retainer gland for PVC pipe, 4" - 12" 	
	A-1 FOUNDRY (CHINA) SIGMA CORP	One Lok	
	P.O. Box 300, Rt. 537 Goldman Road	• (SLD) Black MJ retainer gland for DI pipe, 4" - 16"	
	Cream Ridge, NJ 08514	• (SLC) Red MJ retainer gland for PVC pipe, 4" - 12"	
	TYLER UNION	TUFGrip	
	11910 CR 492	• (TLD) Black MJ retainer gland for DI pipe, 4" - 16"	
	Tyler, TX 75706	• (TLP) Red MJ retainer gland for PVC pipe, 4" - 12"	
	SMITH-BLAIR, INC.	Bell-Lock Serrated Joint Restraint Harness Model 165 split full-circle grip-	
	30 Globe Ave.	rings w/HSLA threaded rods and stainless steel clamping bolts. Black for	
	Texarkana, AR 71854	DI, red for PVC.	
	INFACT CORP.	Bolt-through Type: Foster MJ x MJ Adaptor	
	7555 Caney Fork Rd.		
	Fairview, TX 37062		
	GAOMI ZHONGYIDE (China)	Bolt-through Type: MJ x MJ Accu Adaptor	
	ACCUCAST		
	415 South 21st Avenue		
	Waco, TX 76706		

NOTES:

- 1. Only manufacturer's products indicated shall be used.
- 2. Restraint devices for DI pipe shall have a black coating.
- 3. Restraint devices for PVC pipe shall have a red coating.
- 4. These devices are not to be used on Plain-end DI fittings.
- 5. Specifying or use of restraint devices outside the indicated size range requires prior approval by the City of Pflugerville on a project-by-project basis.
- 6. Threaded thrust rods and nuts used with split, full-circle grip-ring restraint devices must be High Strength Low Alloy steel supplied by the restraint device manufacturer. Galvanized All-thread or similar rod is not allowed.
- 7. High Strength Low Alloy components must meet AWWA C111.
- 8. Warning tape shall be placed on the top of PVC pipe restrained by these devices and on the top of polyethylene wrap around DI pipe restrained with these devices for the full length of restrained joint pipe and fittings. The warning tape shall be yellow and shall have black lettering at least 2 inches high that states "Restrained Joint / Junta de Restriccion" at intervals not exceeding 24 inches. The warning tape shall be polypropylene having a minimum thickness of 2 mils, a minimum width of 3 inches, and adhesive backing on the side opposite the lettering.

[Inspector–show location of restrained pipe and fittings on intersection drawings. Also show on record drawings along with manufacturer's name.]



for

JOINT RESTRAINT GASKETS FOR DUCTILE IRON PIPE (4 inch through 16 inch)

LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
		STANDARD DETAILS:	
· · · · · · · · · · · · · · · · · · ·		0 0 ,	,
	Gaskets, rubber with sta (socket and spigot) pipe	Gaskets, rubber with stainless steel teeth for (socket and spigot) pipe 4-inch through 16-in	Gaskets, rubber with stainless steel teeth for wedging action, used to prov (socket and spigot) pipe 4-inch through 16-inch diameter. Gaskets shall me

LISTING	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
DATE			
	AMERICAN CAST IRON PIPE	Fast-Grip Gasket used with Fastite Pipe.	
	P.O. Box 2727	SEE NOTES	
	Birmingham, AL 35202		
	GRIFFIN PIPE PRODUCTS	Field Lok 350 and Talon Gaskets used with Tyton Joint Pipe.	
	2601 Ninth Avenue	SEE NOTES	
	Council Bluffs, IA 51501		
	U.S. PIPE & FOUNDRY CO.	Field Lok 350 Gasket used with Tyton Joint Pipe.	
	P.O. Box 10406	SEE NOTES	
	Birmingham, AL 35202		
	McWANE, INC.	Sure Stop 350 Gasket used with Tyton Joint Pipe.	
	1201 Vanderbilt Road	SEE NOTES	
	Birmingham, AL 35234		
	ROMAC INDUSTRIES, INC.	Piranha Gasket used with Tyton Joint Pipe.	
	21919 20th Avenue SE, Suite 100	SEE NOTES	
	Bothell, WA 98021		

NOTES:

- 1. These gaskets shall be used only on pipe joints, not fittings.
- 2. Fittings, used on pipe that is restrained with these gaskets, shall be MJ that are restrained using devices.
- 3. Warning tape shall be placed on the polyethylene wrap on top of the pipe restrained with these gaskets for the full length of restrained joint pipe and fittings. The warning tape shall be yellow and shall have black lettering at least 2 inches high that states "Restrained Joint / Junta de Restriccion" at intervals not exceeding 24 inches. The warning tape shall be polypropylene having a minimum thickness of 2 mils, a minimum width of 3 inches, and adhesive backing on the side opposite the lettering.
- 4. Not to be used on pipe larger than 16 inches unless approved by the City of Pflugerville.
- 5. Not to be used on pipe installed in encasement pipe unless approved by manufacturer.
- 6. Not to be used on pipe installed above ground.

[Inspector–show location of restrained pipe and fittings on intersection drawings. Also show on as-constructed drawings along with manufacturer's name.]



for

LARGE DIAMETER CLEANOUTS (SAMPLING PORT)

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:	
PREPARED BY:			STANDARD	DETAILS:			
DESCRIPTION:	Large Diameter Cleanouts, T-shaped. Base shall have a flowline that is a continuation of the flowlines of the						
	connecting pipes.						

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	G.P.K. PRODUCTS, INC. P.O. Box 2872 Fargo, ND 58102	 Wastewater Access Chambers Riser Pipe: 24" diameter PVC meeting ASTM F679 PS 46 Connectors: PVC meeting ASTM D3034 DR – 35 Base: PVC (Bases for 4", 6" & 8"diameter connecting pipes to have channeled invert at least ½" deep) 	
	L-F MANUFACTURING, INC. P.O. Box 578 Giddings, TX 78942	36" I.D. Fiberglass Unit with integral invert and cone—60" maximum depth	



for

CEMENTITIOUS LINING FOR WASTEWATER MANHOLES

LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:	
		STANDARI	DETAILS:			
0,	•	, , ,		Thickness shall	l be between 1,	/4 inch and
	Lining, cementitious mater	Lining, cementitious material, corrosion r	STANDARE Lining, cementitious material, corrosion resistant, spray	STANDARD DETAILS:	STANDARD DETAILS: Lining, cementitious material, corrosion resistant, spray or brush applied. Thickness shall	STANDARD DETAILS: Lining, cementitious material, corrosion resistant, spray or brush applied. Thickness shall be between 1,

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	KERNEOS, INC.	 SewperCoat 2000 HS Regular applied by high velocity, dry-gunite machine 	
	1316 Priority Lane	SewperCoat PG applied by low-pressure, wet-spray machine	
	Chesapeake, VA 23324		

- 1. Liner thickness shall be measured by the penetration method at locations specified by the City of Pflugerville inspector prior to final setting of the material.
- 2. May be applied by brush only on surfaces where low-pressure, wet-spray or high-velocity, dry-gunite applications would be unsatisfactory, such as on manhole inverts.
- 3. Products other than those defined by above description may be used if equivalent.



for

ORGANIC LINING FOR WASTEWATER MANHOLES

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:		REVISED:	
PREPARED BY:			STANDARD DETAILS:			
DESCRIPTION:	uses as noted in Product Ide application equipment, man	entification/Cor terial preparation technical data	applied. Material shall be uret mment below. Substrate and s on, and curing shall be in strict sheet) unless written docume Pflugerville.	urface preparat accordance wit	ion, application h manufacture	n conditions, r's written

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	RAVEN CHEMICALS 1024 North Lansing Tulsa, OK 74106	Raven 405 High Build Epoxy Liner, 80 mils minimum thickness Permitted Uses: See notes 3, 4, 5, 6, and 7 Approved Applicator not required	
	SPRAYROQ. INC. 4707 Alton Court; P.O. Box 101717 Birmingham, AL 35210	Spraywall Process, 80 mils minimum thickness Permitted Uses: See notes 3, 4, 5, 6, and 7 Approved Applicator not required	
	SEALING SYSTEMS, INC. 23230 West Thomess Blvd. Loretto, MN 55357	Flex-Seal with Primer, 80 mils minimum thickness Permitted Uses: Only in chimney area over grade rings Approved Applicator not required	
	QUADEX 4801 Crystal Hill Rd. North Little Rock, AR 72118	Structure Guard, 80 mils minimum thickness Permitted Uses: See notes 3, 4, 5, 6, and 7 Approved Applicator not required	

- 1. Lining product used for repair shall be the same as that used in original application. Use of a different product, even if it is compatible with the original lining, requires written approval of the City of Pflugerville.
- The Contractor is responsible for coating application as required for the interior surface of sectional concrete manholes. If shop-coated sections are used, contractor shall apply touch-up as required and shall completely coat the interior of all grade-adjustment rings and invert areas using the same product as applied in the shop.
- 3. Product may be applied to new manholes before wastewater lines are put into use or before hydrostatic testing of wastewater line or manhole, when allowed.
- 4. Product may be applied to new manholes after wastewater lines have been put into use or after hydrostatic testing of wastewater line or manhole, when allowed.
- 5. Product may be applied to existing manholes for rehabilitation. Minimum thickness will increase depending on manhole condition.
- 6. Product may be applied to new lift station wet well before operation.
- Product may not to be used, regardless of any other permitted uses, if any part of the manhole or lift station wet well extends below existing groundwater level unless a water-proofing system, as specified on the drawings, is applied at the same time to the exterior surface of the manhole or wet well.



for

STRUCTURAL LINING FOR WASTEWATER MANHOLES

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:		
PREPARED BY:			STANDARD DETAILS:			
DESCRIPTION:	Structural Lining, multi-layered structural fiberglass saturated with epoxy resin including inner membrane, corrosion-resistant, for lining existing wastewater manholes. Finished surfaces shall conform to the original configuration of the manhole. Preparation and application shall be in strict accordance with manufacturer's recommendations.					

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	Poly-Triplex of Texas	CIP TRIPLEX LINER SYSTEM	
	401 Edwards St. Suite 2100	6800 Series	
	Shreveport, LA 71101	11600 Series	

NOTES:

1. For manholes in which the pH may be 2.0 or less, an additional liner may be required for complete corrosion protection.



for

24 INCH MANHOLE COVER CASTING SETS

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:	
PREPARED BY:			STANDARD DETAILS:		
THE THE DIT					
DESCRIPTION:	Manhole Rings and Covers (24" diameter covers) Gray Cast Iron, ASTM A48, Class 30B or higher or Ductile Iron, ASTM A536, Grade 60-40-18 or higher. Ring Weight 160 pounds. Cover marked "Sanitary Sewer" or "Water Department" as ordered: Weight 150 pounds (175 pounds if in state maintained right of way); Weight (150 or 1 to be cast top and bottom of cover. Castings 5 pounds or more underweight will be rejected. 24" cover castings are for use only for replacement on older manholes, or – with sampling port (Standard Detail 506-14) – on Large Diameter (or Sampling) Cleanouts. Ductile Iron cover shall weigh no more than 115 lbs.				

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	EJ (formerly East Jordan Iron Works)	Meeting Description and Note	
	216 E. 6th Street		
	San Angelo, TX 76901		
	(formerly Western Iron Works and Vulcan Foundry)		
	CALCUTTA FOUNDRY, LTD /INDIA SIGMA CORP.	Meeting description and note. Not for use in TxDOT	
	P.O. Box 300	right of way.	
	Cream Ridge, NJ 08514		
	SHREE RAM FOUNDRY/INDIA STAR PIPE PRODUCTS CO.	Meeting description and note. Not for use in TxDOT	
	4018 Westhollow Parkway	right of way.	
	Houston, TX 77982		

NOTES:

1. Must be in compliance with above description and with the City of Pflugerville Standard Detail. Machined surfaces shall be true to dimensions shown; no principal dimensions shall vary by more than 1/8" from dimension given on Standard Detail. Rocking or interference in fit between interchanged frame and cover will not be acceptable.



for

32 INCH MANHOLE COVER CASTING SETS

REVIEWED:

Meeting description and notes. DI cover with CI ring.

REVISED:

ISSUED:

PREPARED BY:		STANDARD DETAILS:				
DESCRIPTION		Manhole Rings and Covers (32" diameter covers): Ring shall be Gray Cast Iron, ASTM A48, Class 30B or higher or Ductile Iron, ASTM A536, Grade 60-40-18 or higher. Cover shall be Ductile Iron, ASTM A536, Grade 60-40-18 or				
		higher. Cover marked "Sanitary Sewer", "Water Department", or "Storm Sewer" as ordered. Weight shall be as				
		required for HS-20 loading with appropriate safety factors and as shown on manufacturer's drawings and on casting.				
		Castings 5 pounds or more underweight will be rejected. Maximum weight of cover shall be 175 lbs plus 3 percent.				
	All covers shall have a 4 bolt design.					
LISTING	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL			
DATE						
	EJ (formerly East Jordan Iron Works)	Meeting description and notes. DI cover with CI ring.				
	216 E. 6th Street					
	San Angelo, TX 76901					
	(formerly Western Iron Works and Vulcan Foundry)					
	CALCUTTA FOUNDRY, LTD /INDIA SIGMA CORP.	Meeting description and notes. DI cover with CI ring.				
	P.O. Box 300					
	Cream Ridge, NJ 08514					

NOTES:

USING DEPARTMENT:

LINE MAINTENANCE

SHREE RAM FOUNDRY/INDIA STAR PIPE PRODUCTS CO.

4018 Westhollow Parkway Houston, TX 77982

- 1. Must be in compliance with above description and with City of Pflugerville Standard Detail. Machined surfaces shall be true to dimensions shown; no principal dimensions shall vary by more than 1/8" from dimension given on Standard Detail. Rocking or interference in fit between interchanged frame and cover will not be acceptable.
- 2. Manufacturer's application to the Standards Committee shall include independent laboratory report on proof load test. Load test shall meet AASHTO M-306. Proof load test shall be by domestic laboratory, and test results shall be sealed by Texas-licensed professional engineer. Utility will require certification every 2 years stating that there has been no change in design or manufacture of these castings. If variations from manufacturer's weights are found, a new test by an independent laboratory of a randomly selected casting set will be required at the manufacturer's expense.



for

CONCRETE MANHOLE SECTIONS

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
PREPARED BY:			STANDARD DETAILS:	
DESCRIPTION:	Pre-cast reinforced concrete manhole sections consisting of risers, conical tops, flat slab tops, and meeting ASTM C478. Base sections shall consist of a riser section monolithically cast with an integr sections must have approved connectors. Joint configuration and dimensions for 48" diameter sec shown on City of Pflugerville Standards. Large diameter pre-cast manholes shall not be used for jui unless shown on the contract drawings. Large diameter bottom riser sections used as junction box connected pipe size limitations as follows: 60" ID riser section for pipe to 30" maximum, 72" ID rise to 42" maximum. Shop drawings shall be submitted for City of Pflugerville approval for large diameter manholes used as junction boxes. The shop drawings shall include flowline elevations of all incomi pipes, elevation of transition from large diameter sections to 48" ID section, top of manhole elevation delevation, as well as special construction considerations that are specified in the contract of inplace manhole bottoms for 30" and larger pipe shall conform to City of Pflugerville Standards. Problem NPCA certified.			

LISTING	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
DATE			
	HANSON CONCRETE PRODUCTS (WACO)	48" Diameter	
	P.O. Box 688		
	Hewitt, TX 76643		
	HANSON CONCRETE PRODUCTS	48" Diameter	
	P.O. Box 200046		
	San Antonio, TX 78220		
	HANSON CONCRETE PRODUCTS.	48" Diameter	
	501 East Baxter		
	Seguin, TX 78155		
	CAPITAL CONCRETE PRODUCTS	48" Diameter	
	5264 Hwy. 71 East		
	Del Valle, TX 78617		
	CHARLOTTE'S CONCRETE	48" Diameter	
	4950 Lane Drive		
	San Antonio, TX 78263		
	CAPITAL PRECAST, INC.	48" Diameter	
	800 Watson Lane East		
	New Braunfels, TX 78130		
	OLDCASTLE PRECAST, INC.	48" Diameter	
	1900 Rilling Road		
	San Antonio, TX 7821448		

- 1. Sections must comply with requirements of description above and with approved details.
- 2. Base sections shall be designed to prevent insertion of connecting pipe beyond inside surface of manhole wall.
- 3. Base sections shall be pre-cast.
- 4. Flat slab tops shall only be used when specified in the contract drawings.



for

MANHOLE GRADE RINGS, HDPE

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:		REVISED:	
PREPARED BY:			STANDARD DETAILS:			
DESCRIPTION:	Grade rings for adjusting th	ne elevations of	manhole rings and covers. High o	density polyet	thylene meeting	g ASTM
	D4976.					

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	LADTECH INC. 6704 Meadow Court Lino Lakes, MN 55038	Recycled HDPE used only on manholes in paved areas. Bead of butyl rubber sealant (Concrete Sealant, Inc. CS102) "rope" between each ring. SEE NOTES	

- 1. Not for general use. Use only where specified on project drawings.
- 2. HDPE grade rings other than those defined by above description may be used if equivalent.



for

MANHOLE INSERTS

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:			
·		·	·				
PREPARED BY:		ST	ANDARD DETAILS:				
DESCRIPTION:	Manhole Inserts, straigh	t-sided metal, 316 Sta	nless Steel not less than 16 ga	auge thick, with neoprene gasket, Nitrile			
	relief valve, and 3/16-ind	relief valve, and 3/16-inch diameter 316 Stainless Steel anti-theft tether 5 feet long.					

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	SOUTHWESTERN PACKING AND SEALS	Rainstopper	
	P.O. Box 19369		
	Shreveport, LA 71149-0369		

NOTES:

1. Manhole inserts other than those defined by above description may be used if equivalent.



for

REVIEWED:

MANHOLE SEALS

ISSUED:

PREPARED BY:	STANDARD DETAILS:				
DESCRIPTION:	Manhole Seals, plastic, watertight, installed according to manufacturer-recommended procedures				

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
5.1112	CANUSA/DIVISION OF SHAW PIPE RESOUCES 2408 Timberloch Place Building C-8 The Woodlands, TX 77380	Wrapid Seal—Black, Heat Shrinkage Manhole Seal, 18- inch minimum width manufacturer-provided closure strip required manufacturer-approved primer required manufacturer-approved torch/burner required SEE NOTES	
	MILLER PIPELINE CORP. P.O. Box 34145 Indianapolis, IN 46234	Encapseal—Miller Surface Kit or I.D. Mold Repair Kit, as ordered—for sealing ring casting at top of manhole cone or adjustment rings	
	ASAHI DENKA KOGYO c/o John Nadler P.O. Box 11130 Spring, TX 77391	Adeka Ultra Seal P-201—used as waterstop around pipe wall penetrations on manholes with cast-in-place bases and on concrete chimney (adjusting) rings on manholes outside of pavement	
	CRETEX SPECIALTY PRODUCTS 2002 South West Avenue Waukesha, WI 53189	CretexWrap—Black, Metal-banded Joint Wrap, 12-inch minimum width SEE NOTES	
	PIPELINE SEAL & INSULATOR, INC. 6525 Goforth Street Houston, TX 77021	Riser-Wrap — Black, Heat Shrinkage Manhole Seal, 17- inch minimum width • manufacturer-provided closure strip required • manufacturer-approved primer required • manufacturer-approved torch/burner required SEE NOTES	
	SEALING SYSTEMS, INC. 9350 County Rd. 19 Loretto, MN 55357	Infi-Shield Gator Wrap—Black, Adhesive Coated Backside, Joint wrap, 12-inch minimum width SEE NOTES	

NOTES:

USING DEPARTMENT:

LINE MAINTENANCE

- 1. Used for sealing the joints between pre-cast manhole sections. Not used for sealing the joints between grade rings.
- 2. Manhole seals other than those defined by above description may be used if equivalent.

REVISED:



for

MANHOLE GASKETS

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:	
PREPARED BY:			STANDARI	DETAILS:			
DESCRIPTION: Gaskets, elastomeric, for 48-inch diameter pre-cast manholes. Gaskets must meet ASTM C 443, including gasket marking, which shall include name of manufacturer, usable temperature range for application and storage, shelf life, lot or batch number, and manufacturer's product identification.						0.0	

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	HAMILTON KENT 77 Carlingview Drive Toronto, Ontario M9W 5E6	 HK2021 (Solid-body Wedge, requires lubrication) Tylox SuperSeal 186 (Hollowbody Wedge, self-lubricating) 	
	PRESS-SEAL GASKET CORP. P.O. Box 10482 Fort Wayne, IN 46852	Product Identification: 210-4G (Solid-body Wedge, requires lubrication)	
	UNIVERSAL POLYMER & RUBBER 15730 South Madison Road Middlefield, OH 44062	Product Designation CR 023 (Solid-body Wedge, requires lubrication)	



for

PIPE-TO-MANHOLE CONNECTORS

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
PREPARED BY:		S	TANDARD DETAILS:	
DESCRIPTION:	Resilient connectors (bo	ots): made of natural	or synthetic rubber and confor	ming to ASTM C 923, for formed or
	cored holes			

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	PRESS-SEAL GASKET CORP. 2424 West State Blvd. Fort Wayne, IN 46808	PSX: Direct Drive Nylo Drive	
	TRELLEBORG PIPE SEALS 139 Junaluska Drive Woodstock, GA 30188	NPC Kor-N-Seal S106 and S406 WPSB Series, both series having 2 positioning tabs protruding from the body to prevent over-insertion in the manhole wall	

NOTES:

1. Pipe-to-Manhole Connectors other than those defined by above description may be used if equivalent.



for

PACKAGED CONCRETE MIX

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:		REVISED:	
PREPARED BY:			STANDARD DETAILS:			
DESCRIPTION:	Packaged, dry, combined materials for concrete meeting ASTM C 387, with preparation, mixing, placing, finishing,					
	and curing according to the manufacturer's recommendations.					

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	THE SAKRETE COMPANIES TXI Industries 1341 W. Mockingbird Lane Dallas, TX 75247	SAKRETE 5000 Plus Concrete Product No. 10380 (high, early strength)	
	THE QUIKRETE COMPANIES 3490 Piedmont Road NE; Suite 1300 Atlanta, GA 30305	 QUIKRETE Concrete Mix Product No. 1101 QUIKRETE 5000 Concrete Mix Product No. 1107 (high, early strength) 	

- 1. Finished thickness must exceed 2 inches.
- 2. Not to be used where final in-place volume will exceed ½ cubic yard.



for

PACKAGED NON-SHRINK GROUT MIX

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:			
PREPARED BY:		ST	ANDARD DETAILS:				
DESCRIPTION:	Packaged, dry, hydraulic	Packaged, dry, hydraulic-cement grout mix meeting ASTM C 1107, with preparation, mixing, placing, finishing and					
	curing according to the r	curing according to the manufacturer's recommendations.					

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	THE SAKRETE COMPANIES TXI Industries 1341 W. Mockingbird Lane Dallas, TX 75247	SAKRETE Non-shrink Construction Grout	
	THE QUIKRETE COMPANIES 3490 Piedmont Road NE; Suite 1300 Atlanta, GA 30305	 QUIKRETE Non-Shrink General Purpose Grout Product No. 1585-01 QUIKRETE Non-Shrink Precision Grout Product No. 1585-00 QUIKRETE Commercial Grade FastSet Non-Shrink Grout Product No. 1585-09 	



or

ACCESS DOORS FOR METER VAULTS AND PRV VAULTS

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
PREPARED BY:			STANDARD DETAILS:	
DESCRIPTION:	20 loading. Hinges, slam Stainless Steel. Doors are	lock, compression-a e to be used in off-st num safety grating fo	ssist springs, handles, hold open a reet locations where not subjecte or fall protection. Doors shall show	diamond plate, designed to support Harms, and all fasteners to be Type 304 did to high density traffic. Doors shall wono permanent deformation when

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT APPROVAL
	HALLIDAY PRODUCTS, INC.	Model H1R3030 Single Leaf
	6401 Edgewater Dr.	 Model H2R7248 Double Leaf
	Orlando, FL 32810	
	U.S.F. FABRICATION	 Model AHS 30" x 30" Dwg. 39268
	3200 West 84th Street	 Model AHD 48" x 72" Dwg. 39270
	Hialeah, FL 33018	
	ACCESS PRODUCTS, INC. (formerly Watkins Metal Fabrication)	 Part No. SHA3030AL Single Leaf
	PO Box 536	 Part No. DHA4872AL Double Leaf
	Mineral Wells, TX 76068	

- 1. Proof load testing shall be according to AASHTO M 306 except load shall be 16,000 lb centered on the door. Proof load test shall be by domestic laboratory, and test results shall be sealed by Texas-licensed professional engineer.
- 2. Door frame shall have manufacturer's name and door model number milled or stamped into the frame or shown on a plate permanently attached to the frame.



for METER VAULTS

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
PREPARED BY:			STANDARD DETAILS:	
DESCRIPTION:	concrete top having valve	openings and alu hatch, to be des	ompound meters and fire by-pass me uminum access hatch(with stainless s igned for H-20 loading. (Not to be insed.	teel hardware). Vault, including

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
HANSON CONCRETE PRODUCTS 801 Airport Blvd. Austin, TX 78702		5' x 7' Compound Meter Vault	
	HANSON CONCRETE PRODUCTS 501 East Baxter St. Sequin, TX 78155	 5' x 7' Compound Meter Vault 8' x 12' Fire Demand Meter Vault 10' x 12' Fire Demand Meter Vault 10' x 15' Fire Demand Meter Vault 	
	HANSON CONCRETE PRODUCTS (WACO) P.O. Box 688 Hewitt, TX 76643	 5' x 7' Compound Meter Vault 8' x 12' Fire Demand Meter Vault 10' x 12' Fire Demand Meter Vault 10' x 15' Fire Demand Meter Vault 	

- 1. See shop drawings for approval of knockout and opening locations.
- 2. Meter vaults other than those defined by above description may be used if equivalent.



for

HDPE METER BOXES

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:	
PREPARED BY:			STANDARI	DETAILS:			
DESCRIPTION:	HDPE Meter Boxes (Light \	Neight) - Resid	lential $({}^{5}/{}_{8}", {}^{3}/{}_{4}$	" and 1" meters) a	nd Commercia	l (1½" and	
	2" meters).						

LISTING	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
DATE			
	DFW PLASTICS, INC.	DFW1300.12.1 HDPE Rectangular Meter Box and Lid for Residential and	
	P.O. Box 648	Commercial Single Services	
	Bedford, TX 76095	(⁵ / ₈ ", ³ / ₄ ", or 1") Meters	
	DFW PLASTICS, INC.	DFW1600.12.1 HDPE Rectangular Meter Box and Lid for Residential and	
	P.O. Box 648	Commercial Dual Services.	
	Bedford, TX 76095	(5/8", 3/4", or 1") Meters	
	DFW PLASTICS, INC.	DFW65C.14.1 HDPE Rectangular Meter Box with Polymer Lid for	
	P.O. Box 648	Residential and Commercial Single Services	
	Bedford, TX 76095	(1 ½" OR 2") Meters	

NOTES:

1. Not for use in areas subject to traffic



for

WATER METERS

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:		
PREPARED BY:			STANDARD DETAILS:			
DESCRIPTION:	Water Meters for Residential and Commercial Application. All meters shall be of the Compound or Positive					
	Displacement type; Turbine and Multi-jet type meters are not allowed.					

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	Neptune Technology Group Inc. 1600 Alabama Highway 229 Tallassee, AL 36078	Neptune T-10 Water Meters with E-Coder R900i, Registers for Residential and Commercial Use for $(5/8^{\prime\prime}, 3/4^{\prime\prime}, 1^{\prime\prime}, 1 1/2^{\prime\prime})$ AND 2" Meters) SEE NOTES	
	Neptune Technology Group Inc. 1600 Alabama Highway 229 Tallassee, AL 36078	Neptune Tru-Flo Compound Meter with the E-Coder R900i, Registers for Commercial Use for (3", 4", 6"AND 8" Meters) SEE NOTES	

NOTES:

- 1. All meters larger than 2" are to be furnished and installed by the developer/builder.
- 2. All nuts and bolts used to secure larger meters shall be made of stainless steel and as follows:

a. $1 \frac{1}{2}$ " T-10 Meter: $\frac{5}{8}$ "-11 X 2 $\frac{1}{2}$ " Bolts and $\frac{5}{8}$ "-11 Nuts b. 2" T-10 Meter: $\frac{3}{4}$ "-10 X 2 $\frac{1}{2}$ " Bolts and $\frac{3}{4}$ "-10 Nuts c. 3" AND LARGER Tru-Flow Meter: $\frac{5}{8}$ "-11 X 2 $\frac{1}{2}$ " Bolts and $\frac{5}{8}$ "-11 Nuts



for

MISCELLANEOUS GRAY IRON CASTINGS

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:	
PREPARED BY:			STANDARD	DETAILS:			
DESCRIPTION:	Gray Iron Castings, ASTM A48 Class 30B minimum, for valve boxes and bases, sanitary sewer						
	cleanouts and other munic	ipal constructi	on castings as	ordered.			

LISTING	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
DATE			
	EJ (formerly East Jordan Iron Works)	Includes Catalogue No.1564Z frame and 1564A cover for	
	216 East 6th Street	Wastewater Cleanout Cover in paved and unpaved areas (See	
	San Angelo, TX 76903	City of Pflugerville Standard Detail)	
		Includes water valve box 33470900 and square lid 33170901	
		for reclaimed water	
		SEE NOTES	
	CALCUTTA FOUNDRY, LTD SIGMA CORP.	SEE NOTES	
	P.O. Box 300		
	Cream Ridge, NJ 08514		
	PLPL FOUNDRY (INDIA) STAR PIPE PRODUCTS	Water Valve Box base, cover, and paving ring	
	4018 Westhollow Pkwy.		
	Houston, TX 77082		
	VICTORY IRON WORKS, LTD (INDIA) ACCUCAST	Water Valve Box base and C-3 and C-7 covers	
	415 South 21st Avenue	Wastewater Cleanout base	
	Waco, TX 76706		

NOTES:

1. Must be in compliance with above description with City of Pflugerville Standard Details and construction specifications. Machined surfaces shall be true to dimensions shown; no principal dimension shall vary by more than 1/8" from dimension given on Standard Detail. Rocking or interference in fit between interchanged frame and covers is unacceptable.



for

POLYETHYLENE TUBING FOR LOW PRESSURE SEWERS

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:	
PREPARED BY:			STANDARI	DETAILS:			
DESCRIPTION:	Tubing, polyethylene, meet	ting ASTM D 2	737, CTS-OD 1	" thru 2", made of	PE 4710, minin	num Pressure C	lass 250 psi
	(SDR-9), solid green exterior and clear interior or solid green wall, contrasting-color heat-indented printline. Only						
	compression fittings recommended by the manufacturer may be used and only with stainless steel insert stiffeners.						

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	ENDOT INDUSTRIES, INC.	EndoPure	
	60 Green Pond Road		
	Rockaway, NJ 07866		

- 1. Printline shall include all markings required by ASTM D 2737: nominal tubing size, type of PE plastic tubing material, pressure rating for water, ASTM designation D 2737, manufacturer's name or trademark and code, tubing test category. In addition, the printline shall include the date of manufacture that is recognizable as a date, and manufacturer's production code that includes resin source, manufacturing location, and extrusion line.
- 2. Tracer tape meeting SPL WW-597 to be installed 12 inches above top of tubing.



or

POLYETHYLENE TUBING FOR POTABLE WATER SERVICES

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:		REVISED:		
PREPARED BY:			STANDARD DETAILS:				
DESCRIPTION:	0, 1, 1, 1,	•	901 and NSF 61 certified, CTS-	•			
		Pressure Class 250 psi (SDR-9), solid blue exterior with clear center and black heat-indented printline or solid blue					
	wall with white heat-indented printline. Only compression fittings recommended by the manufacturer and						
	compatible with stainless	steel insert sti	feners may be used.				

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
57112	ENDOT INDUSTRIES, INC.	EndoPure	
	60 Green Pond Road		
	Rockaway, NJ 07866		
	SILVER-LINE PLASTICS CORP.	Silver-Line Ultra-Pure	
	900 Riverside Drive		
	Asheville, NC 28804		

- 1. Printline shall include all markings required by AWWA C901: nominal tubing size and diameter base, SDR, manufacturer's name or trademark, material designation code, pressure class, AWWA standard number, seal of mark of the testing agency that certifies the tubing material for potable water service, date of manufacture that is recognizable as a date, and manufacturer's production code that includes resin source, manufacturing location, and extrusion line.
- 2. Tracer tape meeting SPL WW-597 to be installed 12 inches above top of tubing.



for

INSERT STIFFENERS FOR POLYETHYLENE TUBING

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:	
PREPARED BY:	STANDARD DETAILS:						
DESCRIPTION:	Solid, tubular, Type 304 stainless steel, dimpled and flanged or tight fitting to retain placement in SDR 9						
	CTS PE tubing.						

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	FORD METER BOX COMPANY P.O. Box 443 Wabash, IN 46992-0443	50 Series (Catalogue No. 51 through 55)	
	A.Y. McDONALD COMPANY Box 508 Dubuque, Iowa 52001	Model No. 6133T (3/4" through 2")	

NOTES:

1. Insert stiffeners other than those defined by above description may be used if equivalent.



for

PVC GRAVITY SEWER PIPE (6 TO 15 INCH DIAMETER)

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	RE	VIEWED:		REVISED:	
PREPARED BY:			STANDARD DE	TAILS:			
DESCRIPTION:	Pipe, polyvinyl chloride (PV psi according to ASTM D 24 6" diameter pipe, maximun 2" (ASTM F 1336). (10" diam	12 with elastor distance from	meric gasket joint center of the gas	ts meeting ASTI sket to outerm	M D 3212 and g	gaskets meeting	g F 477. For

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	NORTH AMERICAN PIPE CORP.	SDR 26 or less	
	2801 Post Oak Blvd. Suite 410	SEE NOTES	
	Houston, TX 77056		
	PIPELIFE-JET STREAM PLASTIC PIPE CO.	SDR 26 or less	
	P.O. Box 190	SEE NOTES	
	Siloam Springs, AR 72761		
	JM EAGLE	SDR 26 or less	
	Nine Peach Tree Hill Road	SEE NOTES	
	Livingston, NJ 07039		
	DIAMOND PLASTICS CORP.	SDR 26 or less	
	1212 Johnstown Road	SEE NOTES	
	Grand Island, NE 68802-1608		
	VINYLPLEX, INC.	SDR 26 or less	
	1800 Atkinson Ave.	SEE NOTES	
	Pittsburg, KS 66762		
	NORTHERN PIPE PRODUCTS	SDR 26 or less	
	1309 39th Street NW	SEE NOTES	
	Fargo, ND 58102		
	VINYLTECH CORPORATION	SDR 26 or less	
	201 South 61st Avenue	SEE NOTES	
	Phoenix, AZ 85043		
	ROYAL BUILDING PRODUCTS	SDR 26 or less	
	850 East Highway 77	SEE NOTES	
	Newbern, TN 38059		

- 1. For each project, Design Engineer shall submit to Water and Wastewater Utility, deflection calculations based upon actual installation conditions as required by Sec. 317 of TCEQ rules. Installations will be considered for approval on a case-by-case basis.
- 2. Deflection testing is required and shall be conducted after final backfill has been in place at least 30 days. A rigid mandrel shall be used. Mandrel sizes are as follows:

		Pipe Stiffness 115 psi			
Nominal Size, Inches	Average O.D., Inches	Minimum Wall Thickness, Inches	95% Mandrel Diameter, Inches		
6	6.275	0.241	5.50		
8	8.400	0.323	7.37		
12	12.500	0.481	10.96		
15	15.300	0.588	13.42		



for

PVC GRAVITY SEWER PIPE (18 TO 48 INCH DIAMETER)

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:	
PREPARED BY:			STANDARD	DETAILS:			
DESCRIPTION:	Pipe, polyvinyl chloride (PV psi according to ASTM D 24 6" diameter pipe, maximun 2" (ASTM F 1336). (10" diar	12 with elaston distance fro	omeric gasket j m center of the	oints meeting AST e gasket to outerm	M D 3212 and g	gaskets meetin	g F 477. For

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	NORTH AMERICAN PIPE CORP.	PS 115	
	2801 Post Oak Blvd. Suite 410	SEE NOTES	
	Houston, TX 77056		
	PIPELIFE-JET STREAM PLASTIC PIPE CO.	PS 115	
	P.O. Box 190	SEE NOTES	
	Siloam Springs, AR 72761		
	JM EAGLE	PS 115	
	Nine Peach Tree Hill Road	SEE NOTES	
	Livingston, NJ 07039		
	DIAMOND PLASTICS CORP.	PS 115	
	1212 Johnstown Road	SEE NOTES	
	Grand Island, NE 68802-1608		
	NORTHERN PIPE PRODUCTS	PS 115	
	1309 39th Street NW	SEE NOTES	
	Fargo, ND 58102		
	VINYLTECH CORPORATION	PS 115	
	201 South 61st Avenue	SEE NOTES	
	Phoenix, AZ 85043		

- 1. For each project, Design Engineer shall submit to Water and Wastewater Utility, deflection calculations based upon actual installation conditions as required by TCEQ rules. Installations will be considered for approval on a case-by-case basis.
- 2. Deflection testing is required and shall be conducted after final backfill has been in place at least 30 days. A rigid mandrel shall be used. Mandrel sizes are as follows:

		Pipe Stiffness 115 psi		
Nominal Size, Inches	Average O.D., Inches	Minimum Wall Thickness, Inches	95% Mandrel Diameter, Inches	
18	18.701	0.671	16.49	
21	22.047	0.791	19.44	
24	24.803	0.889	21.87	
30	32.000	1.148	28.22	
36	38.300	1.373	33.78	
42	44.500	1.596	39.24	
48	50.800	1.822	44.80	



for

PVC WASTEWATER LINE FITTINGS

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:	
PREPARED BY:			STANDARI	DETAILS:			
DESCRIPTION:	Fittings, polyvinyl chloride	(PVC) gravity	sewer, meeting	S ASTM D3034 with	n minimum stiff	fness of 115 psi	or meeting
	ASTM F679 with minimum stiffness of 75 psi and with elastomeric gasket joints meeting ASTM F1336 and gaskets						
	meeting ASTM F477. (10" f	ittings for ma	intenance only	.)			

LISTING	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
DATE			
	TIGRE USA, INC.	ASTM D3034 or F679	
	2315 Beloit Avenue	Includes D3034 6" two-way cleanout fitting	
	Janesville, WI 53546	SEE NOTES	
	THE HARRINGTON CORP.	Marked "HARCO" (fittings are gray) ASTM D3034	
	P.O. Box 10335	Includes Part No. 313-0806 for wastewater services connecting to	
	Lynchburgh, VA 24506	AWWA C900 DR 14 PVC wastewater mains. (fitting is white)	
		SEE NOTES	
	PLASTIC TRENDS, INC.	ASTM D3034	
	P.O. Box 64000	Includes 6" two-way cleanout fitting	
	Detroit, MI 48264	Includes 4" two-way cleanout fitting (Part No. H1004)	
		SEE NOTES	
	GPK PRODUCTS, INC.	ASTM D3034 or F679	
	1601 43rd Ave.	Includes 4" two-way cleanout (Part No. 993- 0444) and 6" two-way	
	Fargo, ND 58102	cleanout (Part No. 993-0666)	
		SEE NOTES	
	MULTI-FITTINGS CORPORATION	ASTM D3034 with Multi-Loc gaskets, Includes 6" two-way cleanout	
	4507 LeSaint Ct.	fitting.	
	Fairfield, OH 45014	SEE NOTES	
	SPECIFIED FITTINGS, INC.	ASTM D3034 or F679 12" larger body size only.	
	P.O. Box 28157	SEE NOTES	
	Bellingham, WA 98226		

- 1. Acceptable fitting sizes are 6" minimum (service laterals only), 8", 12", 15", 18", 21", and 24".
- 2. All joint gaskets shall be secured in place.
- 3. PVC wastewater line fitting types other than those defined by above description may be used if equivalent.



for

PVC WASTEWATER SERVICE ADAPTERS

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:		
PREPARED BY:		STANDARD DETAILS:						
DESCRIPTION:	Fittings, special, polyvinyl o	Fittings, special, polyvinyl chloride (PVC), for connecting wastewater services to mains. See Product Identification for						
	details of each fitting. Use	only when spe	ecified on the c	Irawings.				

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	INSERTA FITTINGS CO.	Gasketed Bell Inserta Tee with SDR 26 PVC hub, rubber sleeve, and stainless steel band	
	P.O. Box 714	for connecting new service to existing main Use manufacturer supplied core bits.	
	Cornelius, OR 97113		
	THE HARRINGTON CORP.	Marked "Harco" Part No. 313-0806; 8" x 6" AWWA C900 PVC Tee with ASTM D3034	
	P.O. Box 10335	PVC wastewater service adaptor on the branch	
	Lynchburg, VA 24506		

NOTES:

1. PVC wastewater line fitting types other than those defined by above description may be used if equivalent.



for

PVC PIPE SCHEDULE 80

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
PREPARED BY:			STANDARD DETAILS:	
DESCRIPTION:	ends of pipe shall be for small diameter force ma shall be marked NON-PC the pipe marking include permanent black marke shall be installed: one 12	solvent cement joint ains on a case-by-case DTABLE at intervals o es POTABLE, that wo r. Abrasive methods 2" above the top of p in unpaved areas. Th	meter, meeting ASTM D 1785 and nots having dimensions given in ASTM be basis. In addition to the marking of 5 feet or less, or the pipe shall be red shall be obliterated by black sprashall not be used to obliterate POT ipe and the other 12"- 18" below the detectable tape shall contain the ess.	I D 2672. Pipe is approved for use required by ASTM D 1785, the pipe green to designate wastewater. It appares to be paint suitable for burial or by ABLE. Two detectable warning tagop of subgrade in paved areas or

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	IPEX, INC.	XIRTEC 140	
	10100 Rodney Street	Must meet above	
	Pineville, NC 28134		

NOTES:

1. Schedule 80 PVC pipe other than those defined by above description may be used if equivalent.



for

PVC FITTINGS SCHEDULE 80

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:	
PREPARED BY:			STANDARD DETAILS:				
DESCRIPTION:	Fittings, Socket Type, PVC S	Schedule 80, 1	½" through 3½	" diameter, meeti	ng ASTM D 246	7 and	
	having Cell Classification 12	2454 - B.					

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	SPEARS MANUFACTURING CO.	Schedule 80	
	4250 Patriot Drive Suite 300	150 Series	
	Grapevine, TX 76051		

NOTES:

1. Schedule 80 PVC fittings other than those defined by above description may be used if equivalent.



for

FACTORY RESTRAINED JOINT PVC WATER PIPE FITTINGS (4-INCH TO 12-INCH DIAMETER)

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:	REVISED:	
PREPARED BY:			STANDARI	DETAILS:		
DESCRIPTION:	Fittings, polyvinyl chloride of and factory-installed internology. Pressure Class 305. Joint re	al joint restrai	nt system for	water service. Fitti		

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	SPECIFIED FITTINGS, INC.	Mitered fabricated fitting with fiberglass overlay	
	P.O. Box 28157		
	Bellingham, WA 98228-0157		

NOTES:

- 1. Warning tape shall be placed on top of pipe and fittings for the full length of restrained joint pipe. The warning tape shall be yellow and shall have black lettering at least 2 inches high that states "Restrained Joint / Junta de Restriccion" at intervals not exceeding 24 inches. The warning tape shall be polypropylene having a minimum thickness of 2 mils, a minimum width of 3 inches, and adhesive backing on the side opposite the lettering.
- 2. Material must comply with requirement of description above and be rated above design pressure. Acceptable sizes are 4", 6", 8" and 12".
- 3. Field fabricated fittings are not allowed.

[Inspector—show location of restrained pipe and fittings on intersection drawings. Also show on record drawings along with manufacturer's name.]



for

PVC WATER PIPE (4 INCH TO 12 INCH DIAMETER)

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:			
PREPARED BY:			STANDARD	DETAILS:					
DESCRIPTION:	Pipe, polyvinyl chloride (PV	Pipe, polyvinyl chloride (PVC), 4" through 12" cast iron pipe size O.D. with elastomeric gasket joints for water							
	service. AWWA C-900 curre	ent, pressure	class 305 psi (D	R14).					

LISTING	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
DATE			
	JM EAGLE	SEE NOTES	
	9 Peach Tree Hill Road		
	Livingston, NJ 07039		
	CERTAINTEED CORPORATION	Includes Certa-Lok restrained joint pipe	
	P.O. Box 860	SEE NOTES	
	Valley Forge, PA 19482		
	NORTH AMERICAN PIPE CORPORATION	SEE NOTES	
	2801 Post Oak Boulevard		
	Suite 410		
	Houston, TX 77056		
	DIAMOND PLASTICS CORPORATION	SEE NOTES	
	P.O. Box 2748		
	Lubbock, TX 79408-2748		
	VINYLTECH CORPORATION	SEE NOTES	
	201 South 61st Avenue		
	Phoenix, AZ 85043		
	NORTHERN PIPE PRODUCTS	SEE NOTES	
	1309 39th Street NW		
	Fargo, ND 58102		
	PIPELIFE JET STREAM, INC.	SEE NOTES	
	P.O. Box 190		
	Siloam Springs, AR 72761		

- 1. Material must comply with requirement of description above and be rated above design pressure. Acceptable sizes are 4", 6", 8" and 12".
- 2. AWWA C900 water pipe shall not be used in easements on private property and shall not be used for wastewater force mains or to convey anything but potable water.



for

PVC WATER PIPE (16 INCH DIAMETER)

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:		
PREPARED BY:			STANDARI	DETAILS:				
DESCRIPTION:	Pipe, polyvinyl chloride (PVC), 16" nominal diameter w/ductile iron pipe size O.D. and Reibertype steel-reinforced elastomeric gasket joints for water service, meeting current AWWA C905, Pressure Class 305 psi (DR14)							

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	NORTH AMERICAN PIPE CORPORATION 2801 Post Oak Boulevard; Suite 410 Houston, TX 77056	SEE NOTES	
	DIAMOND PLASTICS CORPORATION P.O. Box 1608 Grand Island, NE 68802-1608	SEE NOTES	

- 1. AWWA C905 water pipe shall not be used in easements on private property and shall not be used for wastewater force mains or to convey anything but potable water.
- 2. Markings shall include nominal size and OD basis (16" CI), PVC, Dimension Ratio (DR14), Pressure Class (PC 305), Test pressure for hydrotested pipe, AWWA C905, manufacturer's name or trademark, production run record or lot code, mark of certifying agency.
- 3. PVC Water Pipe types other than those defined by above description may be used if equivalent.



for

SEAMLESS COPPER TUBING

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:		
PREPARED BY:	STANDARD DETAILS:							
DESCRIPTION:	Tubing, Copper, ½" through 2", shall be annealed seamless Type K water tube meeting ASTM B 88 bearing NSF							
	Standard 61 approval.							

LISTING	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
DATE			
	MUELLER COPPER TUBE CO.	As described above	
	P.O. Box 849	SEE NOTES	
	Fulton, MS 38843		
	CERRO COPPER PRODUCTS CO.	As described above	
	P.O. Box 66880	Cerro Alloy C122	
	St. Louis, MO 63166-6800	SEE NOTES	
	CAMBRIDGE-LEE INDUSTRIES	As described above	
	4500 Hugh Howell Road; Suite 770	SEE NOTES	
	Tucker, GA 30084		
	HOWELL METAL COMPANY	As described above	
	P.O. Box 218; 574 Depot Road	SEE NOTES	
	New Market, VA 22844		
	KOBEWEILAND COPPER PRODUCTS, INC.	As described above	
	P.O. Box 160	SEE NOTES	
	Pine Hall, NC 27042		
	GREAT LAKES COPPER INC.	As described above	
	1010 Clarke Road	SEE NOTES	
	London, ON N5Y 5S6		

- 1. Tubing shall be wrapped with black polyethylene sheeting for potable water and purple polyethylene sheeting for reclaimed water.
- 2. Polyethylene sheeting shall extend into the meter box.



for

SEMI-RIGID COUPLING AND ADAPTERS

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
PREPARED BY:			STANDARD DETAILS:	
DESCRIPTION:	material or shall be cove jointed pipes. Stainless s provided for effecting se different sizes is allowed installing a separate inse	red with stainless teel bands with r als and for securi , but size reducti rt or bushing into PVC pipe. They s	nut and bolt tighteners (worm gear ing shear bands in place. Use of the on must be by a solid, one-piece se o a size-on-size coupling is not allow	ectionable movement or offsets between tighteners not allowed) shall be

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	MISSION RUBBER CO., INC.	Shielded Couplings	
	P. O. Box 1839		
	Corona, CA 71718-1839		
	DFW PLASTICS, INC.	Non-Shear Couplings and Adapters	
	P.O. Box 648		
	Bedford, TX 76021-0648		
	FERNCO, INC.	5000 Series Couplings	
	300 South Dayton Street		
	Davison, MI 48423		
	INDIANA SEAL (A GPK Company)	Indiana Seal flexible coupling with stainless steel Amazon Shear Rings	
	1601 43rd Street North	and with bolt clamps at the end connections	
	Fargo, ND 58102		
	FLEX CONNECTIONS, INC. (dba JOINTS)	JTS CRC (Calder Repair Coupling shielded with stainless steel outside	
	10699 Hickson Street	shear band)	
	Suite 20		
	El Monte, CA 91731		



for

SINGLE STRAP SERVICE CLAMPS

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:	REVISED:	
PREPARED BY:			STANDAR	DETAILS:		
DESCRIPTION:	Clamps, service (tapping slo strap and stainless steel bo where applicable.	,, 0	, ,			

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	ROMAC INDUSTRIES, INC.	Style 101NS	
	1064 Fourth Ave. South	SEE NOTES	
	Seattle, WA 98134		
	FORD METER BOX CO., INC.	FC101	
	P.O. Box 443	SEE NOTES	
	Wabash, IN 46992-0443		
	JCM INDUSTRIES, INC.	405 Coated Wide Body	
	P.O. Box 1220	SEE NOTES	
	Nash, TX 75569-1220		
	SMITH-BLAIR, INC.	Series 315	
	P.O. Box 5337		
	Texarkana, TX 75505		
	POWERSEAL PIPELINE PRODUCTS, CO.	Series 3415	
	1619 Eastside Drive	SEE NOTES	
	Wichita Falls, TX 76307		
	MUELLER COMPANY	DR1S Series	
	500 W. Eldorado St.	SEE NOTES	
	Decatur, IL 62525		

NOTES:

1. Bolt opening on one side or both sides of body must fully enclose strap bolt.



for

DOUBLE STRAP SERVICE CLAMPS

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:		
PREPARED BY:			STANDAR	D DETAILS:				
DESCRIPTION:	Clamps, service (tapping sleeves) double-strap having 12-mil nylon-coated ductile iron saddle with flat stainless steel straps and stainless steel bolts. Sizes are 4" x ¾" through 12" x 2" for ductile iron pipe O.D. or asbestos cement pipe O.D. Shall conform to AWWA C800, where applicable.							

LISTING	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
DATE			
	SMITH-BLAIR, INC.	Series 317	
	P.O. Box 5337	See note below	
	Texarkana, TX 75505		
	ROMAC INDUSTRIES, INC.	Style 202NS	
	1064 Fourth Ave. South	See note below	
	Seattle, WA 98134		
	FORD METER BOX COMPANY	FC202	
	P.O. Box 443	See note below	
	Wabash, IN 46992-0443		
	POWERSEAL PIPELINE PRODUCTS, CO.	Series 3417	
	1619 Eastside Drive	See note below	
	Wichita Falls, TX 76307		
	MUELLER COMPANY	DN2S Series	
	500 West Eldorado Street	DR2S Series	
	Decatur, IL 62525	See note below	
	JCM INDUSTRIES, INC.	406 Coated Wide Body	
	P.O. Box 1220	See note below	
	Nash, TX 75569-1220		
	DRESSER PIPING SPECIALTIES	406 Coated Wide Body	
	41 Fisher Avenue	See note below	
	Bradford, PA 16701		
	A.Y. McDONALD	Model 4856A	
	P.O. Box 508		
	Dubuque, IA 52004		

NOTES:

1. Bolt opening on one side or both sides of body must fully enclose strap bolts.



CUTTING-IN SLEEVES

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:		REVISED:			
PREPARED BY:		STANDARD DETAILS:						
DESCRIPTION:	Sleeves, Cutting-in, having	Sleeves, Cutting-in, having mechanical joint end with high-strength low-alloy bolts and ducktipped or reinforced						
	gaskets.							

LISTING	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
DATE			
	MUELLER COMPANY	H 840 Cast Iron	
	500 West Eldorado Street		
	Decatur, IL 62525		
	POWER SEAL	Model 3520 Ductile Iron	
	P.O. Box 2014		
	Wichita Falls, TX 76307		
	U.S. PIPE & FOUNDRY	H 840 Cast Iron	
	P.O. Box 10406		
	Birmingham, AL 35202		

NOTES:

1. Sleeve types other than those defined by above description may be used if equivalent.



for

TAPPING SLEEVES: IRON FULL-BODY MJ (4" & larger)

USING DEPARTM	ENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:	
PREPARED BY:			STANDARD DETAILS:					
DESCRIPTION:		Sleeves, Tapping, 4" and Sleeves shall have split be outlet and shall include a approved bolts and nuts B16.1 Class 125. Outlet f position. Flange recess d	oody that compl duck-tipped or p . Outlet flange s lange bolt holes	letely surrounds plain MJ gaskets shall be flat face s shall straddle v	pipe. Sleeves shales (as required), splind with bolt hole pertical centerline	II have medit MJ gland attern (dri of the slee	chanical joint boods, side flange gas illing) according to eve with sleeve in	ly and flanged kets, and ASME/ANSI horizontal
LISTING DATE	MAN	NUFACTURER		PRODUCT ID	ENTIFICATION/CO	OMMENT		APPROVAL
	500 W	LER COMPANY est Eldorado St.	● H-6:	15 for CI, DI, and 19 for AC	,			

LISTING	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
DATE			
	MUELLER COMPANY	 H-615 for CI, DI, and PVC (4" - 24") 	
	500 West Eldorado St.	• H-619 for AC	
	Decatur, IL 62525	 T-9 for CI and DI (30" and 36") 	
	CLOW CORPORATION	F-5205	
	P.O. Box 350		
	Oskaloosa, IA 52557		
	U.S. PIPE & FOUNDRY CO.	U.S. Mechanical Joint Tapping Sleeve	
	P.O. Box 10406		
	Birmingham, AL 35202		
	TYLER PIPE	Compact DI body used on DI pipe only	
	P.O. Box 2027		
	Tyler, TX 75710		
	AMERICAN FLOW CONTROL	Series 2800C for CI, DI, and PVC	
	P.O. Box 2727	Series 2800A for AC	
	Birmingham, AL 35202-2727		

NOTES:

1. To be used only if indicated by on City of Pflugerville approved drawings.



for

TAPPING SLEEVES: STEEL FULL-BODY FOR CSC PIPE

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
PREPARED BY:			STANDARD DETAILS:	
DESCRIPTION:	use on CSC pipe. Sleeves gaskets, and grout ports B16.1 Class 125. Outlet f	s shall have split . Outlet flange s lange bolt holes	body that completely surrounds thall be flat-faced with bolt-hole poshall straddle vertical centerline	eting ASTM A283 Grade C or ASTM A36, for the pipe. Sleeves shall have flanged outlet, pattern (drilling) according to ASME/ANSI of the sleeve with sleeve in horizontal ant lip shall be according to MSS SP-60.

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	JCM INDUSTRIES, INC.	JCM 415 Type 2 ESS (w/304 stainless steel nuts, bolts, and washers,	
	P.O. Box 1220	AWWA C207 Class E 275 psi flange, minimum 200 psi rated body,	
	Nash, TX 75569	minimum 12 mil thick fusion-bonded epoxy coating inside and out)	
	HANSON	Hanson 415 Type 2 ESS (w/304 stainless steel nuts, bolts, and washers,	
	1000 N. MacArthur Blvd.	AWWA C207 Class E 275 psi flange, minimum 200 psi rated body,	
	Grand Prairie, TX 75050	minimum 12 mil thick fusion-bonded epoxy coating inside and out)	

- 1. To be used only if indicated on City of Pflugerville approved drawings.
- 2. Contractor's / Supplier's Project Submittal must include manufacturer's cut sheet and order data sheet that lists, among other information, the type of steel; type of nuts, bolts and washers; type of coating; class of flange; and pressure rating of body, all meeting the requirements above
- 3. Contractor's / Supplier's Project Submittal must be approved by the City of Pflugerville.



for

TAPPING SLEEVES: STEEL FULL-BODY FOR LINE STOPS ON CSC PIPE

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
PREPARED BY:			STANDARD DETAILS:	
DESCRIPTION:	use on CSC pipe. Sleeves	shall have split b	oody that completely surrounds the	g ASTM A283 Grade C or ASTM A36, for pipe. Sleeves shall have a flanged outlet hall be threaded for completion plug

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
2.112	JCM INDUSTRIES, INC. P.O. Box 1220 Nash, TX 75569	JCM 445 Type 2 ESS (w/304 stainless steel nuts, bolts, and washers, AWWA C207 Class D blind flange, minimum 200 psi rated body and flanges, minimum 12 mil thick epoxy coating inside and out on all components)	

- 1. To be used only if indicated on City of Pflugerville approved drawings.
- Contractor's / Supplier's Project Submittal must include manufacturer's cut sheet and order data sheet that lists, among other
 information, the type of steel; type of nuts, bolts and washers; type of coating; class of flange; and pressure rating of body, all meeting
 the requirements above
- 3. Contractor's / Supplier's Project Submittal must be approved by the City of Pflugerville.



for

TAPPING SLEEVES: STEEL FULL-BODY FOR LINE STOPS

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:	
PREPARED BY:			STANDARI	D DETAILS:			
DESCRIPTION:	Sleeves, Tapping, meeting use on CSC pipe. Sleeves s conforming to AWWA C20 installation.	hall have split	body that com	pletely surrounds t	the pipe. Sleev	es shall have a f	flanged outlet

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	JCM INDUSTRIES, INC.	JCM 444 ESS (w/304 stainless steel nuts, bolts, and washers, AWWA	
	P.O. Box 1220	C207 Class D blind flange, minimum 200 psi rated body and flange,	
	Nash, TX 75569	minimum 12 mil thick epoxy coating inside and out on all components)	

- 1. To be used only if indicated on City of Pflugerville approved drawings.
- Contractor's / Supplier's Project Submittal must include manufacturer's cut sheet and order data sheet that lists, among other information, the type of steel; type of nuts, bolts and washers; type of coating; class of flange; and pressure rating of body, all meeting the requirements above
- 3. Contractor's / Supplier's Project Submittal must be approved by the City of Pflugerville.



or

TAPPING SLEEVES: STEEL FULL-BODY MJ (16" & larger)

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
PREPARED BY:			STANDARD DETAILS:	
DESCRIPTION:	C or ASTM A36, for use of surrounds pipe. Sleeves MJ glands, and side flang ASME/ANSI B16.1 Class:	on Cast Iron, Duct shall have mecha ge gaskets. Outlet 125. Outlet flange	ile Iron, PVC, and AC pipe. Sleeves s nical joint body and flanged outlet a flange shall be flat-faced with bolt bolt holes shall straddle vertical ce	carbon steel meeting ASTM A283 Grade shall have split body that completely and shall include plain MJ gaskets, split shole pattern (drilling) according to enterline of the sleeve with sleeve in slignment lip shall be according to MSS

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	JCM INDUSTRIES, INC.	JCM 414 ESS (w/304 stainless steel nuts, bolts, and washers, AWWA	
	P.O. Box 1220	C207 Class E 275 psi flange, minimum 200 psi rated body, minimum 12	
	Nash, TX 75569	mil thick epoxy coating inside and out)	
	SMITH-BLAIR	Type 623 and 624 (w/304 stainless steel nuts, bolts, and washers, AWWA	
	30 Globe Ave.	C207 Class E 275 psi flange, minimum 200 psi rated body, minimum 12	
	Texarkana, AR 71854	mil thick epoxy coating inside and out)	

- 1. To be used only if indicated on City of Pflugerville approved drawings.
- 2. Contractor's / Supplier's Project Submittal must include manufacturer's cut sheet and order data sheet that lists, among other information, the type of steel; type of nuts, bolts and washers; type of coating; class of flange; and pressure rating of body, all meeting the requirements above
- 3. Contractor's / Supplier's Project Submittal must be approved by the City of Pflugerville.



or

TAPPING SLEEVES: STEEL FULL-BODY MJ (16" & larger)

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
PREPARED BY:			STANDARD DETAILS:	
DESCRIPTION:	C or ASTM A36, for use of surrounds pipe. Sleeves MJ glands, and side flang ASME/ANSI B16.1 Class:	on Cast Iron, Ducti shall have mechai ge gaskets. Outlet 125. Outlet flange	ile Iron, PVC, and AC pipe. Sleeves s nical joint body and flanged outlet a flange shall be flat-faced with bolt- bolt holes shall straddle vertical ce	carbon steel meeting ASTM A283 Grade hall have split body that completely and shall include plain MJ gaskets, split shole pattern (drilling) according to enterline of the sleeve with sleeve in dignment lip shall be according to MSS

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	JCM INDUSTRIES, INC.	JCM 414 ESS (w/304 stainless steel nuts, bolts, and washers, AWWA	
	P.O. Box 1220	C207 Class E 275 psi flange, minimum 200 psi rated body, minimum 12	
	Nash, TX 75569	mil thick epoxy coating inside and out)	
	SMITH-BLAIR	Type 623 and 624 (w/304 stainless steel nuts, bolts, and washers, AWWA	
	30 Globe Ave.	C207 Class E 275 psi flange, minimum 200 psi rated body, minimum 12	
	Texarkana, AR 71854	mil thick epoxy coating inside and out)	

- 1. To be used only if indicated on City of Pflugerville approved drawings.
- Contractor's / Supplier's Project Submittal must include manufacturer's cut sheet and order data sheet that lists, among other
 information, the type of steel; type of nuts, bolts and washers; type of coating; class of flange; and pressure rating of body, all meeting
 the requirements above
- 3. Contractor's / Supplier's Project Submittal must be approved by the City of Pflugerville.



for **T-HEAD BOLTS**

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:		
PREPARED BY:	ARED BY: STANDARD DETAILS:					
DESCRIPTION:	Bolts, T-Head for mechanical joints. High-strengh low-alloy steel (HSLA), having design as required by AWWA C111 and dimensions as given in Table 1 of AWWA C110 for C110 or C111 (cast iron size) joints or in Table 1 of AWWA C153 for compact ductile iron fitting joints. Nuts to meet Table 5 of AWWA C111, with dimensions as summarized in Note 1.					

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	NSS TECHNOLOGIES	HSLA Steel (CORTEN) Bolt & Nut	
	9075 General Dr.		
	Plymouth, MI 48170		
	BIRMINGHAM FASTENER & SUPPLY, INC.	HSLA steel Bolt & Nut (Nuts manufactured by Unytite, Inc., marked U	
	P.O. Box 10323	& LA)	
	Birmingham, AL 35202		

NOTES:

1. Nuts shall have the following dimensions:

Bolt Diameter	Nut Size (same thing as wrench or socket size)	Nut Depth
Inches	Inches	Inches
3/4	11/4	3/4
1	15/8	1
$1^{1}/_{A}$	2	11/4



for

THREADED RESTRAINING ROD (HSLA)

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:	
PREPARED BY:			STANDARI	DETAILS:			
DESCRIPTION:	Threaded rod and nuts, ma	ade of ASTM A	242 high-stren	gth low-alloy steel	(HSLA) and co	onforming to AV	VWA C111,
	used for thrust restraint applications. Nuts shall be heavy hexagonal meeting the size requirements in Note 2.						

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	BIRMINGHAM FASTENER MANUFACTURING	Double end threaded tie rod	
	931 Avenue W		
	Birmingham, AL 35214		

NOTES:

1. Galvanized and plain carbon steel all-thread rods are unacceptable for this application.

Bolt Diameter	Nut Size (same thing as wrench or socket size)	Nut Depth
Inches	Inches	Inches
3/4	11/4	3/4
1	15/8	1
11/4	2	11/4



TRACER TAPE

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
PREPARED BY:	-		STANDARD DETAILS:	
FREFARED DT.			STANDARD DETAILS.	
DESCRIPTION:	aluminum foil core. All bra	ands shall be a the American F	minimum of 12" wide and placed ublic Works Association Uniform	d 0.34 mil minimum thickness, solid I no deeper than 36". The tape shall be Color Code: blue for potable water, purple

LISTING	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT APPROVAL
DATE		
	PRO-LINE SAFETY PRODUCTS CO.	SEE DESCRIPTION
	1099 Atlantic Drive Unit #1	
	West Chicago, IL 60185	
	UNITED SAFETY AUTHORITY OF OHIO	SEE DESCRIPTION
	P.O. Box 336	
	Southington, OH 44470-0366	
	DALIAN METALS I/E, CO. LTD. (China) ACCUCAST	SEE DESCRIPTION
	415 South 21ST Street	
	Waco, TX 76706	



for

TRANSITION COUPLINGS

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
PREPARED BY:			STANDARD DETAILS:	
DESCRIPTION:	connecting pipes of same	nominal size but	or Ductile Iron (12" through 24") ea having different outside diameters, r ky according to AWWA C213.	S

LISTING	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
DATE			
	SMITH-BLAIR, INC.	Style 441	
	P.O. Box 5337		
	Texarkana, TX 75505		
	JCM INDUSTRIES, INC.	Style 212	
	P.O. Box 580		
	Nash, TX 75569-0580		
	FORD METER BOX CO.	Style FC2A	
	P.O. Box 443		
	Wabash, IN 46992-0443		
	ROMAC INDUSTRIES, INC. 1064 Fourth Avenue South Seattle, WA 98134 POWER SEAL CORP.	 Style 501 Style XR 501 4" 4.5-5.6" Stl., DI, CI & AC 6" 6.60-7.60" Stl., DI, CI & AC 8" 8.6-9.75" Stl., DI, CI & AC 10" 11.00-12.15" Stl., DI & AC 12" 13.10-14.40" Stl., DI, CI & AC Model 3501 	
	P.O. Box 2014 Wichita Falls, TX 76307	• Model 3506	
	DRESSER PIPING SPECIALTIES 41 Fisher Avenue Bradford, PA 16701	 Style 253 Modular Cast Couplings (4"- 16") Style 253 Modular Long Sleeve Cast Coupling (4" - 16") 	



for

TRANSITION COUPLINGS, WIDE RANGE

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:	
PREPARED BY:			STANDARI	DETAILS:			
DESCRIPTION:	Couplings, Transition, Bolte	ed, Welded St	eel or Ductile I	ron (12" through 2	4") each with v	vide range of di	ameters for
	connecting pipes of same r	nominal size b	ut having diffe	rent outside diame	ters, meeting	AWWA C219 an	d coated
	inside and outside with fusion bonded epoxy according to AWWA C213.						

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	SMITH-BLAIR, INC.	Quantum 461 & 462	
	P.O. Box 5337		
	Texarkana, TX 75505		
	JCM INDUSTRIES, INC.	Style 241 & 242 Optimum Range Couplings	
	P.O. Box 580		
	Nash, TX 75569-0580		
	FORD METER BOX CO.	Style FC2W	
	P.O. Box 443		
	Wabash, IN 46992-0443		



for

AIR RELEASE / VACUUM RELIEF VALVES FOR POTABLE WATER

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
PREPARED BY:			STANDARD DETAILS:	
				-
DESCRIPTION:	to be shown on approve purchased for City force:	d engineering dra s shall be "lead fre	wings. Must comply with AWW	er service only, size and optional features A C512. Effective January 1, 2013, valves ching, or casting "NL" in the main body or must be "lead free."

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	A.R.I. FLOW CONTROL C/O MCCAIN WATERWORKS MARKETING LLC	D-040	
	18975 Marbach Lane; Suite 1202	D-040-C	
	San Antonio, TX 78266		
	APCO VALVE & PRIMER CORP.	Series 140	
	1420 Wright Blvd.	Series 150	
	Schaumburg, IL 60193		

NOTES:



for

AIR RELEASE / VACUUM RELIEF VALVES FOR RECLAIMED WATER

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:	
PREPARED BY:			STANDARD DETAILS:		
DESCRIPTION:	Air release (combination, a	automatic)/vacu	um relief valve for reclaimed water se	rvice only, size and optional features	
	to be shown on approved engineering drawings. Must comply with AWWA C512.				

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	A.R.I. FLOW CONTROL C/O MCCAIN WATERWORKS MARKETING LLC.	D-021	
	18975 Marbach Lane; Suite 1202		
	San Antonio, TX 78266		

NOTES:



or

AIR RELEASE / VACUUM RELIEF VALVES FOR WASTEWATER

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:	
PREPARED BY:			STANDARI	DETAILS:			
DESCRIPTION:	Air release (combination, a be shown on approved eng similar non-corrodible mat	ineering draw			,,	•	

LISTING	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
DATE			
	A.R.I. FLOW CONTROL C/O MCCAIN WATERWORKS MARKETING LLC	D-025	
	18975 Marbach Lane; Suite 1202		
	San Antonio, TX 78266		
	APCO VALVE & PRIMER CORP.	COMBINATION AIR VALVE FOR	
	1420 Wright Blvd.	WASTEWATER SERVICE (ASU)	
	Schaumburg, IL 60193		

NOTES:



for

AIR RELEASE / VACUUM RELIEF VALVES FOR WATER

LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:			
		STANDARD DETAILS:				
		•	- ·			
approved Engineer's design drawings. AWWA C512. Effective January 1, 2013, valves purchased for City forces shall						
be "lead free" and marked by stamping, etching, or casting "NL" in the main body or by other methods acceptable						
to City. Effective January	, 4, 2014, all valves	must be "lead free."				
	Air Release Valves, auto 150 psi. 3" and smaller 3 except as specified). All approved Engineer's des be "lead free" and mark	Air Release Valves, automatic, for water ser 150 psi. 3" and smaller 300 psi body - screw except as specified). All valves shall have th approved Engineer's design drawings. AWV be "lead free" and marked by stamping, etc	Air Release Valves, automatic, for water service. Cast Iron Body, Stainless 150 psi. 3" and smaller 300 psi body - screwed (NPT) inlet. 4" and larger 25 except as specified). All valves shall have threaded or flanged outlets. Inlet approved Engineer's design drawings. AWWA C512. Effective January 1, 20			

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	VAL-MATIC VALVE & MFG. CO.	Air Release Valves	
	905 Riverside Drive		
	Elm Hurst, IL 60126		
	G.A. INDUSTRIES INC.	1" and 2" Figure 920	
	9025 Marshall Road	3" Figure 922	
	Mars, PA 16046	4" and 6" Figure 923	
	APCO/VALVE & PRIMER CORP.	200 Series with stainless steel	
	1420 South Wright Blvd.	internals	
	Schaumburg, IL 60196		
	MULTIPLEX MFG. CO.	CRISPIN	
	P.O. Box 427	Models PL10, PL20, PL30, and P40	
	Berwick, PA 18603		

NOTES:



for ALTITUDE VALVES

LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
		STANDARD DETAILS:	
	•	· · · · · · · · · · · · · · · · · · ·	•
	-		methods acceptable to city. Effective
	Altitude valves control the	Altitude valves control the high water lev marked by stamping, etching, or casting "	

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
BAIL	CLA - VAL P.O. Box 1325 Newport Beach, CA 92659	One-Way Flow 211-01 210-01 (Full Internal Port) 210-03 (Full Internal Port) Delayed Opening 610-01 (Reduced Internal Port) 610-03 (Reduced Internal Port) Delayed Opening Two-Way Flow 211-16 210-16 (Full Internal Port) 210-02 (Full Internal Port) Delayed Opening 610-16 (Reduced Internal Port) 610-02 (Reduced Internal Port) 610-07 (Reduced Internal Port) 210-27 (Full Internal Port) 610-27 (Reduced Internal Port)	
	SINGER VALVE INC. C/O Valve & Equipment Consultants, Inc. P.O. Box 1249 Huffman, TX 77336	One-Way Flow 106-A-Type 2 / 206-A-Type 2 106-A-Type 4 / 206-A-Type 4(Differential Control) Two-Way Flow 106-A-Type 1 / 206-A-Type 1 106-A-Type 3 / 206-A-Type 3(Differential Control)	

- 1. Valves shall be designed to automatically control the high water level in the reservoir. The valve shall allow normal flow to fill the reservoir until the maximum level shut-off point it reached and then closes drip tight at the set point.
- 2. All valves shall be furnished with any auxiliary controls needed to meet the need for multiple functions such as: pressures sustaining, pressure reduction, rate of flow control, solenoid override etc.
- 3. The reservoir pressure sensing line should be ¾" minimum I.D. installed with a two degree slope from valve to reservoir to avoid air pockets.
- 4. The sensing line should not be installed in the following line between the valve and the reservoir or into a turbulent flow area. These locations do not reflect the true static head of the reservoir.
- 5. The valve and all tubing shall be protected from freezing temperatures.
- 6. All internal valve components shall be removable and repairable while the valve body remains in line.
- 7. The main valve body shall be equipped with inlet and outlet gauges having stainless steel exterior casing and internal trim. Gauges shall have a 2 1/2- inch diameter face, shall be glycerin-filled, and shall have a range of 0 300 psi on high side with 5 percent accuracy over spectrum, and 0 160 psi on low side in 2 psi increments with 3 percent accuracy over spectrum.
- 8. Specifying or use of valves other than those defined by above description may be used if equivalent and requires approval of the City of Pflugerville on a project-by-project basis.



for

GATE VALVE ACTUATORS, MANUAL

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
Γ				
PREPARED BY:		9	TANDARD DETAILS:	
DESCRIPTION:	iron input housing and g installations (requires in up to 45 feet), meeting	gear casing, one-piece ternational standard the applicable AWWA	solid input shaft machined from ingress protection IP68-rated enc	losure for continuous submergence nide epoxy exterior coating. Maximu

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	ROTORK GEARS AMERICA	IS Multi-turn Gearbox Series (spur gear)	
	1811 Brittmoore	IB Multi-turn Gearbox Series (bevel gear)	
	Houston, TX 77043	(comply with Note 1)	

- 1. CONTRACTOR'S PROJECT SUBMITTAL shall identify gear box, gear ratio, input and output flange types, and other features about the specific actuator units to be supplied to the PROJECT.
- 2. Use on all valves 24" and larger. Use on other valves as indicated on City of Pflugerville approved drawings.
- 3. Valve actuators other than those defined by above description may be used if equivalent



for INSERT VALVES

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
PREPARED BY:			STANDARD DETAILS:	
DESCRIPTION:	Valves, resilient-seated gat system valves, materials m			temporary line stops or as permanent

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	ADVANCED VALVE TECHNOLOGIES	EZ2 Valve	
	800 Busse Road	4" - 12" for PVC, DI, AC, CI and oversized CI	
	Elk Grove Village, IL 60007	16" and 24" for PVC. DI, and CI	
		For vertical installation only.	
		See notes.	
	TEAM INDUSTRIAL SERVICES	InsertValve 4" - 12"	
	200 Hermann Ave.	For vertical or horizontal installation. Miter gearing required on horizontal	
	Alvin, TX 77511	installation.	
		See notes.	

- 1. To be used only when desired shutout of mains are not possible using existing system valves.
- 2. When left in place as a permanent valve, the depth of cover to the operating nut must be at least 18 inches to accommodate a valve box assembly, regardless of valve orientation.
- 3. When left in place as a permanent valve, gearing is required on horizontal valves and on valves 24" and larger, regardless of valve orientation.
- 4. When used only as a temporary line stop, the valve bonnet and actuation mechanism shall be removed and a blind flange (cover plate) meeting AWWA C207 Class E rating installed over the completion plug.



for

PRESSURE REDUCING VALVES

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:	
PREPARED BY:			STANDARD DETAILS:		
DESCRIPTION:		sting "NL" in the	service. Valves purchased for C e main body or by other metho	•	

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	CLA - VAL	90G - 01ABCS	
	P.O. Box 1325	SEE NOTES	
	Newport Beach, CA 92659		
	SINGER VALVE INC. C/O Valve & Equipment Consultants, Inc.	Model 106 - PR	
	P.O. Box 1249	SEE NOTES	
	Huffman, TX 77336		

- 1. Valves shall be designed to automatically reduce a higher inlet pressure to a lower, adjustable maximum outlet pressure regardless of fluctuations in demand.
- Automatic control valves shall be fluid-actuated, having a single moving assembly. A flexible, nylon fabric reinforced synthetic elastomer diaphragm shall be integral with this assembly to form a sealed chamber, operating free of drag or wear. The diaphragm shall not be used as a seating surface. This assembly shall have a stem that is fully guided by separate upper and lower bearings to preclude binding or deflection. When the valve is closed, sealing at the seat shall be by contact between one edge of a securely retained elastomer rectangular seal and a smooth seat surface. The seat shall be removable and not have edges that will induce seal cutting or wear at low flows. Progressive throttling of flow shall be accomplished by a characterized profile seal retaining washer. All internal valve components shall be removable and repairable while the valve body remains in line. The main valve shall be equipped with a position indicator with an air bleed for priming the main valve and for checking the main valve diaphragm for leakage. The main valve body shall be equipped with inlet and outlet gauges having stainless steel exterior casing and internal trim. Gauges shall have a 2 1/2- inch diameter face, shall be glycerin-filled, and shall have a range of 0 - 300 psi on high side with 5 percent accuracy over spectrum, and 0 - 160 psi on low side in 2 psi increments with 3 percent accuracy over spectrum. Valve internal trim (seat and seal retainer plate) shall be stainless steel, and all valve elastomers shall be FDA approved. An FDA and NSF-61 approved epoxy coating shall be heat-fusion bonded to all internal and external ferrous valve surfaces. The pilot system shall include a fixed orifice opening speed flow control with copper tubing and brass fittings. On 3" and smaller valves, add opening speed flow control. The reducing pilot shall be stainless steel or bronze with an adjustment range suitable for the pressure conditions at the installation location. Isolation ball valves with stainless steel ball and handle for the pilot system shall be furnished on all sizes and include a ystrainer with blow-down ball valve.



for

RESILIENT-SEATED GATE VALVES, AWWA C509

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
PREPARED BY:			STANDARD DETAILS:	
DESCRIPTION:	Resilient-Seated Gate Valv	es, AWWA C50	9. (4" through 16") Non-rising stem	having end types with gaskets, glands
	bolts, etc. as requisitioned	l. Copper alloy p	arts (bronze or brass) shall contain	not over 16 percent zinc. Copper alloy
	UNS No. shall be shown or	n permanent ex	ternal marking in addition to marki	ngs required by AWWA C509. Valve
	stems shall turn clockwise	to close.		

LISTING	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
DATE			
	CLOW CORPORATION/VALVE DIV.	R/W (4" – 12")	
	P.O. Box 350		
	Oskaloosa, IA 52577		
	MUELLER COMPANY	Series A-2360	
	500 West Eldorado St.	Tapping Valve T-2360 (4" – 16")	
	Decatur, IL 62525		
	U.S. PIPE AND FOUNDRY CO.	Metroseal 250 (4" – 12")	
	P.O. Box 10406	16" for Water Distribution and Wastewater Collection Service only.	
	Birmingham, AL 35202		
	AMERICAN FLOW CONTROL	AFC-500 Series (4" – 12")	
	P.O. Box 2727		
	Birmingham, AL 35207		
	AMERICAN AVK CO.	Series 25 R/W (4" – 16") Bronze or Stainless Steel Valve Stems	
	5286 East Home Ave.		
	Fresno, CA 93727		
	KENNEDY VALVE	4" – 12"	
	Division of McWane, Inc.		
	1021 East Water Street		
	Elmira, NY 14902-1516		
	M & H VALVE	4" – 12"	
	Division of McWane, Inc.		
	P.O. Box 2088		
	Anniston, AL 36202		

- 1. Specifying or use of valves outside the indicated size range requires approval of the City of Pflugerville on a project-by-project basis.
- 2. Contractor's/manufacturer's PROJECT submittal for valves larger than 24" diameter, when approved for use, shall include catalogue drawings and assembly drawings (shop drawings) specific to valves required for the project.
- 3. All valves 24" and larger shall be geared.



for

RESILIENT-SEATED GATE VALVES, AWWA C515

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
PREPARED BY:			STANDARD DETAILS:	
DESCRIPTION:	gaskets, glands, bolts, et Copper alloy UNS No. sh	c. as specified. C all be shown on urn clockwise to	opper alloy parts (bronze or brass) permanent external marking in add oclose. Interior and exterior coating	on-rising stem type having ends with shall contain not over 16 percent zinc. lition to markings required by AWWA gs of ferrous surfaces as required by

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	AMERICAN FLOW CONTROL	Series 2500-1 (3" - 12")	
	P.O. Box 2727	Series 2500 (14" and larger)	
	Birmingham, AL 35202-2727		
	CLOW VALVE CO.	Model No. 2638 (4" and larger)	
	902 South 2nd Street		
	Oskaloosa, IA 52577		
	MUELLER CO.	A-2361 (4" and larger)	
	500 West Eldorado Street		
	Decatur, IL 62525-1808		
	AMERICAN AVK CO.	Series 55 (18" and larger)	
	5286 East Home Avenue		
	Fresno, CA 93727		
	EJ (formerly East Jordan Iron Works)	FlowMaster (4" and larger)	
	301 Spring Street		
	East Jordan, MI 49727		

- 1. Contractor's/manufacturer's PROJECT submittal for valves larger than 24" diameter, when approved for use, shall include catalogue drawings and assembly drawings (shop drawings) specific to valves required for the project.
- 2. All valves 24" and larger shall be geared.
- 3. Bypasses are not required on these valves regardless of size.



for

SWING CHECK VALVES, AIR CUSHIONED

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:
PREPARED BY:		S	TANDARD DETAILS:	
DESCRIPTION:	contain not over 16 pero	cent zinc. Copper alloy WWA C508. Effective J g, etching, or casting "	UNS No. shall be shown on perr anuary 1, 2013, valves purchased NL" in the main body or by other	lloy parts (bronze and brass) shall manent external marking in addition to d for City forces shall be "lead free" r methods acceptable to City. Effective

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	G-A INDUSTRIES, INC.	G.A. Fig. 250-D	
	9025 Marshall Rd.		
	Mars, PA 16046		
	APCO VALVE & PRIMER CORP.	APCO Series 6000	
	1420 S. Wright Blvd.		
	Schaumburg, IL 60193		

NOTES:

1. Valves other than those defined by above description may be used if equivalent.



for

SWING CHECK VALVES, AWWA C508

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:		REVIEWED:		REVISED:	
PREPARED BY:			STANDAR	D DETAILS:			
DESCRIPTION:	Valves, swing check with for water works service. UNS No. shall be shown January 1, 2013, valves p "NL" in the main body or free."	Copper alloy pa on permanent ourchased for C	arts (bronze an external markir ity forces shall	d brass) shall not c ng in addition to m be "lead free" and	ontain ove arkings re marked b	er 16 percent zinc. Co quired by AWWA C50 y stamping, etching,	opper alloy 08. Effective or casting

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	M & H VALVE COMPANY	M & H Style 159-02	
	P.O. Box 2088		
	Anniston, AL 36202		
	MUELLER COMPANY	A-2600-6-01	
	500 W. Eldorado St.		
	Decatur, IL 67525		
	AMERICAN R/D	50-SC	
	P.O. Box 3077		
	Vernon, CT 06066		
	APCO VALVE & PRIMER CORP.	APCO Series 6000 CLW	
	1230 So. Wright Blvd.		
	Schaumburg, IL 60193		
	CLOW CORPORATION/VALVE DIVISION	F – 5382, Style 106LW	
	P.O. Box 350	F – 5345, Style 159 – 02	
	Oskaloosa, IA 52577		

NOTES:

1. Valves other than those defined by above description may be used if equivalent.



for

VENTILATION PIPE

USING DEPARTMENT:	LINE MAINTENANCE	ISSUED:	REVIEWED:	REVISED:		
PREPARED BY:			STANDARD DETAILS:			
DESCRIPTION:	Pipes for ventilation of co	onfined spaces,	including manholes in floodplain	areas when required. Construction to be of		
	approved metallic pipe with acceptable corrosion-resistant coating inside and out. Vent outlet shall be covered with					
	Type 304 stainless steel i	nsect screen in t	frame to permit removal for clea	ning. Vent diameter shall be as ordered: 3"-		
	12".					

LISTING DATE	MANUFACTURER	PRODUCT IDENTIFICATION/COMMENT	APPROVAL
	FAST FABRICATORS, INC.	Schedule 40 Black Steel Pipe and Fittings meeting ASTM A 53 and	
	800 Burlington Road	ASTM A 234, respectively. All surfaces coated with polyurethane (Futura	
	Saginaw, TX 76179	brand).	