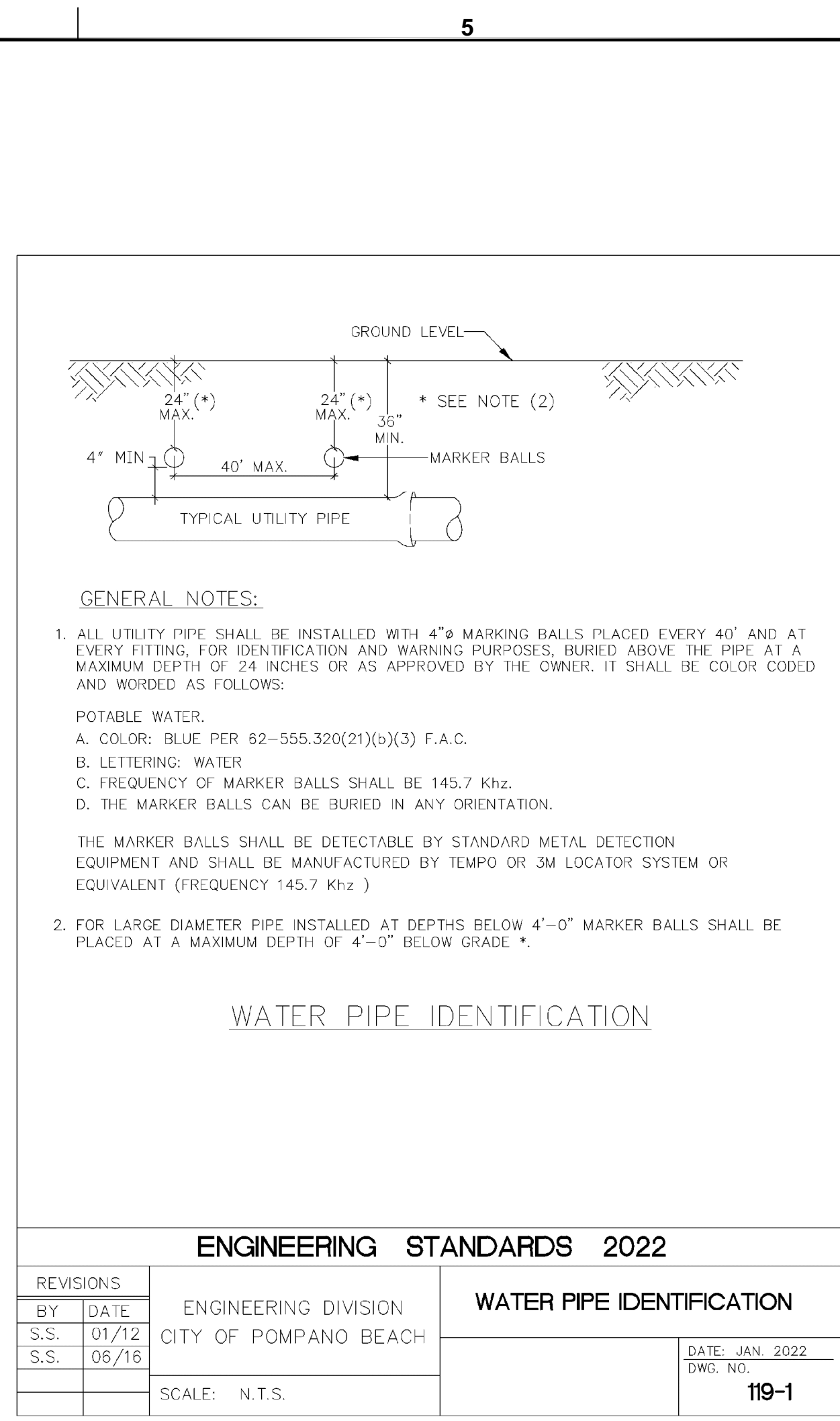
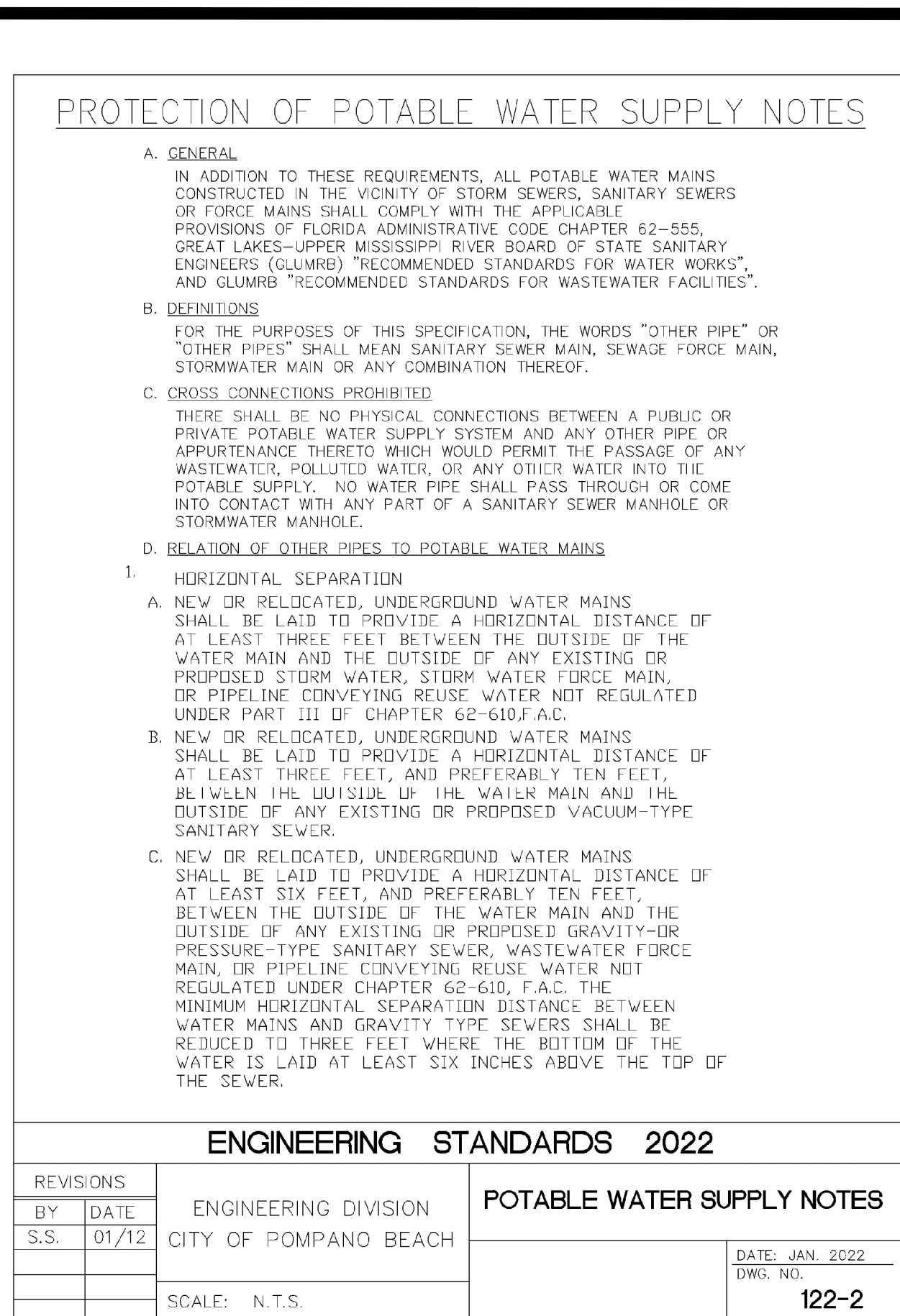
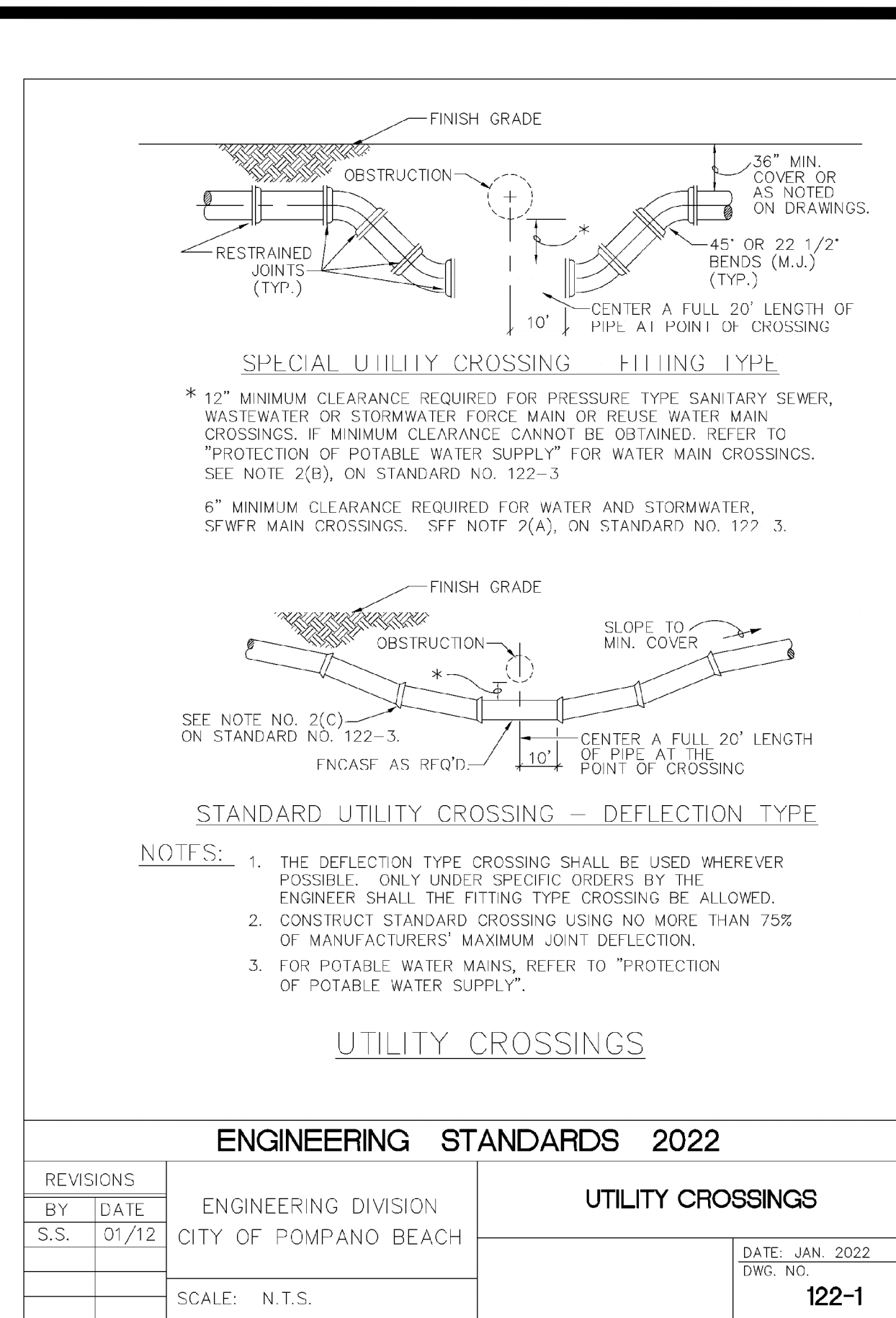
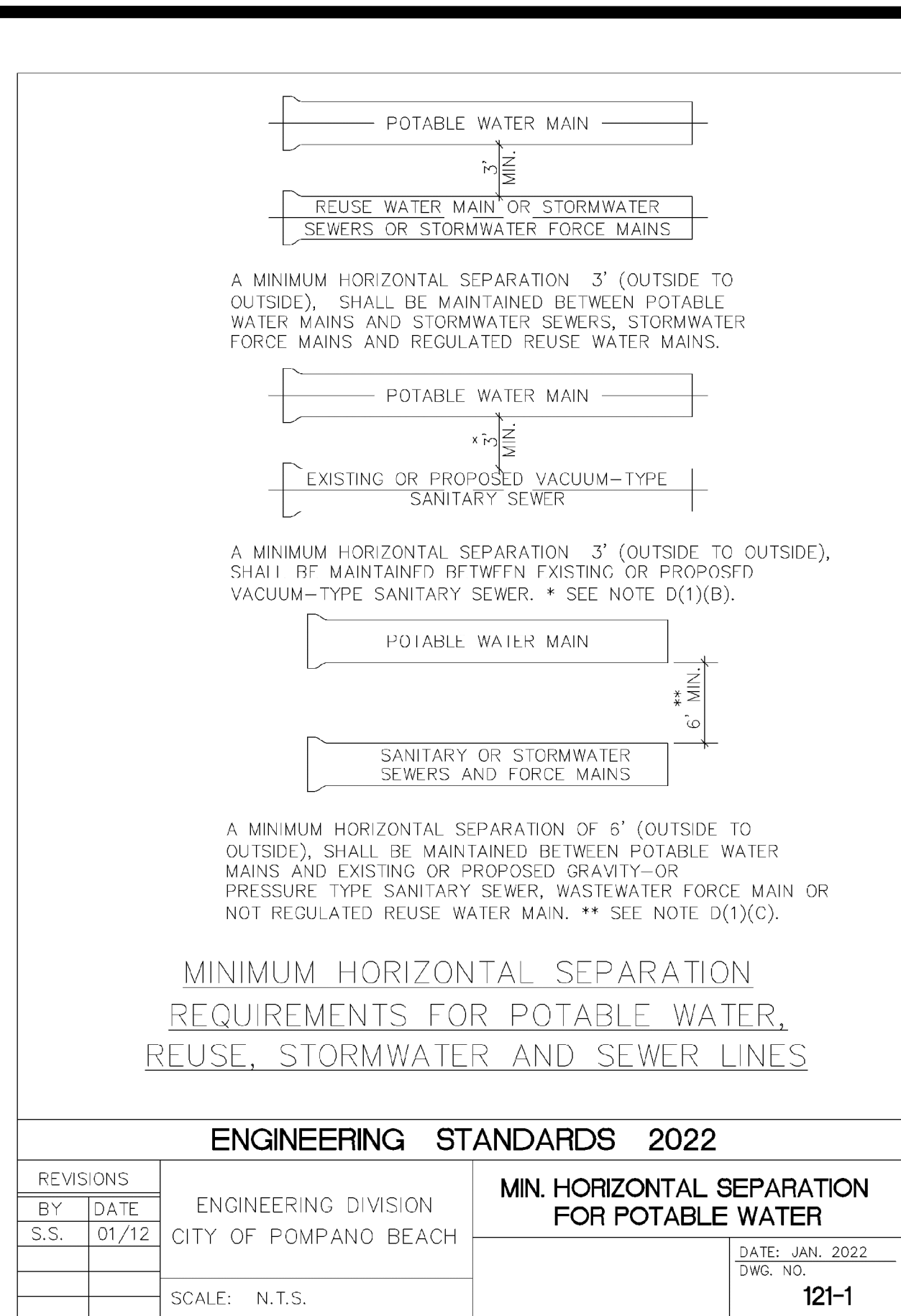
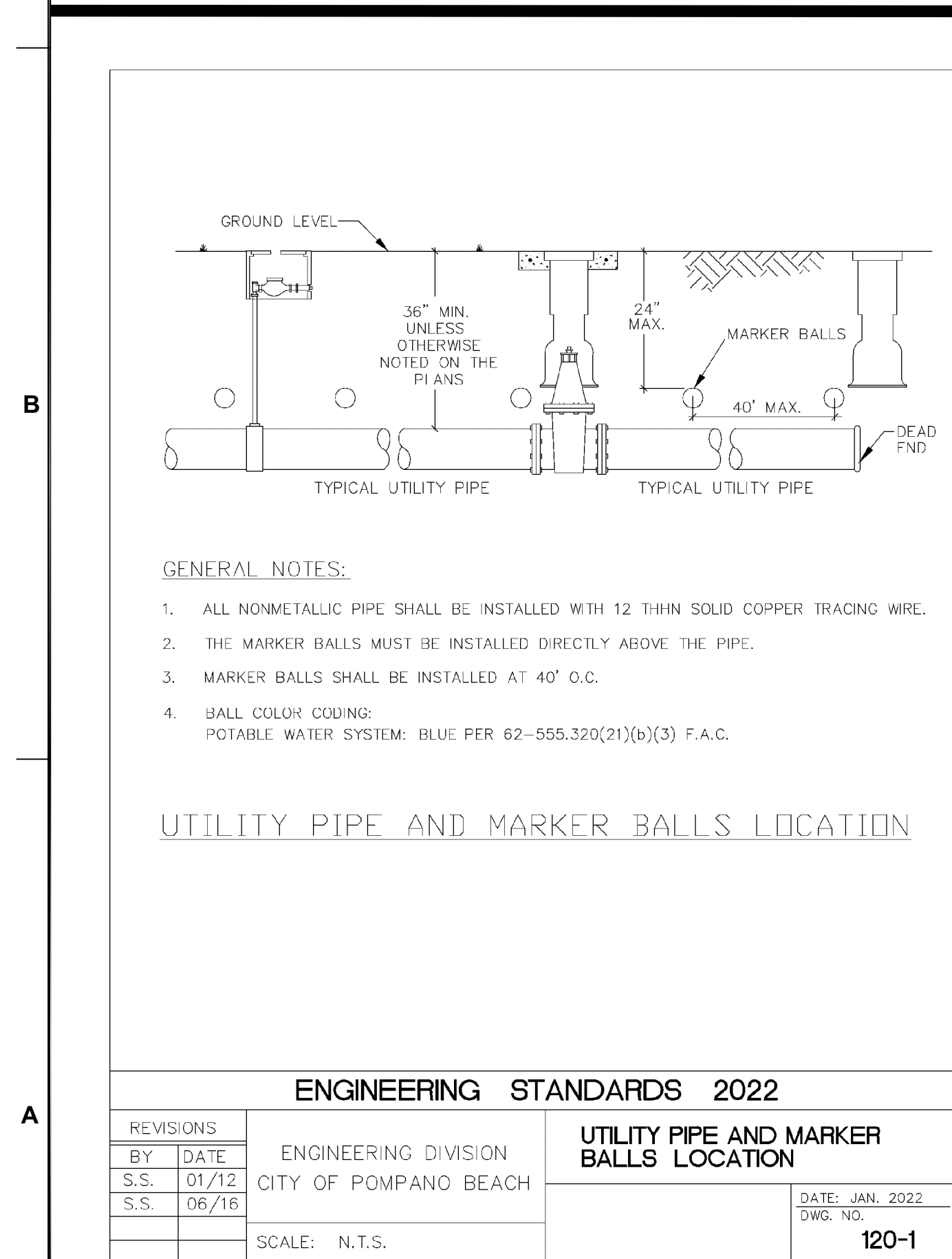


4

MIN. LENGTH OF PIPE (FEET) TO BE RESTRAINED  
(SOURCES: EBAA IRON RESTRAINT LENGTH CALCULATION PROGRAM FOR PVC PIPE, RELEASE 3.1,  
AND DHRJA THREESTR RESTRAINT FOR DUCTILE IRON PIPE, RELEASE 3.2)

FITTING TYPE	PIPE SIZE										200psi	
	4"	6"	8"	10"	12"	16"	20"	24"	30"	36"	42"	48"
90° HORIZ. BEND	1	2	20	25	30	35	45	54	62	98	112	124
45° HORIZ. BEND	1	1	8	11	13	15	19	22	26	41	46	51
22.5° HORIZ. BEND	1	1	4	5	6	7	9	11	12	19	22	25
11.25° HORIZ. BEND	1	2	3	3	4	4	5	6	6	10	11	12
90° VERT. OFFSET	29	41	53	64	74	95	115	134	214	246	276	304
45° VERT. OFFSET	7	10	13	16	19	25	30	35	57	66	74	83
22.5° VERT. OFFSET	12	19	24	29	34	39	48	56	89	102	116	128
11.25° VERT. OFFSET	3	4	6	7	8	10	12	15	23	27	31	34
UPPER BEND	6	9	12	14	17	19	23	27	43	49	55	60
LOWER BEND	1	2	4	4	4	5	6	7	11	13	15	16
UPPER BEND	2	4	5	7	8	9	11	13	21	24	27	30
LOWER BEND	1	1	1	2	2	2	3	3	6	6	7	8
(FLUG ORIFLO FLOW)	32	45	59	70	83	107	129	151	214	246	276	304
IN-LINE VALVE	37	45	45	45	45	56	65	80	110	125	140	153
TEE (BRANCH RESTRAINT)	6"x 6	23	—	—	—	—	—	—	—	—	—	—
	6"x 6	21	35	—	—	—	—	—	—	—	—	—
	6"x 8	18	34	67	—	—	—	—	—	—	—	—
	10"x 6	16	37	46	58	—	—	—	—	—	—	—
	12"x 6	13	30	44	47	59	—	—	—	—	—	—
	15"x 6	7	26	41	55	67	90	—	—	—	—	—
	20"x 6	1	21	38	50	65	86	109	—	—	—	—
	24"x 6	1	16	34	49	62	86	108	129	—	—	—
	30"x 6	1	8	28	44	58	83	106	127	208	—	—
	36"x 6	1	1	27	38	54	80	103	124	209	240	—
REDUCER (LARGER PIPE RESTRAINT)	42"x 6	1	1	15	33	49	77	100	123	205	239	270
	48"x 6	1	1	7	27	44	73	97	120	203	238	269
	6"x 6	23	—	—	—	—	—	—	—	—	—	—
	6"x 8	38	25	—	—	—	—	—	—	—	—	—
	10"x 6	57	43	24	—	—	—	—	—	—	—	—
	12"x 6	72	60	44	41	—	—	—	—	—	—	—
	16"x 6	99	78	75	75	45	—	—	—	—	—	—
	20"x 6	123	118	107	105	81	45	—	—	—	—	—
	24"x 6	146	140	131	111	81	46	—	—	—	—	—
	30"x 6	209	204	197	188	177	153	116	75	—	—	—
200psi	36"x 6	243	236	233	225	217	199	188	159	74	—	—
	42"x 6	273	270	265	259	252	234	211	183	133	72	—
	48"x 6	301	298	294	289	283	268	249	235	183	131	—

[illegible]

CLIENT	<p><b>US GATEWAY INVESTMENTS LLC</b></p>
PROJECT	<p><b>GATEWAY LUXURY APARTMENTS 950 N. Powerline Road Pompano Beach, FL</b></p>
SHEET TITLE	<p><b>WATER AND SEWER DETAILS</b></p>
SHEET NUMBER	<b>CU-503</b>
PROJECT NUMBER	<b>12697.00</b>

STATUS: PRELIMINARY

Drawing name: 1:12697.00 - Powerline Road Pompano Beach - Multi Family Res