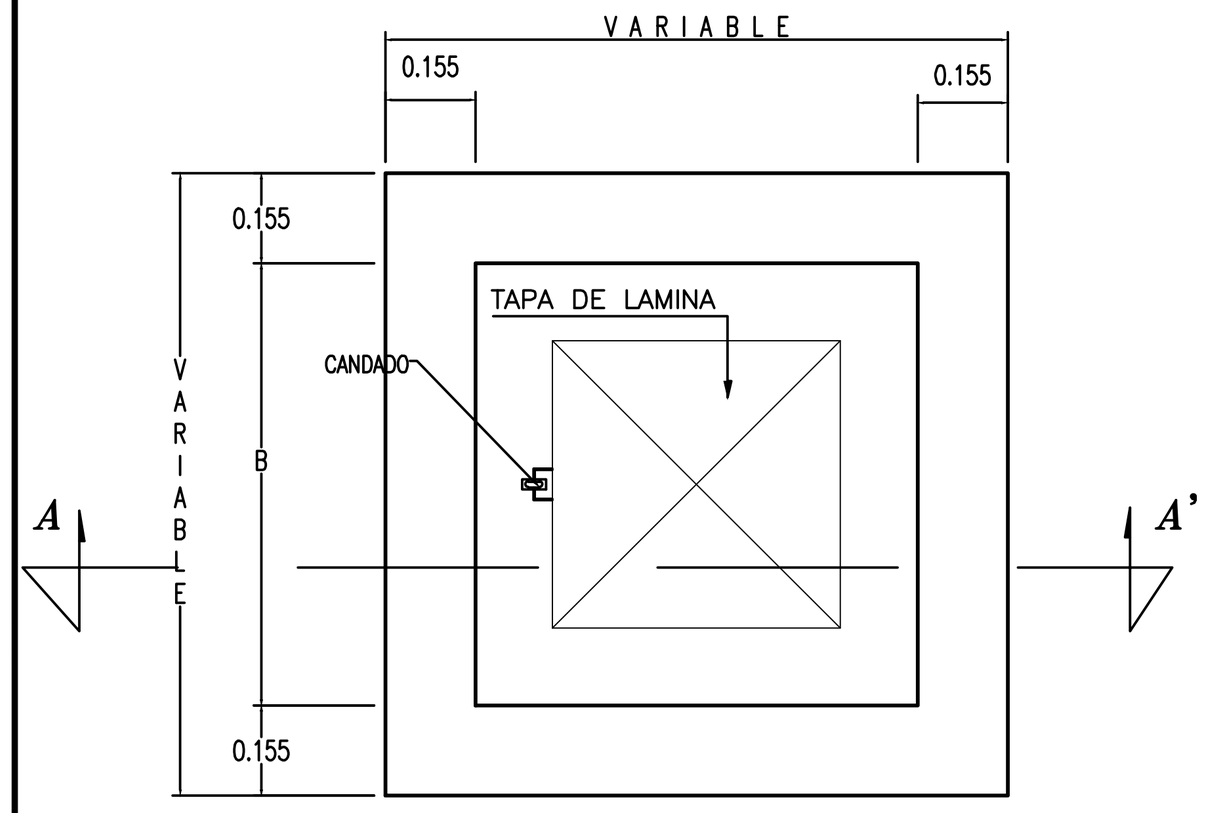
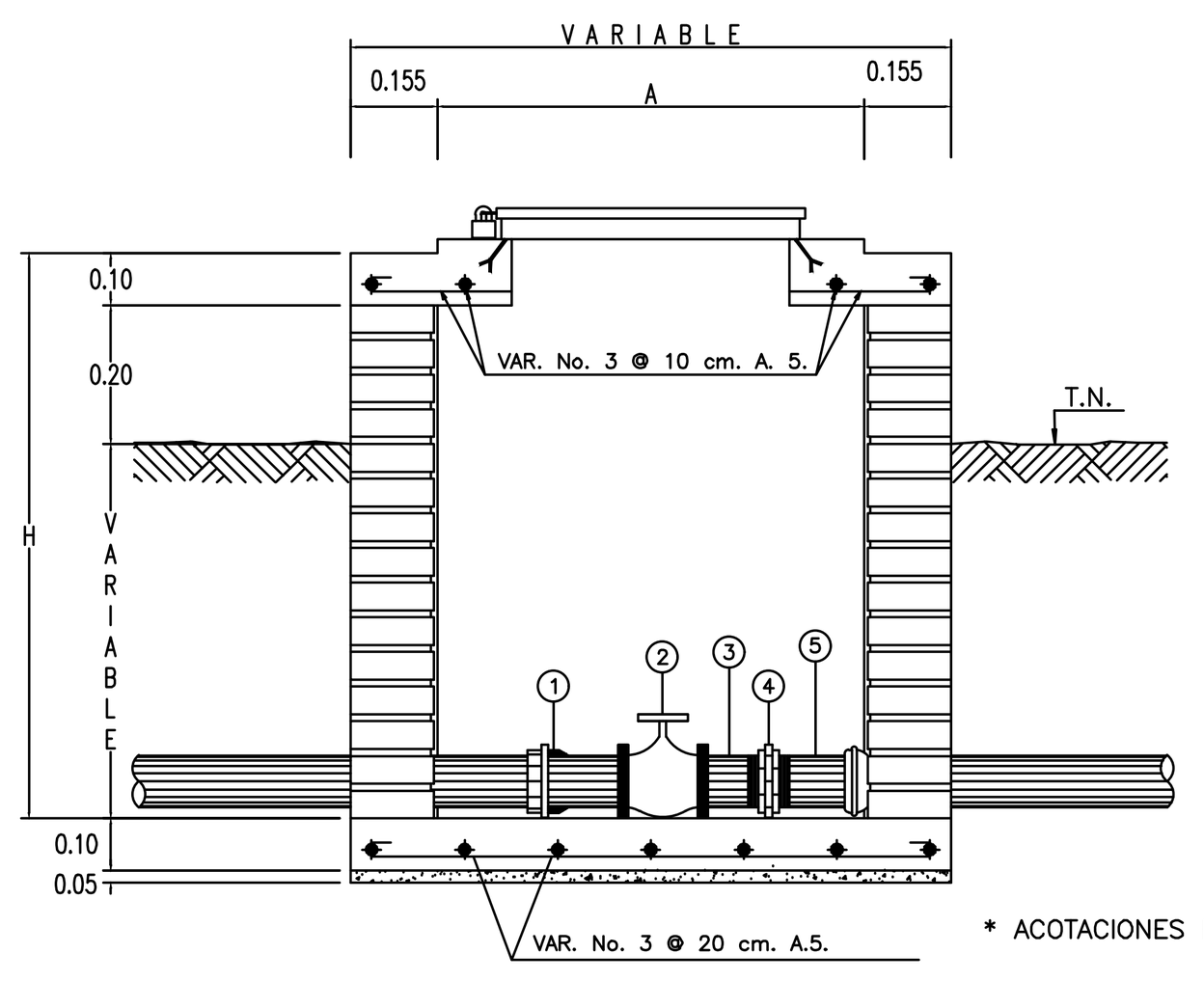
CAJA P/OPERACION DE VALVULAS
P L A N T A





CORTE A – A'

* ACOTACIONES EN METROS

NOTAS:
- * LA TAPA ES DE LAMINA CAL. 10 CON MARCO Y CONTRAMARCO DE 2" X 1/4" DE ESPESOR, DE 60 X 60 cm.
- * LA PLANTILLA ES DE CONCRETO SIMPLE f'c = 100 kg/cm²
- * EL CONCRETO A UTILIZAR EN LOSA DE PISO Y TECHO, ES DE UN f'c=150 kg/cm²
- * EL MURO SE HAZO CON TABIQUE ROJO RECOCIDO DE 14 cm. DE ESPESOR.
- * EL ACERO DE REFUERZO ES DE Fy = 4200 kg/cm².
- * LA TAPA DE LAMINA QUEDO CENTRADA Y ALINEADA CON EL DADO DE OPERACION DE LA VALVULA.
- * EL APLANADO INTERIOR SE REALIZO CON MORTERO CEMENTO-ARENA 1:5 DE 1.5 cm. DE ESPESOR.

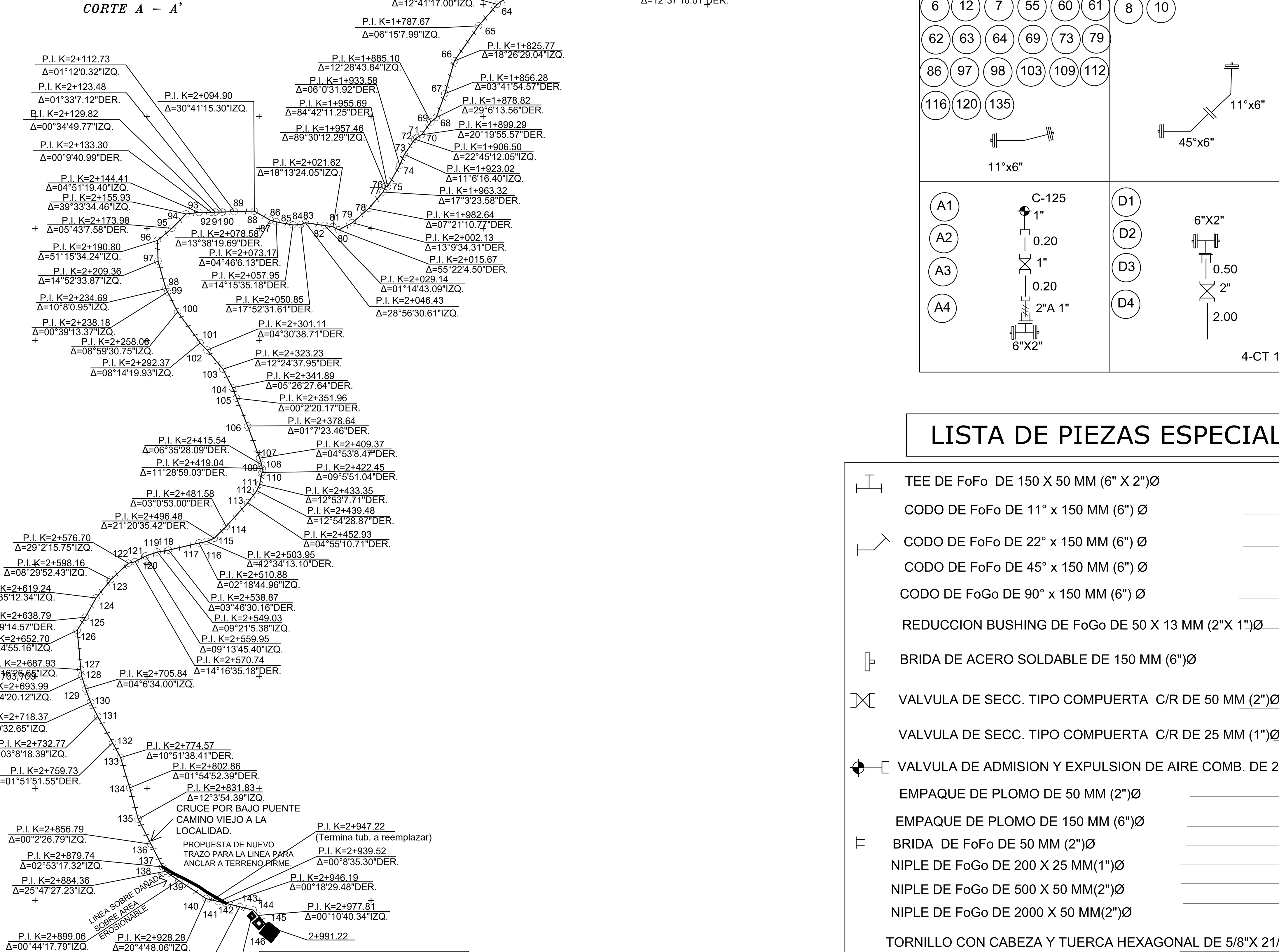
DATOS GENERALES DE LAS CAJAS

CAJA TIPO	DIAMETRO DE VALVULA (mm.)	NUMERO DE VALVULAS	A (cm.)	B (cm.)	H (cm.)
1	25 a 50	1	70	70	74
2	60 a 75	1	90	100	100
3	100 a 150	1	120	140	100
4	200	1	160	170	120

LISTA DE PIEZAS ESPECIALES CAJA DE OPERACION TUB. P.V.C.

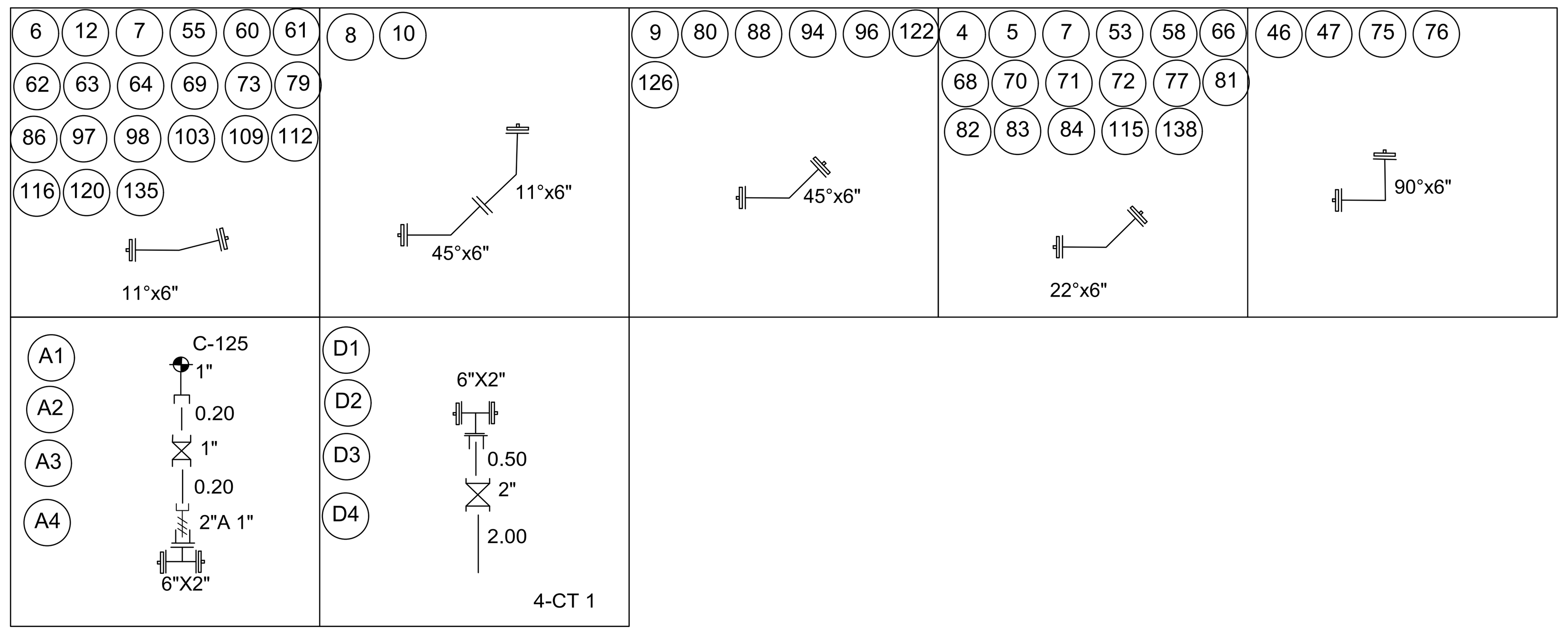
1	ADAPTADOR CAMPANA DE P.V.C.
2	VALVULA DE SECCIONAMIENTO TIPO COMPUERTA
3	NIPLE DE Fo.Go. DE 10 cm. DE LONGITUD
4	TUERCA UNION DE Fo.Go.
5	ADAPTADOR ESPIGA DE P.V.C.





TANQUE EXISTENTE 120 M3
NIVEL DE LLEGADA ELEV. 72.61
COTA DEL PISO 69.80
COTA DE LA LOSA 72.70
ANCHO INFERIOR 11.00 MTS.
ANCHO SUPERIOR 7.00 MTS.

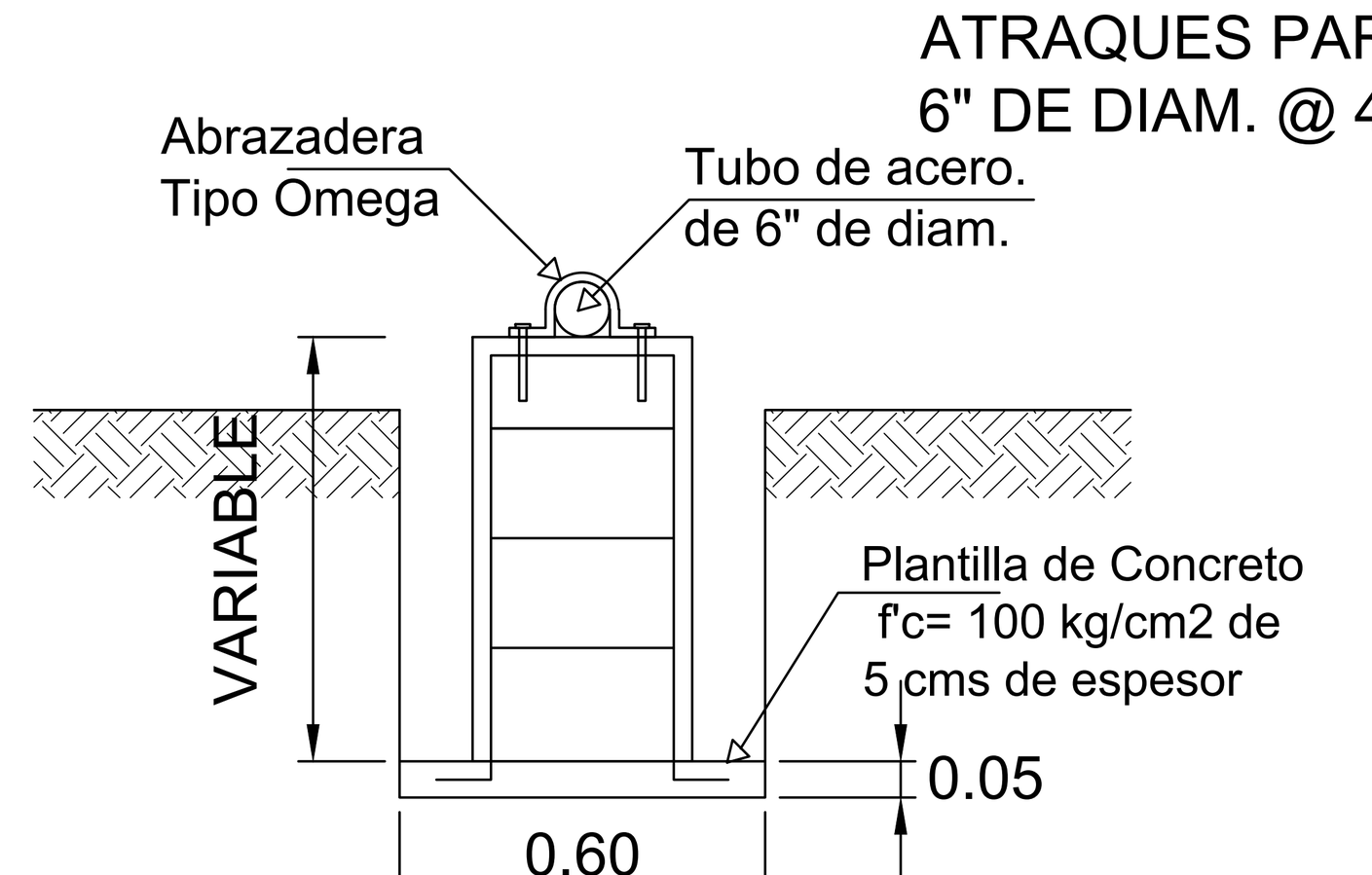
C R U C E R O S D E L A L I N E A

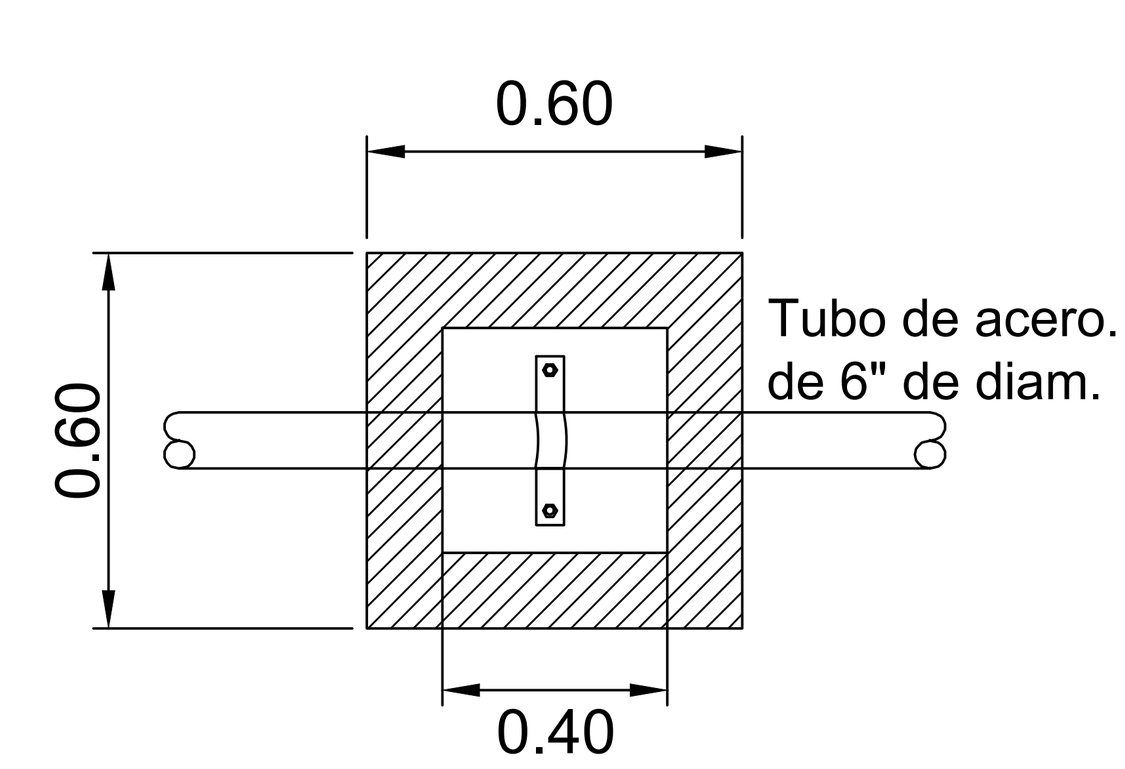


LISTA DE PIEZAS ESPECIALES EN LINEA DE CONDUCCION

	pzas.
TEE DE FoFo DE 150 X 50 MM (6" X 2")Ø	8
CODO DE FoFo DE 11° x 150 MM (6") Ø	23
CODO DE FoFo DE 22° x 150 MM (6") Ø	17
CODO DE FoFo DE 45° x 150 MM (6") Ø	9
CODO DE FoGo DE 90° x 150 MM (6") Ø	4
REDUCCION BUSHING DE FoGo DE 50 X 13 MM (2"X 1")Ø	4
BRIDA DE ACERO SOLDABLE DE 150 MM (6")Ø	118
VALVULA DE SECC. TIPO COMPUERTA C/R DE 50 MM (2")Ø	4
VALVULA DE SECC. TIPO COMPUERTA C/R DE 25 MM (1")Ø	4
VALVULA DE ADMISION Y EXPULSION DE AIRE COMB. DE 25 MM (1")Ø C - 125 LBS.	4
EMPAQUE DE PLOMO DE 50 MM (2")Ø	8
EMPAQUE DE PLOMO DE 150 MM (6")Ø	47
BRIDA DE FoFo DE 50 MM (2")Ø	8
NIPLE DE FoGo DE 200 X 25 MM(1")Ø	8
NIPLE DE FoGo DE 500 X 50 MM(2")Ø	4
NIPLE DE FoGo DE 2000 X 50 MM(2")Ø	4
TORNILLO CON CABEZA Y TUERCA HEXAGONAL DE 5/8"X 21/2"Ø	36
TORNILLO CON CABEZA Y TUERCA HEXAGONAL DE 3/4"X 31/2 "Ø	376

ATRAQUES PARA TUBERIA DE ACERO SOLDABLE DE 6" DE DIAM. @ 4.5 MTS

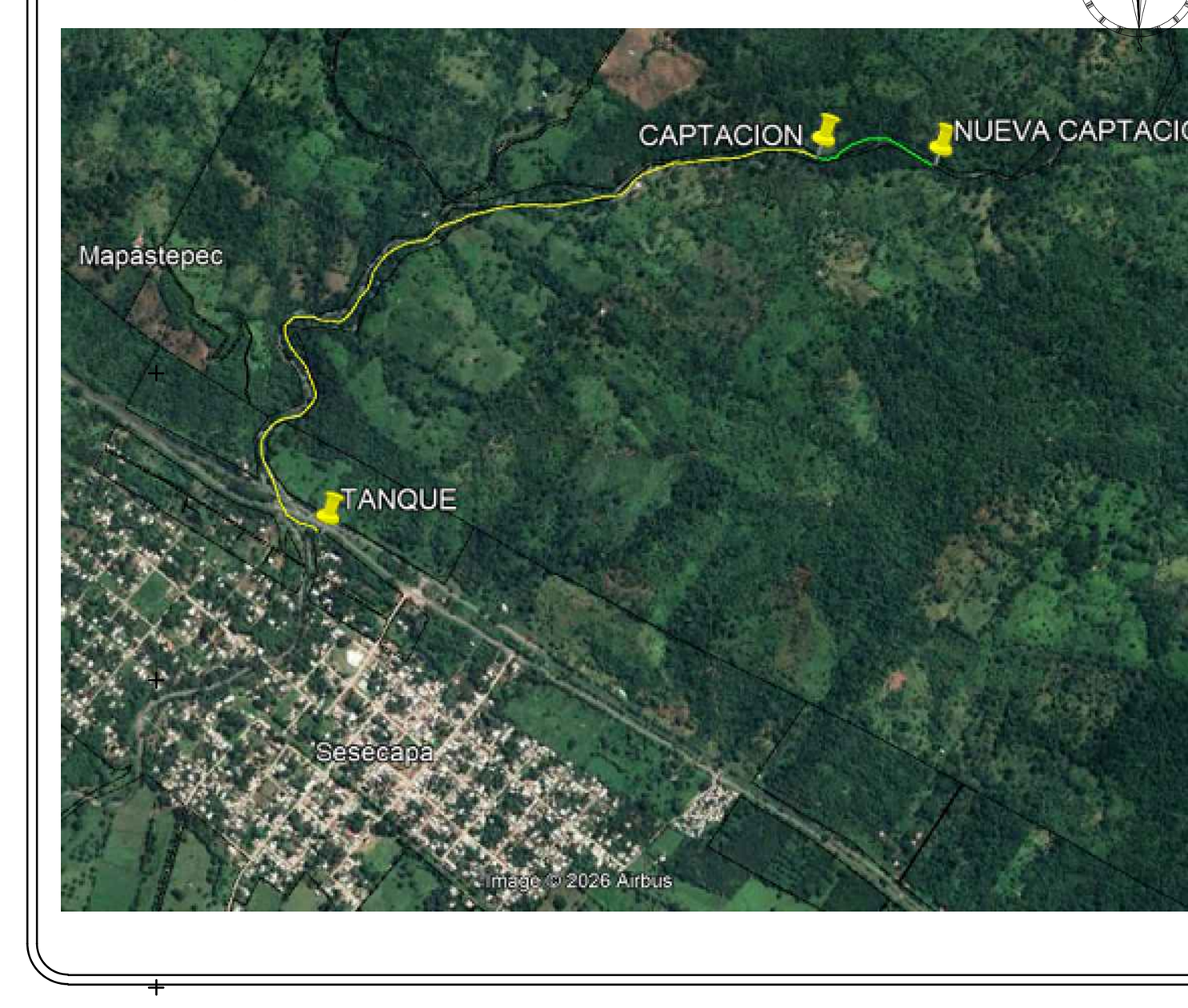




CUADRO DE CONSTRUCCION

LADO EST	LADO PV	RUMBO	DISTANCIA	V	COORDENADAS Y	COORDENADAS X
				0	1,704,570.6308	520,547.5396
0	1	N 65°27'54" W	8.47	1	1,704,574.1491	520,539.8319
1	2	N 59°58'20" W	34.93	2	1,704,591.6311	520,509.5859
2	3	N 56°04'53" W	57.33	3	1,704,623.6241	520,462.0089
3	4	N 60°28'44" W	53.46	4	1,704,649.9681	520,415.4859
4	5	N 89°20'01" W	56.05	5	1,704,650.6201	520,359.4359
5	6	S 71°00'56" W	53.88	6	1,704,633.0931	520,308.4889
6	7	S 57°14'49" W	40.60	7	1,704,611.1291	520,274.3459
7	8	S 37°55'16" W	22.72	8	1,704,593.2051	520,260.3819
8	9	S 89°35'45" W	15.73	9	1,704,593.0941	520,244.6499
9	10	S 42°54'15" W	9.01	10	1,704,586.4941	520,238.5159
10	11	N 81°28'02" W	21.47	11	1,704,589.6791	520,217.2879
11	12	N 75°35'45" W	20.34	12	1,704,594.7379	520,197.5908
12	13	N 63°48'55" W	14.59	13	1,704,601.1761	520,184.4979
13	14	N 65°23'29" W	4.23	14	1,704,602.9381	520,180.6509
14	15	N 68°23'58" W	19.18	15	1,704,610.0001	520,162.8149
15	16	N 78°18'56" W	39.39	16	1,704,617.9771	520,124.2429
16	17	S 88°34'41" W	40.74	17	1,704,616.9661	520,083.5159
17	18	N 87°11'52" W	29.82	18	1,704,618.4241	520,053.7299
18	19	S 74°10'16" W	23.46	19	1,704,612.0251	520,031.1599
19	20	S 72°42'04" W	6.51	20	1,704,610.0901	520,024.9469
20	21	S 76°18'10" W	15.90	21	1,704,606.3241	520,009.4949
21	22	S 71°34'01" W	19.98	22	1,704,600.0061	519,990.5389
22	23	S 73°39'59" W	23.03	23	1,704,593.5301	519,968.4409
23	24	S 80°17'06" W	16.67	24	1,704,590.7171	519,952.0099
24	25	S 86°18'05" W	18.91	25	1,704,589.4971	519,933.1369
25	26	S 89°04'10" W	29.31	26	1,704,589.0211	519,903.8319
26	27	S 84°30'23" W	42.96	27	1,704,584.9081	519,861.0659
27	28	S 82°33'18" W	49.15	28	1,704,578.5401	519,812.3349
28	29	S 79°20'21" W	14.47	29	1,704,575.8631	519,798.1139
29	30	N 86°40'51" W	23.42	30	1,704,577.2191	519,774.7329
30	31	S 70°32'32" W	14.90	31	1,704,572.2561	519,760.6849
31	32	S 71°29'34" W	3.01	32	1,704,571.3001	519,757.8289
32	33	S 69°56'27" W	83.17	33	1,704,542.7741	519,679.7059
33	34	S 51°24'48" W	16.78	34	1,704,532.3111	519,666.5929
34	35	N 69°00'22" W	3.22	35	1,704,533.4631	519,663.5909
35	36	S 39°22'03" W	49.83	36	1,704,494.9371	519,631.9819
36	37	S 51°50'56" W	23.97	37	1,704,480.1281	519,613.1299
37	38	N 89°49'55" W	4.78	38	1,704,480.1421	519,608.3539
38	39	S 84°26'04" W	49.31	39	1,704,475.3601	519,559.2789
39	40	S 76°34'01" W	11.96	40	1,704,472.5821	519,547.6479
40	41	S 76°09'21" W	27.95	41	1,704,465.8951	519,520.5139
41	42	S 80°31'40" W	48.48	42	1,704,457.9161	519,472.6909
42	43	S 78°50'59" W	37.76	43	1,704,450.6131	519,435.6389
43	44	S 87°03'11" W	42.21	44	1,704,448.4431	519,393.4849
44	45	N 84°08'25" W	35.73	45	1,704,452.0911	519,357.9389
45	46	S 85°28'42" W	29.50	46	1,704,449.7651	519,328.5269
46	47	N 09°51'53" W	2.46	47	1,704,452.1861	519,328.1059
47	48	S 81°41'28" W	28.65	48	1,704,448.0461	519,299.7579
48	49	S 85°03'52" W	33.28	49	1,704,445.1831	519,266.6039
49	50	S 77°17'05" W	18.54	50	1,704,441.1031	519,248.5219
50	51	S 73°39'34" W	30.15	51	1,704,432.6211	519,219.5919
51	52	S 75°42'06" W	32.23	52	1,704,424.6611	519,188.3599
52	53	S 78°38'26" W	31.49	53	1,704,418.4591	519,157.4889
53	54	S 58°33'14" W	14.67	54	1,704,410.8061	519,144.9739
54	55	S 59°28'51" W	10.63	55	1,704,405.4081	519,135.8169
55	56	S 73°28'32" W	40.08	56	1,704,394.0071	519,097.3879
56	57	S 66°00'29" W	23.70	57	1,704,384.3711	519,075.7369
57	58	S 62°37'06" W	12.58	58	1,704,378.5841	519,064.5639
58	59	S 43°56'06" W	35.12	59	1,704,353.2941	519,040.1969
59	60	S 52°07'02" W	5.15	60	1,704,350.1331	519,036.1339
60	61	S 66°00'49" W	42.23	61	1,704,345.1631	519,024.9639
61	62	S 78°37'59" W	57.47	62	1,704,333.8371	518,968.6249
62	63	S 63°42'39" W	35.12	63	1,704,318.2831	518,937.1389
63	64	S 53°33'33" W	30.60	64	1,704,300.1061	518,912.5209
64	65	S 40°52'16" W	25.26	65	1,704,281.0051	518,895.9919
65	66	S 34°37'08" W	38.10	66	1,704,249.6511	518,874.3469
66	67	S 16°10'39" W	30.51	67	1,704,220.3511	518,865.8469
67	68	S 19°52'34" W	22.55	68	1,704,199.1491	518,858.1819
68	69	S 48°58'47" W	6.28	69	1,704,195.0301	518,853.4469
69	70	S 36°30'04" W	14.20	70	1,704,183.6191	518,845.0029
70	71	S 56°49'59" W	4.77	71	1,704,181.0101	518,841.0109
71	72	S 57°03'57" W	2.44	72	1,704,179.6841	518,838.9639
72	73	S 34°18'45" W	16.52	73	1,704,166.0381	518,829.6509
73	74	S 23°12'28" W	10.56	74	1,704,156.3311	518,825.4889
74	75	S 29°13'00" W	22.11	75	1,704,137.0361	518,814.6979
75	76	N 66°04'49" W	1.77	76	1,704,137.7551	518,813.0769
76	77	S 24°24'59" W	5.86	77	1,704,132.4221	518,810.6559
77	78	S 41°28'23" W	19.32	78	1,704,117.9451	518,797.8599
78	79	S 48°49'33" W	19.49	79	1,704,105.1151	518,783.1909
79	80	S 61°59'08" W	13.54	80	1,704,098.7541	518,771.2349
80	81	N 62°38'48" W	5.95	81	1,704,101.4871	518,765.9519
81	82	N 80°52'12" W	7.52	82	1,704,102.6798	518,758.5304
82	83	N 82°06'55" W	17.29	83	1,704,105.0521	518,741.4009
83	84	S 68°56'35" W	4.42	84	1,704,103.4651	518,737.2789
84	85	S 86°49'06" W	7.10	85	1,704,103.0711	518,730.1909
85	86	N 78°55'19" W	15.22	86	1,704,105.9961	518,715.2519
86	87	N 74°09'13" W	5.41	87	1,704,107.4741	518,710.0449
87	88	N 60°30'53" W	16.32	88	1,704,115.5061	518,695.8399
88	89	S 88°47'52" W	17.82	89	1,704,115.1321	518,678.0189
89	90	S 87°35'52" W	10.76	90	1,704,114.6811	518,667.2689
90	91	S 89°08'59" W	6.33	91	1,704,114.5871	518,660.9359
91	92	S 88°34'09" W	3.48	92	1,704,114.5001	518,657.4529
92	93	S 88°43'50" W	11.10	93	1,704,114.2541	518,646.3519
93	94	S 83°52'30" W	11.52	94	1,704,113.0251	518,634.8989
94	95	S 44°18'56" W	18.05	95	1,704,100.1071	518,622.2859
95	96	S 50°02'04" W	16.82	96	1,704,089.3051	518,609.3969
96	97	S 01°13'31" E	18.57	97	1,704,070.7421	518,609.7939
97	98	S 16°06'05" E	25.33	98	1,704,046.4067	518,616.8185
98	99	S 26°14'05" E	3.48	99	1,704,043.2831	518,618.3579
99	100	S 26°53'19" E	19.88	100	1,704,025.5521	518,627.3489
100	101	S 35°52'50" E	34.32	101	1,703,997.7471	518,647.4619
101	102	S 44°07'10" E	8.74	102	1,703,991.4721	518,653.5469
102	103	S 39°36'31" E	22.12	103	1,703,974.4321	518,667.6479
103	104	S 27°11'53" E	18.66	104	1,703,957.8331	518,676.1779
104	105	S 21°45'25" E	10.06	105	1,703,948.4871	518,679.9079
105	106	S 21°43'05" E	26.68	106	1,703,923.7001	518,689.7809
106	107	S 20°35'42" E	30.73	107	1,703,894.9301	518,700.5919
107	108	S 15°42'33" E	6.16	108	1,703,888.9961	518,702.2609
108	109	S 09°07'05" E	3.50	109	1,703,885.5381	518,702.8159
109	110	S 02°21'54" W	3.42	110	1,703,882.1241	518,702.6749
110	111	S 11°27'45" W	10.90	111	1,703,871.4421	518,700.5089
111	112	S 24°20'53" W	6.13	112	1,703,865.8601	518,697.9829
112	113	S 37°15'22" W	13.44	113	1,703,855.1591	518,689.8439
113	114	S 42°10'32" W	28.66	114	1,703,833.9211	518,670.6029
114	115	S 45°11'25" W	14.90	115	1,703,823.4221	518,660.0339
115	116	S 66°32'01" W	7.47	116	1,703,820.4471	518,653.1809
116	117	S 79°06'14" W	6.92	117	1,703,819.1381	518,646.3809
117	118	S 76°47'29" W	27.99	118	1,703,812.7421	518,619.1299
118	119	S 80°33'59" W	10.16	119	1,703,811.0761	518,609.1029
119	120	S 71°12'54" W	10.92	120	1,703,807.5601	518,598.7659
120	121	S 61°59'08" W	10.79	121	1,703,802.4941	518,589.2439
121	122	S 76°15'43" W	5.96	122	1,703,801.0781	518,583.4519
122	123	S 47°13'28" W	21.46	123	1,703,786.5031	518,567.6989
123	124	S 38°43'35" W	21.08	124	1,703,770.0611	518,554.5139
124	125	S 29°08'23" W	19.55	125	1,703,752.9831	518,544.9929
125	126	S 31°57'38" W	13.91	126	1,703,741.1801	518,537.6289
126	127	S 05°27'18" E	35.23	127	1,703,706.1101	518,540.9779
127	128	S 07°43'44" E	6.06	128	1,703,700.1051	518,541.7929
128	129	S 16°28'04" E	11.85	129	1,703,688.7446	518,545.1511
129	130	S 20°34'38" E	12.54	130	1,703,677.0091	518,549.5569
130	131	S 26°35'11" E	14.40	131	1,703,664.1331	518,556.0009
131	132	S 29°43'29" E	26.96	132	1,703,640.7201	518,569.3689
132	133	S 27°51'38" E	14.84	133	1,703,627.6041	518,576.3019
133	134	S 16°59'59" E	28.30	134	1,703,600.5441	518,584.5749
134	135	S 15°05'07" E	28.97	135	1,703,572.5711	518,592.1149
135	136	S 27°09'01" E	24.95	136	1,703,550.3691	518,603.5009
136	137	S 27°11'28" E	22.96	137	1,703,529.9481	518,613.9919
137	138	S 30°04'46" E	4.61	138	1,703,525.9581	518,616.3029
138	139	S 55°52'13" E	14.71	139	1,703,517.7051	518,628.4789
139	140	S 56°36'31" E	29.22	140	1,703,501.6241	518,652.8749
140	141	S 76°41'19" E	11.24	141	1,703,499.0371	518,663.8089
141	142	S 76°32'43" E	6.67	142	1,703,497.4861	518,670.2919
142	143	S 76°14'14" E	12.96	143	1,703,494.4031	518,682.8789
143	144	S 75°45'22" E	12.25	144	1,703,491.3901	518,694.7479
144	145	S 41°56'08" E	6.41	145	1,703,486.6181	518,699.0349
145	146	S 42°06'48" E	13.41	146	1,703,476.6711	518,708.0269
LONGITUD = 2,991.22 M.L.						

CROQUIS DE LOCALIZACIÓN



D A T O S DE P R O Y E C T O

POBLACIÓN ACTUAL (2025)	2,631 HAB.
POBLACIÓN DE PROYECTO (2040)	3,289 HAB.
DOTACION	150 LTS/HAB/DÍA
GASTO MEDIO DIARIO	5.71 L.P.S.
GASTO MAXIMO DIARIO	7.99 L.P.S.
GASTO MAXIMO HORARIO	12.38 L.P.S.
COEFICIENTE DE VARIACIÓN DIARIA	1.40
COEFICIENTE DE VARIACIÓN HORARIA	1.55
FUENTE DE ABASTECIMIENTO	ARROYO "INNOMINADO"
CAPTACIÓN	MURO Y CAJA DESARENADORA
CONDUCCIÓN	GRAVEDAD
REGULARIZACIÓN	TANQUE SUP. DE 120 M3 .
DISTRIBUCIÓN	GRAVEDAD
SERVICIO	TOMAS DOMICILIARIAS
DESINFECCIÓN	CLORADOR RAINBOW

CANTIDADES DE TUBERIA EN LINEA DE CONDUCCION

NUEVA

TUBERIA DE ACERO SOLDABLE DE 150 MM (6") DE DIÁMETRO	2,320.00 ML.

EXISTENTE

TUBERIA DE ACERO SOLDABLE DE 150 MM (6") DE DIÁMETRO	671.22 ML

CANTIDADES DE OBRA EN LINEA DE CONDUCCION

LIMPIA Y TRAZO	4,486.83 M²
EXCAVACIÓN PARA ESTRUCTURAS MAT " BY C"	186.12 M³
CONCRETO F'C=150 KG/CM2	132.35 M³
CIMBRA EN CIMENTACION	1,323.52 M²

SIMBOLOGÍA
(LINEA DE CONDUCCION)

TUBERIA DE (6")Ø	
NUMERO DE CRUCERO	②
TANQUE SUPERFICIAL	
CAPTACION	
VALVULA EXPULSORA	
VALVULA DE DESFOGUE	
CADENAMIENTO	0+012.93
DEFLEXION	Δ=06°29'I.

H. AYUNTAMIENTO MUNICIPAL
2024 - 2027
MAPASTEPEC, CHIAPAS

C. ARMANDO ESPINOSA CRUZ	ING. ANTONIO GALVAN GARCIA
PRESIDENTE MUNICIPAL CONSTITUCIONAL	DIRECTOR DE OBRAS PUBLICAS

2/3	REHAB. DE LA LINEA DE CONDUCCION DEL SISTEMA DE AGUA POTABLE		H. AYUNTAMIENTO MPAL.
	SESECAPA	IX - ISTMO COSTA	H. AYUNTAMIENTO MPAL.
	MAPASTEPEC, CHIAPAS	JUNIO/2026	H. AYUNTAMIENTO MPAL.
	PLANTA DE LA LINEA DE CONDUCCION		INDICADA