



<p>CONTENIDO :</p> <p>CUADRO DE NUDOS Y PIEZAS ESPECIALES</p> <p>PERFIL LONGITUDINAL</p> <p>DETALLE PIEZAS ESPECIALES</p>

VALIDADO POR :	
<hr/> <p>GERENTE DE INFRAESTRUCTURA AGUAS DEL ALTIPLANO</p>	<hr/> <p>JEFE DEPARTAMENTO DE INGENIERIA AGUAS DEL ALTIPLANO</p>
<hr/> <p>JEFE DEPARTAMENTO DESARROLLO DE REDES AGUAS DEL ALTIPLANO</p>	<hr/> <p>PREVENCION DE RIESGOS AGUAS DEL ALTIPLANO</p>

REVISIONES						
I	REMITIDO PARA CONSTRUCCION	20-03-2026	BAL	AEV	AEV	MGF
O	EMITIDO PARA CONSTRUCCION	28-01-2026	BAL	AEV	AEV	MGF
C	EMITIDO CON OBSERVACIONES ATENDIDAS	27-01-2026	BAL	AEV	AEV	MGF
B	EMITIDO PARA APROBACION CLIENTE INTERNO	26-11-2025	BAL	AEV	AEV	MGF
A	EMITIDO PARA REVISION INTERNA	03-09-2025	BAL	AEV	AEV	MGF
REV.	DESCRIPCION	FECHA	JEFE PROY.	PROYECTO	REVISO	DIBUJO

1

ACERO #800

REVESTIDO

BRIDA ACERO #800

UNION DESMONTABLE H. DUCTIL #800

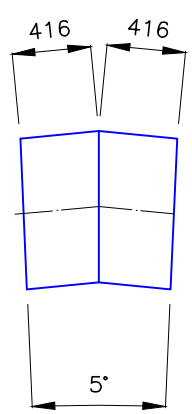
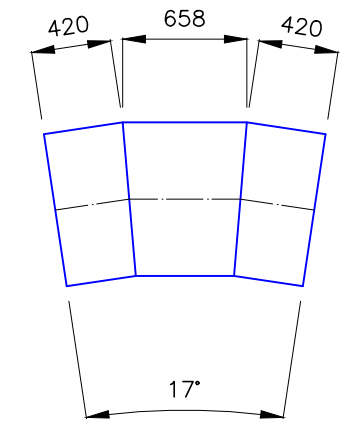
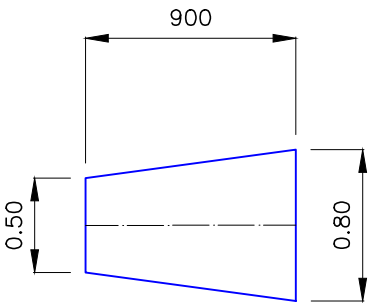
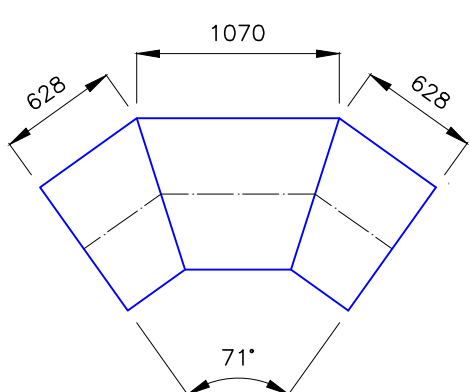
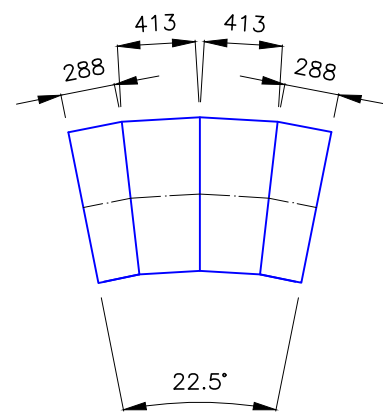
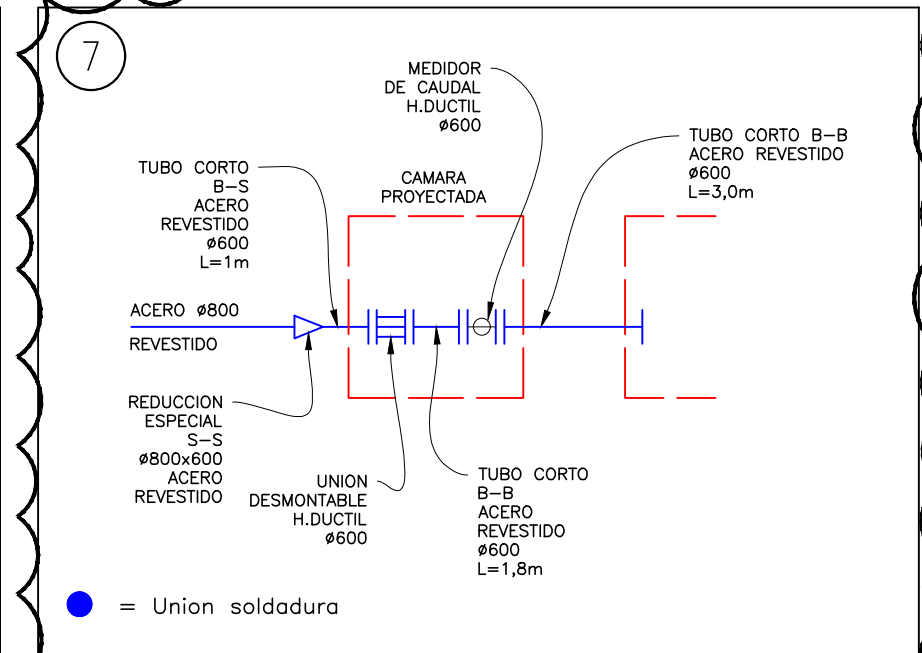
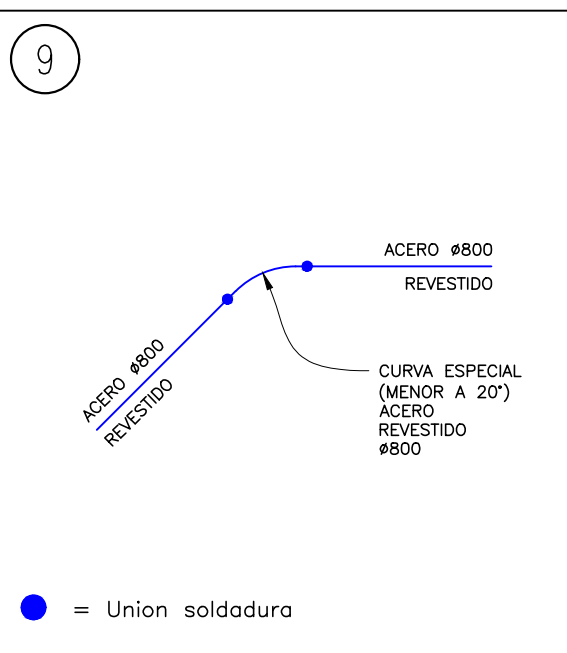
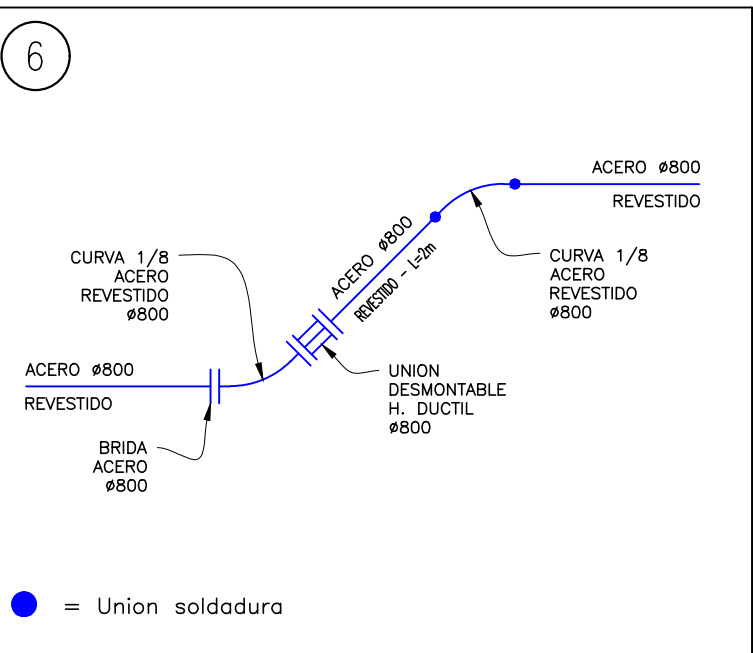
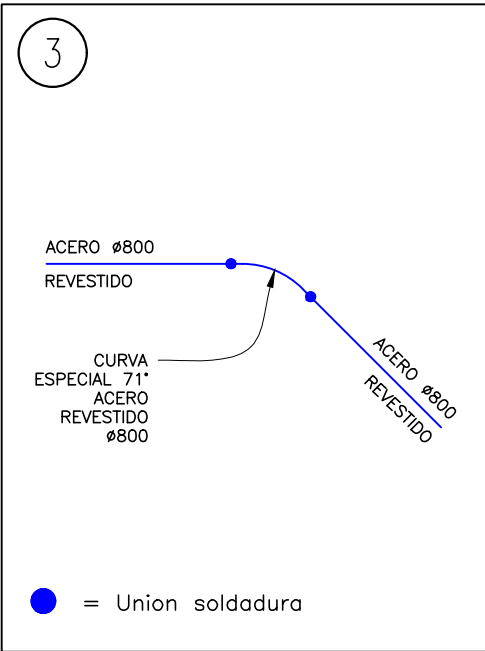
CURVA 1/4 B-S ACERO #800

CAMARA EXISTENTE

ACERO #800 EXISTENTE

TUBO CORTO CON PISAURO B-S L=1m ACERO REVESTIDO #800

● = Unión soldadura



NUDO	ACERO																			H.DUCTIL CON MECANISMO				SUMA	JUNTURAS							
	CURVA B-S	CURVA B-B	CURVA S-S	CURVA ESPECIAL	CURVA ESP. S-S	CURVA ESPECIAL	CURVA ESPECIAL	TUBO CORTO B-B	TUBO CORTO B-S	TUBO CORTO B-B	TUBO CORTO B-S	TUBO CORTO B-B	TUBO CORTO B-S	TUBO CORTO B-B	REDUCCION S-S	TEE B-B-B		BRIDA	BRIDA CIEGA	MEDIDOR DE CAUDAL	VALVULA COMPUERTA B-B	VALVULA MARIPOSA B-B	UNION DESMONTABLE		SOLDAR		BRIDA					
	1/4	1/8	1/8	<20°	22.5°	71°	20°	L=0.6m	L=1m	L=1.8m	L=3.0m	L=4.0m	L=1m	L=2m	800	600	600	800	300	600							600	800	300	600	800	
	800																															
1	1							300	600	600	600	600	800	800	600	600	300		1			300	600	600	800	1	4		2			3
2					1								1													1			2			
3						1																				1			2			
4								1	1			1			1	1			1		1	1	1		10	2	1	3	6			
5							1																	1	1	2	1		7			
6		1	1											1					1						1	1	3				3	
7									1	1	1				1						1				5	6	2	1		5		
8				1																					1	2						
9				1																					1	2						
TOTAL	1	1	1	2	1	1	1	1	2	1	1	1	1	1	2	1	1	2	1	1	1	1	1	2	2	30	4	17	3	18	6	
P.UNIT.	91.00	667.00	485.26	332.15	422.40	522.04	443.08	68.13	182.22	336.22	464.46	673.48	279.69	468.51	83.88	516.00	466.00	91.00	25.30	236.00	155.50	320.00	207.00	354.00								
P. TOTAL (KG)	91.00	667.00	485.26	664.30	422.40	522.04	443.08	68.13	364.44	336.22	464.46	673.48	279.69	468.51	167.76	516.00	466.00	182.00	25.30	236.00	155.50	320.00	414.00	708.00	9,140.6							

The diagram illustrates the longitudinal profile of a road project. The top part shows the ground line (black) and the proposed road grade (blue). Key features include:

- Nodes (Nudo 1 to Nudo 9):** Vertical curve points along the alignment.
- Chambers (Camara):** Structures for drainage or water flow, located at Nudo 1, Nudo 4, and Nudo 7.
- Reference Elevation (Cota Ref. 70):** A horizontal line indicating the base elevation for the project.
- Distances:** Partial distances between nodes and cumulative distances from the start (0 to 151.89m).
- Elevations:** Ground elevations (Terreno) and proposed grade elevations (Clave) at specific points.
- Excavation:** The depth of excavation required at various points, ranging from 0.83m to 3.91m.

COTAS		COTA REF. 70
TERRENO	CLAVE	
81.40	78.29	3.91
80.50	77.65	3.44
77.68	77.41	1.07
78.24	77.35	1.49
78.25	77.35	1.50
77.50	76.41	1.89
78.03	76.10	2.73
77.00	75.13	2.67
74.77	74.74	0.83
75.09	74.77	0.83