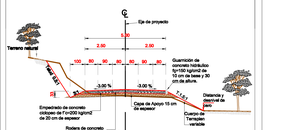
DATOS DE PROYECTO

CAMINO TIPO " ARTESANAL "

VELOCIDAD DE PROYECTO	ANCHO DE CORONA	ANCHO DE CALZADA
30 km/h	5.00 m.	5.00 m.
CURVATURA MAXIMA	PENDIENTE MAXIMA	PENDIENTE GOBERNADORA
80°00'00"	12.00 %	9.00 %

S E C C I O N T I P O



SIMBOLOGIA

BANCOS DE NIVEL

HORMIGÓN
EJE DEL CAMINO
HORMIGÓN

CERCO DE PUAS O MALLA

DERECHO DE VIA

OBRA DE DRENAJE

ORILLA DE CAMINO EXISTENTE

NUMERO DE CURVA

KILOMETRAJE

CURVA DE NIVEL MAESTRA A CADA 5 MTS

POSTE DE C.F.E.

CURVA DE NIVEL ORDINARIA

TIRANTE (ARREMETIDA DE POSTE)

Camino: CONSTRUCCIÓN DE PAVIMENTO DE CONCRETO HIDRAULICO DEL CAMINO SIN NOMBRE (SAN MARTÍN TOXPALAN - CAPULTITLA) TRAMO DEL KM 0+000 AL KM 12+900, SUBTRAMO DEL KM 5+000 AL KM 6+500, EN LOS MUNICIPIOS DE SAN MARTÍN TOXPALAN Y TEOTITLÁN DE FLORES MAGÓN.

PLANTA TOPOGRAFICA DEL KM. 5+000.00 AL KM. 6+500.00

PROYECTO:

DIRECCION DE PROYECTOS Y CONTROL DE CALIDAD

REVISÓ:

CAMINOS BIENESTAR

JEFE DE LA UNIDAD DE ESTUDIOS Y PROYECTOS	DIRECTOR DE PROYECTOS Y CONTROL DE CALIDAD	EL DIRECTOR GENERAL
Cédula Profesional 9852264	Cédula Profesional 12860930	
ING. JAIRO RAMIREZ REYES	ING. ALVARO PEREZ HERNANDEZ	ING. MOISES SALAZAR MARTINEZ

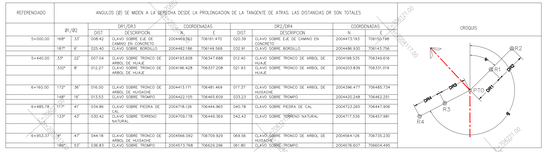
2025	Escala 1:1000	Plano 1 DE 1

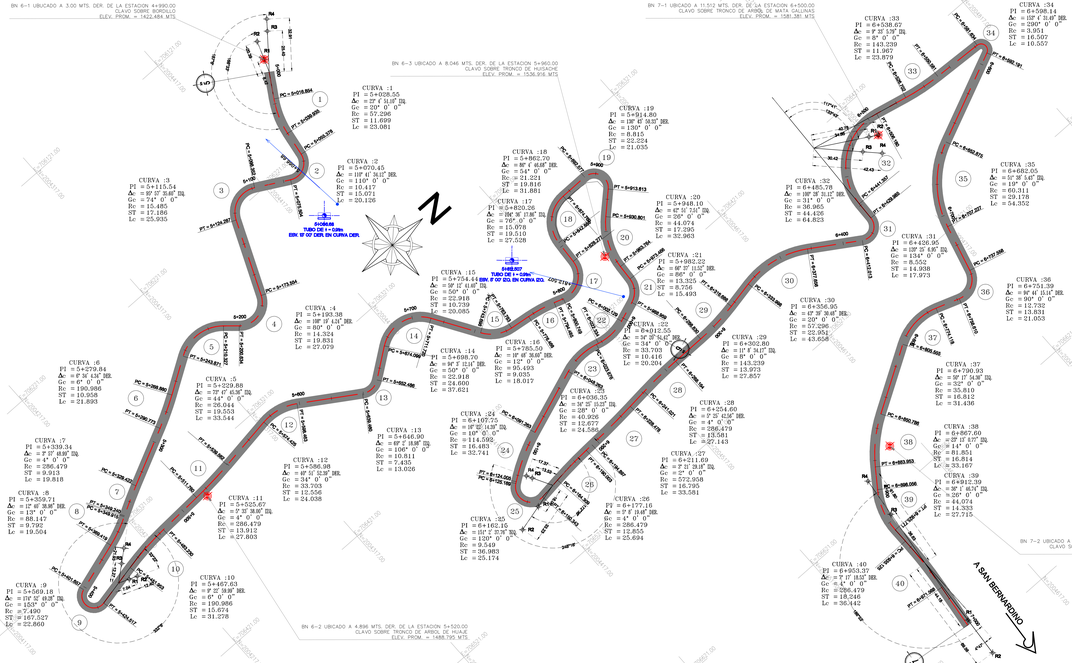
COORDENADAS DEL EJE DE TRAZO

PUNTO OBSERVADO	DISTANCIA	TANGENTE	SUBTANGENTE	DISTANCIA	DEFLEXIONES		RUMBO		PROYECCIONES			COORDENADAS	
	PARCIAL		EXTERNA	ACUMULADA		SENTIDO			SENO	COSENO	SEN2	LE	LE
			RADIO=572.96									NORTE	ESTE
5+000.00												2004986.286	736168.381
5+028.55	0.000	14.850	11.699	28.549	0°	0° 0"	S 0° 0' 0" E	0.000	0.00000	1.00000	0.00000	0.000	0.000
5+050.00	21.450	11.158	8.790	49.999	21°	54' 51.10"	S 21° 54' 51.10" E	0.000	0.37313	0.92771	0.34602	19.895	7.979
5+115.54	15.070	22.850	17.098	65.537	150°	47' 34.02"	S 150° 47' 34.02" E	0.000	0.49274	0.87021	0.42892	27.043	12.106
5+163.38	17.186	49.260	19.831	84.277	85°	0' 0.00"	S 65° 47' 34.02" E	0.000	0.76702	0.91755	0.70364	34.306	19.163
5+200.00	18.553	25.010	15.608	102.830	73°	47' 34.02"	S 139° 34' 51.10" E	0.000	0.64278	0.76604	0.49240	47.082	26.282
5+218.84	18.553	25.010	15.608	121.521	73°	47' 45.36"	S 33° 21' 54.70" E	0.000	0.54753	0.83934	0.45960	47.082	26.282
5+339.34	10.958	38.650	9.913	59.521	39°	34' 34.74"	S 72° 56' 29.44" E	0.000	0.95273	0.43031	0.41000	53.731	25.638
5+368.84	9.750	9.750	12.245	159.271	97°	46' 22.27"	S 170° 43' 07.18" E	0.000	0.12864	0.99171	0.12757	226.453	100.000
5+388.84	9.750	9.750	12.245	187.020	97°	46' 22.27"	S 73° 03' 29.45" E	0.000	0.95964	0.28048	0.26919	243.453	100.000
5+467.63	167.527	37.430	15.674	210.631	114°	52' 46.28"	S 73° 03' 29.45" E	0.000	0.97940	0.20188	0.19774	243.453	100.000
5+488.84	13.561	14.970	15.674	231.842	114°	52' 46.28"	S 187° 56' 15.73" E	0.000	0.30901	0.95106	0.29388	259.453	100.000
5+588.84	13.561	14.970	15.358	251.338	59°	0' 0.00"	S 126° 56' 15.73" E	0.000	0.80644	0.15814	0.12753	259.453	100.000
5+646.92	12.556	41.000	7.435	60.991	40°	0' 0.00"	S 53° 28' 15.73" E	0.000	0.53129	0.84733	0.45020	259.453	100.000
5+688.84	12.556	41.000	7.435	102.991	40°	0' 0.00"	S 13° 28' 15.73" E	0.000	0.23129	0.97289	0.22502	259.453	100.000
5+719.44	24.000	13.960	14.709	131.524	76°	26' 0.00"	S 89° 54' 15.73" E	0.000	0.53951	0.84258	0.45456	259.453	100.000
5+785.50	10.739	12.690	9.035	32.464	50°	13' 0.00"	S 139° 41' 15.73" E	0.000	0.99084	0.13547	0.13422	259.453	100.000
5+822.26	9.000	9.000	13.500	59.510	90°	0' 0.00"	S 89° 54' 15.73" E	0.000	0.99997	0.01571	0.01571	259.453	100.000
5+842.26	18.910	14.612	10.224	53.936	104°	26' 0.00"	S 14° 28' 15.73" E	0.000	0.97037	0.24192	0.23481	259.453	100.000
5+872.30	19.713	19.713	19.713	73.649	90°	0' 0.00"	S 75° 31' 44.27" W	0.000	0.96593	0.25882	0.25000	259.453	100.000
5+948.51	22.224	17.760	14.709	96.359	90°	0' 0.00"	S 14° 28' 15.73" E	0.000	0.96593	0.25882	0.25000	259.453	100.000
5+982.22	17.295	9.710	8.756	35.761	62°	0' 0.00"	S 0° 0' 0.00" E	0.000	0.96593	0.25882	0.25000	259.453	100.000
6+015.51	15.493	13.325	12.044	49.254	80°	0' 0.00"	S 62° 0' 0.00" E	0.000	0.96593	0.25882	0.25000	259.453	100.000
6+036.35	10.416	9.350	12.044	59.443	54°	0' 0.00"	S 18° 0' 0.00" E	0.000	0.96593	0.25882	0.25000	259.453	100.000
6+107.75	13.977	43.000	16.483	72.985	240°	25' 19.23"	S 0° 0' 0.00" E	0.000	0.96593	0.25882	0.25000	259.453	100.000
6+177.16	13.977	43.000	16.483	142.396	240°	25' 19.23"	S 0° 0' 0.00" E	0.000	0.96593	0.25882	0.25000	259.453	100.000
6+177.16	36.883	13.975	12.853	53.808	101°	25' 19.23"	S 0° 0' 0.00" E	0.000	0.96593	0.25882	0.25000	259.453	100.000
6+211.89	12.853	9.900	16.795	34.553	231°	26' 19.23"	S 0° 0' 0.00" E	0.000	0.96593	0.25882	0.25000	259.453	100.000
6+252.80	13.561	14.970	15.358	40.909	59°	0' 0.00"	S 0° 0' 0.00" E	0.000	0.96593	0.25882	0.25000	259.453	100.000
6+302.80	13.561	14.970	15.358	40.224	59°	0' 0.00"	S 0° 0' 0.00" E	0.000	0.96593	0.25882	0.25000	259.453	100.000
6+356.85	13.973	17.310	22.951	54.234	11°	0' 0.00"	S 0° 0' 0.00" E	0.000	0.96593	0.25882	0.25000	259.453	100.000
6+385.78	14.508	11.370	14.426	28.934	72°	0' 0.00"	S 0° 0' 0.00" E	0.000	0.96593	0.25882	0.25000	259.453	100.000
6+485.78	14.508	11.370	14.426	72.734	123°	25' 0.00"	S 0° 0' 0.00" E	0.000	0.96593	0.25882	0.25000	259.453	100.000
6+538.67	44.428	33.520	11.967	76.913	100°	26' 31.12"	S 0° 0' 0.00" E	0.000	0.96593	0.25882	0.25000	259.453	100.000
6+582.26	16.507	43.000	28.178	106.365	153°	26' 31.12"	S 0° 0' 0.00" E	0.000	0.96593	0.25882	0.25000	259.453	100.000
6+682.26	16.507	43.000	28.178	106.365	153°	26' 31.12"	S 0° 0' 0.00" E	0.000	0.96593	0.25882	0.25000	259.453	100.000
6+701.36	29.178	30.330	13.830	73.339	91°	26' 0.00"	S 0° 0' 0.00" E	0.000	0.96593	0.25882	0.25000	259.453	100.000
6+747.26	14.508	11.370	14.426	72.734	123°	25' 0.00"	S 0° 0' 0.00" E	0.000	0.96593	0.25882	0.25000	259.453	100.000
6+847.60	16.811	45.340	19.834	78.966	50°	11' 54.70"	S 0° 0' 0.00" E	0.000	0.96593	0.25882	0.25000	259.453	100.000
6+912.36	16.814	14.110	14.332	65.257	23°	0' 0.00"	S 0° 0' 0.00" E	0.000	0.96593	0.25882	0.25000	259.453	100.000
6+953.37	16.533	14.110	14.332	41.018	23°	0' 0.00"	S 0° 0' 0.00" E	0.000	0.96593	0.25882	0.25000	259.453	100.000
7+000.00	16.248	28.430	0.000	46.636	81°	11' 0.00"	S 0° 0' 0.00" E	0.000	0.96593	0.25882	0.25000	259.453	100.000

REFERENCIAS DEL TRAZO

REFERENCIADO	ANGULOS (Ø) SE MIDEN A LA DERECHA DESDE LA PROLONGACION DE LA TANGENTE DE ATRAS, LAS DISTANCIAS DE SON TOTALES									
	Ø1,Ø2		DIST	DESCRIPCION	COORDENADAS		DIST	DESCRIPCION	COORDENADAS	
					N	E			N	E
5+000.00	169°	53'	008.42	CLAVO SOBRE EJE DE CAMINO EN CONCRETO	2004968.282	736161.470	020.38	CLAVO SOBRE EJE DE CAMINO EN CONCRETO	2004972.183	736150.798
	181°	41'	021.42	CLAVO SOBRE BORDILLO	2004982.196	736149.568	032.81	CLAVO SOBRE BORDILLO	2004986.332	736141.756
5+440.32	177°	36'	016.00	CLAVO SOBRE TRONCO DE ARBOL DE HUAJE	2004413.171	736481.469	017.37	CLAVO SOBRE TRONCO DE ARBOL DE HUAJE	2004384.477	736485.734
	182°	06'	013.53	CLAVO SOBRE TRONCO	2004422.105	736465.609	033.23	CLAVO SOBRE TRONCO	2004422.248	736462.257
5+485.78	179°	41'	004.86	CLAVO SOBRE PIEDRA DE CAL	2004478.126	736444.965	040.78	CLAVO SOBRE PIEDRA DE CAL	2004472.265	736447.806
	179°	54'	030.42	CLAVO SOBRE TERRENO NATURAL	2004503.178	736443.563	042.42	CLAVO SOBRE TERRENO NATURAL	2004477.538	736437.585
5+953.37	87°	04'	044.18	CLAVO SOBRE TRONCO DE ARBOL DE HUAJE	2004566.092	736709.929	069.36	CLAVO SOBRE TRONCO DE ARBOL DE HUAJE	2004564.126	736735.230
	180°	53'	036.83	CLAVO SOBRE TRONCO	2004573.768	736629.296	061.80	CLAVO SOBRE TRONCO	2004578.837	736604.455





GEOMETRIA DEL ALINEAMIENTO HORIZONTAL

CURVA	EL. P.C.		EC		PI. O PST		CL		ET. O PT.	
	N	E	N	E	N	E	N	E	N	E
					2004986.286	736168.381				
PC	2004987.458	736183.762			2004968.282	736161.470			2004949.688	736155.322
					2004968.282	736161.470				
PC	2004941.456	736202.598			2004946.068	736175.512			2004951.753	736189.194
					2004946.068	736175.512				
PC	2004937.116	736211.013			2004957.183	736148.778			2004977.249	736143.173
					2004957.183	736148.778				
PC	2004921.553	736243.893			2004968.282	736161.470			2004973.102	736175