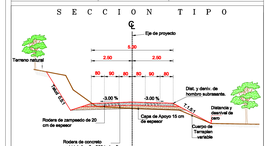
DATOS DE PROYECTO

CAMINO TIPO ARTESANAL

VELOCIDAD DE PROYECTO	ANCHO DE CORONA	ANCHO DE CALZADA
30 km/h	5.00 m.	3.50 m.
CURVATURA MAXIMA	PENDIENTE MAXIMA	PENDIENTE GOBERNADORA
87°07'07"	12.00 %	9.00 %

S E C C I O N T I P O



CORTE Y TERRAPLEN

SIN ESCALA

SIMBOLOGIA

BANCOS DE NIVEL

EJE DE CAMINO EXISTENTE

HOMBRO
EJE DEL CAMINO
HOMBRO

DERECHO DE VIA

OBRA DE DRENAJE

PAVIMENTO EXISTENTE

NUMERO DE CURVA

KILOMETRAJE

CURVA DE NIVEL ORDINARIA

CURVA DE NIVEL MAESTRA A CADA 1 MTS

POSTE DE C.F.E.

TIRANTE (ARREMETIDA DE POSTE)

Camino: CONSTRUCCIÓN DE LA CARRETERA SIN NOMBRE CON CONCRETO HIDRÁULICO DE GUADALUPE LA CIÉNEGA-CUYAMECALCO VILLA DE ZARAGOZA, TRAMO DEL KM 0+000 AL KM 5+700, SUBTRAMO DEL KM 0+000 AL KM 0+720, EL MUNICIPIO DE CUYAMECALCO VILLA DE ZARAGOZA

PLANTA TOPOGRAFICA
DEL KM. 0+000.00 AL KM. 0+720.00

PROYECTO:

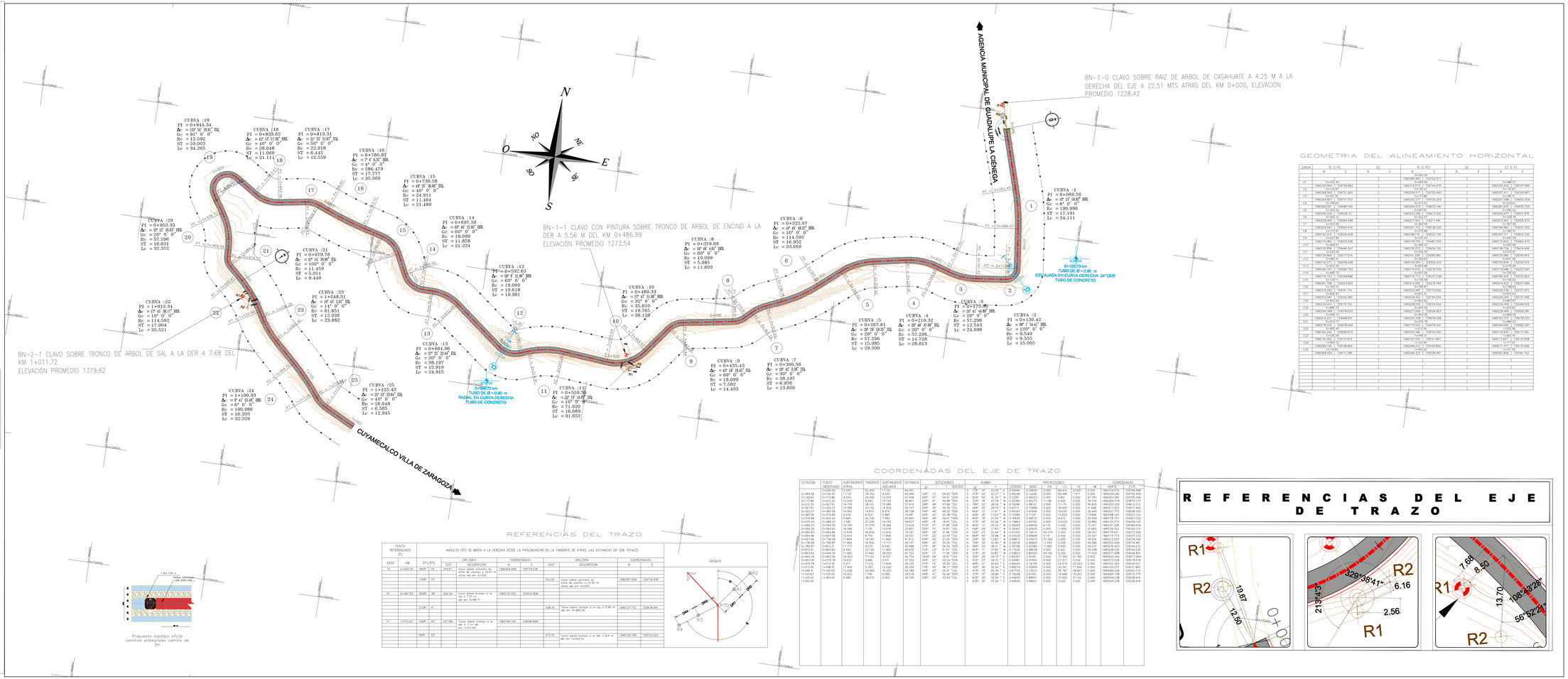
DIRECCION DE PROYECTOS Y CONTROL DE CALIDAD

REVISÓ:

CAMINOS BIENESTAR

JEFE DE LA UNIDAD DE ESTUDIOS Y PROYECTOS	DIRECTOR DE PROYECTOS Y CONTROL DE CALIDAD	EL DIRECTOR GENERAL
Cédula Profesional 9932284 ING. JAIRO RAMIREZ REYES	Cédula Profesional ING. ALFARO PEDRO HERNANDEZ	ING. MOISES SALAZAR MARTINEZ

2020	Escala 1:1000	Plano 1 DE 1



GEOMETRIA DEL ALINEAMIENTO HORIZONTAL

CURVA	TE O PC		EC		PI O PIT		CE		ET O PT	
	N	E	N	E	N	E	N	E	N	E
					0+000.00					
					1995389.357	729724.317				
C1	CURVA 1 PI				1995389.357	729724.317			CURVA 1 PT	
C2	1995333.904	729730.850			1995370.574	729743.970			1995353.602	729757.358
C3	1995308.527	729770.369			1995309.215	729792.440			1995309.903	729742.957
C4	1995304.807	729777.702			1995303.291	729813.255			1995301.788	729853.356
C5	1995280.211	729840.169			1995264.477	729880.746			1995248.743	729855.709
C6	1995259.318	729836.727			1995253.760	729813.335			1995248.477	729801.876
C7	1995249.477	729804.106			1995231.662	729771.961			1995213.847	729753.815
C8	1995205.476	729742.419			1995171.736	729736.035			1995137.996	729731.650
C9	1995153.114	729726.438			1995168.114	729722.139			1995183.113	729718.238
C10	1995179.966	729679.508			1995179.705	729647.016			1995179.444	729614.525
C11	1995150.887	729446.047			1995138.214	729434.752			1995125.541	729414.456
C12	1995139.964	729377.074			1995141.208	729360.981			1995135.566	729345.975
C13	1995137.026	729336.268			1995129.729	729305.324			1995122.432	729273.979
C14	1995156.747	729282.793			1995174.532	729270.559			1995174.098	729257.940
C15	1995174.098	729258.326			1995174.098	729237.038			1995174.098	729215.751
C16	1995202.768	729223.825			1995233.765	729218.784			1995264.763	729207.684
C17	1995229.359	729181.774			1995222.447	729174.552			1995215.536	729167.330
C18	1995233.439	729150.283			1995238.908	729144.295			1995244.377	729138.307
C19	1995230.414	729115.152			1995228.132	729104.254			1995225.850	729093.356
C20	1995208.098	729078.933			1995177.645	729058.913			1995147.192	729038.893
C21	1995179.444	729078.308			1995177.644	729058.913			1995175.844	729039.518
C22	1995138.215	729038.930			1995103.224	729038.332			1995068.233	729039.733
C23	1995136.215	729078.444			1995173.225	729078.541			1995168.846	729082.287
C24	1995150.742	729090.670			1995150.746	729104.050			1995150.749	729117.430
C25	1995170.352	729115.875			1995197.024	729127.847			1995177.847	729138.938
C26	1995170.352	729115.875			1995197.024	729127.847			1995177.847	729138.938
C27	1995093.113	729149.894			1995064.222	729156.561			1995041.884	729181.762
C28	1995093.113	729149.894			1995064.222	729156.561			1995041.884	729181.762

COORDENADAS DEL EJE DE TRAZO

ESTACION	PUNTO	SUBTANGENTE	TANGENTE	SUBTANGENTE	DISTANCIA	DEFLEXIONES		RUMBO		PROYECCIONES				COORDENADAS	
	COORDENADAS			ESTE		ANGULO	SENTIDO			COSENO	SENO			N	E
0+000.00	0+000.00	17.101		34.300	9.555	60.896	10Pi	59.93 TDER	N 01Pi 02' 23.07" E	0.99940	0.03464	0.000	59.496	7.471	0.000	1995389.357	729724.317	1995389.357	729724.317
0+017.62	0+017.62	9.555		25.400	12.043	34.548	9Pi	34.41 TDER	N 04Pi 56' 25.78" E	0.99677	0.08031	0.000	5.801	0.000	47.183	1995343.281	729730.744	1995343.281	729730.744
0+072.56	0+072.56	12.043		54.950	14.795	39.464	8Pi	38.68 TDER	N 07Pi 52' 49.78" E	0.99261	0.12128	0.000	45.378	0.000	92.109	1995294.478	729770.717	1995294.478	729770.717
0+127.51	0+127.51	14.795		54.950	16.748	44.647	7Pi	43.68 TDER	N 12Pi 37' 38.46" E	0.97599	0.21772	0.000	81.473	0.000	136.958	1995249.209	729840.169	1995249.209	729840.169
0+201.01	0+201.01	15.085		73.500	18.952	53.127	6Pi	52.05 TDER	N 17Pi 41' 28.13" E	0.95417	0.29908	0.000	111.896	0.000	187.433	1995217.403	729871.463	1995217.403	729871.463
0+322.07	0+360.56	16.952		120.570	8.976	38.738	1Pd	48.22 TDER	N 44Pd 03' 17.41" E	0.71911	0.69497	0.000	86.685	0.000	83.645	1995301.773	729836.020	1995301.773	729836.020
0+379.89	0+379.89	5.985		57.820	11.669	39.847	2Pd	39.47 TDER	N 84Pd 51' 24.04" E	0.99677	0.08031	0.000	5.801	0.000	57.820	1995384.744	729731.650	1995384.744	729731.650
0+435.43	0+489.33	7.582		27.240	16.765	54.637	4Pi	18.45 TIZQ	N 04Pi 56' 25.78" E	0.99677	0.08031	0.000	5.801	0.000	53.772	1995330.973	729734.143	1995330.973	729734.143
0+489.33	0+559.38	19.765		70.050	31.450	70.050	5Pi	70.05 TIZQ	N 22Pi 19' 39.00" E	0.92660	0.37594	0.000	26.324	0.000	64.894	1995265.252	729759.313	1995265.252	729759.313
0+559.38	0+592.63	16.069		33.250	19.381	33.807	3Pi	16.87 TIZQ	N 04Pi 56' 25.78" E	0.99677	0.08031	0.000	5.801	0.000	33.183	1995232.069	729762.976	1995232.069	729762.976
0+592.63	0+664.96	10.618		50.450	12.919	74.787	5Ad	39.96 TDER	N 53Pi 23' 10.44" E	0.60124	0.79214	45.279	0.000	0.000	59.767	1995174.631	729270.549	1995174.631	729270.549
0+697.56	0+736.58	12.919		72.600	21.224	67.512	6Ad	61.03 TDER	N 14Pi 30' 33.66" E	0.96824	0.25018	0.000	18.167	0.000	69.972	1995155.464	729288.716	1995155.464	729288.716
0+697.56	0+736.58	11.858		18.100	11.464	41.512	4Ad	41.03 TDER	N 67Pi 54' 07.32" E	0.37452	0.92717	37.283	0.000	0.000	16.254	1995172.255	729305.766	1995172.255	729305.766
0+736.58	0+780.87	11.464		16.500	17.777	45.740	44Pi	20.30 TIZQ	N 49Pi 05' 40.83" E	0.65018	0.75980	11.443	0.000	0.000	44.286	1995223.499	729774.485	1995223.499	729774.485
0+780.87	0+813.31	17.777		32.440	12.559	45.740	44Pi	20.30 TIZQ	N 49Pi 05' 40.83" E	0.65018	0.75980	11.443	0.000	0.000	44.286	1995223.499	729774.485	1995223.499	729774.485
0+813.31	0+853.62	6.442		23.130	11.660	40.632	2Pi	10.47 TIZQ	N 45Pi 11' 01.82" E	0.70524	0.70953	0.000	40.538	0.000	40.538	1995288.535	729834.233	1995288.535	729834.233
0+853.62	0+944.34	11.562		21.640	59.003	91.722	42Pi	57.16 TIZQ	N 51Pi 26' 10.82" E	0.62903	0.84403	49.166	0.000	0.000	77.423	1995227.658	729836.801	1995227.658	729836.801
0+944.34	0+953.35	16.631		9.010	32.372	25.022	1Pd	25.02 TDER	N 77Pd 37' 49.78" E	0.21952	0.97562	0.000	27.304	0.000	8.784	1995218.874	729838.757	1995218.874	729838.757
0+953.35	0+979.78	18.629		26.430	9.148	33.222	2Pd	33.22 TDER	N 29Pd 23' 28.03" E	0.87256	0.48856	0.000	23.054	0.000	12.909	1995231.724	729851.666	1995231.724	729851.666
0+979.78	1+013.34	5.011		41.210	17.904	34.125	41Pi	30.90 TIZQ	N 48Pi 20' 40.60" E	0.66443	0.74735	0.000	22.674	25.503	0.000	1995150.334	729104.021	1995150.334	729104.021
1+048.31	1+048.31	11.904		34.970	12.026	35.092	11Pi	34.97 TIZQ	N 17Pi 52' 38.71" E	0.95274	0.30603	0.000	33.341	11.944	0.000	1995183.213	729121.963	1995183.213	729121.963
1+060.33	1+100.93	12.026		40.620	16.203	52.788	7Pi	52.36 TIZQ	N 41Pi 19' 05.24" E	0.75419	0.65731	0.000	30.787	38.827	0.000	1995084.226	729160.770	1995084.226	729160.770
1+100.93	1+125.43	6.585		24.500	12.945	29.247	3Pd	29.24 TDER	N 82Pd 40' 23.50" E	0.13004	0.99151	0.000	24.283	3.187	0.000	1995059.943	729183.806	1995059.943	729183.806
1+160.00	1+160.00	6.585		28.210	0.000	34.795	2Pi	23.64 TIZQ	N 43Pi 30' 33.50" E	0.44835	0.89501	0.000	15.520	31.142	0.000	1995044.236	729206.916	1995044.236	729206.916

REFERENCIAS DEL TRAZO

PUNTO REFERENCIADO PT		ANGULOS (Δ°) SE MIDEN A LA DERECHA DESDE LA PROLONGACION DE LA TANGENTE DE ATRAS. LAS DISTANCIAS DE SON TOTALES									
IDENT	KM	Δ°(-/Δ°(+)	DIST	DESCRIPCION	COORDENADAS		DIST	DESCRIPCION	COORDENADAS	
					N	E			N	E
TE	0+000.00	16.67'	31.67	clavo sobre concreto en arilla de cuerno a 19.67 m atras del km 0+000	1995404.999	729779.236	312.50	clavo sobre concreto en arilla de cuerno a 12.50 m atras del km 0+000	1995397.508	729716.418
		1°44'	19"							
PI	0+167.51	33.69'	39'	000.06	clavo sobre trompo a la vista a 0.90 m del km 0+482.20	1995132.532	729433.856			
		2°35'	4"				206.16	clavo sobre trompo a la vista a 0.90 m del km 0+482.20	1995137.172	729439.947
PI	1+013.20	1°06'	44"	007.68	clavo sobre trompo a la vista a 0.90 m del km 1+011.72	1995146.143	729598.666			
		56'	10"				313.10	clavo sobre trompo a la vist a 0.90 m del km 1+023.10	1995136.799	729733.003

1.50m
1.50m
0.15m
0.15m
0.15