

## DISEÑO DE PAVIMENTOS METODO AASHTO 1,993

( PAVIMENTOS FLEXIBLES )

SECCION HOMOGENEA			Sentido	TRANSITO N <sub>0</sub> = N <sub>8.2</sub>	R (%)	ZR	So	CBR	MR	Po	Pt	ΔPSI	SN
N°	Del Km	Al Km.											Requerido
N°	Del Km	Al Km.		#####									
1	736+600	742+150	Ambos	1.3000E+07	95	-1.645	0.420	17.93	16205	4.2	2.0	2.2	3.880
2	742+150	744+400	Ambos	1.3000E+07	95	-1.645	0.420	8.71	10209	4.2	2.0	2.2	4.510
3	744+400	744+900	Ambos	1.3000E+07	95	-1.645	0.420	5.16	7299	4.2	2.0	2.2	5.010
4	744+900	746+900	Ambos	1.3000E+07	95	-1.645	0.420	24.38	19730	4.2	2.0	2.2	3.630
5	746+900	748+150	Ambos	1.3000E+07	95	-1.645	0.420	18.54	16556	4.2	2.0	2.2	3.850
6	748+150	756+650	Ambos	1.3000E+07	95	-1.645	0.420	18.77	16688	4.2	2.0	2.2	3.840
7	756+650	758+250	Ambos	1.3000E+07	95	-1.645	0.420	16.45	15338	4.2	2.0	2.2	3.950
8	758+250	759+150	Ambos	1.3000E+07	95	-1.645	0.420	14.89	14387	4.2	2.0	2.2	4.030
9	759+150	763+250	Ambos	1.3000E+07	95	-1.645	0.420	19.62	17171	4.2	2.0	2.2	3.800
10	763+250	769+850	Ambos	1.3000E+07	95	-1.645	0.420	16.09	15120	4.2	2.0	2.2	3.970
N°	Del Km	Al Km.		#####									
11	769+850	771+050	Ambos	1.4800E+07	95	-1.645	0.420	8.47	10028	4.2	2.0	2.2	4.620
12	771+050	773+750	Ambos	1.4800E+07	95	-1.645	0.420	13.25	13354	4.2	2.0	2.2	4.210
13	773+750	779+050	Ambos	1.4800E+07	95	-1.645	0.420	9.75	10974	4.2	2.0	2.2	4.490
14	779+050	783+250	S-N	1.4800E+07	95	-1.645	0.420	7.13	8982	4.2	2.0	2.2	4.780
			N-S	1.4800E+07	95	-1.645	0.420	6.89	8790	4.2	2.0	2.2	4.820
15	783+250	785+650	S-N	1.4800E+07	95	-1.645	0.420	12.14	12630	4.2	2.0	2.2	4.290
			N-S	1.4800E+07	95	-1.645	0.420	12.90	13128	4.2	2.0	2.2	4.230
16	785+650	788+050	S-N	1.4800E+07	95	-1.645	0.420	10.28	11354	4.2	2.0	2.2	4.440
			N-S	1.4800E+07	95	-1.645	0.420	10.09	11220	4.2	2.0	2.2	4.450
N°	Del Km	Al Km.		#####									
17	788+050	789+250	S-N	2.1800E+07	95	-1.645	0.420	14.88	14381	4.2	2.0	2.2	4.340
			N-S	2.1800E+07	95	-1.645	0.420	16.17	15168	4.2	2.0	2.2	4.260
18	789+250	791+450	S-N	2.1800E+07	95	-1.645	0.420	14.95	14430	4.2	2.0	2.2	4.330
			N-S	2.1800E+07	95	-1.645	0.420	7.48	9262	4.2	2.0	2.2	4.990
19	791+450	794+650	S-N	2.1800E+07	95	-1.645	0.420	6.04	8080	4.2	2.0	2.2	5.210
			N-S	2.1800E+07	95	-1.645	0.420	6.16	8181	4.2	2.0	2.2	5.190
20	794+650	795+550	S-N	2.1800E+07	95	-1.645	0.420	10.96	11828	4.2	2.0	2.2	4.620
			N-S	2.1800E+07	95	-1.645	0.420	10.97	11834	4.2	2.0	2.2	4.620
N°	Del Km	Al Km.		#####									
21	795+550	797+350	S-N	1.4200E+07	95	-1.645	0.420	5.10	7246	4.2	2.0	2.2	5.090
			N-S	1.4200E+07	95	-1.645	0.420	5.02	7173	4.2	2.0	2.2	5.100
22	797+350	799+350	Ambos	1.4200E+07	95	-1.645	0.420	9.00	10424	4.2	2.0	2.2	4.540
N°	Del Km	Al Km.		#####									
23	799+350	804+300	Ambos	8.4200E+06	95	-1.645	0.420	6.65	8587	4.2	2.0	2.2	4.490
24	804+300	805+200	Ambos	8.4200E+06	95	-1.645	0.420	12.18	12653	4.2	2.0	2.2	3.960
25	805+200	807+350	Ambos	8.4200E+06	95	-1.645	0.420	5.78	7851	4.2	2.0	2.2	4.620
26	807+350	812+550	Ambos	8.4200E+06	95	-1.645	0.420	10.23	11319	4.2	2.0	2.2	4.100
27	812+550	815+300	Ambos	8.4200E+06	95	-1.645	0.420	13.79	13700	4.2	2.0	2.2	3.850
28	815+300	816+800	Ambos	8.4200E+06	95	-1.645	0.420	8.81	10284	4.2	2.0	2.2	4.240
29	816+800	820+250	Ambos	8.4200E+06	95	-1.645	0.420	14.22	13971	4.2	2.0	2.2	3.830
30	820+250	820+750	Ambos	8.4200E+06	95	-1.645	0.420	6.58	8531	4.2	2.0	2.2	4.500
31	820+750	825+850	Ambos	8.4200E+06	95	-1.645	0.420	11.56	12240	4.2	2.0	2.2	4.000
32	825+850	827+050	Ambos	8.4200E+06	95	-1.645	0.420	6.30	8295	4.2	2.0	2.2	4.540
33	827+050	828+900	Ambos	8.4200E+06	95	-1.645	0.420	7.45	9237	4.2	2.0	2.2	4.390
34	828+900	829+200	Ambos	8.4200E+06	95	-1.645	0.420	4.86	7032	4.2	2.0	2.2	4.780
35	829+200	830+450	Ambos	8.4200E+06	95	-1.645	0.420	8.10	9747	4.2	2.0	2.2	4.310
36	830+450	831+750	Ambos	8.4200E+06	95	-1.645	0.420	10.67	11626	4.2	2.0	2.2	4.070
37	831+750	834+750	Ambos	8.4200E+06	95	-1.645	0.420	9.18	10561	4.2	2.0	2.2	4.200
38	834+750	835+900	Ambos	8.4200E+06	95	-1.645	0.420	14.23	13979	4.2	2.0	2.2	3.830
39	835+900	839+350	Ambos	8.4200E+06	95	-1.645	0.420	7.12	8977	4.2	2.0	2.2	4.430
40	839+350	842+950	Ambos	8.4200E+06	95	-1.645	0.420	11.75	12363	4.2	2.0	2.2	3.990
41	842+950	850+500	Ambos	8.4200E+06	95	-1.645	0.420	20.47	17641	4.2	2.0	2.2	3.540
42	850+500	853+550	Ambos	8.4200E+06	95	-1.645	0.420	8.21	9827	4.2	2.0	2.2	4.300
43	853+550	854+600	Ambos	8.4200E+06	95	-1.645	0.420	13.79	13697	4.2	2.0	2.2	3.850
44	854+600	863+350	Ambos	8.4200E+06	95	-1.645	0.420	9.48	10777	4.2	2.0	2.2	4.170
45	863+350	867+350	Ambos	8.4200E+06	95	-1.645	0.420	5.02	7178	4.2	2.0	2.2	4.750
46	867+350	872+750	Ambos	8.4200E+06	95	-1.645	0.420	14.13	13914	4.2	2.0	2.2	3.830
47	872+750	886+600	Ambos	8.4200E+06	95	-1.645	0.420	7.79	9508	4.2	2.0	2.2	4.340

Tabla 63: Determinación de Espesores Requeridos - PERIODO DE 5 AÑOS

N°	Via	Sentido	Del Km	Al Km.	Longitud (m)	Estructura del Pavimento									CBR prom.	MR (psi)	SN <sub>f</sub>	SN <sub>ol</sub>	MAC - Refuerzo a colocar										
						Rodadura			BG			SB							SN <sub>eff</sub>	cm	pulg.	MACS (*) Min.							
						cm	a <sub>1</sub>		cm	a <sub>2</sub>	m <sub>2</sub>	cm	a <sub>3</sub>	m <sub>3</sub>															
1	Carretera	Ambos	736 + 600	742 + 150	5550	MAC = 10.00	0.17	0.05	1.00	0.04	1.00	3.45	17.93	16205	3.88	0.43	2.61	1.03	2.0										
2			742 + 150	744 + 400	2250															BG = 20	SBG = 20	4.05	8.71	10209	4.51	0.46	2.79	1.10	2.0
3			744 + 400	744 + 900	500															BG = 20	SBG = 35	5.16	7299	5.01	0.96	5.82	2.29	2.5	
4			744 + 900	746 + 900	2000															BG = 20	SBG = 35	24.38	19730	3.63	-0.42	NR	NR	NR	
5			746 + 900	748 + 150	1250															BG = 20	SBG = 35	18.54	16556	3.85	-0.20	NR	NR	NR	
6			748 + 150	756 + 650	8500															BG = 20	SBG = 35	18.77	16688	3.84	-0.21	NR	NR	NR	
7			756 + 650	758 + 250	1600															BG = 20	SBG = 15	16.45	15338	3.95	0.70	4.24	1.67	2.0	
8			758 + 250	759 + 150	900															BG = 20	SBG = 15	14.89	14387	4.03	0.78	4.73	1.86	2.0	
9			759 + 150	763 + 250	4100															BG = 20	SBG = 15	19.62	17171	3.80	0.55	3.33	1.31	2.0	
10			763 + 250	769 + 850	6600															BG = 30	SBG = 20	16.09	15120	3.97	-0.81	NR	NR	NR	
11			769 + 850	771 + 050	1200															BG = 30	SBG = 20	8.47	10028	4.62	-0.16	NR	NR	NR	
12			771 + 050	773 + 750	2700															BG = 30	SBG = 20	13.25	13354	4.21	-0.57	NR	NR	NR	
13			773 + 750	779 + 050	5300															BG = 30	SBG = 20	4.12	9.75	10974	4.49	0.38	2.27	0.89	1.0
14	Evitamiento Chichilayo	S-N	779 + 050	783 + 250	4200	MAC = 10.50	BG = 20	SBG = 20	3.53	7.13	8982	4.78	1.25	7.56	2.98	3.0													
15		N-S	783 + 250	785 + 650	2400	MAC = 7.00	BG = 25	SBG = 15	3.01	12.14	12630	4.29	1.29	7.56	2.98	3.0													
16		S-N	785 + 650	788 + 050	2400	MAC = 7.00	BG = 25	SBG = 15	3.01	12.90	13128	4.23	1.23	7.42	2.92	3.0													
17		N-S	785 + 650	788 + 050	2400	MAC = 7.00	BG = 25	SBG = 15	3.01	10.28	11354	4.44	1.44	8.70	3.42	3.5													
18	Autopista Chichilayo	S-N	788 + 050	789 + 250	1200	MAC = 18.50	BG = 15	SBG = 35	5.20	14.88	14381	4.34	-0.86	NR	NR	NR													
19		N-S	789 + 250	791 + 450	2200	MAC = 18.50	BG = 15	SBG = 35	5.20	16.17	15168	4.26	-0.94	NR	NR	NR													
20		S-N	791 + 450	794 + 650	3200	MAC = 18.50	BG = 15	SBG = 35	5.20	14.95	14430	4.33	-0.87	NR	NR	NR													
21		N-S	791 + 450	794 + 650	3200	MAC = 18.50	BG = 15	SBG = 35	5.20	7.48	9262	4.99	-0.21	NR	NR	NR													
22	Zona Urbana Lambayeque	S-N	795 + 550	797 + 350	1800	MAC = 10.00	BG = 20	SBG = 25	3.65	6.04	8080	5.21	1.56	9.45	3.72	4.0													
23		N-S	795 + 550	797 + 350	1800	MAC = 10.00	BG = 20	SBG = 25	3.65	6.16	8181	5.19	1.54	9.33	3.67	4.0													
24	Carretera	Ambos	797 + 350	799 + 350	2000	MAC = 10.00	0.17	0.05	1.00	0.04	1.00	3.40	10.96	11828	4.62	1.22	7.39	2.91	3.0										
25			799 + 350	804 + 300	4950															BG = 15	SBG = 25	10.97	11834	4.62	1.22	7.39	2.91	3.0	
26			804 + 300	805 + 200	900															BG = 15	SBG = 25	5.10	7246	5.09	1.69	10.24	4.03	4.0	
27			805 + 200	807 + 350	2150															BG = 15	SBG = 25	5.02	7173	5.10	1.70	10.30	4.06	4.0	
28			807 + 350	812 + 550	5200															BG = 20	SBG = 15	3.25	9.00	10424	4.54	1.29	7.82	3.08	3.0
29			812 + 550	815 + 300	2750															BG = 20	SBG = 15	3.25	6.65	8587	4.49	1.24	7.52	2.96	3.0
30			815 + 300	816 + 800	1500															BG = 30	SBG = 25	3.15	12.18	12653	3.96	0.81	4.91	1.93	2.0
31			816 + 800	820 + 250	3450															BG = 30	SBG = 25	3.15	5.78	7851	4.62	1.47	8.91	3.51	3.5
32			820 + 250	820 + 750	500															BG = 30	SBG = 25	3.15	10.23	11319	4.10	0.95	5.76	2.27	2.5
33			820 + 750	825 + 850	5100															BG = 30	SBG = 25	3.15	10.23	11319	4.10	0.95	5.76	2.27	2.5
34			825 + 850	827 + 050	1200															BG = 30	SBG = 25	3.15	13.79	13700	3.85	0.70	4.24	1.67	2.0
35			827 + 050	828 + 900	1850															BG = 30	SBG = 25	4.15	8.81	10284	4.24	0.09	0.55	0.21	NR
36			828 + 900	829 + 200	300															BG = 30	SBG = 25	4.15	14.22	13971	3.83	-0.32	NR	NR	NR
37			829 + 200	830 + 450	1250															BG = 30	SBG = 25	4.15	6.58	8531	4.50	0.35	2.12	0.84	1.0
38			830 + 450	831 + 750	1300															BG = 30	SBG = 25	4.15	11.56	12240	4.00	0.73	4.39	1.73	2.0
39			831 + 750	834 + 750	3000															BG = 30	SBG = 25	4.15	6.30	8295	4.54	1.27	7.44	2.93	3.0
40			834 + 750	835 + 900	1150															BG = 30	SBG = 25	4.15	7.45	9237	4.39	1.12	6.56	2.58	3.0
41			835 + 900	839 + 350	3450															BG = 30	SBG = 25	4.15	4.86	7032	4.78	1.51	8.85	3.49	3.5
42			839 + 350	842 + 950	3600															BG = 30	SBG = 25	4.15	8.10	9747	4.31	1.04	6.09	2.40	2.5
43			842 + 950	850 + 500	7550															BG = 30	SBG = 25	4.15	10.67	11626	4.07	0.80	4.68	1.84	2.0
44			850 + 500	853 + 550	3050															BG = 30	SBG = 25	4.15	9.18	10561	4.20	0.75	4.55	1.79	2.0
45			853 + 550	854 + 600	1050															BG = 30	SBG = 25	4.15	14.23	13979	3.83	0.38	2.30	0.91	1.0
46			854 + 600	863 + 350	8750															BG = 30	SBG = 25	4.15	7.12	8977	4.43	0.98	5.94	2.34	2.5
47			863 + 350	867 + 350	4000															BG = 30	SBG = 25	4.15	11.75	12363	3.99	0.54	3.27	1.29	2.0
48			867 + 350	872 + 750	5400															BG = 30	SBG = 25	4.15	20.47	17641	3.54	0.09	0.55	0.21	1.0
49			872 + 750	886 + 600	13850															BG = 30	SBG = 25	4.15	8.21	9827	4.30	0.85	5.15	2.03	2.0

Nota: Los Valores negativos y en color rojo, indican que el tramo no requiere de refuerzo.