

REPUBLIC OF KENYA



MINISTRY OF PUBLIC WORKS

DETAILED DESIGN STUDY  
ON  
THE NAIROBI BYPASS PROJECT  
GEOMETRIC DESIGN RESULTS

SEPTEMBER 1992

JAPAN INTERNATIONAL COOPERATION AGENCY

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ON  
THE NAIROBI BYPASS PROJECT  
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SEPTEMBER 1992

Japan International  
Cooperation Agency

The Permanent Secretary  
Ministry of Public Works  
P.O.Box 30260  
NAIROBI

The Chief Engineer (Roads)  
Ministry of Public Works  
P.O.Box 30260  
NAIROBI



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NOTE

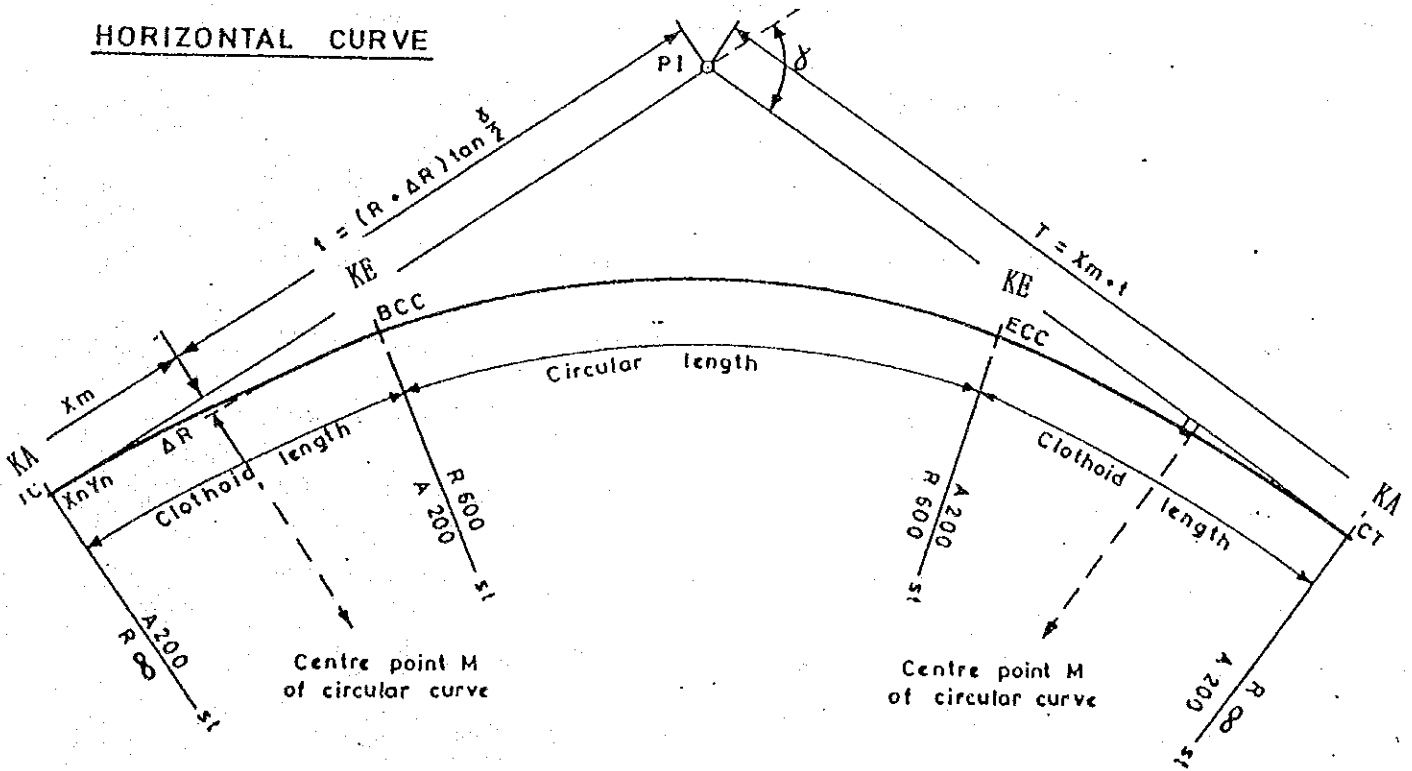
Symbols are shown as follows.

KA = TC      Tangent to clothoid (clothoid origin)

KE = BCC      Beginning of circle from clothoid end

KE = ECC      End of circle to clothoid

KA = CT      clothoid to tangent







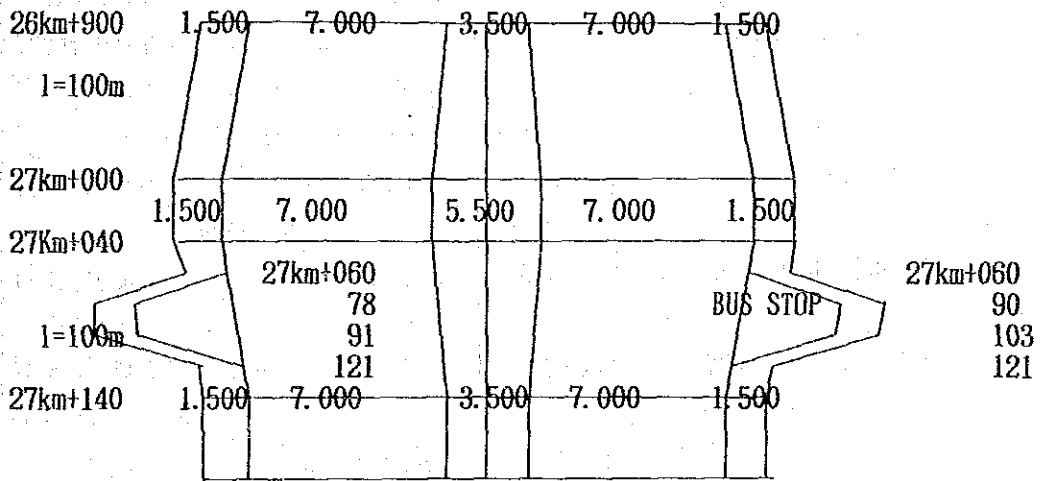
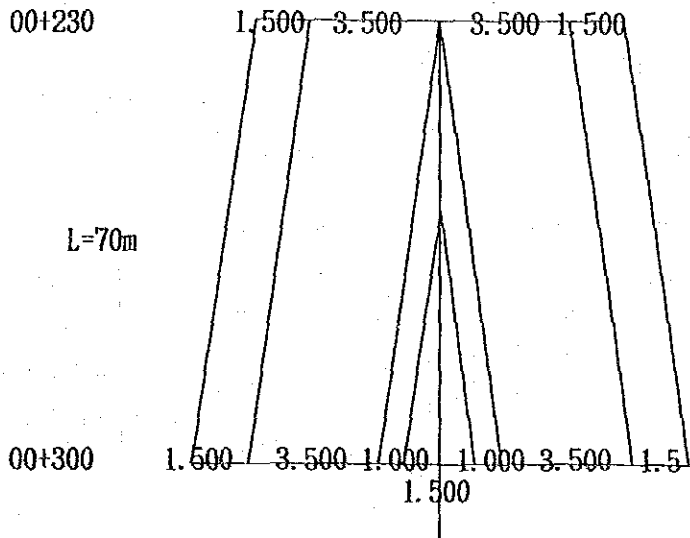


MAIN ROAD

CENTRAL RESERVE

WIDENNING









# MAIN ROAD WIDTH

FROM NO 00 km+230.000

TO NO 00 km+300.000      L=70.000

STATION NO	SHOULDER	CARRIAGE	CENTRAL RESERVE		CARRIAGE	SHOULDER
00+230.000		LEFT LANE	LEFT	RIGHT	RIGHT LANE	
TOTAL WIDTH						
H W=10.000	1.500	3.500	0.000	0.000	3.500	1.500
STATION NO	SHOULDER	CARRIAGE	CENTRAL RESERVE		CARRIAGE	SHOULDER
00+240.000		LEFT LANE	LEFT	RIGHT	RIGHT LANE	
TOTAL WIDTH						
H W=10.500	1.500	3.500	0.250	0.250	3.500	1.500
STATION NO	SHOULDER	CARRIAGE	CENTRAL RESERVE		CARRIAGE	SHOULDER
00+260.000		LEFT LANE	LEFT	RIGHT	RIGHT LANE	
TOTAL WIDTH						
H W=11.500	1.500	3.500	0.750	0.750	3.500	1.500
STATION NO	SHOULDER	CARRIAGE	CENTRAL RESERVE		CARRIAGE	SHOULDER
00+280.000		LEFT LANE	LEFT	RIGHT	RIGHT LANE	
TOTAL WIDTH						
H W=12.500	1.500	3.500	1.250	1.250	3.500	1.500
STATION NO	SHOULDER	CARRIAGE	CENTRAL RESERVE		CARRIAGE	SHOULDER
00+300.000		LEFT LANE	LEFT	RIGHT	RIGHT LANE	
TOTAL WIDTH						
H W=13.500	1.500	3.500	1.750	1.750	3.500	1.500

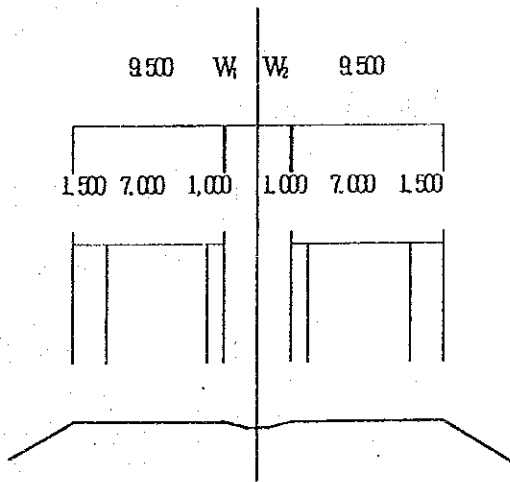


WIDENNING OF CENTRAL RESERVE

WIDENNING OF CENTRAL RESERVE

LEFT W	STATION NO	W <sub>2</sub> RIGHT
0. 756	00+800	0. 750
0. 820	00+820	0. 750
0. 956	00+840	0. 750
1. 162	00+860	0. 783
1. 439	00+880	0. 909
1. 786	00+900	1. 130
2. 204	00+920	1. 444
2. 693	00+940	1. 852
3. 244	00+960	2. 360
3. 797	00+980	3. 030
4. 260	01+000	3. 775
4. 547	01+020	4. 222
4. 568	01+040	4. 432
4. 504	01+060	4. 496
4. 500	01+080	4. 500

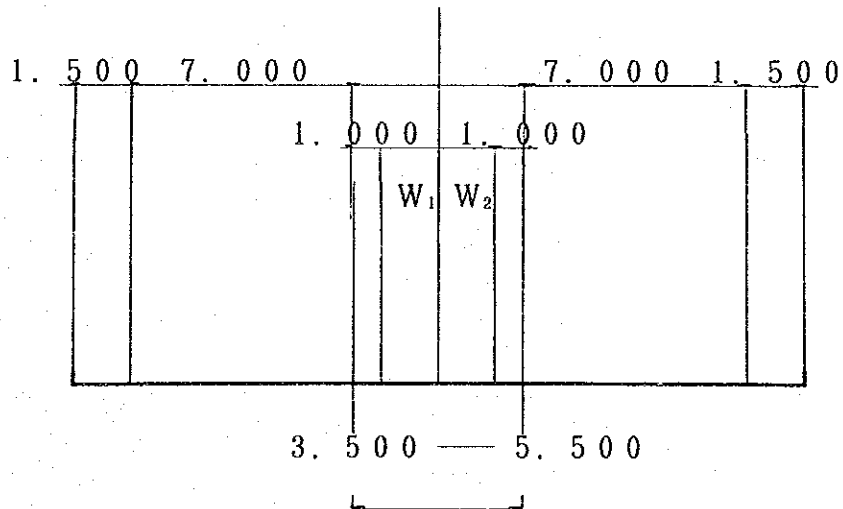
LEFT W	STATION NO	W <sub>2</sub> RIGHT
4. 500	05+900	4. 499
4. 500	05+920	4. 447
4. 500	05+940	4. 323
4. 500	05+960	4. 126
4. 500	05+980	3. 856
4. 500	06+000	3. 515
4. 459	06+020	3. 140
4. 318	06+040	2. 793
4. 078	06+060	2. 473
3. 738	06+080	2. 180
3. 297	06+100	1. 914
2. 786	06+120	1. 676
2. 322	06+140	1. 465
1. 918	06+160	1. 281
1. 574	06+180	1. 125
1. 289	06+200	0. 995
1. 065	06+220	0. 893
0. 901	06+240	0. 818
0. 796	06+260	0. 771
0. 752	06+280	0. 751
0. 750	06+300	0. 750





# WIDENNING OF CENTRAL RESERVE

LEFT $W_1$	STATION NO	$W_2$ RIGHT
0.750	26 km+900	0.750
0.950	920	0.950
1.150	940	1.150
1.350	960	1.350
1.550	980	1.550
1.750	27 km+000	1.750
1.750	020	1.750
1.750	040	1.750
1.550	060	1.550
1.350	080	1.350
1.150	100	1.150
0.950	120	0.950
0.750	140	0.750











VERTICAL ALIGNMENT

MAIN ROAD



MAIN ROAD

VERTICAL ALIGNMENT

1

St NO	HIGHT	V. C. L	LENGTH %	St NO	HIGHT	V. C. L	LENGTH %
00+100 IP 1	1646.400	200.000 f=0.800	+0.800 320.000	11+100 IP 19	1788.640	200.000 f=0.757	-1.520 1200.000
00+420 IP 2	1659.200	340.000 f=2.850	+4.000 335.000	12+300 IP 20	1806.721	200.000 f=0.202	+1.507 1400.000
00+755 IP 3	1650.135	200.000 f=0.789	-2.706	13+700 IP 21	1816.521	200.000 f=0.060	+0.700 1784.875
1+800 IP 4	1654.837	200.000 f=0.078	+0.450 2550.000	15+484.875 15+300	Ht 1824.731 BRAKING POINT		+0.460
4+350 IP 5	1674.217	200.000 f=0.210	+0.760 350.000				
4+700 IP 6	1679.817	200.000 f=0.235	+1.600 800.000	15+700 IP 22	1826.571	200.000 f=0.303	+0.460 1400.000
5+500 IP 7	1685.085	200.000 f=0.970	+0.659 300.000	17+100 IP 23	1850.000	200.000 f=0.214	+1.674 1000.000
5+800 8	1698.697	200.000 f=0.707	+4.537 400.000	18+100 IP 24	1875.300	600.000 f=2.122	+2.530 1000.000
6+200 IP 9	1705.534	200.000 f=0.566	+1.709 530.000	19+100 IP 25	1872.300	200.000 f=0.550	-0.300 400.000
6+730 IP 10	1726.600	200.000 f=1.994	+3.975 320.000	19+500 IP 26	1879.900	200.000 f=0.400	+1.900 750.000
7+050 IP 11	1713.800	200.000 f=1.138	-4.000 450.000	20+250 IP 27	1882.150	200.000 f=0.050	+0.300 350.000
7+500 IP 12	1716.275	200.000 f=0.919	+0.550 300.000	20+600 IP 28	1883.900	400.000 f=2.250	+0.500 1450.000
7+800 IP 13	1728.950	200.000 f=0.981	+4.225 500.000	22+050 IP 29	1956.400	200.000 f=0.800	+5.000 500.000
8+300 IP 14	1730.450	200.000 f=0.252	+0.300 500.000	22+550 IP 30	1965.400	200.000 f=0.720	+1.800 630.000
8+800 IP 15	1737.000	200.000 f=0.673	+1.310 400.000	23+180 IP 31	1994.884	320.000 f=2.440	+4.680 1120.000
9+200 IP 16	1753.000	200.000 f=0.650	+4.000 200.000	24+300 IP 32	1978.993	200.000 f=1.030	-1.419 750.000
9+400 IP 17	1755.800	200.000 f=0.900	+1.400 200.000	25+050 IP 33	1999.243	200.000 f=0.827	+2.700 400.000
10+300 IP 18	1800.800	600.000 f=4.890	+5.000 800.000	25+450 IP 34	1996.818	200.000 f=1.002	-0.606 450.000













ROAD LEVEL  
MAIN ROAD

NOTE

- A: HIGHT OF GRADIENT
- B: TANGENT OFFSET (VERTICAL)
- C: TANGENT GRADIENT



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
0+ 0	.000	.000		1645.600		*****
0+ 20	20.000	20.000	.032 1645.760	1645.792	1.120	*****
0+ 40	20.000	40.000	.128 1645.920	1646.048	1.440	*****
0+ 60	20.000	60.000	.288 1646.080	1646.368	1.760	*****
0+ 80	20.000	80.000	.512 1646.240	1646.752	2.080	*****
0+100	20.000	100.000	.800 1646.400	1647.200	2.400	4.000
Ip POINT 0+100	.000	100.000	.800 1646.400	1647.200	2.400	4.000
0+120	20.000	120.000	.512 1647.200	1647.712	2.720	4.000
0+140	20.000	140.000	.288 1648.000	1648.288	3.040	4.000
0+160	20.000	160.000	.128 1648.800	1648.928	3.360	4.000
0+180	20.000	180.000	.032 1649.600	1649.632	3.680	4.000
0+200	20.000	200.000		1650.400		4.000
0+220	20.000	220.000		1651.200		4.000
0+240	20.000	240.000		1652.000		4.000
0+260	20.000	260.000	-.010 1652.800	1652.790	3.803	4.000
0+280	20.000	280.000	-.089 1653.600	1653.511	3.408	4.000
0+300	20.000	300.000	-.247 1654.400	1654.153	3.014	4.000
KE1-1 0+318.500	18.500	318.500	-.463 1655.140	1654.677	2.649	4.000
0+320	1.500	320.000	-.483 1655.200	1654.717	2.619	4.000
0+340	20.000	340.000	-.799 1656.000	1655.201	2.225	4.000
0+360	20.000	360.000	-1.193 1656.800	1655.607	1.830	4.000
0+380	20.000	380.000	-1.667 1657.600	1655.933	1.436	4.000
0+400	20.000	400.000	-2.219 1658.400	1656.181	1.041	4.000
0+420	20.000	420.000	-2.850 1659.200	1656.350	.647	-2.706



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
Ip POINT 0+420	.000	420.000	-2.850 1659.200	1656.350	.647	-2.706
0+440	20.000	440.000	-2.219 1658.659	1656.440	.253	-2.706
KE1-2 0+447.071	7.071	447.071	-2.015 1658.467	1656.453	.113	-2.706
0+460	12.929	460.000	-1.667 1658.118	1656.451	-.142	-2.706
0+480	20.000	480.000	-1.193 1657.576	1656.383	-.536	-2.706
0+500	20.000	500.000	-.799 1657.035	1656.236	-.931	-2.706
0+520	20.000	520.000	-.483 1656.494	1656.011	-1.325	-2.706
0+540	20.000	540.000	-.247 1655.953	1655.706	-1.720	-2.706
0+560	20.000	560.000	-.089 1655.412	1655.323	-2.114	-2.706
0+580	20.000	580.000	-.010 1654.870	1654.861	-2.509	-2.706
0+600	20.000	600.000		1654.329		-2.706
0+620	20.000	620.000		1653.788		-2.706
0+640	20.000	640.000		1653.247		-2.706
0+660	20.000	660.000	.002 1652.706	1652.708	-2.627	-2.706
0+680	20.000	680.000	.049 1652.164	1652.214	-2.311	-2.706
0+700	20.000	700.000	.160 1651.623	1651.783	-1.996	-2.706
0+720	20.000	720.000	.333 1651.082	1651.415	-1.680	-2.706
0+740	20.000	740.000	.570 1650.541	1651.111	-1.365	-2.706
Ip POINT 0+755	15.000	755.000	.789 1650.135	1650.924	-1.128	.450
0+760	5.000	760.000	.712 1650.157	1650.870	-1.049	.450
0+780	20.000	780.000	.444 1650.247	1650.691	-.734	.450
0+800	20.000	800.000	.239 1650.337	1650.576	-.418	.450
0+820	20.000	820.000	.097 1650.427	1650.524	-.102	.450
0+840	20.000	840.000	.018 1650.517	1650.535	.213	.450



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
0+860	20.000	860.000		1650.607		.450
0+880	20.000	880.000		1650.697		.450
0+900	20.000	900.000		1650.787		.450
0+920	20.000	920.000		1650.877		.450
0+940	20.000	940.000		1650.967		.450
KA1-2 0+944.627	4.627	944.627		1650.988		.450
0+960	15.373	960.000		1651.057		.450
0+980	20.000	980.000		1651.147		.450
1+ 0	20.000	1000.000		1651.237		.450
1+ 20	20.000	1020.000		1651.327		.450
1+ 40	20.000	1040.000		1651.417		.450
1+ 60	20.000	1060.000		1651.507		.450
BC0-0 1+ 73.199	13.199	1073.199		1651.567		.450
1+ 80	6.801	1080.000		1651.597		.450
1+100	20.000	1100.000		1651.687		.450
1+120	20.000	1120.000		1651.777		.450
1+140	20.000	1140.000		1651.867		.450
1+160	20.000	1160.000		1651.957		.450
1+180	20.000	1180.000		1652.047		.450
1+200	20.000	1200.000		1652.137		.450
1+220	20.000	1220.000		1652.227		.450
1+240	20.000	1240.000		1652.317		.450
1+260	20.000	1260.000		1652.407		.450
1+280	20.000	1280.000		1652.497		.450





STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
1+300	20.000	1300.000		1652.587		.450
1+320	20.000	1320.000		1652.677		.450
1+340	20.000	1340.000		1652.767		.450
1+360	20.000	1360.000		1652.857		.450
1+380	20.000	1380.000		1652.947		.450
1+400	20.000	1400.000		1653.037		.450
1+420	20.000	1420.000		1653.127		.450
1+440	20.000	1440.000		1653.217		.450
1+460	20.000	1460.000		1653.307		.450
1+480	20.000	1480.000		1653.397		.450
1+500	20.000	1500.000		1653.487		.450
1+520	20.000	1520.000		1653.577		.450
ECO-0 1+525.443	5.443	1525.443		1653.602		.450
1+540	14.557	1540.000		1653.667		.450
1+560	20.000	1560.000		1653.757		.450
1+580	20.000	1580.000		1653.847		.450
1+600	20.000	1600.000		1653.937		.450
1+620	20.000	1620.000		1654.027		.450
1+640	20.000	1640.000		1654.117		.450
1+660	20.000	1660.000		1654.207		.450
1+680	20.000	1680.000		1654.297		.450
1+700	20.000	1700.000		1654.387		.450
1+720	20.000	1720.000	.003 1654.477	1654.480	.481	.450



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
1+740	20.000	1740.000	1654. <sup>.012</sup> 567	1654.579	.512	.450
1+760	20.000	1760.000	1654. <sup>.028</sup> 657	1654.685	.543	.450
1+780	20.000	1780.000	1654. <sup>.050</sup> 747	1654.797	.574	.450
1+800	20.000	1800.000	1654. <sup>.078</sup> 837	1654.915	.605	.760
Ip POINT 1+800	.000	1800.000	1654. <sup>.078</sup> 837	1654.915	.605	.760
1+820	20.000	1820.000	1654. <sup>.050</sup> 989	1655.039	.636	.760
1+840	20.000	1840.000	1655. <sup>.028</sup> 141	1655.169	.667	.760
1+860	20.000	1860.000	1655. <sup>.012</sup> 293	1655.305	.698	.760
1+880	20.000	1880.000	1655. <sup>.003</sup> 445	1655.448	.729	.760
1+900	20.000	1900.000		1655.597		.760
1+920	20.000	1920.000		1655.749		.760
1+940	20.000	1940.000		1655.901		.760
1+960	20.000	1960.000		1656.053		.760
BC1-0 1+970.243	10.243	1970.243		1656.131		.760
1+980	9.757	1980.000		1656.205		.760
2+ 0	20.000	2000.000		1656.357		.760
2+ 20	20.000	2020.000		1656.509		.760
2+ 40	20.000	2040.000		1656.661		.760
2+ 60	20.000	2060.000		1656.813		.760
2+ 80	20.000	2080.000		1656.965		.760
2+100	20.000	2100.000		1657.117		.760
2+120	20.000	2120.000		1657.269		.760
2+140	20.000	2140.000		1657.421		.760
2+160	20.000	2160.000		1657.573		.760



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
2+180	20.000	2180.000		1657.725		.760
2+200	20.000	2200.000		1657.877		.760
2+220	20.000	2220.000		1658.029		.760
2+240	20.000	2240.000		1658.181		.760
2+260	20.000	2260.000		1658.333		.760
2+280	20.000	2280.000		1658.485		.760
2+300	20.000	2300.000		1658.637		.760
2+320	20.000	2320.000		1658.789		.760
2+340	20.000	2340.000		1658.941		.760
2+360	20.000	2360.000		1659.093		.760
2+380	20.000	2380.000		1659.245		.760
2+400	20.000	2400.000		1659.397		.760
2+420	20.000	2420.000		1659.549		.760
2+440	20.000	2440.000		1659.701		.760
2+460	20.000	2460.000		1659.853		.760
2+480	20.000	2480.000		1660.005		.760
2+500	20.000	2500.000		1660.157		.760
2+520	20.000	2520.000		1660.309		.760
2+540	20.000	2540.000		1660.461		.760
2+560	20.000	2560.000		1660.613		.760
2+580	20.000	2580.000		1660.765		.760
2+600	20.000	2600.000		1660.917		.760
2+620	20.000	2620.000		1661.069		.760
2+640	20.000	2640.000		1661.221		.760



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
2+660	20.000	2660.000		1661.373		.760
2+680	20.000	2680.000		1661.525		.760
2+700	20.000	2700.000		1661.677		.760
2+720	20.000	2720.000		1661.829		.760
EC1-0 2+727.035	7.035	2727.035		1661.882		.760
2+740	12.965	2740.000		1661.981		.760
2+760	20.000	2760.000		1662.133		.760
2+780	20.000	2780.000		1662.285		.760
2+800	20.000	2800.000		1662.437		.760
2+820	20.000	2820.000		1662.589		.760
2+840	20.000	2840.000		1662.741		.760
2+860	20.000	2860.000		1662.893		.760
2+880	20.000	2880.000		1663.045		.760
2+900	20.000	2900.000		1663.197		.760
2+920	20.000	2920.000		1663.349		.760
2+940	20.000	2940.000		1663.501		.760
2+960	20.000	2960.000		1663.653		.760
2+980	20.000	2980.000		1663.805		.760
3+ 0	20.000	3000.000		1663.957		.760
3+ 20	20.000	3020.000		1664.109		.760
3+ 40	20.000	3040.000		1664.261		.760
3+ 60	20.000	3060.000		1664.413		.760
3+ 80	20.000	3080.000		1664.565		.760
3+100	20.000	3100.000		1664.717		.760





STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
3+120	20.000	3120.000		1664.869		.760
3+140	20.000	3140.000		1665.021		.760
3+160	20.000	3160.000		1665.173		.760
3+180	20.000	3180.000		1665.325		.760
3+200	20.000	3200.000		1665.477		.760
3+220	20.000	3220.000		1665.629		.760
3+240	20.000	3240.000		1665.781		.760
3+260	20.000	3260.000		1665.933		.760
3+280	20.000	3280.000		1666.085		.760
3+300	20.000	3300.000		1666.237		.760
3+320	20.000	3320.000		1666.389		.760
3+340	20.000	3340.000		1666.541		.760
3+360	20.000	3360.000		1666.693		.760
3+380	20.000	3380.000		1666.845		.760
3+400	20.000	3400.000		1666.997		.760
3+420	20.000	3420.000		1667.149		.760
3+440	20.000	3440.000		1667.301		.760
3+460	20.000	3460.000		1667.453		.760
3+480	20.000	3480.000		1667.605		.760
3+500	20.000	3500.000		1667.757		.760
BC2-0 3+509.293	9.293	3509.293		1667.828		.760
3+520	10.707	3520.000		1667.909		.760
3+540	20.000	3540.000		1668.061		.760



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
3+560	20.000	3560.000		1668.213		.760
3+580	20.000	3580.000		1668.385		.760
3+600	20.000	3600.000		1668.517		.760
3+620	20.000	3620.000		1668.669		.760
3+640	20.000	3640.000		1668.821		.760
3+660	20.000	3660.000		1668.973		.760
3+680	20.000	3680.000		1669.125		.760
3+700	20.000	3700.000		1669.277		.760
3+720	20.000	3720.000		1669.429		.760
3+740	20.000	3740.000		1669.581		.760
3+760	20.000	3760.000		1669.733		.760
3+780	20.000	3780.000		1669.885		.760
3+800	20.000	3800.000		1670.037		.760
3+820	20.000	3820.000		1670.189		.760
3+840	20.000	3840.000		1670.341		.760
3+860	20.000	3860.000		1670.493		.760
3+880	20.000	3880.000		1670.645		.760
3+900	20.000	3900.000		1670.797		.760
3+920	20.000	3920.000		1670.949		.760
3+940	20.000	3940.000		1671.101		.760
3+960	20.000	3960.000		1671.253		.760
3+980	20.000	3980.000		1671.405		.760
4+ 0	20.000	4000.000		1671.557		.760
4+ 20	20.000	4020.000		1671.709		.760



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
4+ 40	20.000	4040.000		1671.861		.760
4+ 60	20.000	4060.000		1672.013		.760
4+ 80	20.000	4080.000		1672.165		.760
4+100	20.000	4100.000		1672.317		.760
4+120	20.000	4120.000		1672.469		.760
4+140	20.000	4140.000		1672.621		.760
4+160	20.000	4160.000		1672.773		.760
4+180	20.000	4180.000		1672.925		.760
4+200	20.000	4200.000		1673.077		.760
4+220	20.000	4220.000		1673.229		.760
4+240	20.000	4240.000		1673.381		.760
4+260	20.000	4260.000	.002 1673.533	1673.535	.802	.760
4+280	20.000	4280.000	.019 1673.685	1673.704	.886	.760
4+300	20.000	4300.000	.052 1673.837	1673.890	.970	.760
4+320	20.000	4320.000	.103 1673.989	1674.092	1.054	.760
4+340	20.000	4340.000	.170 1674.141	1674.311	1.138	.760
Ip POINT 4+350	10.000	4350.000	.210 1674.217	1674.427	1.180	1.600
4+360	10.000	4360.000	.170 1674.377	1674.547	1.222	1.600
4+380	20.000	4380.000	.103 1674.697	1674.800	1.306	1.600
4+400	20.000	4400.000	.052 1675.017	1675.070	1.390	1.600
4+420	20.000	4420.000	.019 1675.337	1675.356	1.474	1.600
4+440	20.000	4440.000	.002 1675.657	1675.659	1.558	1.600
4+460	20.000	4460.000		1675.977		1.600
4+480	20.000	4480.000		1676.297		1.600



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
4+500	20.000	4500.000		1676.617		1.600
4+520	20.000	4520.000		1676.937		1.600
EC2-0 4+535.215	15.215	4535.215		1677.180		1.600
4+540	4.785	4540.000		1677.257		1.600
4+560	20.000	4560.000		1677.577		1.600
4+580	20.000	4580.000		1677.897		1.600
4+600	20.000	4600.000		1678.217		1.600
4+620	20.000	4620.000	- .009 1678.537	1678.528	1.506	1.600
4+640	20.000	4640.000	- .038 1678.857	1678.819	1.412	1.600
4+660	20.000	4660.000	- .085 1679.177	1679.092	1.318	1.600
4+680	20.000	4680.000	- .151 1679.497	1679.346	1.223	1.600
4+700	20.000	4700.000	- .235 1679.817	1679.582	1.129	.659
IP POINT 4+700	.000	4700.000	- .235 1679.817	1679.582	1.129	.659
4+720	20.000	4720.000	- .151 1679.949	1679.798	1.035	.659
4+740	20.000	4740.000	- .085 1680.080	1679.996	.941	.659
4+760	20.000	4760.000	- .038 1680.212	1680.174	.847	.659
4+780	20.000	4780.000	- .009 1680.344	1680.334	.753	.659
4+800	20.000	4800.000		1680.476		.659
4+820	20.000	4820.000		1680.607		.659
4+840	20.000	4840.000		1680.739		.659
4+860	20.000	4860.000		1680.871		.659
4+880	20.000	4880.000		1681.002		.659
4+900	20.000	4900.000		1681.134		.659
KA3-1 4+910.382	10.382	4910.382		1681.202		.659





STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
4+920	9.618	4920.000		1681.266		.659
4+940	20.000	4940.000		1681.397		.659
4+960	20.000	4960.000		1681.529		.659
4+980	20.000	4980.000		1681.661		.659
5+ 0	.000	5000.000		1681.793		.659
5+ 20	20.000	5020.000		1681.924		.659
5+ 40	20.000	5040.000		1682.056		.659
5+ 60	20.000	5060.000		1682.188		.659
5+ 80	20.000	5080.000		1682.319		.659
KE3-1 5+ 91.256	11.256	5091.256		1682.393		.659
5+100	8.744	5100.000		1682.451		.659
5+120	20.000	5120.000		1682.583		.659
5+140	20.000	5140.000		1682.714		.659
5+160	20.000	5160.000		1682.846		.659
5+180	20.000	5180.000		1682.978		.659
5+200	20.000	5200.000		1683.110		.659
5+220	20.000	5220.000		1683.241		.659
5+240	20.000	5240.000		1683.373		.659
5+260	20.000	5260.000		1683.505		.659
5+280	20.000	5280.000		1683.636		.659
KE3-2 5+291.256	11.256	5291.256		1683.710		.659
5+300	8.744	5300.000		1683.768		.659
5+320	20.000	5320.000		1683.900		.659



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
5+340	20.000	5340.000		1684.031		.659
5+360	20.000	5360.000		1684.163		.659
5+380	20.000	5380.000		1684.295		.659
5+400	20.000	5400.000		1684.427		.659
5+420	20.000	5420.000	.039 1684.558	1684.597	1.046	.659
5+440	20.000	5440.000	.155 1684.690	1684.845	1.434	.659
5+460	20.000	5460.000	.349 1684.822	1685.171	1.822	.659
5+480	20.000	5480.000	.621 1684.953	1685.574	2.210	.659
5+500	20.000	5500.000	.970 1685.085	1686.055	2.598	4.537
IP POINT 5+500	.000	5500.000	.970 1685.085	1686.055	2.598	4.537
5+520	20.000	5520.000	.621 1685.992	1686.613	2.986	4.537
5+540	20.000	5540.000	.349 1686.900	1687.249	3.374	4.537
5+560	20.000	5560.000	.155 1687.807	1687.963	3.762	4.537
5+580	20.000	5580.000	.039 1688.715	1688.754	4.149	4.537
5+600	20.000	5600.000		1689.622		4.537
KA3-2 5+617.777	17.777	5617.777		1690.429		4.537
5+620	2.223	5620.000		1690.530		4.537
5+640	20.000	5640.000		1691.437		4.537
5+660	20.000	5660.000		1692.345		4.537
5+680	20.000	5680.000		1693.252		4.537
5+700	20.000	5700.000		1694.160		4.537
5+720	20.000	5720.000	-.028 1695.067	1695.039	4.255	4.537
5+740	20.000	5740.000	-.113 1695.975	1695.861	3.972	4.537
5+760	20.000	5760.000	-.255 1696.882	1696.628	3.689	4.537



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
5+780	20.000	5780.000	- .452 1697.790	1697.337	3.406	4.537
5+800	20.000	5800.000	- .707 1698.697	1697.990	3.123	1.709
IP POINT: 5+800	.000	5800.000	- .707 1698.697	1697.990	3.123	1.709
BCA-0 5+817.777	17.777	5817.777	- .478 1699.001	1698.523	2.872	1.709
5+820	2.223	5820.000	- .452 1699.039	1698.586	2.840	1.709
5+840	20.000	5840.000	- .255 1699.381	1699.126	2.558	1.709
5+860	20.000	5860.000	- .113 1699.723	1699.609	2.275	1.709
5+880	20.000	5880.000	- .028 1700.064	1700.036	1.992	1.709
5+900	20.000	5900.000		1700.406		1.709
5+920	20.000	5920.000		1700.748		1.709
5+940	20.000	5940.000		1701.090		1.709
5+960	20.000	5960.000		1701.432		1.709
5+980	20.000	5980.000		1701.774		1.709
6+ 0	20.000	6000.000		1702.116		1.709
EBC5-0 6+ 1.864	1.864	6001.864		1702.147		1.709
6+ 20	18.136	6020.000		1702.457		1.709
6+ 40	20.000	6040.000		1702.799		1.709
6+ 60	20.000	6060.000		1703.141		1.709
6+ 80	20.000	6080.000		1703.483		1.709
6+100	20.000	6100.000		1703.825		1.709
6+120	20.000	6120.000	.023 1704.167	1704.189	1.936	1.709
6+140	20.000	6140.000	.091 1704.508	1704.599	2.162	1.709
6+160	20.000	6160.000	.204 1704.850	1705.054	2.389	1.709
6+180	20.000	6180.000	.362 1705.192	1705.555	2.615	1.709



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
6+200	20.000	6200.000	.566 1705.534	1706.100	2.842	3.975
IP POINT 6+200	.000	6200.000	.566 1705.534	1706.100	2.842	3.975
6+220	20.000	6220.000	.362 1706.329	1706.691	3.069	3.975
6+240	20.000	6240.000	.204 1707.124	1707.328	3.295	3.975
6+260	20.000	6260.000	.091 1707.919	1708.009	3.522	3.975
6+280	20.000	6280.000	.023 1708.714	1708.736	3.748	3.975
6+300	20.000	6300.000		1709.509		3.975
6+320	20.000	6320.000		1710.304		3.975
6+340	20.000	6340.000		1711.099		3.975
6+360	20.000	6360.000		1711.894		3.975
EC5-0 6+379.176	19.176	6379.176		1712.656		3.975
6+380	.824	6380.000		1712.688		3.975
6+400	20.000	6400.000		1713.483		3.975
6+420	20.000	6420.000		1714.278		3.975
6+440	20.000	6440.000		1715.073		3.975
6+460	20.000	6460.000		1715.868		3.975
6+480	20.000	6480.000		1716.663		3.975
6+500	20.000	6500.000		1717.458		3.975
6+520	20.000	6520.000		1718.253		3.975
6+540	20.000	6540.000		1719.048		3.975
6+560	20.000	6560.000		1719.843		3.975
6+580	20.000	6580.000		1720.638		3.975
6+600	20.000	6600.000		1721.433		3.975
6+620	20.000	6620.000		1722.228		3.975





STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
6+640	20.000	6640.000	- .020 1723.023	1723.003	3.576	3.975
6+660	20.000	6660.000	- .179 1723.818	1723.638	2.779	3.975
6+680	20.000	6680.000	- .498 1724.613	1724.114	1.981	3.975
6+700	20.000	6700.000	- .977 1725.408	1724.431	1.184	3.975
6+720	20.000	6720.000	-1.615 1726.203	1724.588	.386	3.975
Ip POINT 6+730	10.000	6730.000	-1.994 1726.600	1724.606	-.013	-4.000
6+740	10.000	6740.000	-1.615 1726.200	1724.585	-.411	-4.000
6+760	20.000	6760.000	- .977 1725.400	1724.423	-1.209	-4.000
6+780	20.000	6780.000	- .498 1724.600	1724.102	-2.006	-4.000
6+800	20.000	6800.000	- .179 1723.800	1723.621	-2.804	-4.000
6+820	20.000	6820.000	- .020 1723.000	1722.980	-3.601	-4.000
6+840	20.000	6840.000		1722.200		-4.000
6+860	20.000	6860.000		1721.400		-4.000
6+880	20.000	6880.000		1720.600		-4.000
6+900	20.000	6900.000		1719.800		-4.000
6+920	20.000	6920.000		1719.000		-4.000
6+940	20.000	6940.000		1718.200		-4.000
6+960	20.000	6960.000	.011 1717.400	1717.411	-3.772	-4.000
6+980	20.000	6980.000	.102 1716.600	1716.702	-3.317	-4.000
7+ 0	20.000	7000.000	.284 1715.800	1716.084	-2.862	-4.000
7+ 20	20.000	7020.000	.557 1715.000	1715.557	-2.407	-4.000
KA5-1 7+ 28.438	8.438	7028.438	.700 1714.662	1715.362	-2.216	-4.000
7+ 40	11.562	7040.000	.921 1714.200	1715.121	-1.952	-4.000



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
Ip POINT 7+ 50	10.000	7050.000	1.138 1713.800	1714.938	-1.725	.550
7+ 60	10.000	7060.000	.921 1713.855	1714.776	-1.497	.550
7+ 80	20.000	7080.000	.557 1713.965	1714.522	-1.042	.550
7+100	20.000	7100.000	.284 1714.075	1714.359	-.587	.550
7+120	20.000	7120.000	.102 1714.185	1714.287	-.132	.550
7+140	20.000	7140.000	.011 1714.295	1714.306	.323	.550
7+160	20.000	7160.000		1714.405		.550
7+180	20.000	7180.000		1714.515		.550
7+200	20.000	7200.000		1714.625		.550
7+220	20.000	7220.000		1714.735		.550
7+240	20.000	7240.000		1714.845		.550
7+260	20.000	7260.000		1714.955		.550
7+280	20.000	7280.000		1715.065		.550
7+300	20.000	7300.000		1715.175		.550
7+320	20.000	7320.000		1715.285		.550
7+340	20.000	7340.000		1715.395		.550
7+360	20.000	7360.000		1715.505		.550
7+380	20.000	7380.000		1715.615		.550
7+400	20.000	7400.000		1715.725		.550
7+420	20.000	7420.000	.037 1715.835	1715.872	.918	.550
7+440	20.000	7440.000	.147 1715.945	1716.092	1.285	.550
KEB-1 7+450.107	10.107	7450.107	.231 1716.001	1716.231	1.471	.550
7+460	9.893	7460.000	.331 1716.055	1716.386	1.653	.550
7+480	20.000	7480.000	.588 1716.165	1716.753	2.020	.550



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
7+500	20.000	7500.000	1716. <sup>.919</sup> <sub>275</sub>	1717.194	2.388	4.225
Ip POINT 7+500	.000	7500.000	1716. <sup>.919</sup> <sub>275</sub>	1717.194	2.388	4.225
7+520	20.000	7520.000	1717. <sup>.588</sup> <sub>120</sub>	1717.708	2.755	4.225
7+540	20.000	7540.000	1717. <sup>.331</sup> <sub>965</sub>	1718.296	3.122	4.225
7+560	20.000	7560.000	1718. <sup>.147</sup> <sub>810</sub>	1718.957	3.490	4.225
7+580	20.000	7580.000	1719. <sup>.037</sup> <sub>655</sub>	1719.692	3.857	4.225
7+600	20.000	7600.000		1720.500		4.225
KEG-2 7+600.107	.107	7600.107		1720.505		4.225
7+620	19.893	7620.000		1721.345		4.225
7+640	20.000	7640.000		1722.190		4.225
7+660	20.000	7660.000		1723.035		4.225
7+680	20.000	7680.000		1723.880		4.225
7+700	20.000	7700.000		1724.725		4.225
7+720	20.000	7720.000	1725. <sup>-.039</sup> <sub>570</sub>	1725.531	3.832	4.225
7+740	20.000	7740.000	1726. <sup>-.157</sup> <sub>415</sub>	1726.258	3.440	4.225
7+760	20.000	7760.000	1727. <sup>-.353</sup> <sub>260</sub>	1726.907	3.047	4.225
7+780	20.000	7780.000	1728. <sup>-.628</sup> <sub>105</sub>	1727.477	2.655	4.225
7+800	20.000	7800.000	1728. <sup>-.981</sup> <sub>950</sub>	1727.969	2.262	.300
Ip POINT 7+800	.000	7800.000	1728. <sup>-.981</sup> <sub>950</sub>	1727.969	2.262	.300
7+820	20.000	7820.000	1729. <sup>-.628</sup> <sub>010</sub>	1728.382	1.870	.300
7+840	20.000	7840.000	1729. <sup>-.353</sup> <sub>070</sub>	1728.717	1.477	.300
7+860	20.000	7860.000	1729. <sup>-.157</sup> <sub>130</sub>	1728.973	1.085	.300
7+880	20.000	7880.000	1729. <sup>-.039</sup> <sub>190</sub>	1729.151	.692	.300
7+900	20.000	7900.000		1729.250		.300



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
7+920	20.000	7920.000		1729.310		.300
7+940	20.000	7940.000		1729.370		.300
7+960	20.000	7960.000		1729.430		.300
7+980	20.000	7980.000		1729.490		.300
8+ 0	20.000	8000.000		1729.550		.300
8+ 20	20.000	8020.000		1729.610		.300
8+ 40	20.000	8040.000		1729.670		.300
8+ 60	20.000	8060.000		1729.730		.300
8+ 80	20.000	8080.000		1729.790		.300
8+100	20.000	8100.000		1729.850		.300
8+120	20.000	8120.000		1729.910		.300
8+140	20.000	8140.000		1729.970		.300
KAG-2 8+153.505	13.505	8153.505		1730.011		.300
8+160	6.495	8160.000		1730.030		.300
8+180	20.000	8180.000		1730.090		.300
8+200	20.000	8200.000		1730.150		.300
8+220	20.000	8220.000	.010 1730.210	1730.220	.401	.300
8+240	20.000	8240.000	.040 1730.270	1730.310	.502	.300
8+260	20.000	8260.000	.091 1730.330	1730.421	.603	.300
8+280	20.000	8280.000	.162 1730.390	1730.552	.704	.300
8+300	20.000	8300.000	.252 1730.450	1730.703	.805	1.310
Ip POINT 8+300	.000	8300.000	.252 1730.450	1730.703	.805	1.310
KA7-1 8+303.505	3.505	8303.505	.235 1730.496	1730.731	.823	1.310
8+320	16.495	8320.000	.162 1730.712	1730.874	.906	1.310





STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
8+340	20.000	8340.000	1730. <sup>.091</sup> 974	1731.065	1.007	1.310
KE7-1 8+358.544	18.544	8358.544	1731. <sup>.043</sup> 217	1731.260	1.101	1.310
8+360	1.456	8360.000	1731. <sup>.040</sup> 236	1731.276	1.108	1.310
8+380	20.000	8380.000	1731. <sup>.010</sup> 498	1731.508	1.209	1.310
8+400	20.000	8400.000		1731.760		1.310
8+420	20.000	8420.000		1732.022		1.310
8+440	20.000	8440.000		1732.284		1.310
8+460	20.000	8460.000		1732.546		1.310
8+480	20.000	8480.000		1732.808		1.310
8+500	20.000	8500.000		1733.070		1.310
8+520	20.000	8520.000		1733.332		1.310
8+540	20.000	8540.000		1733.594		1.310
8+560	20.000	8560.000		1733.856		1.310
8+580	20.000	8580.000		1734.118		1.310
8+600	20.000	8600.000		1734.380		1.310
KE7-2 8+608.544	8.544	8608.544		1734.492		1.310
8+620	11.456	8620.000		1734.642		1.310
8+640	20.000	8640.000		1734.904		1.310
8+660	20.000	8660.000		1735.166		1.310
8+680	20.000	8680.000		1735.428		1.310
8+700	20.000	8700.000		1735.690		1.310
8+720	20.000	8720.000	1735. <sup>.027</sup> 952	1735.979	1.579	1.310
8+740	20.000	8740.000	1736. <sup>.108</sup> 214	1736.322	1.848	1.310



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
8+760	20.000	8760.000	.242 1736.476	1736.718	2.117	1.310
8+780	20.000	8780.000	.430 1736.738	1737.168	2.386	1.310
8+800	20.000	8800.000	.673 1737.000	1737.673	2.655	4.000
IP POINT 8+800	.000	8800.000	.673 1737.000	1737.673	2.655	4.000
8+820	20.000	8820.000	.430 1737.800	1738.230	2.924	4.000
8+840	20.000	8840.000	.242 1738.600	1738.842	3.193	4.000
8+860	20.000	8860.000	.108 1739.400	1739.508	3.462	4.000
KA8-1 8+875.637	15.637	8875.637	.040 1740.025	1740.065	3.672	4.000
8+880	4.363	8880.000	.027 1740.200	1740.227	3.731	4.000
8+900	20.000	8900.000		1741.000		4.000
8+920	20.000	8920.000		1741.800		4.000
8+940	20.000	8940.000		1742.600		4.000
8+960	20.000	8960.000		1743.400		4.000
8+980	20.000	8980.000		1744.200		4.000
9+ 0	20.000	9000.000		1745.000		4.000
9+ 20	20.000	9020.000		1745.800		4.000
9+ 40	20.000	9040.000		1746.600		4.000
9+ 60	20.000	9060.000		1747.400		4.000
9+ 80	20.000	9080.000		1748.200		4.000
9+100	20.000	9100.000		1749.000		4.000
9+120	20.000	9120.000	-.026 1749.800	1749.774	3.740	4.000
KE8-1 9+125.638	5.638	9125.638	-.043 1750.026	1749.983	3.667	4.000
9+140	14.362	9140.000	-.104 1750.600	1750.496	3.480	4.000
9+160	20.000	9160.000	-.234 1751.400	1751.166	3.220	4.000



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
9+180	20.000	9180.000	- .416 1752.200	1751.784	2.960	4.000
9+200	20.000	9200.000	- .650 1753.000	1752.350	2.700	1.400
Ip POINT 9+200	.000	9200.000	- .650 1753.000	1752.350	2.700	1.400
9+220	20.000	9220.000	- .416 1753.280	1752.864	2.440	1.400
9+240	20.000	9240.000	- .234 1753.560	1753.326	2.180	1.400
9+260	20.000	9260.000	- .104 1753.840	1753.736	1.920	1.400
KE8-2 9+275.638	15.638	9275.638	- .039 1754.059	1754.020	1.717	1.400
9+280	4.362	9280.000	- .026 1754.120	1754.094	1.660	1.400
9+300	20.000	9300.000		1754.400		1.400
9+320	20.000	9320.000	.036 1754.680	1754.716	1.760	1.400
9+340	20.000	9340.000	.144 1754.960	1755.104	2.120	1.400
9+360	20.000	9360.000	.324 1755.240	1755.564	2.480	1.400
9+380	20.000	9380.000	.576 1755.520	1756.096	2.840	1.400
9+400	20.000	9400.000	.900 1755.800	1756.700	3.200	5.000
Ip POINT 9+400	.000	9400.000	.900 1755.800	1756.700	3.200	5.000
9+420	20.000	9420.000	.576 1756.800	1757.376	3.560	5.000
9+440	20.000	9440.000	.324 1757.800	1758.124	3.920	5.000
9+460	20.000	9460.000	.144 1758.800	1758.944	4.280	5.000
9+480	20.000	9480.000	.036 1759.800	1759.836	4.640	5.000
9+500	20.000	9500.000		1760.800		5.000
KA8-2 9+502.954	2.954	9502.954		1760.948		5.000
9+520	17.046	9520.000		1761.800		5.000
9+540	20.000	9540.000		1762.800		5.000
9+560	20.000	9560.000		1763.800		5.000



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
9+580	20.000	9580.000		1764.800		5.000
9+600	20.000	9600.000		1765.800		5.000
9+620	20.000	9620.000		1766.800		5.000
9+640	20.000	9640.000		1767.800		5.000
KAG-1 9+652.954	12.954	9652.954		1768.448		5.000
9+660	7.046	9660.000		1768.800		5.000
9+680	20.000	9680.000		1769.800		5.000
9+700	20.000	9700.000		1770.800		5.000
9+720	20.000	9720.000		1771.800		5.000
9+740	20.000	9740.000		1772.800		5.000
9+760	20.000	9760.000		1773.800		5.000
9+780	20.000	9780.000		1774.800		5.000
9+800	20.000	9800.000		1775.800		5.000
9+820	20.000	9820.000		1776.800		5.000
9+840	20.000	9840.000		1777.800		5.000
9+860	20.000	9860.000		1778.800		5.000
9+880	20.000	9880.000		1779.800		5.000
9+900	20.000	9900.000		1780.800		5.000
9+920	20.000	9920.000		1781.800		5.000
9+940	20.000	9940.000		1782.800		5.000
9+960	20.000	9960.000		1783.800		5.000
9+980	20.000	9980.000		1784.800		5.000
10+ 0	20.000	10000.000		1785.800		5.000





STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
10+ 0	.000	10000.000		1785.800		5.000
10+ 20	20.000	10020.000	-.022 1786.800	1786.778	4.783	5.000
10+ 40	20.000	10040.000	-.087 1787.800	1787.713	4.565	5.000
10+ 60	20.000	10060.000	-.196 1788.800	1788.604	4.348	5.000
10+ 80	20.000	10080.000	-.348 1789.800	1789.452	4.131	5.000
10+100	20.000	10100.000	-.543 1790.800	1790.257	3.913	5.000
10+120	20.000	10120.000	-.782 1791.800	1791.018	3.696	5.000
10+140	20.000	10140.000	-1.065 1792.800	1791.735	3.479	5.000
10+160	20.000	10160.000	-1.391 1793.800	1792.409	3.261	5.000
10+180	20.000	10180.000	-1.760 1794.800	1793.040	3.044	5.000
10+200	20.000	10200.000	-2.173 1795.800	1793.627	2.827	5.000
10+220	20.000	10220.000	-2.630 1796.800	1794.170	2.609	5.000
10+240	20.000	10240.000	-3.130 1797.800	1794.670	2.392	5.000
10+260	20.000	10260.000	-3.673 1798.800	1795.127	2.175	5.000
10+280	20.000	10280.000	-4.260 1799.800	1795.540	1.957	5.000
10+300	20.000	10300.000	-4.890 1800.800	1795.910	1.740	-1.520
IP POINT 10+300	.000	10300.000	-4.890 1800.800	1795.910	1.740	-1.520
10+320	20.000	10320.000	-4.260 1800.496	1796.236	1.523	-1.520
10+340	20.000	10340.000	-3.673 1800.192	1796.519	1.305	-1.520
10+360	20.000	10360.000	-3.130 1799.888	1796.758	1.088	-1.520
10+380	20.000	10380.000	-2.630 1799.584	1796.954	.871	-1.520
10+400	20.000	10400.000	-2.173 1799.280	1797.107	.653	-1.520
10+420	20.000	10420.000	-1.760 1798.976	1797.216	.436	-1.520
10+440	20.000	10440.000	-1.391 1798.672	1797.281	.219	-1.520



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
10+460	20.000	10460.000	-1.065 1798.368	1797.303	.001	-1.520
10+480	20.000	10480.000	-.782 1798.064	1797.282	-.216	-1.520
10+500	20.000	10500.000	-.543 1797.760	1797.217	-.433	-1.520
10+520	20.000	10520.000	-.348 1797.456	1797.108	-.651	-1.520
10+540	20.000	10540.000	-.196 1797.152	1796.956	-.868	-1.520
KE9-1 10+553.659	13.659	10553.659	-.117 1796.944	1796.828	-1.016	-1.520
10+560	6.341	10560.000	-.087 1796.848	1796.761	-1.085	-1.520
10+580	20.000	10580.000	-.022 1796.544	1796.522	-1.303	-1.520
10+600	20.000	10600.000		1796.240		-1.520
10+620	20.000	10620.000		1795.936		-1.520
10+640	20.000	10640.000		1795.632		-1.520
10+660	20.000	10660.000		1795.328		-1.520
10+680	20.000	10680.000		1795.024		-1.520
10+700	20.000	10700.000		1794.720		-1.520
KE9-2 10+713.659	13.659	10713.659		1794.512		-1.520
10+720	6.341	10720.000		1794.416		-1.520
10+740	20.000	10740.000		1794.112		-1.520
10+760	20.000	10760.000		1793.808		-1.520
10+780	20.000	10780.000		1793.504		-1.520
10+800	20.000	10800.000		1793.200		-1.520
10+820	20.000	10820.000		1792.896		-1.520
KA10-1 10+831.181	11.181	10831.181		1792.726		-1.520
10+840	8.819	10840.000		1792.592		-1.520
10+860	20.000	10860.000		1792.288		-1.520



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
10+880	20.000	10880.000		1791.984		-1.520
10+900	20.000	10900.000		1791.680		-1.520
10+920	20.000	10920.000		1791.376		-1.520
10+940	20.000	10940.000		1791.072		-1.520
10+960	20.000	10960.000		1790.768		-1.520
10+980	20.000	10980.000		1790.464		-1.520
KE10-1 10+991.181	11.181	10991.181		1790.204		-1.520
11+ 0	8.819	11000.000		1790.160		-1.520
11+ 20	20.000	11020.000	.030 1789.856	1789.886	-1.217	-1.520
11+ 40	20.000	11040.000	.121 1789.552	1789.673	-.915	-1.520
11+ 60	20.000	11060.000	.272 1789.248	1789.520	-.612	-1.520
11+ 80	20.000	11080.000	.484 1788.944	1789.428	-.309	-1.520
11+100	20.000	11100.000	.757 1788.640	1789.397	-.007	1.507
IP POINT 11+100	.000	11100.000	.757 1788.640	1789.397	-.007	1.507
11+120	20.000	11120.000	.484 1788.941	1789.426	.296	1.507
11+140	20.000	11140.000	.272 1789.243	1789.515	.599	1.507
KE10-2 11+151.181	11.181	11151.181	.180 1789.411	1789.592	.768	1.507
11+160	8.819	11160.000	.121 1789.544	1789.665	.901	1.507
11+180	20.000	11180.000	.030 1789.845	1789.876	1.204	1.507
11+200	20.000	11200.000		1790.147		1.507
11+220	20.000	11220.000		1790.448		1.507
11+240	20.000	11240.000		1790.749		1.507
11+260	20.000	11260.000		1791.051		1.507
11+280	20.000	11280.000		1791.352		1.507



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
11+300	20.000	11300.000		1791.654		1.507
11+320	20.000	11320.000		1791.955		1.507
11+340	20.000	11340.000		1792.256		1.507
11+360	20.000	11360.000		1792.558		1.507
11+380	20.000	11380.000		1792.859		1.507
11+400	20.000	11400.000		1793.160		1.507
11+420	20.000	11420.000		1793.462		1.507
11+440	20.000	11440.000		1793.763		1.507
KA10-2 11+456.832	16.832	11456.832		1794.017		1.507
11+460	3.168	11460.000		1794.064		1.507
11+480	20.000	11480.000		1794.366		1.507
11+500	20.000	11500.000		1794.667		1.507
11+520	20.000	11520.000		1794.968		1.507
11+540	20.000	11540.000		1795.270		1.507
11+560	20.000	11560.000		1795.571		1.507
11+580	20.000	11580.000		1795.872		1.507
11+600	20.000	11600.000		1796.174		1.507
KA11-1 11+616.832	16.832	11616.832		1796.427		1.507
11+620	3.168	11620.000		1796.475		1.507
11+640	20.000	11640.000		1796.776		1.507
11+660	20.000	11660.000		1797.078		1.507
11+680	20.000	11680.000		1797.379		1.507
11+700	20.000	11700.000		1797.681		1.507





STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
11+720	20.000	11720.000		1797.982		1.507
11+740	20.000	11740.000		1798.283		1.507
11+760	20.000	11760.000		1798.585		1.507
11+780	20.000	11780.000		1798.886		1.507
11+800	20.000	11800.000		1799.187		1.507
11+820	20.000	11820.000		1799.489		1.507
11+840	20.000	11840.000		1799.790		1.507
11+860	20.000	11860.000		1800.091		1.507
11+880	20.000	11880.000		1800.393		1.507
11+900	20.000	11900.000		1800.694		1.507
11+920	20.000	11920.000		1800.995		1.507
11+940	20.000	11940.000		1801.297		1.507
11+960	20.000	11960.000		1801.598		1.507
11+980	20.000	11980.000		1801.899		1.507
12+ 0	20.000	12000.000		1802.201		1.507
12+ 20	20.000	12020.000		1802.502		1.507
12+ 40	20.000	12040.000		1802.803		1.507
12+ 60	20.000	12060.000		1803.105		1.507
12+ 80	20.000	12080.000		1803.406		1.507
12+100	20.000	12100.000		1803.708		1.507
12+120	20.000	12120.000		1804.009		1.507
12+140	20.000	12140.000		1804.310		1.507
12+160	20.000	12160.000		1804.612		1.507
12+180	20.000	12180.000		1804.913		1.507



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
12+200	20.000	12200.000		1805.214		1.507
12+220	20.000	12220.000	-.008 1805.516	1805.508	1.426	1.507
12+240	20.000	12240.000	-.032 1805.817	1805.785	1.345	1.507
12+260	20.000	12260.000	-.073 1806.118	1806.046	1.265	1.507
12+280	20.000	12280.000	-.129 1806.420	1806.291	1.184	1.507
12+300	20.000	12300.000	-.202 1806.721	1806.519	1.103	.700
Ip POINT. 12+300	.000	12300.000	-.202 1806.721	1806.519	1.103	.700
12+320	20.000	12320.000	-.129 1806.861	1806.732	1.023	.700
12+340	20.000	12340.000	-.073 1807.001	1806.928	.942	.700
12+360	20.000	12360.000	-.032 1807.141	1807.109	.861	.700
12+380	20.000	12380.000	-.008 1807.281	1807.273	.781	.700
KE11-1 12+385.732	5.732	12385.732	-.004 1807.321	1807.317	.758	.700
12+400	14.268	12400.000		1807.421		.700
12+420	20.000	12420.000		1807.561		.700
12+440	20.000	12440.000		1807.701		.700
12+460	20.000	12460.000		1807.841		.700
12+480	20.000	12480.000		1807.981		.700
12+500	20.000	12500.000		1808.121		.700
12+520	20.000	12520.000		1808.261		.700
12+540	20.000	12540.000		1808.401		.700
KE11-2 12+545.732	5.732	12545.732		1808.441		.700
12+560	14.268	12560.000		1808.541		.700
12+580	20.000	12580.000		1808.681		.700
12+600	20.000	12600.000		1808.821		.700



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
12+620	20.000	12620.000		1808.961		.700
12+640	20.000	12640.000		1809.101		.700
12+660	20.000	12660.000		1809.241		.700
12+680	20.000	12680.000		1809.381		.700
12+700	20.000	12700.000		1809.521		.700
12+720	20.000	12720.000		1809.661		.700
12+740	20.000	12740.000		1809.801		.700
12+760	20.000	12760.000		1809.941		.700
12+780	20.000	12780.000		1810.081		.700
12+800	20.000	12800.000		1810.221		.700
12+820	20.000	12820.000		1810.361		.700
12+840	20.000	12840.000		1810.501		.700
12+860	20.000	12860.000		1810.641		.700
12+880	20.000	12880.000		1810.781		.700
12+900	20.000	12900.000		1810.921		.700
12+920	20.000	12920.000		1811.061		.700
12+940	20.000	12940.000		1811.201		.700
12+960	20.000	12960.000		1811.341		.700
12+980	20.000	12980.000		1811.481		.700
13+ 0	20.000	13000.000		1811.621		.700
13+ 20	20.000	13020.000		1811.761		.700
13+ 40	20.000	13040.000		1811.901		.700
13+ 60	20.000	13060.000		1812.041		.700
13+ 80	20.000	13080.000		1812.181		.700



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
13+100	20.000	13100.000		1812.321		.700
13+120	20.000	13120.000		1812.461		.700
13+140	20.000	13140.000		1812.601		.700
13+160	20.000	13160.000		1812.741		.700
13+180	20.000	13180.000		1812.881		.700
13+200	20.000	13200.000		1813.021		.700
13+220	20.000	13220.000		1813.161		.700
13+240	20.000	13240.000		1813.301		.700
13+260	20.000	13260.000		1813.441		.700
13+280	20.000	13280.000		1813.581		.700
13+300	20.000	13300.000		1813.721		.700
13+320	20.000	13320.000		1813.861		.700
13+340	20.000	13340.000		1814.001		.700
13+360	20.000	13360.000		1814.141		.700
13+380	20.000	13380.000		1814.281		.700
KA11-2 13+387.914	7.914	13387.914		1814.336		.700
13+400	12.086	13400.000		1814.421		.700
13+420	20.000	13420.000		1814.561		.700
13+440	20.000	13440.000		1814.701		.700
13+460	20.000	13460.000		1814.841		.700
13+480	20.000	13480.000		1814.981		.700
13+500	20.000	13500.000		1815.121		.700
13+520	20.000	13520.000		1815.261		.700





STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
13+540	20.000	13540.000		1815.401		.700
KA12-1 13+547.914	7.914	13547.914		1815.456		.700
13+560	12.086	13560.000		1815.541		.700
13+580	20.000	13580.000		1815.681		.700
13+600	20.000	13600.000		1815.821		.700
13+620	20.000	13620.000	- .002 1815.961	1815.959	.676	.700
13+640	20.000	13640.000	- .010 1816.101	1816.091	.652	.700
13+660	20.000	13660.000	- .022 1816.241	1816.219	.628	.700
13+680	20.000	13680.000	- .038 1816.381	1816.343	.604	.700
13+700	20.000	13700.000	- .060 1816.521	1816.461	.580	.460
IP POINT 13+700	.000	13700.000	- .060 1816.521	1816.461	.580	.460
13+720	20.000	13720.000	- .038 1816.613	1816.575	.556	.460
13+740	20.000	13740.000	- .022 1816.705	1816.683	.532	.460
13+760	20.000	13760.000	- .010 1816.797	1816.787	.508	.460
13+780	20.000	13780.000	- .002 1816.889	1816.887	.484	.460
13+800	20.000	13800.000		1816.981		.460
13+820	20.000	13820.000		1817.073		.460
13+840	20.000	13840.000		1817.165		.460
13+860	20.000	13860.000		1817.257		.460
13+880	20.000	13880.000		1817.349		.460
13+900	20.000	13900.000		1817.441		.460
13+920	20.000	13920.000		1817.533		.460
13+940	20.000	13940.000		1817.625		.460
13+960	20.000	13960.000		1817.717		.460



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
13+980	20.000	13980.000		1817.809		.460
14+ 0	20.000	14000.000		1817.901		.460
14+ 20	20.000	14020.000		1817.993		.460
14+ 40	20.000	14040.000		1818.085		.460
14+ 60	20.000	14060.000		1818.177		.460
14+ 80	20.000	14080.000		1818.269		.460
14+100	20.000	14100.000		1818.361		.460
14+120	20.000	14120.000		1818.453		.460
14+140	20.000	14140.000		1818.545		.460
14+160	20.000	14160.000		1818.637		.460
14+180	20.000	14180.000		1818.729		.460
14+200	20.000	14200.000		1818.821		.460
14+220	20.000	14220.000		1818.913		.460
14+240	20.000	14240.000		1819.005		.460
14+260	20.000	14260.000		1819.097		.460
14+280	20.000	14280.000		1819.189		.460
14+300	20.000	14300.000		1819.281		.460
14+320	20.000	14320.000		1819.373		.460
14+340	20.000	14340.000		1819.465		.460
14+360	20.000	14360.000		1819.557		.460
14+380	20.000	14380.000		1819.649		.460
14+400	20.000	14400.000		1819.741		.460
14+420	20.000	14420.000		1819.833		.460
14+440	20.000	14440.000		1819.925		.460



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
14+460	20.000	14460.000		1820.017		.460
14+480	20.000	14480.000		1820.109		.460
14+500	20.000	14500.000		1820.201		.460
14+520	20.000	14520.000		1820.293		.460
14+540	20.000	14540.000		1820.385		.460
14+560	20.000	14560.000		1820.477		.460
14+580	20.000	14580.000		1820.569		.460
14+600	20.000	14600.000		1820.661		.460
14+620	20.000	14620.000		1820.753		.460
14+640	20.000	14640.000		1820.845		.460
14+660	20.000	14660.000		1820.937		.460
14+680	20.000	14680.000		1821.029		.460
14+700	20.000	14700.000		1821.121		.460
14+720	20.000	14720.000		1821.213		.460
14+740	20.000	14740.000		1821.305		.460
14+760	20.000	14760.000		1821.397		.460
14+780	20.000	14780.000		1821.489		.460
14+800	20.000	14800.000		1821.581		.460
14+820	20.000	14820.000		1821.673		.460
14+840	20.000	14840.000		1821.765		.460
KE12-1 14+857.058	17.058	14857.058		1821.843		.460
14+860	2.942	14860.000		1821.857		.460
14+880	20.000	14880.000		1821.949		.460
14+900	20.000	14900.000		1822.041		.460



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
14+920	20.000	14920.000		1822.133		.460
14+940	20.000	14940.000		1822.225		.460
14+960	20.000	14960.000		1822.317		.460
14+980	20.000	14980.000		1822.409		.460
15+ 0	.000	15000.000		1822.501		.460
15+ 20	20.000	15020.000		1822.593		.460
15+ 40	20.000	15040.000		1822.685		.460
15+ 60	20.000	15060.000		1822.777		.460
15+ 80	20.000	15080.000		1822.869		.460
15+100	20.000	15100.000		1822.961		.460
15+120	20.000	15120.000		1823.053		.460
15+123.724	3.724	15123.724		1823.070		.460
15+140	16.276	15140.000		1823.145		.460
15+160	20.000	15160.000		1823.237		.460
15+180	20.000	15180.000		1823.329		.460
15+200	20.000	15200.000		1823.421		.460
15+220	20.000	15220.000		1823.513		.460
15+240	20.000	15240.000		1823.605		.460
15+260	20.000	15260.000		1823.697		.460
15+280	20.000	15280.000		1823.789		.460
15+300	20.000	15300.000		1823.881		.460
15+320	20.000	15320.000		1823.973		.460
15+340	20.000	15340.000		1824.065		.460





STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
15+360	20.000	15360.000		1824.157		.460
15+380	20.000	15380.000		1824.249		.460
15+400	20.000	15400.000		1824.341		.460
15+420	20.000	15420.000		1824.433		.460
15+440	20.000	15440.000		1824.525		.460
15+460	20.000	15460.000		1824.617		.460
15+480	20.000	15480.000		1824.709		.460
15+484.875	4.875	15484.875		1824.731		.460
* 15+320	20.000	15320.000		1824.823		.460
* 15+340	20.000	15340.000		1824.915		.460
* 15+360	20.000	15360.000		1825.007		.460
* 15+380	20.000	15380.000		1825.099		.460
* 15+400	20.000	15400.000		1825.191		.460
* 15+420	20.000	15420.000		1825.283		.460
* 15+440	20.000	15440.000		1825.375		.460
* 15+460	20.000	15460.000		1825.467		.460
* 15+480	20.000	15480.000		1825.559		.460
KE12-2 * 15+484.875	4.875	15484.875		1825.581		.460
15+500	15.125	15500.000		1825.651		.460
15+520	20.000	15520.000		1825.743		.460
15+540	20.000	15540.000		1825.835		.460
15+560	20.000	15560.000		1825.927		.460
15+580	20.000	15580.000		1826.019		.460
15+600	20.000	15600.000		1826.111		.460



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
15+620	20.000	15620.000	1826. <sup>.012</sup> <sub>203</sub>	1826.215	.581	.460
15+640	20.000	15640.000	1826. <sup>.049</sup> <sub>295</sub>	1826.344	.703	.460
15+660	20.000	15660.000	1826. <sup>.109</sup> <sub>387</sub>	1826.496	.824	.460
15+680	20.000	15680.000	1826. <sup>.194</sup> <sub>479</sub>	1826.673	.945	.460
15+700	20.000	15700.000	1826. <sup>.303</sup> <sub>571</sub>	1826.874	1.067	1.674
Ip POINT 15+700	.000	15700.000	1826. <sup>.303</sup> <sub>571</sub>	1826.874	1.067	1.674
15+720	20.000	15720.000	1826. <sup>.194</sup> <sub>906</sub>	1827.100	1.188	1.674
15+740	20.000	15740.000	1827. <sup>.109</sup> <sub>240</sub>	1827.350	1.309	1.674
15+760	20.000	15760.000	1827. <sup>.049</sup> <sub>575</sub>	1827.624	1.431	1.674
15+780	20.000	15780.000	1827. <sup>.012</sup> <sub>910</sub>	1827.922	1.552	1.674
15+800	20.000	15800.000		1828.245		1.674
15+820	20.000	15820.000		1828.579		1.674
15+840	20.000	15840.000		1828.914		1.674
15+860	20.000	15860.000		1829.249		1.674
15+880	20.000	15880.000		1829.583		1.674
15+900	20.000	15900.000		1829.918		1.674
15+920	20.000	15920.000		1830.253		1.674
15+940	20.000	15940.000		1830.587		1.674
15+960	20.000	15960.000		1830.922		1.674
15+980	20.000	15980.000		1831.257		1.674
16+ 0	20.000	16000.000		1831.592		1.674
16+ 20	20.000	16020.000		1831.926		1.674
16+ 40	20.000	16040.000		1832.261		1.674
16+ 60	20.000	16060.000		1832.596		1.674



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
16+ 80	20.000	16080.000		1832.930		1.674
16+100	20.000	16100.000		1833.265		1.674
16+120	20.000	16120.000		1833.600		1.674
16+140	20.000	16140.000		1833.934		1.674
16+160	20.000	16160.000		1834.269		1.674
16+180	20.000	16180.000		1834.604		1.674
16+200	20.000	16200.000		1834.939		1.674
16+220	20.000	16220.000		1835.273		1.674
16+240	20.000	16240.000		1835.608		1.674
16+260	20.000	16260.000		1835.943		1.674
16+280	20.000	16280.000		1836.277		1.674
16+300	20.000	16300.000		1836.612		1.674
16+320	20.000	16320.000		1836.947		1.674
16+340	20.000	16340.000		1837.281		1.674
16+360	20.000	16360.000		1837.616		1.674
16+380	20.000	16380.000		1837.951		1.674
16+400	20.000	16400.000		1838.286		1.674
16+420	20.000	16420.000		1838.620		1.674
16+440	20.000	16440.000		1838.955		1.674
KA12-2 16+456.704	16.704	16456.704		1839.234		1.674
16+460	3.296	16460.000		1839.290		1.674
16+480	20.000	16480.000		1839.624		1.674
16+500	20.000	16500.000		1839.959		1.674
16+520	20.000	16520.000		1840.294		1.674



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
16+540	20.000	16540.000		1840.628		1.674
16+560	20.000	16560.000		1840.963		1.674
16+580	20.000	16580.000		1841.298		1.674
16+600	20.000	16600.000		1841.633		1.674
16+620	20.000	16620.000		1841.967		1.674
16+640	20.000	16640.000		1842.302		1.674
16+660	20.000	16660.000		1842.637		1.674
16+680	20.000	16680.000		1842.971		1.674
16+700	20.000	16700.000		1843.306		1.674
16+720	20.000	16720.000		1843.641		1.674
BC13-0 16+723.371	3.371	16723.371		1843.697		1.674
16+740	16.629	16740.000		1843.975		1.674
16+760	20.000	16760.000		1844.310		1.674
16+780	20.000	16780.000		1844.645		1.674
16+800	20.000	16800.000		1844.980		1.674
16+820	20.000	16820.000		1845.314		1.674
16+840	20.000	16840.000		1845.649		1.674
16+860	20.000	16860.000		1845.984		1.674
16+880	20.000	16880.000		1846.318		1.674
16+900	20.000	16900.000		1846.653		1.674
16+920	20.000	16920.000		1846.988		1.674
16+940	20.000	16940.000		1847.322		1.674
16+960	20.000	16960.000		1847.657		1.674





STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
16+980	20.000	16980.000		1847.992		1.674
17+ 0	20.000	17000.000		1848.327		1.674
EC13-0 17+ 1.584	1.584	17001.584	1848. <sup>.000</sup> 353	1848.353	1.680	1.674
17+ 20	18.416	17020.000	1848. <sup>.009</sup> 661	1848.670	1.759	1.674
17+ 40	20.000	17040.000	1848. <sup>.034</sup> 996	1849.030	1.845	1.674
17+ 60	20.000	17060.000	1849. <sup>.077</sup> 331	1849.408	1.930	1.674
17+ 80	20.000	17080.000	1849. <sup>.137</sup> 665	1849.802	2.016	1.674
17+100	20.000	17100.000	1850. <sup>.214</sup> 000	1850.214	2.102	2.530
Ip. POINT 17+100	.000	17100.000	1850. <sup>.214</sup> 000	1850.214	2.102	2.530
17+120	20.000	17120.000	1850. <sup>.137</sup> 506	1850.643	2.187	2.530
17+140	20.000	17140.000	1851. <sup>.077</sup> 012	1851.089	2.273	2.530
17+160	20.000	17160.000	1851. <sup>.034</sup> 518	1851.552	2.359	2.530
17+180	20.000	17180.000	1852. <sup>.009</sup> 024	1852.033	2.444	2.530
17+200	20.000	17200.000		1852.530		2.530
17+220	20.000	17220.000		1853.036		2.530
17+240	20.000	17240.000		1853.542		2.530
17+260	20.000	17260.000		1854.048		2.530
17+280	20.000	17280.000		1854.554		2.530
17+300	20.000	17300.000		1855.060		2.530
17+320	20.000	17320.000		1855.566		2.530
17+340	20.000	17340.000		1856.072		2.530
KA14-1 17+341.462	1.462	17341.462		1856.109		2.530
17+360	18.538	17360.000		1856.578		2.530
17+380	20.000	17380.000		1857.084		2.530



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
17+400	20.000	17400.000		1857.590		2.530
17+420	20.000	17420.000		1858.096		2.530
17+440	20.000	17440.000		1858.602		2.530
17+460	20.000	17460.000		1859.108		2.530
17+480	20.000	17480.000		1859.614		2.530
17+500	20.000	17500.000		1860.120		2.530
17+520	20.000	17520.000		1860.626		2.530
17+540	20.000	17540.000		1861.132		2.530
17+560	20.000	17560.000		1861.638		2.530
17+580	20.000	17580.000		1862.144		2.530
17+600	20.000	17600.000		1862.650		2.530
17+620	20.000	17620.000		1863.156		2.530
17+640	20.000	17640.000		1863.662		2.530
17+660	20.000	17660.000		1864.168		2.530
17+680	20.000	17680.000		1864.674		2.530
17+700	20.000	17700.000		1865.180		2.530
KE14-1 17+717.493	17.493	17717.493		1865.623		2.530
17+720	2.507	17720.000		1865.686		2.530
17+740	20.000	17740.000		1866.192		2.530
17+760	20.000	17760.000		1866.698		2.530
17+780	20.000	17780.000		1867.204		2.530
17+800	20.000	17800.000		1867.710		2.530
17+820	20.000	17820.000	- .009 1868.216	1868.207	2.436	2.530
17+840	20.000	17840.000	- .038 1868.722	1868.684	2.341	2.530



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
17+860	20.000	17860.000	- .085 1869.228	1869.143	2.247	2.530
KE14-2 17+867.493	7.493	17867.493	- .107 1869.418	1869.310	2.212	2.530
17+880	12.507	17880.000	- .151 1869.734	1869.583	2.153	2.530
17+900	20.000	17900.000	- .236 1870.240	1870.004	2.058	2.530
17+920	20.000	17920.000	- .340 1870.746	1870.406	1.964	2.530
17+940	20.000	17940.000	- .462 1871.252	1870.790	1.870	2.530
17+960	20.000	17960.000	- .604 1871.758	1871.154	1.775	2.530
17+980	20.000	17980.000	- .764 1872.264	1871.500	1.681	2.530
18+ 0	20.000	18000.000	- .943 1872.770	1871.827	1.587	2.530
18+ 20	20.000	18020.000	-1.141 1873.276	1872.135	1.492	2.530
18+ 40	20.000	18040.000	-1.358 1873.782	1872.424	1.398	2.530
18+ 60	20.000	18060.000	-1.594 1874.288	1872.694	1.304	2.530
18+ 80	20.000	18080.000	-1.849 1874.794	1872.945	1.209	2.530
18+100	20.000	18100.000	-2.122 1875.300	1873.178	1.115	-.300
Ip POINT 18+100	.000	18100.000	-2.122 1875.300	1873.178	1.115	-.300
18+120	20.000	18120.000	-1.849 1875.240	1873.391	1.021	-.300
KA15-1 18+136.257	16.257	18136.257	-1.640 1875.191	1873.551	.944	-.300
18+140	3.743	18140.000	-1.594 1875.180	1873.586	.926	-.300
18+160	20.000	18160.000	-1.358 1875.120	1873.762	.832	-.300
18+180	20.000	18180.000	-1.141 1875.060	1873.919	.738	-.300
18+200	20.000	18200.000	- .943 1875.000	1874.057	.643	-.300
18+220	20.000	18220.000	- .764 1874.940	1874.176	.549	-.300
18+240	20.000	18240.000	- .604 1874.880	1874.276	.455	-.300
18+260	20.000	18260.000	- .462 1874.820	1874.358	.360	-.300



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
18+280	20.000	18280.000	- .340 1874.760	1874.420	.266	-.300
KE15-1 18+286.257	6.257	18286.257	- .305 1874.741	1874.436	.236	-.300
18+300	13.743	18300.000	- .236 1874.700	1874.464	.172	-.300
18+320	20.000	18320.000	- .151 1874.640	1874.489	.077	-.300
18+340	20.000	18340.000	- .085 1874.580	1874.495	-.017	-.300
18+360	20.000	18360.000	- .038 1874.520	1874.482	-.111	-.300
18+380	20.000	18380.000	- .009 1874.460	1874.451	-.206	-.300
18+400	20.000	18400.000		1874.400		-.300
18+420	20.000	18420.000		1874.340		-.300
18+440	20.000	18440.000		1874.280		-.300
18+460	20.000	18460.000		1874.220		-.300
18+480	20.000	18480.000		1874.160		-.300
18+500	20.000	18500.000		1874.100		-.300
18+520	20.000	18520.000		1874.040		-.300
18+540	20.000	18540.000		1873.980		-.300
18+560	20.000	18560.000		1873.920		-.300
18+580	20.000	18580.000		1873.860		-.300
18+600	20.000	18600.000		1873.800		-.300
18+620	20.000	18620.000		1873.740		-.300
18+640	20.000	18640.000		1873.680		-.300
18+660	20.000	18660.000		1873.620		-.300
18+680	20.000	18680.000		1873.560		-.300
18+700	20.000	18700.000		1873.500		-.300





STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
18+720	20.000	18720.000		1873.440		-.300
KE15-2 18+736.257	16.257	18736.257		1873.391		-.300
18+740	3.743	18740.000		1873.380		-.300
18+760	20.000	18760.000		1873.320		-.300
18+780	20.000	18780.000		1873.260		-.300
18+800	20.000	18800.000		1873.200		-.300
18+820	20.000	18820.000		1873.140		-.300
18+840	20.000	18840.000		1873.080		-.300
18+860	20.000	18860.000		1873.020		-.300
18+880	20.000	18880.000		1872.960		-.300
18+900	20.000	18900.000		1872.900		-.300
18+920	20.000	18920.000		1872.840		-.300
18+940	20.000	18940.000		1872.780		-.300
18+960	20.000	18960.000		1872.720		-.300
18+980	20.000	18980.000		1872.660		-.300
19+ 0	20.000	19000.000		1872.600		-.300
19+ 20	20.000	19020.000	.022 1872.540	1872.562	-.080	-.300
19+ 40	20.000	19040.000	.088 1872.480	1872.568	.140	-.300
KA15-2 19+ 51.992	11.992	19051.992	.149 1872.444	1872.593	.272	-.300
19+ 60	8.008	19060.000	.198 1872.420	1872.618	.360	-.300
19+ 80	20.000	19080.000	.352 1872.360	1872.712	.580	-.300
19+100	20.000	19100.000	.550 1872.300	1872.850	.800	1.900
IP POINT 19+100	.000	19100.000	.550 1872.300	1872.850	.800	1.900
19+120	20.000	19120.000	.352 1872.680	1873.032	1.020	1.900



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
19+140	20.000	19140.000	1873. <sup>198</sup> 060	1873.258	1.240	1.900
19+160	20.000	19160.000	1873. <sup>088</sup> 440	1873.528	1.460	1.900
19+180	20.000	19180.000	1873. <sup>022</sup> 820	1873.842	1.680	1.900
19+200	20.000	19200.000		1874.200		1.900
19+220	20.000	19220.000		1874.580		1.900
19+240	20.000	19240.000		1874.960		1.900
19+260	20.000	19260.000		1875.340		1.900
19+280	20.000	19280.000		1875.720		1.900
19+300	20.000	19300.000		1876.100		1.900
19+320	20.000	19320.000		1876.480		1.900
19+340	20.000	19340.000		1876.860		1.900
19+360	20.000	19360.000		1877.240		1.900
19+380	20.000	19380.000		1877.620		1.900
19+400	20.000	19400.000		1878.000		1.900
19+420	20.000	19420.000	- .016 1878.330	1878.364	1.740	1.900
19+440	20.000	19440.000	- .064 1878.760	1878.696	1.580	1.900
19+460	20.000	19460.000	- .144 1879.140	1878.996	1.420	1.900
19+480	20.000	19480.000	- .256 1879.520	1879.264	1.260	1.900
19+500	20.000	19500.000	- .400 1879.900	1879.500	1.100	.300
Ip POINT 19+500	.000	19500.000	- .400 1879.900	1879.500	1.100	.300
KA16-1 19+501.992	1.992	19501.992	- .384 1879.906	1879.522	1.084	.300
19+520	18.008	19520.000	- .256 1879.960	1879.704	.940	.300
19+540	20.000	19540.000	- .144 1880.020	1879.876	.780	.300
19+560	20.000	19560.000	- .064 1880.080	1880.016	.620	.300



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
19+580	20.000	19580.000	- .016 1880.140	1880.124	.460	.300
19+600	20.000	19600.000		1880.200		.300
19+620	20.000	19620.000		1880.260		.300
19+640	20.000	19640.000		1880.320		.300
19+660	20.000	19660.000		1880.380		.300
KE16-1 19+665.166	5.166	19665.166		1880.395		.300
19+680	14.834	19680.000		1880.440		.300
19+700	20.000	19700.000		1880.500		.300
19+720	20.000	19720.000		1880.560		.300
19+740	20.000	19740.000		1880.620		.300
19+760	20.000	19760.000		1880.680		.300
19+780	20.000	19780.000		1880.740		.300
19+800	20.000	19800.000		1880.800		.300
19+820	20.000	19820.000		1880.860		.300
19+840	20.000	19840.000		1880.920		.300
19+860	20.000	19860.000		1880.980		.300
KA16-2 19+873.500	13.500	19873.500		1881.021		.300
19+880	6.500	19880.000		1881.040		.300
19+900	20.000	19900.000		1881.100		.300
19+920	20.000	19920.000		1881.160		.300
19+940	20.000	19940.000		1881.220		.300
19+960	20.000	19960.000		1881.280		.300
19+980	20.000	19980.000		1881.340		.300
20+ 0	20.000	20000.000		1881.400		.300



STATION	DISTANCE	ACCUMULATIVE DISTANCE	B A	ROAD LEVEL	C	REMARKS
20+ 0	.000	20000.000		1881.400		.300
20+ 20	20.000	20020.000		1881.460		.300
20+ 40	20.000	20040.000		1881.520		.300
20+ 60	20.000	20060.000		1881.580		.300
20+ 80	20.000	20080.000		1881.640		.300
20+100	20.000	20100.000		1881.700		.300
20+120	20.000	20120.000		1881.760		.300
20+140	20.000	20140.000		1881.820		.300
20+160	20.000	20160.000	.001 1881.880	1881.881	.310	.300
20+180	20.000	20180.000	.005 1881.940	1881.945	.330	.300
20+200	20.000	20200.000	.013 1882.000	1882.013	.350	.300
20+220	20.000	20220.000	.025 1882.060	1882.085	.370	.300
20+240	20.000	20240.000	.041 1882.120	1882.161	.390	.300
IP POINT 20+250	10.000	20250.000	.050 1882.150	1882.200	.400	.500
20+260	10.000	20260.000	.041 1882.200	1882.241	.410	.500
20+280	20.000	20280.000	.025 1882.300	1882.325	.430	.500
20+300	20.000	20300.000	.013 1882.400	1882.413	.450	.500
20+320	20.000	20320.000	.005 1882.500	1882.505	.470	.500
20+340	20.000	20340.000	.001 1882.600	1882.601	.490	.500
20+360	20.000	20360.000		1882.700		.500
20+380	20.000	20380.000		1882.800		.500
20+400	20.000	20400.000		1882.900		.500
20+420	20.000	20420.000	.023 1883.000	1883.023	.725	.500
20+440	20.000	20440.000	.090 1883.100	1883.190	.950	.500

