

Level Transfer

TBM5 to M17 [Forward]

Stations Chainage	BS			Mean BS	S	FS			Mean FS	S	Rise	Fall	Stadia Interval	Horizontal Distance
	Top	Mid	Bottom			Top	Mid	Bottom						
TBM5	0.908	0.835	0.762	0.835	0.146								0.146	14.6
TP1	1.148	1.078	1.009	1.078	0.139	1.741	1.672	1.600	1.671	0.141		0.836	0.280	28.0
TP2	1.080	1.014	0.948	1.014	0.132	1.663	1.598	1.532	1.598	0.131		0.519	0.263	26.3
TP3	1.275	1.202	1.131	1.203	0.144	1.529	1.460	1.390	1.460	0.139		0.446	0.283	28.3
TP4	1.412	1.340	1.268	1.340	0.144	1.440	1.365	1.290	1.365	0.150		0.162	0.294	29.4
TP5	1.334	1.262	1.190	1.262	0.144	1.350	1.280	1.209	1.280	0.141	0.060		0.285	28.5
TP6	1.350	1.291	1.234	1.292	0.116	1.461	1.390	1.318	1.390	0.143		0.128	0.259	25.9
M17						1.312	1.250	1.188	1.250	0.124	0.042		0.124	12.4
Σ				8.024					10.013		0.102	2.091	1.934	193.4

Arithmetic Check:

$\Sigma BS - \Sigma FS = -1.989$
$\Sigma Rise - \Sigma Fall = -1.989$

Level Transfer

M17 to TBM5 [Backward]

Stations Chainage	BS			Mean BS	S	FS			Mean FS	S	Rise	Fall	Stadia Interval	Horizontal Distance
	Top	Mid	Bottom			Top	Mid	Bottom						
M17	1.440	1.364	1.288	1.364	0.152								0.152	15.2
TP1	1.504	1.440	1.376	1.440	0.128	1.500	1.425	1.350	1.425	0.150		0.061	0.278	27.8
TP2	1.350	1.288	1.225	1.288	0.125	1.355	1.295	1.235	1.295	0.120	0.145		0.245	24.5
TP3	1.311	1.251	1.191	1.251	0.120	1.395	1.334	1.272	1.334	0.123		0.046	0.243	24.3
TP4	1.514	1.454	1.392	1.453	0.122	1.305	1.250	1.195	1.250	0.110	0.001		0.232	23.2
TP5	1.593	1.530	1.468	1.530	0.125	1.148	1.085	1.024	1.086	0.124	0.368		0.249	24.9
TP6	1.574	1.510	1.447	1.510	0.127	1.105	1.045	0.985	1.045	0.120	0.485		0.247	24.7
TP7	1.437	1.390	1.343	1.390	0.094	1.090	1.030	0.970	1.030	0.120	0.480		0.214	21.4
TBM5						0.812	0.766	0.720	0.766	0.092	0.624		0.092	9.2
Σ				11.227					9.230		2.103	0.107	1.952	195.2

Arithmetic Check:

$\Sigma BS - \Sigma FS = 1.996$
$\Sigma Rise - \Sigma Fall = 1.996$

Mean Height Difference = -1.993

Discrepancy = 0.007

Required Precision = 0.015

$\therefore RL(M17) = RL(TBM5) - 1.993$

= 1333.394 - 1.993

= 1331.401