

Rapid Rail Alignment Design Criteria		
Design Element	Criteria	
Design Speed	180km	160km
Train configuration	12/8/4 cars	12/8/4 cars
Axle loading	18t/a	18t/a
Minimum curve radius (open track) – horizontal	1800m	1500m
Station curve radius	600m	600m
Radius – vertical	24504.20	17210.08
K-value	245	172.1
Track spacing (c/c)	4m	4m
Staging grades	1: 800 (ideally 1:1000)	1: 800 (ideally 1:1000)
Maximum slope (ruling gradient)	4% (ideally 2%)	4% (ideally 2%)
Turnouts	1:20/1:12/1:9	1:20/1:12/1:9
Rail	60kg/m	60kg/m
Distance between station & 1 <sup>st</sup> turnout (station end to PI)	25m	25m
Transition length	Car length	Car length
Pocket track length	Train length	Train length
Traction	Electric: Head end	Electric: head end
Train control system	Centralized Traffic Control	Centralized Traffic Control