

**ADDENDUM -7 (TECHNICAL)**  
**Vol. 3 (Pt.2) of Contract RS(2R)**

| Sr. No. | Tender Document Reference |             |        | Original Clause                                  | New Clause                                                                                                                                                 |
|---------|---------------------------|-------------|--------|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         | Volume                    | Section     | Clause |                                                  |                                                                                                                                                            |
| 1       | 3                         | Part 2 of 2 | 2.3.1  | Table 2.2 Track Structure Parameters (Tentative) | Table 2.2 - Track Structure Parameters (Tentative) Specification for Rail Type of Main line and Depot is changed.<br><b>(Annexure -1 to this Addendum)</b> |

Date – 02.11.2011

  
( Subrata Gupta )  
Managing Director

**Table 2.2: Track Structure Parameters (Tentative)**

**Annexure -1**

| Description                                                                                      | Elevated and at-grade sections                                                                 |                    | Tunnel sections    |
|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------------------|--------------------|
|                                                                                                  | Ballasted                                                                                      | Ballast-less (DFF) | Ballast-less (DFF) |
| Track Laying Gauge                                                                               | 1435mm                                                                                         |                    |                    |
| <b>Rail Type</b>                                                                                 |                                                                                                |                    |                    |
| Main Line                                                                                        | UIC 60 Kg (Grade 880) conforming to Specification IRS/T -12                                    |                    |                    |
| Depot                                                                                            | UIC 60 Kg (Grade 880) conforming to Specification IRS/T -12                                    |                    |                    |
| Inclination Of Rail                                                                              | 20-Jan                                                                                         |                    |                    |
| Rail Seat spacing, Main line                                                                     | 650 mm ± 10 mm                                                                                 |                    |                    |
|                                                                                                  | In straight and curves with radius > 300m                                                      |                    |                    |
|                                                                                                  | 600 mm ± 10 mm                                                                                 |                    |                    |
|                                                                                                  | In curves with radius < 300m                                                                   |                    |                    |
| Sleeper Spacing, depot                                                                           | 600±20mm in Test Track                                                                         |                    |                    |
|                                                                                                  | 650±20mm in other than Test Track                                                              |                    |                    |
|                                                                                                  | Track on steel columns (1200mm)                                                                |                    |                    |
| <b>Ballast Cushion</b>                                                                           |                                                                                                |                    |                    |
| Depot                                                                                            | 300mm                                                                                          |                    |                    |
| Standard Rail Length                                                                             | 13m and 18m                                                                                    |                    |                    |
| Rail Panel Lengths                                                                               | Long welded rails                                                                              |                    |                    |
|                                                                                                  | Mainline                                                                                       |                    | Depot              |
| Minimum Radius of Curvature                                                                      | 120m- Elevated and At-grade                                                                    | 200m -Underground  | 100m               |
| Minimum Turn Out Radius. Main Line                                                               | 190m (Tentative)                                                                               |                    |                    |
| Minimum Turn Out Radius Depot                                                                    | 140m (Tentative)                                                                               |                    |                    |
| Minimum Turn Out Angle Main line                                                                 | 1 in 9, except connection to Depot transfer in 1 in 7                                          |                    |                    |
| Maximum Cant Permissible in curves                                                               | 125 mm                                                                                         |                    |                    |
| Maximum Cant Deficiency Permissible                                                              | 100mm                                                                                          |                    |                    |
| Maximum Permissible Cant Gradient                                                                | 1 in 440                                                                                       |                    |                    |
| Turn-out Speed (maximum permissible) : Turn-out (Main line)                                      | 45 km/h                                                                                        |                    |                    |
| Turn-out Speed (maximum permissible) : Scissors (Main line)                                      | 45 km/h                                                                                        |                    |                    |
| Turn-out Speed (maximum permissible): In Depot                                                   | 35 km/h                                                                                        |                    |                    |
| Maximum Gradient                                                                                 | 4% (compensated)                                                                               |                    |                    |
| Minimum vertical curve radius crest                                                              | 1500m                                                                                          |                    |                    |
| Maximum track axle load (AW4)                                                                    | 16.0 tonnes                                                                                    |                    |                    |
| Widening of track Gauge on curves                                                                | Up to 9 mm                                                                                     |                    |                    |
| Structural gauge and passing clearance in straight line, in curves, in open air grade, in tunnel | Refer to SOD                                                                                   |                    |                    |
| Tunnel Profile (tentative)                                                                       | Refer to SOD                                                                                   |                    |                    |
| Line profile                                                                                     | The alignment drawings showing the line profiles are enclosed to Volume -5 of RS(2R) document: |                    |                    |