

PART C2.1

Pricing Instructions

1 Bill of Quantities

- 1.1 The quantities in the Bill of Quantities are estimated and may be more or less than stated.
- 1.2 Payment for this contract shall be based on the Bill of Quantities and the payment will be made in accordance with the rates tendered in the schedule of prices and as follows:

2 Payment Items

2.1 ITEM 1 Preparatory work

- 2.1.1 Payment for the pre-inspection and measurement process for an entire turnout applicable to the Infra bolt concept shall be made in accordance with the relevant pay item under ITEM 1.1.1 to ITEM 1.1.3.
- 2.1.2 Payment for measurement process for individual sleepers to be replaced on existing concrete turnouts applicable to the Infra bolt concept shall be made in accordance with the relevant pay item under ITEM 1.1.4.
- 2.1.3 Payment for a different turnout than those scheduled may be made against the item for the turnout closest resembling it. E.g. a 1:8 turnout (18.2m) may be paid for against the item for a 1:9 (21.2m). Similarly a 1:3^{1/2} (12.6m) , 1:4^{1/2} (13.9m) , 1:6 (19.6m) , 1:8 (22.6m) or 1:9 (25.5m) diamond may be paid for against the item for a 1:7 diamond (19.9m). If pre-inspection is done on a non-scheduled turnout or diamond, then for payment purposes the actual rate used for payment for that non-scheduled turnout shall be proportionate to the total length of the turnout or diamond with the scheduled rate for the 1:9 turnout (21.2m) or 1:7 diamond (19.9m) respectively used as the base.
- 2.1.4 These rates shall be deemed to be inclusive for all supervision, labour, vehicles, equipment, materials and logistics associated with providing timeous and accurate measurements in accordance with relevant specifications.
- 2.1.5 The contractor must submit with his tender a detailed and sequenced process for executing the measurement work indicating the time required for each operation.
- 2.1.6 The payment shall be independent from whether the site access is restricted or not.
- 2.1.7 The payment shall be deemed to be inclusive for the preparation and provision of the Pre-Inspection Report to the depot so that depot preparations of the turnout may be carried out before the replacement of the sleepers is due to start.

2.1.8 The payment shall be deemed to be inclusive for the preparation of a detail requisition for material quantities for each turnout to be installed by the contractor. If the material is to be ordered against Transnet Freight Rail (TFR) supply contracts then this requisition shall be handed to the depot for the timeous placement of the orders. Alternatively the contractor shall use it to place orders directly with suppliers.

2.1.9 The payment shall be deemed to be inclusive for the effort and costs of arranging the placement or the ordering of all material to be replaced. It shall also include for the co-ordination and expediting of ordered material to be delivered at destination on time for occupations. This shall specifically apply irrespective of material being ordered against Transnet Freight Rail (TFR) supply contracts or directly by the contractor'

2.1.10 The Contractor shall allow in this rate for the work, travelling and effort associated with pre-inspection of turnouts in order to quantify exact sleeper lengths to be replaced and associated materials required, discuss and confirm with the depot staff the extend of preparation required of Transnet Freight Rail (TFR) for each turnout.

2.2 ITEM 1.2: Repairing Turnout Geometry.

2.2.1 Payment for Repairing of Geometry in accordance with relevant specifications for the entire turnout applicable to the Infra bolt process shall be made in accordance with the relevant pay item under ITEM 1.2.1 to ITEM 1.2.3.

2.2.2 Payment for turnouts other than those scheduled may be made against the item for the turnout closest resembling it. E.g a 1:8 turnout (18.2m) may be paid for against the item for a 1:9 (21.2m). Similarly a 1:3^{1/2} (12.6m) , 1:4^{1/2} (13.9m) , 1:6 (19.6m) , 1:8 (22.6m) or 1:9 (25.5m) diamond may be paid for against the item for a 1:7 diamond (19.9m). If the turnout geometry is repaired on a non-scheduled turnout or diamond, then for payment purposes the actual rate used for payment for that non-scheduled turnout shall be proportionate to the total length of the turnout or diamond with the scheduled rate for the 1:9 turnout (21.2m) or 1:7 diamond (19.9m) respectively used as the base.

2.2.3 These payments shall include for all supervision, labour, vehicles, equipment, materials and logistics associated with providing efficient and accurate repairs to the Turnout Geometry in accordance with relevant specifications.

2.2.4 Repairs to the geometry of a turnout shall include for adjusting vertical and horizontal alignment, gauge and sleeper spacing in accordance with relevant specifications. This shall be possible to be conducted during Between Trains Occupation.

2.2.5 This payment shall be independent from whether the site access is restricted or not.

2.3 **ITEM 2: Replacement of Sleepers**

- 2.3.1 Two different approaches as far as material supply is concerned are possible. Material (sleepers and all bolts) may be ordered against Transnet Freight Rail (TFR) supply contracts via depots placing the orders on the Transnet Freight Rail (TFR) SAP system (for Transnet Freight Rail (TFR)'s account) or alternatively the contractor may be required to order directly from suppliers (for the contractor's account). The former shall be the preferred way. Two different rates shall apply for Replacement of Sleepers.
- 2.3.2 Payment for a different turnout than those scheduled may be made against the item for the turnout closest resembling it. E.g. a 1:8 turnout may be paid for against the item for a 1:9. Similarly a 1:4^{1/2}, 1:6 or 1:8 diamond may be paid for against the item for a 1:7 diamond. If a non-scheduled turnout or diamond is worked on, then for payment purposes the adjustment for actual length of sleepers replaced shall be made against the relevant rates. E.g. if work is done on a 1:8 turnout it shall be paid for against the rate for a 1:9 turnout but the adjustment for actual length of sleepers replaced shall then be made against the relevant rate ITEM 2.5 or ITEM 2.10.
- 2.3.3 No other rates shall be subjected to the difference in process to supply of material and shall therefore remain the same and be independent from whether the material is supply via TFR contracts of the Contractors own supply contracts.
- 2.3.4 The prescribed anti-corrosive lubricant, epoxy, and HDPE sleeper pads shall in all instances be supplied by the contractor and included in the rates tendered. No separate payment for this shall be made.
- 2.3.5 Payment for replacing sleepers on an entire turnout with Blank Universal Sleepers (Contractor-supply-Contractor-install) shall be made against the relevant item under ITEM 2.1 to ITEM 2.3. Payment shall be regardless of what mass of rail might apply.
- 2.3.6 Payment for replacing of individual damaged sleepers (Contractor-supply-Contractor-install) on existing concrete turnouts with Universal Concrete sleepers shall be made against ITEM 2.4. Payment shall be regardless of what mass of rail might apply.
- 2.3.7 Payment correction for actual sleepers replaced per turnout (Contractor-supply-Contractor-install) shall be made against the rate as per Item 2.5. See Clause 1 of the Project Specification. This rate shall include for all work and materials associated with Measurement, Geometry Correction, as well as Supply and Installation of Sleepers inclusive of anti-corrosive lubricant, epoxy and HDPE sleeper pads.
- 2.3.8 Payment for replacing sleepers on an entire turnout with Blank Universal Sleepers (Transnet Freight Rail (TFR)-supply-Contractor-install) shall be made against the relevant item under ITEM 2.6 to ITEM 2.8 Payment shall be regardless of what mass of rail might apply.
- 2.3.9 Payment for replacing of individual damaged sleepers (Transnet Freight Rail (TFR)-supply-Contractor-install) on existing concrete turnouts with Universal Concrete sleepers shall be made against ITEM 2.9. Payment shall be regardless of what mass of rail might apply.

- 2.3.10 Payment correction for actual sleepers replaced per turnout (Transnet Freight Rail (TFR)-supply-Contractor-install) shall be made against the rate as per Item 2.10. See Clause 1 of the Project Specification. This rate shall include for all work and materials associated with Measurement, Geometry Correction, as well as Supply and Installation of Sleepers inclusive of anti-corrosive lubricant, epoxy and HDPE sleeper pads.
- 2.3.11 For purposes of payment of ITEM 2, site access conditions shall be assumed to be unrestricted. Payment shall be made against the relevant item under ITEM 4 for each category of restricted site access. Payment in accordance with ITEM 4 shall be applicable to entire turnouts. For the replacement of individual sleepers on existing turnouts, 1/100 (one, one hundredth) of the ITEM 4 rate per metre of sleeper replaced shall be applied at a turnout. These rates shall be applied as an Extra-over rate on ITEM 2 where applicable.
- 2.3.12 The holes in some steel chair plates and cast iron chairs are undersize and require reaming for the Infra bolts to be fit through. The cost of reaming the holes in the steel plates and cast iron chairs shall be deemed to be included in the rates tendered and no separate payment shall be made.
- 2.3.13 The Contractor shall allow in his rates for all the work required to dismantle, stack and load released material onto rail trucks for dispatch.
- 2.3.14 All Work shall proceed under "between trains occupation" which shall include periods of "total occupation" of not more than 2 hours each. When work is executed under "between trains occupation" work shall proceed in such a way that normal rail traffic can be allowed, on short notice, to pass safely over the work site at a speed of 30km/h.
- 2.3.15 The Contractor shall provide for sufficient resources to complete the replacement of all the sleepers of one 1:12 (up to 200m of sleepers) or 1:9 (up to 175m of sleepers) turnout within one workday without the use of overtime. **This workday shall be based on 10 hours total of Between Trains Occupation and Total Occupation per day referred to as On-Track Time requiring Protection Measures in terms of the Protection Manual.**
- 2.3.16 **Should the total On-Track Time be restricted to less than 10 hours per day, such as on Metro lines, then the Compensation Rate as per ITEM 2.11 shall apply for every hour or part thereof with which the On-Track Time was restricted to below 10 hours**

2.4 ITEM 3: Establishment per Depot Area

- 2.4.1 An Establishment shall be paid every time the Contractor establishes his operation at a new Depot Area.
- 2.4.2 It shall be paid in accordance with the relevant item under ITEM 3 to provide for costs associated with re-establishing at a new Depot, the distance of the work to be performed from the Contractors head office.
- 2.4.3 Only one Establishment shall be paid for all work performed per project, within the area of a Depot Engineer which shall include for all work. If as a result of Transnet Freight Rail (TFR), secondary establishments become necessary; these will be paid for as required.

2.4.4 Likewise only one Move and one leg of the journey only i.e. from Depot A to Depot B shall be paid to the Contractor to move his camp complete with all plant and equipment, stores, accommodation, vehicles etc by road from one Infra Depot to the next. Subsequent moves inside the same depot area will not be paid for. The Contractor's camp as a whole inclusive of all plant and equipment, stores, accommodation, vehicles etc shall be paid for moving the distance once as one unit. The moving route and distance shall be calculated using the latest available update of Garmin Mapsource set to routing in accordance with the "Quickest Route".

2.4.5 As an Option B which may or may not be awarded the contractor is expected to also price all the Payment Items under B3 (exclusive of Payment Item A3.17) for a scenario in which TFR would provide wagons for general use by the contractor for transporting plant and equipment, stores, accommodation, vehicles etc. It will be deemed that the only difference in total contract value when A as opposed to Option B is awarded shall be represented by contract value made up out of Payment Items A3.01 to A3.17 compared to Payment Items B3.01 to B3.16. If this Option B is awarded then Payment Item A3.17 will become void and no payment will be made against it.

2.5 ITEM 4: Restricted Site Access.

2.5.1 The basis of the payment under ITEM 2 shall be for unrestricted site access.

2.5.2 Only payment items under ITEM 2 may be enhanced with the extra over payment in accordance with ITEM 4 for specific categories of site access restriction.

2.5.3 If access to the work site is unrestricted over a length of 10 meters or more per specific category, the extra-over payment for that category of restriction shall not apply.

2.5.4 The quantities indicated in the Schedule of Quantities and Prices for Item 4 are strictly provisional.

2.5.4.1 ITEM 4.1: Work site situated in-between multiple railway lines.

2.5.4.2 ITEM 4.2: No service road access available to the work site.

2.5.4.3 ITEM 4.3: Formation level of work site situated on an embankment higher than 1 meter.

2.5.4.4 ITEM 4.4: Formation level of work site situated in a cutting deeper than 1 meter.

2.5.5 The four Categories of Restricted Access as per ITEMS 4.1 to 4.4 shall be the only ones recognized as applicable to this contract. No claim what-so-ever for any other form of restricted site access shall be entertained or be paid for separately.

2.6 ITEM 5: Standing time

2.6.1 Standing Time shall be paid in accordance with ITEM 5 on prove by the Contractor that Transnet Freight Rail (TFR) has unduly delayed his work. Standing time shall apply per work site and be per workday forfeited by the Contractor's team for that site inclusive of all resources applicable to that site.

- 2.6.2 When 30% or more of the Contractors workforce on any scheduled workday has been idle due to reasons attributable to Transnet Freight Rail (TFR), this rate shall apply for that day.
- 2.6.3 Work will be required to be carried out "between trains" and occupations may be granted with typically a maximum of 2 hours total occupation at a time between trains. No claim for standing time with regard to waiting for trains to arrive or pass shall be entertained.
- 2.6.4 Other than what the Program of Work entails, a minimum of four weeks notice shall be given by the contractor of intent to start work at a specific work site.

2.7 ITEM 6: Work outside of Normal Working hours (over-time).

2.7.1 **Work shall be carried out on weekdays only and during normal working hours. Normal working hours for this application shall mean 10 hours from 07H00 to 17H00 on a 5 day work, 2 day off principle. Other ways of working are possible but shall be subject to negotiation.**

2.7.2 Work outside of normal working hours shall not be paid against overtime rates unless:

- 2.7.2.1 It is agreed upon by the Supervisor in writing before the start of the any project.
- 2.7.2.2 The contractor can prove Transnet Freight Rail (TFR)'s accountability for delays resulting in overtime being required.
- 2.7.2.3 In the event that work outside of normal working hours is required by the Supervisor, the rate for Over-Time or Sunday time under ITEM 6 shall apply in respect of only such labour approved by the Supervisor. The number of labourers required and the tasks to be completed shall be agreed to in writing before commencement of the over-time work.

2.8 ITEM 7: Day labour

2.8.1 The rate for labour under ITEM 7 will apply in respect of additional labour approved by the Supervisor.

2.8.2 The number of labourers required and the tasks to be completed must be agreed to before commencement of the work.

2.8.3 **All Flagmen shall be supplied by the Contractor and the cost thereof shall be deemed to be included in the rates tendered and no separate payment shall be made for this.**

2.9 ITEM 8: Cellphone costs.

2.9.1 Cellphone costs in excess of the Talk 500 package will be paid for against Item 8 on authentic proof from the Contractor that such costs were incurred for official operational purposes associated with the replacement of turnout sleepers.

2.9.2 Loss of the phone or damage to the phone shall also be paid for against this item on authentic proof being submitted by the contractor. On loss or damage to the handset the contractor shall immediately replace it.

2.9.3 The item in the schedule is included merely to enable contractual payments after award and Tenderers need not price it.

2.10 ITEM 9: Material Handling

2.10.1 Long distance Road Transport of sleepers and bolts

2.10.1.1 In the event of Transnet Freight Rail (TFR) failing to provide rail wagons in time for the rail transport of universal sleepers from the factory to station nearest to point of installation then road transport may be considered.

2.10.1.2 Payment shall be made against ITEM 9.10 per turnout-km and this shall be inclusive for loading at the factory (**either Infraset, Brakpan or Duraset, Westonarea**) and transporting the entire complete standard turnout of universal sleepers inclusive of infra bolts by road from the factory to depot area. This shall be exclusive of off-loading at the depot area which shall be paid for against a separate rate if required from the contractor

2.10.1.3 For this purpose a Standard turnout shall be deemed to consist of up to 165m of concrete universal sleepers. Should a specific turnout consist of more than 165m of concrete universal sleepers the balance above 165m shall be paid for as a second turnout being transported.

2.10.1.4 The contractor will be given 7 calendar days notice to switch road transport on.

2.10.1.5 Payment for road transport shall be made for the distance of transport by road along a route agreed with the Supervisor prior to the transport commencing and shall be for the loaded leg only.

2.10.1.6 **A minimum distance of 200km shall apply i.e. if road transport is used and the distance is less than 200km then the payment for the road transport shall be based on 200km.**

2.10.2 Off-loading of sleepers and bolts from long distance transport at depot area

2.10.2.1 If off-loading by the Contractors at the depot area from the long distance road or rail transport is required this shall be paid for against ITEM 9.20.

2.10.2.2 Payment shall be per Standard turnout. A Standard turnout for this purpose shall be deemed to consist of up to 165m of concrete universal sleepers. Should a specific turnout consist of more than 165m of concrete universal sleepers the balance above 165m shall be paid for as a second turnout being off-loaded.

2.10.2.3 This off-loading may be required from the contractor prior to the contractor's main team arriving at the depot.

2.10.2.4 This rate shall be all inclusive of the cost, equipment, labour, supervision and vehicles to do the off-loading even before the contractor is established within the depot area.

2.10.3 **Secondary Handling of sleepers and bolts.**

2.10.3.1 Where site conditions do not permit the off-loading (from long distance road or rail transport) of sleepers and bolts within 500m from the actual point of installation then Secondary Handling i.e. loading, transporting and off-loading from point of delivery within the depot area to actual point of installation will be paid for against ITEM 9.30.

2.10.3.2 Payment shall be per Standard turnout. A Standard turnout for this purpose shall be deemed to consist of up to 165m of concrete universal sleepers. Should a specific turnout consist of more than 165m of concrete universal sleepers the balance above 165m shall be paid for as a second turnout being handled.

2.10.3.3 This rate shall only apply if material must be distributed further than 500m to point of actual installation and shall include a free haul distance 25km i.e. a total distance of 25.5km shall apply before the Extra-over-Rate as per ITEM 9.31 shall become effective.

2.10.3.4 This rate shall be inclusive of the handling process of the released materials from point of release back to the point where the new material was delivered.

2.10.4 **Ordering/Controlling Expediting and co-ordinating material**

2.10.4.1 A payment as per ITEM 9.40 shall be made for each turnout (e.g. 1:9, 1:12, scissors etc) for the costs and effort associated with placing orders, controlling orders, expediting and co-ordinating the material supply for each turnout to site in time for the scheduled occupation for each turnout project.

2.10.4.2 Payment shall be per turnout independent of the amount of material delivered for a specific turnout. It shall be inclusive for the supply of all material i.e. universal sleepers, infra bolts, epoxy, lubricant etc. from the ordering phase, manufacturing, loading, dispatching, transporting and delivery to actual point of installation.

2.10.4.3 It shall apply to each individual turnout irrespective of whether rail or road transport is being used.

2.11 **ITEM 10: Ballast screen of turnouts**

2.11.1 Screening of entire turnouts prior to or during sleeper replacement shall be paid for against the rates ITEM 10.10 to ITEM 10.30

2.11.2 Ballast screening shall imply screening of all the ballast to provide clean ballast (19mm > ballast stone size < 63mm) in the ballast profile as per Annexure 4, Sheet 1 of the Manual for Track Maintenance. (2000).

2.11.3 The extent of screening shall be up to 20m to either side of each turnout and provide at least 180mm clean ballast under each sleeper.

2.11.4 Ballast spoil shall appropriately be disposed of without fouling drainage, increasing risk to slips on banks or falling back from cutting sides.

2.11.5 The off-loading from AY trucks, boxing and trimming of replacement ballast shall be included and no separate payment shall be made.

2.12 **ITEM 11: Installation of Standard flat sleepers**

2.12.1 If the installations of standard flat sleepers are required payment shall be made against ITEM 11.10 to ITEM 11.40.

2.12.2 If sleepers are supplied by TFR then TFR will supply all material to the point of installation alternatively if the Contractor is to supply then the rate shall include the supply of all material to actual point of installation.

2.12.3 If TFR supply the material TFR shall be responsible for removal of all released material from point of release. If the Contractor is to supply then the Contractor shall remove released material to the nearest station similar to all other released material.

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