



## **BID DOCUMENT FOR**

**Design, procurement, Construction of Track and track related works and its testing & commissioning for double track electrified railway line on a Design Build Lump Sum Basis from New Karwandiya (Rly. Km. 564) to Durgawati (Rly. Km. 630) approx. 66 KMs on Mughalsarai-Sonnagar Section of Eastern Dedicated Freight Corridor.**

### **TRACK WORKS CONTRACT PACKAGE**

Issued on: **17/04/2012**

**NCB Bid Document No.: HQ/EN/EC/Track/NKWD-DGO**

### **PART-5**

**Employer:**  
**DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LIMITED**  
**A GOVERNMENT OF INDIA ENTERPRISE**  
**under**  
**MINISTRY OF RAILWAYS**  
**COUNTRY: INDIA**

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# **PART – 5**

## **Price Schedules**

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# CONTENTS

## PART – 5 - Price Schedules

1. Preamble
2. PRICE PROPOSAL SUBMISSION SHEET (BDF-12)
3. Schedule – A (Form for Lump sum cost of the Bid)
4. Schedule – B
  - Apportionment of contract Price among various cost centres
  - Price Weightages for interim Payment

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## PREAMBLE

1. The Price Schedules shall be read in conjunction with the “Instructions to Bidders”, “General Conditions”, “Particular Conditions”, “Employer’s Requirement”, “Technical Specifications”, and “Drawings”.
  
2. The bidder shall quote ***lump sum cost in INR for the entire project Design, procurement, Construction of Track and track related works and its testing & commissioning for double track electrified railway line on a Design Build Lump Sum Basis from New Karwandiya (Rly. Km. 564) to Durgawati (Rly. Km. 630) approx. 66 KMs on Mughalsarai-Sonnagar Section of Eastern Dedicated Freight Corridor in schedule A.*** The cost shall cover all the items of the work as detailed in the “Employer’s Requirement” contained in Part-2 Section-V of the Bid document as well as conforming to all specifications and stipulations laid down in the Bid Document including all addenda/corrigenda thereof till the date of submission of Bids. The lump sum cost shall be inclusive of all costs on Design, Drawings, Reports, Survey, Site Facilities, Construction Equipment, Plants, Instruments, Labour, Supervision, Materials, Erection, Testing, Maintenance, Temporary Works, Site Access, Safety, Security, Defect Rectification, Insurance, Profit, duties, Taxes, Levies, Royalties as per applicable law together with all general risks, liabilities and obligations set out or implied in the contract.
  
3. To facilitate **stage payments** during execution for which Lump sum Cost shall be quoted in **Schedule A**, the entire work has been divided into Twelve (12) Cost Centers along with their respective percentages of the quoted lump sum of cost in **Schedule `B’**. The value of each cost centre can thus be worked out based on lump sum quote. For further facilitating stage/on account payment, each of the cost centres have been divided into cost sub centres with percentage apportionment of the cost attached to each cost centres as indicated in **Schedule B-1 to B-12**.  
On account payments would be made on prorata basis for work done against each Cost Centre/Sub-Centre.

For the purpose of stage/on account payment, the successful Bidder needs to indicate quantities assessed on the basis of preliminary/Final designs/drawings for each Cost Centres/Sub-Centers. However, on approval of detailed designs and drawings by Engineer/Employer against, each Cost Centre/Sub Centre, the final quantities for each Cost Centre/Sub Centre would be considered and payment done will be adjusted accordingly.

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**4. Filling of Bid document**

The Cost shall be filled in with indelible ink or be type written. The person authorized to sign on behalf of the Bidder shall sign in full with the date at the bottom of all pages and at the end of schedules.

**PRICE PROPOSAL SUBMISSION SHEET  
(To be submitted with Financial Proposal only)**

Date: .....

Invitation for Bid No.:.....

To: .....

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB) 7;
- (b) We offer to execute the Work in conformity with the Bidding Documents;
- (c) The total price of our Bid, excluding any discounts offered in item (d) below is.....
- (d) The discounts offered and the methodology for their application are .....
- (e) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed; and
- (f) We have not made any tampering or changes in the bidding documents on which the bid is being submitted and if any tampering or changes are detected at any stage, we understand the bid will invite summary rejection and forfeiture of bid security/the contract will be liable to be terminated along with forfeiture of performance security, even if LOA has been issued.
- (g) We understand that you are not bound to accept the lowest bid or any other bid that you may receive.

Name .....

In the capacity of .....

Signed .....

Duly authorized to sign the Bid for and on behalf of .....

Date .....

## PRICE SCHEDULE

### Schedule A

(Sub-clause 14.1 of GC)

**Name of Work :- “Design, procurement, Construction of Track and track related works and its testing & commissioning for double track electrified railway line on a Design Build Lump Sum Basis from New Karwandiya (Rly. Km. 564) to Durgawati (Rly. Km. 630) approx. 66 KMs on Mughalsarai-Sonnagar Section of Eastern Dedicated Freight Corridor.**

S No.	Description of Schedule	Lump Sum cost in INR	
		In Figures	In Words
1	2	3	4
1	<b>Design, procurement, Construction of Track and track related works and its testing &amp; commissioning for double track electrified railway line on a Design Build Lump Sum Basis from New Karwandiya (Rly. Km. 564) to Durgawati (Rly. Km. 630) approx. 66 KMs on Mughalsarai-Sonnagar Section of Eastern Dedicated Freight Corridor.</b>		
	<b>Total Amount</b>		

**Note:-**

- 1) The cost shall be filled in with indelible ink or be type written.
- 2) The above quoted cost covers all items of the work as detailed in the “Employer’s Requirement” contained in Part 2 – Section –V as well as conforming to all specifications and stipulations laid down in the Bid Document including all addenda/corrigenda thereof till the date of submission of Bids.
- 3) It is inclusive of all costs on Design, Drawings, Reports, Survey, Site Facilities, Construction, Equipment, Plants, Instruments, Labour, Supervision, Materials, Erection, Testing, Maintenance, Temporary Works, Site Access, Safety, Security, Defect Rectification, Insurance, Profit duties, Taxes, Levies, Royalties as per applicable law together with all general risks, liabilities and obligations set out or implied in the contract.

**SIGNATURE OF BIDDER**

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**PRICE SCHEDULE**

**Schedule B**

**Apportionment of Contract Price for Payments According to Cost Centres  
(Sub-clause 14.4 of GC)**

<b>S N</b>	<b>Cost Centre</b>	<b>Percentage of Contract Price</b>
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>
1	Survey, Track Alignment Design, Setting out, layout calculations, curve calculations, speed on curves calculations, LWR/CWR plans, validation of various RDSO designs/drawings of different components etc.	2.0
2	Transporting Rails	5.0
3	Flash Butt Welding of joints of Rails & USFD testing of joints	6.0
4	Supply of Sleepers	32.0
5	Mechanized Laying of Track with full complement of fastening.	36.0
6	Spreading & profiling of Ballast	5.0
7	First packing	2.0
8	Second packing	2.0
9	Final packing	2.0
10	Other Engineering Works like Fixing Boards reference pillars etc.	2.0
11	Integrated Testing & Commissioning	2.0
12	Inventory Supply for Maintenance	4.0
	<b>Total-</b>	<b>100%</b>

The percentage figures as filled in column (3) by the Employer for the apportionment of the Contract Price for completion of the Works corresponding to the items given above are fixed and payment will be released for different cost centre as per above percentage break-up of contract price. Refer Sub-Clause 14.4 – Particular Conditions of Contract for further details.



<b>Price Schedule B-1</b>
<b>Contract Price Weightage for Interim Payments</b>
<b>for</b>
<b>Survey, Track Alignment Design, Setting out, layout calculations, curve calculations, speed on curves calculations, LWR/CWR plans, validation of various RDSO designs/drawings of different components etc.</b>

(Sub-clause 14.4 of GC)

Item of Work	Stage Payment	Weightage	Cost	Payment ** Procedure
<b>Preliminary Design</b>	Track Alignment showing location of gradient post, start and end of transition and circular curve, location of detonator marker on LC gates, location of whistle Board (WL Board), location of fouling marks, etc.	10%	<b>2% of the Contract Price</b>	Route KM
	Yard Plans	2%		Nos.
	Layout Calculations	3%		No. of cross over Sets
	Sand Humps/dead end	1%		Nos.
	LWR/CWR Plans showing location of SEJs, Central Pillars, etc.	5%		Route KM
	Canted points and crossing with Thick web switches.	5%		Lump sum
<b>Definitive Design</b>	Track Alignment showing location of gradient post, start and end of transition and circular curve, location of detonator marker on LC gates, location of whistle Board (WL Board), location of fouling marks, etc.	10%		Route KM
	Yard Plans	2%		Nos.
	Layout Calculations	3%		No. of cross over Sets
	Sand Humps/dead end	1%		Nos.
	LWR/CWR Plans showing location of SEJs, Central Pillars, etc.	5%		Route KM
	Canted points and crossing with Thick web switches.	5%		Lump Sum
	Validation of Track design, drawing components supplied by RDSO	10%		Lump Sum
<b>Setting Out</b>	Setting out of final alignment with location of all structures	30%	Route KM	
<b>Completion Drawing</b>	As Build drawings.	8%	Lump Sum on completion	

**Note :** \*\* Unit of measurement is linear length (RKM) along the alignment. Payment of each stage will be made on prorata completion of linear length (RKM) or unit specified in "Payment procedure" as per weightage given in the schedule.

Payment will be made on approval of the Engineer/Employer for various items.

<b>Price Schedule B-2</b>
<b>Contract Price Weightage for Interim Payments</b>
<b>for</b>
<b>Transporting Rails</b>

(Sub-clause 14.4 of GC)

Item of Work	Stage Payment	Weightage	Cost	Payment Procedure
Transportation	Collection of Rails at Welding plants/depot at site	90%	<b>5% of the Contract Price</b>	On submission of transport challans and certificate from Engineer at site.  Payment will be made on prorata basis for transported rails in MT.
	Stacking & storage of Rails properly at the welding depot at site and protected against loss/ damage/ deterioration	10%		Certificate from Engineer at Site.  Payment will be made on prorata basis for rails in MT.

<b>Price Schedule B-3</b>				
<b>Contract Price Weightage for Interim Payments</b>				
<b>for</b>				
<b>Flash Butt Welding of joints of Rails &amp; USFD testing of joints</b>				
<b>(Sub-clause 14.4 of GC)</b>				
<b>Item of Work</b>	<b>Stage Payment</b>	<b>Weightage</b>	<b>Cost</b>	<b>Payment Procedure</b>
Flash Butt Welding	Setting up of Flash Butt Welding Plant/Depot including erection of necessary no. of gantries to facilitate welding of joints	20%	<b>6% of the Contract Price</b>	Certification of Engineer on %age basis and unit of measurement will be no. of joints.
	Welding of joints	70%		Certification of Engineer on %age of Joints and unit of measurement will be no. of joints
	USFD testing of joints	10%		Certification of Engineer on %age of Joints and unit of measurement will be no. of joints.

<b>Price Schedule B-4</b>
<b>Contract Price Weightage for Interim Payments</b>
<b>for</b>
<b>Supply of Sleepers</b>

(Sub-clause 14.4 of GC)

Item of Work	Stage Payment	Weightage	Cost	Payment Procedure
Sleepers	Supply and stacking of sleepers in the depot so as to facilitate their transportation through mechanical means	90%	<b>32% of the Contract Price</b>	Certification of Engineer on %age basis.  Unit of measurement will be no. of sleepers.
	Sleepers laid on track	10%		

*Note : All special type of PSC sleepers like Turnout sleepers, SEJ Sleepers, LC sleepers, bridge approach as well as Bridge sleepers etc. will be considered as normal sleepers for payment purposes.*

Once the payment of supply of sleepers is made these shall be deemed to be the property of DFCC and contractor shall not remove these without prior approval of the Engineer and take due care of the same against theft/damage etc. at no extra cost.

<b>Price Schedule B-5</b>
<b>Contract Price Weightage for Interim Payments</b>
<b>For</b>
<b>Laying of Track with full complement of fastening</b>

(Sub-clause 14.4 of GC)

<b>Item of Work</b>	<b>Stage Payment</b>	<b>Weightage</b>	<b>Cost</b>	<b>Payment Procedure</b>
Laying of Track	Laying and Linking of Track through mechanized means as detailed in employers requirement	67%	<b>36% of the Contract Price</b>	On linear length of track laying. Unit of measurement will be Track Km.
	Laying and linking of SEJ	3%		%age completion basis. Unit of measurement will be No. of SEJs
	Laying and linking of Turnouts including insertion of glued joints and its welding	20%		%age completion basis Unit of measurement will be No. of turnouts
	Destressing of LWR	10%		Linear length basis. Unit of measurement will be Track Km.

**Note : Payment will be made on approval of the Engineer/Employer for various items.**

<b>Price Schedule B-6</b>
<b>Contract Price Weightage for Interim Payments</b>
<b>For</b>
<b>Spreading and profiling of Ballast</b>

(Sub-clause 14.4 of GC)

<b>Item of Work</b>	<b>Stage Payment</b>	<b>Weightage</b>	<b>Cost</b>	<b>Payment** Procedure</b>
Spreading and profiling of Ballast	Spreading of Ballast	90%	<b>5% of the Contract Price</b>	Track KM
	Profiling of Ballast	10%*		Track KM

- For spreading and profiling of ballast at turnouts the track KM of turnout will be 1.5 times of length of turnout.

**Note :** \* 10% will be paid at the end of final packing and profiling of ballast as required.

\*\* Unit of measurement is linear length (Track KM) along the alignment. Payment of each stage will be made on prorata completion of linear length (Track KM) or unit specified in "Payment procedure" as per weightage given in the schedule.

Payment will be made on approval of the Engineer/Employer for various items.

<b>Price Schedule B-7</b>
<b>Contract Price Weightage for Interim Payments</b>
<b>For</b>
<b>First Packing</b>

(Sub-clause 14.4 of GC)

<b>Item of Work</b>	<b>Stage Payment</b>	<b>Weightage</b>	<b>Cost</b>	<b>Payment** Procedure</b>
Packing	Pre-tamping attention as defined in P-way manual	20%	<b>2% of the Contract Price</b>	Track KM
	Operation during Tamping	60%		Track KM
	Posting tamping attention	20%		Track KM

- For first packing at turnouts the track KM of turnout will be 1.5 times of length of turnout.

**Note :** \*\* Unit of measurement is linear length (Track KM) along the alignment. Payment of each stage will be made on prorata completion of linear length (Track KM) or unit specified in “Payment procedure” as per weightage given in the schedule.

Payment will be made on approval of the Engineer/Employer for various items.

<b>Price Schedule B-8</b>				
<b>Contract Price Weightage for Interim Payments</b>				
<b>For</b>				
<b>Second Packing</b>				
<b>(Sub-clause 14.4 of GC)</b>				
<b>Item of Work</b>	<b>Stage Payment</b>	<b>Weightage</b>	<b>Cost</b>	<b>Payment** Procedure</b>
Packing	Pre-tamping attention as defined in P-way manual	20%	<b>2% of the Contract Price</b>	Track KM
	Operation during Tamping	60%		Track KM
	Posting tamping attention	20%		Track KM

- For second packing at turnouts the track KM of turnout will be 1.5 times of length of turnout.

**Note :** \*\* Unit of measurement is linear length (Track KM) along the alignment. Payment of each stage will be made on prorata completion of linear length (Track KM) or unit specified in “Payment procedure” as per weightage given in the schedule.

Payment will be made on approval of the Engineer/Employer for various items.



<b>Price Schedule B-9</b>
<b>Contract Price Weightage for Interim Payments</b>
<b>For</b>
<b>Final Packing</b>

(Sub-clause 14.4 of GC)

<b>Item of Work</b>	<b>Stage Payment</b>	<b>Weightage</b>	<b>Cost</b>	<b>Payment Procedure</b>
Packing	Pre-tamping attention as defined in P-way manual	20%	<b>2% of the Contract Price</b>	Track KM
	Operation during Tamping	60%		Track KM
	Posting tamping attention	20%		Track KM

➤ For final packing at turnouts the track KM of turnout will be 1.5 times of length of turnout.

**Note :** \*\* Unit of measurement is linear length (Track KM) along the alignment. Payment of each stage will be made on prorata completion of linear length (Track KM) or unit specified in “Payment procedure” as per weightage given in the schedule.

Payment will be made on approval of the Engineer/Employer for various items.

<b>Price Schedule B-10</b>
<b>Contract Price Weightage for Interim Payments</b>
<b>For</b>
<b>Other Engineering Works like Fixing Boards, reference pillars etc</b>

(Sub-clause 14.4 of GC)

Item of Work	Stage Payment	Weightage	Cost	Payment Procedure
<b>Fixing of Track structures</b>	Curve Posts	100%	<b>2% of the Contract Price</b>	%age completion basis.  Unit of measurement will be Route KM of item installed on site in complete manner.
	LWR Boards			
	SEJ Posts			
	Central Pillars for LWR			
	Fouling mark template			
	Sand Hump marker			
	Dead end erection			
	WL Board			
	Interlocking block at LC gates			
Other Board as required				

**Note : Payment will be made on certification of the Engineer/Employer for various items.**

<b>Price Schedule B-11</b>				
<b>Contract Price Weightage for Interim Payments</b>				
<b>For</b>				
<b>Integrated Testing &amp; Commissioning</b>				
<b>(Sub-clause 14.4 of GC)</b>				
<b>Item of Work</b>	<b>Stage Payment</b>	<b>Weightage</b>	<b>Cost</b>	<b>Payment Procedure</b>
Testing and Commissioning	After successful completion of Integrated Testing and Commissioning of works	50%	<b>2% of the Contract Price</b>	Lump Sum
	Final Taking over after making track fit for 100 KMPH. Necessary rounds of packing of track by tamping machines should be undertaken by the contractor. Tamping machines will be provided by the employer, however, contractor has to arrange all consumables and take pre-tamping, post-tamping and during tamping attention of the track.	50%		Lump Sum

**Note : Payment will be made on certification of the Engineer/Employer for various items.**

<b>Price Schedule B-12</b>
<b>Contract Price Weightage for Interim Payments</b>
<b>For</b>
<b>Inventory Supply for maintenance</b>

(Sub-clause 14.4 of GC)

Item of Work	Stage Payment	Weightage	Cost	Payment Procedure
Inventory	Supply of material for maintenance		<b>4% of the Contract Price</b>	<b>On Pro-rata Basis</b>
	PSC mainline sleepers 5,000 Nos.	60%		
	LC sleepers – 100 Nos.	1%		
	Bridge Sleepers – 100 Nos.	1%		
	Turnouts Sleepers sets - 4 Nos. (1 in 12)	7%		
	3 sets of SEJ sleepers	1%		
	Track fittings - ERC, Rubber Pads, GFN/metal liners for 10,000 sleepers	10%		
	Turnout switches - 5 sets	7%		
	Weldable CMS crossings - 5 sets	7%		
	Fittings for turnouts - 5 sets	2%		
	SEJs including rubber pads & Brackets -5 sets	3%		
	Transportation of 60Kg Rails (300 mtr. at 3 locations - Kudra, Durgawati & Karwandiya) - 900 mtr.	1%		

**Note : Payment will be made on certification of the Engineer/Employer for various items.**

Above items in good condition shall be stacked and handed over to the nominated official(s) of DFCC at locations indicated by the Engineer.