



**BID DOCUMENT FOR
BALANCE WORKS OF DESIGN, SUPPLY, CONSTRUCTION,
TESTING AND COMMISSIONING OF SIGNALLING,
TELECOMMUNICATION AND ASSOCIATED WORKS OF
DOUBLE TRACK RAILWAY LINES UNDER CONSTRUCTION
ON A DESIGN BUILD LUMP SUM BASIS FOR DEEN DAYAL
UPADHYAY - NEW BHAUPUR SECTION OF EASTERN
DEDICATED FREIGHT CORRIDOR**

**SIGNALLING AND TELECOMMUNICATION WORKS
CONTRACT PACKAGE: 203(R)**

Issued on: 27.08.2020

IFB No.: HQ/S&T/EC/D-B/DDU-BPUN

(Part-5)

Employer:

**DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA
LIMITED**

A GOVERNMENT OF INDIA ENTERPRISE

Under

**MINISTRY OF RAILWAYS
INDIA**

PART – 5

Price Schedules

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PART – 5-Price Schedules

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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* **“BALANCE WORKS OF DESIGN, SUPPLY, CONSTRUCTION, TESTING AND COMMISSIONING OF SIGNALLING, TELECOMMUNICATION AND ASSOCIATED WORKS OF DOUBLE TRACK RAILWAY LINES UNDER CONSTRUCTION ON A DESIGN BUILD LUMP SUM BASIS FOR DEEN DAYAL UPADHYAY - NEW BHAUPUR 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 there of 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, Taxes and duties, Levies, Royalties and all risks, liabilities and obligations as set out or implied in the contract.
3. Bidder shall give the percentage breakup of the lump sum cost quoted in **Schedule A** in local currency. Apportionment of contract price for payments of Signal & Telecommunication and Building & Structure works shall be quoted by the Bidder in **Table-1 of Annexure-I of Schedule A**. Costs are further pre-apportioned amongst cost centres and sub-centres for works of Signalling and Telecommunication and Building & structure in Schedules C, D and E as indicated in respective Schedules. Stage payments shall be regulated accordingly.
4. **Important note for filling in blanks in Bid document**

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

BDF- 20

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

Invitation for Bid No.:

To:

The undersigned, declare(s) that:

- (a) I/We have examined the Bidding Documents, including Amendment/Addenda issued in accordance with Instructions to Bidders (ITB) 8 and have no reservations whatsoever;
- (b) I/We offer to execute the Work in conformity with the Bidding Documents;
- (c) The total Lump-Sum price of our Bid is as per **Schedule A**;
- (d) The Apportionment of contract price for payments of Signal & Telecommunication and Building & Structure works is given in table-1 of **Annexure-I of Schedule A**.
- (e) I/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) There is no tampering or change made 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 shall be summarily rejected with forfeiture of bid security or the contract will be liable to be terminated along with forfeiture of performance security, if LOA has been issued.
- (g) I/We understand that our bid may be rejected without assigning any reason therefore and this I/We accept.

Name

In the capacity of.....

Signed

Duly authorized to sign the Bid for and on behalf of

Date

BDF-20

Schedule A

| Name of Work :- BALANCE WORKS OF DESIGN, SUPPLY, CONSTRUCTION, TESTING AND COMMISSIONING OF SIGNALLING, TELECOMMUNICATION AND ASSOCIATED WORKS OF DOUBLE TRACK RAILWAY LINES UNDER CONSTRUCTION ON A DESIGN BUILD LUMP SUM BASIS FOR DEEN DAYAL UPADHYAY - NEW BHAUPUR 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 | BALANCE WORKS OF DESIGN, SUPPLY, CONSTRUCTION, TESTING AND COMMISSIONING OF SIGNALLING, TELECOMMUNICATION AND ASSOCIATED WORKS OF DOUBLE TRACK RAILWAY LINES UNDER CONSTRUCTION ON A DESIGN BUILD LUMP SUM BASIS FOR DEEN DAYAL UPADHYAY - NEW BHAUPUR SECTION OF EASTERN DEDICATED FREIGHT CORRIDOR | | |
| | Total Amount | | |

Note:-

- 1) The cost shall be filled in with indelible ink or be typewritten.
- 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) I/We have verified and confirm that the amounts quoted in **Schedule A** above in figures agree with the amount quoted in words and that in event of any discrepancy in the two, the amount quoted in words shall be taken as final.
- 4) The cost shall be inclusive of all taxes.

SIGNATURE OF BIDDER

Annexure-I of Schedule A

Apportionment of Contract Price for Payment, Accordingly to Cost Centre is as follows:-

Table-1

| Price Schedule | Cost Centre | Percentage of Contract Price |
|---------------------------|-------------------------------------|---|
| (1) | (2) | (3) |
| C | Signalling Works | |
| D | Telecommunication Works | |
| E | Building and Structure Works | |
| | Total | 100% |

Note:

1. The Bidders may please note that the percentage of the Contract Price to be entered in column (3) of the above **table-1** should be within the permitted range specified in column (3) of “Price Schedule B:-Apportionment of contract price for payments of Signal & Telecommunication and Building & Structure works”.
2. The total of percentages given in column (3) in the above **table-1** should be exactly 100%. In case the total is not 100%, the figures in column (3) at Column (1) Price Schedule C, D & E shall be adjusted prorata.

PRICE SCHEDULE
(Sub-clause 14.4, Condition of Contract)
Schedule – B

Apportionment of contract price for payments of Signal & Telecommunication and Building & Structure works

| SN | Cost Centre of Works | Contract price as proportion of total lump sum cost quoted in Schedule A, expressed as percent |
|----|--|--|
| 1. | Signalling Works (Schedule C) | 75% - 85% |
| 2. | Telecommunication Works (Schedule D) | 15% - 25% |
| 3. | Building & Structure works (Schedule E) | 2% - 4% |
| | Total | 100% |

Notes:

1. In Table-1 of the Annexure-I of Schedule A, the Bidder is permitted to propose change as per his requirement for the component of work within the range indicated in column 3 of the above Price Schedule B, the total of which should be exactly equal to 100%. In case the total is not 100%, the figures of at Cost Centres C to E in column (3) of Table-1 of Annexure-I of Schedule A shall be adjusted prorata.
2. The Bidder is not required to fill/change any figure(s) in col. (3) of the above stated Price Schedule B.
3. The figure(s) in col. (3) of the above stated Price Schedule B shall be updated, based on the adjusted figures quoted by the Bidder in Table-1 of the Annexure-I of Schedule A, by the Employer at the time of signing the Contract.
4. The subsequent Price Schedules for Cost Centres/Sub-Cost Centres are fixed and the payment will be released for different cost centres/sub-cost centres as per respective weightings of the Contract price.
5. Please refer Sub-Clause 14.4 – Particular Conditions of Contract for further details.

LIST OF MATERIALS TO BE GIVEN TO CONTRACTOR

- a) Following materials will be given free of cost to the contractor against Indemnity Bond from the nominated depot except Video Wall which is installed at OCC:

| Sl. No. | S&T Material | Unit | Approximate Quantity |
|---------|--|------|----------------------|
| 1 | 4 Quad x 0.9 mm Cable | Kms | 73 |
| 2 | 6 Quad x 0.9 mm cable | Kms | 498 |
| 3 | 6 Core x 1.5 sqmm cable | Kms | 519 |
| 4 | 12 Core x 1.5 sqmm Cable | Kms | 748 |
| 5 | 30 Core x 1.5 sqmm Cable | Kms | 9 |
| 6 | 2 Core x 25 sqmm AL Power cable | Kms | 34 |
| 7 | 24 Fibre Armoured Optic Fibre Cable | Kms | 1000 |
| 8 | MSDAC Equipment (Frauscher make) | DPs | 280 |
| 9 | Video Wall screens for display of TMS and SCADA (Delta Make) | Nos. | 48 |

- b) These materials shall be taken over by the contractor within three months from the date of issue of letter of acceptance.

LIST OF EXECUTED S&T WORKS

- a) List of works already executed in the section is given below, however the quantities are tentative. Exact quantity has to be assessed by the contractor jointly with the Engineer.

| Sl.No. | Description | Quantity (Approx.) | Remark |
|--------|-------------------------------|--------------------|--|
| 1 | Signalling Cable Laying | 530 Km | This includes cables of various sorts laid in trench stretch of 45 Km. |
| 2 | HDPE Duct laying for OFC | 1200 Km | Laid in two different trench stretch of 600 Km. Each trench has two HDPE ducts. |
| 3 | OFC blowing through HDPE Duct | 400 Km | Laid in two different trench stretch of 200 Km. Each trench has two OFC in HDPE ducts. |
| 4 | Video wall screens at OCC | 48 Nos | 36 Nos for TMS and 12 Nos for SCADA. |

- b) The above work is executed at various locations in the entire section.
 c) Contractor has to complete the balance activities to achieve the concerned sub-cost center of the above executed works at his own cost.
 d) This includes supply of required materials for which no extra claim will be given.

Note:

- The Bidder may inspect the above materials during the site visit as mentioned in Invitation for Bid (IFB).
- The above material will be provided on 'as it is where it is' basis.
- For the purpose of inspection of these materials bidder may contact CGM/E/ALD.

Payments for supply of Material in subsequent cost centers (C, D &E) which is intended for installation in the Permanent Works:

1. The Contractor shall ensure that the Materials delivered at site,
 - a. are as per the specifications stipulated in the Contract;
 - b. have met all the requirements of checks, inspections & tests and
 - c. are properly stored and protected against loss/pilferage, damage and deterioration.
2. The payment for supply of materials shall be made against an Indemnity Bond, for the amount of payment claimed, in favour of the Employer and valid till these materials are installed and commissioned in the Permanent Works.
3. Supplied materials shall be deemed to be the property of the Employer. The Contractor shall not remove these from Site of Work / Store without prior approval of the Engineer.
4. Record of receipt and use of materials shall be maintained by the Contractor and made available for inspection by the Engineer/Employer as and when these may be required.
5. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule C
Apportionment of Contract Price for
SIGNALLING WORKS

(Sub-clause 14.4, GC)

| Price Schedule | No. | Cost Centre | Weightage (%) | Cost |
|--------------------------------|-----|---|---------------|--|
| (1) | (2) | (3) | (4) | (5) |
| C [Signalling Works] | C1 | Design and Documentation | 2% | % as in Schedule C (Signalling Works) of Apportionment of Contract Price |
| | C2 | Signalling Works at 6 Crossing stations | 10% | |
| | C3 | Signalling Works at 6 Junction Stations | 24% | |
| | C4 | Signalling Works in Automatic Block Sections | 41% | |
| | C5 | Train Management System (TMS) and Service & Diagnostic System (S&D) | 10% | |
| | C6 | Supply of Contract Spares and Special Tools & Test Equipment | 10% | |
| | C7 | Integrated Testing & Commissioning and Final Taking-Over | 2% | |
| | C8 | Training | 1% | |
| | | Total | 100.00 | |

The proportion as indicated by the Employer in the table above are not negotiable and stage payment shall be regulated accordingly as also set out in schedules C-1 through C-8. Refer Sub clause 14.4 – Particular Conditions of Contract for further details.

Price Schedule C1

Apportionment of Contract Price for Payment of Cost Center

DESIGN AND DOCUMENTATION FOR SIGNALLING WORKS

(Sub-clause 14.4, GC)

| Cost Centre | Item of Work | Sub-Cost Centre | Stage Payment (Stage to be completed to qualify for payment of Sub-Cost Centre) | Weightage (%) | Cost | Payment Procedure |
|--|--------------------------|-----------------|--|---------------|---|--|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| C1 [Design and Documentation for Signalling Works] | Design and Documentation | C1.1 | Submission of Management Plans | 5 | 2% of the Contract Price for Price Schedule C [Signalling works] | After Review/Approval with or without comments by the Engineer |
| | | C1.2 | Submission of Safety Assurance Plans and Documents | 10 | | |
| | | C1.3 | Submission of Preliminary Designs & Documents | 15 | | |
| | | C1.4 | Submission of Detailed Designs & Documents | 30 | | |
| | | C1.5 | Submission of Construction/Installation Designs & Documents | 10 | | |
| | | C1.6 | Submission of As Built Documents | 20 | | |
| | | C1.7 | Submission of O&M Manuals | 10 | | |
| | | | TOTAL | 100 | | |

Note:

- Adjustment to Contract Price pursuant to GCC 13.8 shall NOT be applicable to the payments of Works executed under this Cost Centre / Price Schedule.
- Payment will be made on Prorata Completion of each Payment Stage as per weightage given in this schedule.

Price Schedule C2
Apportionment of Contract Price for Payment of Cost Centre
SIGNALLING WORKS AT 6 CROSSING STATIONS

(Sub-clause 14.4, GC)

| Cost Centre | Item of Work | Sub-Cost Centre | Stage Payment (Stage to be completed to qualify for payment of Sub-Cost Centre) | Weightage (%) | Cost | Payment Procedure |
|---|--------------------|-----------------|---|---------------|--|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| C2 [Signalling Works At 6 Crossing Stations] | Supply of material | C2.1 | Supply of Signalling Cable, Power cable and Quad Cable | 4 | 10% of the Contract Price for Price Schedule C [Signalling Works] For One Crossing Station, the Apportioned price is 11% / n, where n is number of Crossing Stations | On supply of material at site as per approved quantity duly inspected by the appropriate authority and verified by the Engineer |
| | | C2.2 | Supply of EI hardware equipment along with associated software and accessories | 34 | | |
| | | C2.3 | Supply of power supply equipment and batteries along with associated accessories | 2 | | |
| | | C2.4 | Supply of track vacancy detection hardware equipment along with associated software and accessories | 28 | | |
| | | C2.5 | Supply of signals and point machines along with associated accessories | 7 | | |
| | | C2.6 | Supply of balance indoor equipment | 1 | | |
| | | C2.7 | Supply of balance outdoor equipment | 3 | | |
| | Installation | C2.8 | Laying, Termination & Testing of outdoor cables | 4 | | Review and Acceptance of Installation test report by the Engineer. |
| | | C2.9 | Installation of all indoor equipment | 1 | | |
| | | C2.10 | Installation of all outdoor equipment | 6 | | |
| | | C2.11 | Supply and installation of Earthing, and Surge and Lighting Protection equipment for complete works | 6 | | |

| Cost Centre | Item of Work | Sub-Cost Centre | Stage Payment (Stage to be completed to qualify for payment of Sub-Cost Centre) | Weightage (%) | Cost | Payment Procedure |
|-------------|-----------------|-----------------|--|---------------|------|---|
| | Any other item | C2.12 | Any other item required to be supplied, installed and tested for complete works | 1 | | Verification/ Review/ Approval/ Acceptance by the Engineer. |
| | EI Installation | C2.13 | Installation of EI hardware equipment along with associated software and accessories | 3 | | Review and Acceptance of System Acceptance Test Report by the Engineer. |
| | | | TOTAL | 100 | | |

Note:

1. The boundary of Signalling Works at Crossing Station shall be from First Stop Signal to Last Stop Signal including controlling track sections in both directions.
2. Payment will be made on Prorata Completion of each sub cost center of each station as per weightage given in this schedule subject to approval to this effect by the engineer.
3. Adjustment to Contract Price pursuant to GCC 13.8 shall be applicable to the payments of Works executed under this Cost Centre / Price Schedule.
4. Item C2.12 will be deemed to have been executed after successful Integrated testing and commissioning.

Price Schedule C3
Apportionment of Contract Price for Payment of Cost Centre
SIGNALLING WORKS AT 6 JUNCTION STATIONS

(Sub-clause 14.4, GC)

| Cost Centre | Item of Work | Sub-Cost Centre | Stage Payment (Stage to be completed to qualify for payment of Sub-Cost Centre) | Weightage (%) | Cost | Payment Procedure |
|---|--------------------|-----------------|--|---------------|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| C3[Signalling Works at 6 Junction Stations] | Supply of material | C3.1 | Supply of Signalling Cable, Power cable and Quad Cable | 18 | 24% of the Contract Price for Price Schedule C [Signalling Works] Apportionment price for 6 Junction stations will be as under :a) Bhimsen : 13% of 24 % b) Kanpur : 15% of 24 % c) Sujatpur 8% of 24% d) Karchana : 22% of 24% e) Ahraura: 12% of 24% f) Deen Dayal Upadhyay 30% of 24%. | On supply of material at site as per approved quantity duly inspected by the appropriate authority and verified by the Engineer |
| | | C3.2 | Supply of EI hardware equipment along with associated software and accessories | 24 | | |
| | | C3.3 | Supply of power supply equipment and batteries along with associated accessories | 1 | | |
| | | C3.4 | Supply of Track Vacancy Detection hardware equipment along with associated System software and accessories | 31 | | |
| | | C3.5 | Supply of signals and point Machines along with associated accessories | 6 | | |
| | | C3.6 | Supply of equipment for Block Proving by Axle Counter for Single line sections | 1 | | |
| | | C3.7 | Supply of balance indoor equipment | 1 | | |
| | | C3.8 | Supply of balance outdoor equipment | 3 | | |
| | Installation | C3.9 | Laying, Termination & Testing of outdoor cables | 3 | | Review and Acceptance of Installation test report by the Engineer. |
| | | C3.10 | Installation of all indoor equipment | 1 | | |
| | | C3.11 | Installation of all outdoor equipment | 4 | | |

| Cost Centre | Item of Work | Sub-Cost Centre | Stage Payment (Stage to be completed to qualify for payment of Sub-Cost Centre) | Weightage (%) | Cost | Payment Procedure |
|-------------|-----------------|-----------------|---|---------------|------|---|
| | Installation | C3.12 | Supply and installation of Earthing, and Surge and Lighting Protection equipment for complete works | 4 | | |
| | Any other item | C3.13 | Any other item required to be supplied, installed and tested for complete works within the existing scope of work | 1 | | Verification/ Review/ Approval/ Acceptance by the Engineer. |
| | EI Installation | C3.14 | Installation of EI hardware equipment along with associated software and accessories | 2 | | Review and Acceptance of System Acceptance Test Report by the Engineer. |
| | | | TOTAL | 100.00 | | |

Note:

1. The boundary of Signalling Works at Junction Station shall be from First Stop Signal to Last Stop Signal including controlling track sections in both directions on DFCCIL Main lines and till IR Station (s) on single line track connecting DFCCIL and IR Stations.
2. Payment will be made on Prorata Completion of each sub cost center of each station as per weightage given in this schedule subject to approval to this effect by the engineer.
3. Adjustment to Contract Price pursuant to GCC 13.8 shall be applicable to the payments of Works executed under this Cost Centre / Price Schedule.
4. Item C3.13 will be deemed to have been executed after successful Integrated testing and commissioning.

Price Schedule C4

Apportionment of Contract Price for Payment of Cost Centre

SIGNALLING WORKS IN AUTOMATIC BLOCK SECTIONS

(Sub-clause 14.4, GC)

| Cost Centre | Item of Work | Sub-Cost Centre | Stage Payment (Stage to be completed to qualify for payment of Sub-Cost Centre) | Weightage (%) | Cost | Payment Procedure |
|--|--------------------|-----------------|--|---------------|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| C4 [Signalling Works in Automatic Block Sections] | Supply of material | C4.1 | Supply of Signalling Cable, Power cable and Quad Cable | 9 | 41% of the Contract Price for Price Schedule C [Signalling Works] Stage payment will be made proportionally for the track kilometers completed by the contractor. | On supply of material at site as per approved quantity duly inspected by the appropriate authority and verified by the Engineer |
| | | C4.2 | Supply of EI hardware equipment along with associated software and accessories | 29 | | |
| | | C4.3 | Supply of power supply equipment and batteries along with associated accessories | 3 | | |
| | | C4.4 | Supply of Track Vacancy Detection hardware equipment along with associated System software and accessories | 39 | | |
| | | C4.5 | Supply of signals along with associated accessories | 3 | | |
| | | C4.6 | Supply of Electric Lifting Barriers & Sliding Boom along with associated accessories. | 1 | | |
| | | C4.7 | Supply of balance indoor equipment | 1 | | |
| | | C4.8 | Supply of balance outdoor equipment | 2 | | |
| | Installation | C4.9 | Laying, Termination & Testing of outdoor cables | 3 | | Review and Acceptance of Installation test report by the Engineer. |
| | | C4.10 | Installation of all indoor equipment | 1 | | |
| | | C4.11 | Installation of all outdoor equipment | 3 | | |

| Cost Centre | Item of Work | Sub-Cost Centre | Stage Payment (Stage to be completed to qualify for payment of Sub-Cost Centre) | Weightage (%) | Cost | Payment Procedure |
|-------------|-----------------|-----------------|---|---------------|------|---|
| | | C4.12 | Supply and installation of Earthing, Surge and Lighting Protection equipment for complete works | 3 | | Review and Acceptance of Installation test report by the Engineer. |
| | Any other item | C4.13 | Any other item required to be supplied, installed and tested for complete works within the existing scope of work | 1 | | Verification/ Review/ Approval/ Acceptance by the Engineer. |
| | EI Installation | C4.14 | Installation of EI hardware equipment along with associated software and accessories | 2 | | Review and Acceptance of System Acceptance Test Report by the Engineer. |
| | | | TOTAL | 100.00 | | |

Note:

1. Payment will be made on Prorata Completion of each sub cost center of each Block Section as per weightage given in this schedule subject to approval to this effect by the engineer.
2. Adjustment to Contract Price pursuant to GCC 13.8 shall be applicable to the payments of Works executed under this Cost Centre / Price Schedule.
3. Item C4.13 will be deemed to have been executed after successful Integrated testing and commissioning.

Price Schedule C5

Apportionment of Contract Price for Payment of Cost Centre

TRAIN MANAGEMENT SYSTEM (TMS) AND SERVICE AND DIAGNOSTICS SYSTEM (S&D)

(Sub-clause 14.4, GC)

| Cost Centre | Item of Work | Sub-Cost Centre | Stage Payment (Stage to be completed to qualify for payment of Sub-Cost Centre) | Weightage (%) | Cost | Payment Procedure |
|---|--------------------|-----------------|---|---------------|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| C5 [Train Management System (TMS) and Service & Diagnostics System (S&D)] | Supply of material | C5.1 | Supply of TMS hardware equipment along with associated Cables, associated software & accessories for OCC | 14 | 10% of the Contract Price for Price Schedule C [Signalling Works] | On supply of material at site as per approved quantity duly inspected by the appropriate authority and verified by the Engineer |
| | | C5.2 | Supply of TMS hardware equipment along with associated Cables, associated software & accessories for location other than OCC | 15 | | |
| | | C5.3 | Supply of power supply equipment and batteries along with associated accessories for OCC | 3 | | |
| | | C5.4 | Supply of video wall display system along with associated accessories for TMS and SCADA at OCC | 1 | | |
| | | C5.5 | Supply of Service and Diagnostic System hardware equipment along with associated Cables and accessories for OCC - Server, Switches, CMU, FEP, Monitors etc. | 1 | | |
| | | C5.6 | Supply of Service and Diagnostic System hardware equipment along with associated Cables and accessories for Stations and Auto Locations Huts-Data Logger, Data Concentrator, HMU for battery, Power Supply, Signal, Points and MSDAC etc. | 32 | | |
| | | C5.7 | Supply of balance equipment for TMS | 6 | | |

| Cost Centre | Item of Work | Sub-Cost Centre | Stage Payment (Stage to be completed to qualify for payment of Sub-Cost Centre) | Weightage (%) | Cost | Payment Procedure |
|-------------|------------------------|-----------------|---|---------------|------|---|
| | | C5.8 | Supply of balance equipment for S&D System | 1 | | |
| | Installation | C5.9 | Installation of all TMS equipment including Video Wall Display System at OCC & TMS equipment at locations other than OCC. | 1 | | Review and Acceptance of Installation test report by the Engineer. |
| | | C5.10 | Installation of all equipment for S&D system at OCC | 1 | | |
| | | C5.11 | Installation of all equipment for S&D system at stations and Auto Location Huts | 2 | | |
| | | C5.12 | Supply and installation of Earthing, Surge and Lighting Protection equipment for complete works | 1 | | |
| | Any other item | C5.13 | Any other item required to be supplied, installed and tested for complete works within the existing scope of work | 10 | | Verification/ Review/ Approval/ Acceptance by the Engineer. |
| | System Acceptance Test | C5.14 | Supply and installation of Software and system acceptance test for TMS | 7 | | Review and Acceptance of System Acceptance Test Report by the Engineer. |
| | | C5.15 | Supply and installation of software and system acceptance test for S&D system | 5 | | |
| | | | TOTAL | 100 | | |

Note:

1. Payment will be made on completion of each Payment Stage as per weightage given in this schedule.
2. Adjustment to Contract Price pursuant to GCC 13.8 shall be applicable to the payments of Works executed under this Cost Centre / Price Schedule.
3. Item C5.13 will be deemed to have been executed after successful Integrated testing and commissioning.

Price Schedule C6

Apportionment of Contract Price for Payment of Cost Centre

SUPPLY OF CONTRACT SPARES AND SPECIAL TOOLS & TEST EQUIPMENTS

(Sub-clause 14.4, GC)

| Cost Centre | Item of Work | Sub-Cost Centre | Stage Payment (Stage to be completed to qualify for payment of Sub-Cost Centre) | Weightage (%) | Cost | Payment Procedure |
|---|--------------------------------|-----------------|---|---------------|---|--|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| C6 [Supply of Contract Spares and Special Tools & Test Equipment] | Contract Spares | C6.1 | Supply of Contract Spares for | | 10% of the Contract Price for Price Schedule C [Signalling Works] | On Supply of Contract Spares and Special Tools & Test Equipment to the Employer as per approved list duly inspected by the appropriate Authority and verified by the Engineer. |
| | | (a) | Cables and Wires-All types | 8 | | |
| | | (b) | Electronic Interlocking-Cards, Modules complete with interconnecting cables & connectors, Control Terminal and all other associated accessories. | 31 | | |
| | | (c) | Power Supply-Cards Modules, Equipment complete with interconnecting cables & connectors and all other associated accessories. | 3 | | |
| | | (d) | Digital Axle Counter - Track Devices, Track Side Electronic equipment Evaluator equipment, Evaluator Cards, Modules complete with interconnecting cables & connectors and all other associated accessories. | 30 | | |
| | | (e) | Signals and Point Machines | 3 | | |
| | | (f) | TMS and S&D system | 9 | | |
| | | (g) | Balance items/equipment/material | 7 | | |
| | Special Tools & Test equipment | C6.2 | Supply of Special Tools & Test equipment | 9 | | |
| | | | TOTAL | 100 | | |

Note:

1. Payment will be made completion of each Payment Stage as per weightage given in this schedule.
2. Adjustment to Contract Price pursuant to GCC 13.8 shall be applicable to the payments of Works executed under this Cost Centre / Price Schedule.

Price Schedule C7

Apportionment of Contract Price for Payment of Cost Centre

INTEGRATED TESTING & COMMISSIONING AND FINAL TAKING - OVER

(Sub-clause 14.4, GC)

| Cost Centre | Item of Work | Sub-Cost Centre | Stage Payment (Stage to be completed to qualify for payment of Sub-Cost Centre) | Weightage (%) | Cost | Payment Procedure |
|---|--|-----------------|---|---------------|--|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| C7 [Integrated Testing & Commissioning and Final Taking - Over] | Integrated Testing & Commissioning and Final Taking - Over | C7.1 | Successful Completion of Integrated Testing & Commissioning | | 2% of the Contract Price for Price Schedule C [Signalling Works] | |
| | | C7.1.1 | Successful Completion of Integrated Testing & Commissioning New Bhaupur-New Sujatpur Section | 25 | | Review and Acceptance of Integrated Testing & Commissioning reports by the Engineer |
| | | C7.1.2 | Successful Completion of Integrated Testing & Commissioning of New Sujatpur – Deen Dayal Upadhyay section | 25 | | Review and Acceptance of Integrated Testing & Commissioning reports by the Engineer |
| | | C7.2 | Final Taking-Over Certificate for the complete work | 50 | | Issue of Taking over Certificate by the Engineer |
| | | | TOTAL | 100% | | |

Note:

- Adjustment to Contract Price pursuant to GCC 13.8 shall NOT be applicable to the payments of Works executed under this Cost Centre / Price Schedule.
- Payment will be made completion of each Payment Stage as per weightage given in this schedule.

Price Schedule C8

Apportionment of Contract Price for Payment of Cost Centre

TRAINING

(Sub-clause 14.4, GC)

| Cost Centre | Item of Work | Sub-Cost Centre | Stage Payment (Stage to be completed to qualify for payment of Sub- Cost Centre) | Weightage (%) | Cost | Payment Procedure |
|---------------|--------------|-----------------|---|------------------|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| C8 [Training] | Training | C8.1 | Training | 100 | 1% of the Contract Price for Price Schedule C [Signalling Works] | On completion of Training as per approved Training Plan and submission of Training Manuals duly reviewed and/or approved by the Engineer. |
| | | | TOTAL | 100% | | |

Note:

- Adjustment to Contract Price pursuant to GCC 13.8 shall not be applicable to the payments of Works executed under this Cost Centre / Price Schedule.
- Payment will be made completion of each Payment Stage as per weightage given in this schedule.

Price Schedule D
Apportionment of Contract Price for
TELECOMMUNICATION WORKS
(Sub-clause 14.4, GC)

| Price Schedule | No. | Cost Centre | Weightage (%) | Cost |
|---------------------------------------|-----|--|---------------|---|
| (1) | (2) | (3) | (4) | (5) |
| D [Telecommunication Works] | D1 | Design and Documentation | 2 | % as in Schedule D of Apportionment of Contract Price |
| | D2 | Telecom Works at 6 Crossing stations | 8 | |
| | D3 | Telecom Works at 6 Junction Stations | 9 | |
| | D4 | Telecom works at Operational Control Centre (OCC) | 13 | |
| | D5 | Telecom works in Automatic Block Sections & Single Line Sections | 57 | |
| | D6 | Integrated Testing & Commissioning and Final Taking-Over | 2 | |
| | D7 | Contract Spares | 4 | |
| | D8 | Special Tools & Test Equipment | 4 | |
| | D9 | Training | 1 | |
| | | Total | 100 | |

Note:

The proportions as indicated by the Employer in the table above are not negotiable and stage payment shall be regulated accordingly as also set out in schedules D-1 through D-9. Refer Sub-Clause 14.4 – Particular Conditions of Contract for further details.

Price Schedule D1

Apportionment of Contract Price for Payment of Cost Centre

DESIGN AND DOCUMENTATION

(Sub-clause 14.4, GC)

| Cost Centre | Item of Work | Sub-Cost Centre | Stage Payment (Stage to be completed to qualify for payment of Sub-Cost Centre) | Weightage (%) | Cost | Payment Procedure |
|-------------------------------|---------------------|-----------------|---|---------------|--|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| D1 [Design and Documentation] | Management Plan | D1.1 | Project Management Plan, Quality Management Plan, Quality Assurance Plan, Site Safety Plan, Design Plan | 10 | 2 % of the Contract Price for Price Schedule D (Telecommunication Works) | After Review/ Approval with or without comment by the Engineer |
| | | D1.2 | Reliability Plan, Maintainability Plan, Interface Management Plan, EMC Management Plan, Procurement, Manufacturing & Supply Plan, Software Support Plan, Factory Acceptance Testing Plan, Construction and Installation Management Plan, On-site Testing & Commissioning Plan | 10 | | |
| | | D1.3 | Operation & Maintenance Plan, Training Plan, Spare Parts & Consumable Management Plan, Defect Liability Management Plan, Maintenance Manpower Plan, Trial Run Plan. | 5 | | |
| | Design Document | D1.4 | All Preliminary Design Documents including RAMS Documents | 10 | | |
| | | D1.5 | All Detailed Design Documents including EMC Documents & Interface Specification for complete works | 15 | | |
| | | D1.6 | All Installation Design Documents for Complete Works | 10 | | |
| | O&M Manuals | D1.7 | O&M Manual for Completed Works | 15 | | |
| | As-Built Drawings | D1.8 | As-Built Drawings for Completed Works | 20 | | |
| | Any other documents | D1.9 | Balance documentation required to be given as part of the Contract | 5 | | |
| | | | Total | 100 | | |

Note:

- Adjustment to Contract Price pursuant to GCC 13.8 shall NOT be applicable to the payments of Works executed under this Cost Centre / Price Schedule.
- Payment will be made on Completion of each Payment Stage as per weightage given in this schedule.

Price Schedule D2

Apportionment of Contract Price for Payment of Cost Centre

TELECOM WORKS AT 6 CROSSING STATIONS

(Sub-clause 14.4, GC)

| Cost Centre | Item of Work | Sub-Cost Centre | Stage Payment (Stage to be completed to qualify for payment of Sub-Cost Centre) | Weightage (%) | Cost | Payment Procedure |
|---|------------------------|-----------------|--|---------------|--|--|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| D2 [Telecom Works At 6 Crossing Stations] | Supply of material | D2.1 | Supply of PIJF Telephone Cables | 3 | 8% of the Contract Price for Price Schedule D [Telecommunication Works] | On Supply of Material at Site as per Approved Quantity duly Inspected by the Appropriate Authority and verified by the Engineer. |
| | | D2.2 | Supply of OFC System Hardware along with associated software & accessories. | 10 | | |
| | | D2.3 | Supply of Data Networking System Hardware along with associated software & accessories. | 27 | | |
| | | D2.4 | Supply of Telephone System Hardware along with associated software & accessories. | 34 | | |
| | | D2.5 | Supply of Master Clock System Hardware along with associated software & accessories. | 4 | | |
| | | D2.6 | Supply of VHF communication System Hardware along with associated software & accessories. | 4 | | |
| | | D2.7 | Supply of 48 V DC Battery Backup System Hardware along with associated software & accessories. | 8 | | |
| | | D2.8 | Supply of balance Indoor and Outdoor equipment | 2 | | |
| | Installation | D2.9 | Installation of all indoor equipment | 1 | | Review and Acceptance of Installation Test Report by the Engineer. |
| | | D2.10 | Installation of all outdoor equipment | 1 | | |
| | | D2.11 | Laying, Termination & Testing of outdoor Telecom Cables. | 4 | | |
| | | D2.12 | Installation of Earthing and Surge Protection equipment | 1 | | |
| | System Acceptance Test | D2.13 | Supply and installation of software and system acceptance test | 1 | | Review and Acceptance of System Acceptance Test Report by the Engineer. |
| | TOTAL | | | 100 | | |

- Note:** 1. Telecom Works at Crossing Station shall also include Telecom works up to and at nearest IMD, IMSD and Residential Colonies.
 2. Payment will be made on Prorata completion of each Payment Stage as per weightage given in this schedule.
 3. Adjustment to Contract Price pursuant to GCC 13.8 shall be applicable to the payments of Works executed under this Cost Centre / Price Schedule.

Price Schedule D3

Apportionment of Contract Price for Payment of Cost Centre

TELECOM WORKS AT 6 JUNCTION STATIONS

(Sub-clause 14.4, GC)

| Cost Centre | Item of Work | Sub-Cost Centre | Stage Payment (Stage to be completed to qualify for payment of Sub-Cost Centre) | Weightage (%) | Cost | Payment Procedure |
|---|------------------------|-----------------|--|---------------|---|--|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| D3 [Telecom Works At 6 Junction Stations] | Supply of material | D3.1 | Supply of PIJF Telephone Cables | 3 | 9% of the Contract Price for Price Schedule D [Telecommunication works] | On Supply of Material at Site as per Approved Quantity duly Inspected by the Appropriate Authority and verified by the Engineer. |
| | | D3.2 | Supply of OFC System Hardware along with associated software & accessories. | 10 | | |
| | | D3.3 | Supply of Data Networking System Hardware along with associated software & accessories. | 26 | | |
| | | D3.4 | Supply of Telephone System Hardware along with associated software & accessories. | 33 | | |
| | | D3.5 | Supply of Master Clock System Hardware along with associated software & accessories. | 5 | | |
| | | D3.6 | Supply of VHF communication System Hardware along with associated software & accessories. | 5 | | |
| | | D3.7 | Supply of 48 V DC Battery Backup System Hardware along with associated software & accessories. | 8 | | |
| | | D3.8 | Supply of balance Indoor and outdoor equipment | 2 | | |
| | Installation | D3.9 | Installation of all indoor equipment | 1 | | Review and Acceptance of Installation Test Report by the Engineer. |
| | | D3.10 | Installation of all outdoor equipment | 1 | | |
| | | D3.11 | Laying, Termination & Testing of Outdoor Telecom Cables | 4 | | |
| | | D3.12 | Installation of Earthing and Surge Protection equipment | 1 | | |
| | System Acceptance Test | D3.13 | Supply and installation of Software and system acceptance test | 1 | | Review and Acceptance of System Acceptance Test Report by the Engineer. |
| | | | TOTAL | 100 | | |

Note:

1. Telecom Works at Junction Stations shall also include Telecom works up to and at nearest IMD, IMSD and Residential Colonies.
2. Telecom Works at Junction shall also include Telecom works up to and at nearest IR Station.
3. Payment will be made on Prorata completion of each Payment Stage as per weightage given in this schedule.
4. Adjustment to Contract Price pursuant to GCC 13.8 shall be applicable to the payments of Works executed under this Cost Centre / Price Schedule.

Price Schedule D4

Apportionment of Contract Price for Payment of Cost Centre

TELECOM WORKS AT OPERATIONAL CONTROL CENTRE (OCC)

(Sub-clause 14.4, GC)

| Cost Centre | Item of Work | Sub-Cost Centre | Stage Payment (Stage to be completed to qualify for payment of Sub-Cost Centre) | Weightage (%) | Cost | Payment Procedure |
|--|------------------------|-----------------|---|---------------|---|--|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| D4 [Telecom Works at Operational Control Centre (OCC)] | Supply of material | D4.1 | Supply of PIJF Telephone Cables | 1 | 13 % of the Contract Price for Price Schedule D [Telecommunication Works] | On Supply of Material at Site as per Approved Quantity duly Inspected by the Appropriate Authority and verified by the Engineer. |
| | | D4.2 | Supply of OFC System Hardware along with associated software & accessories. | 2 | | |
| | | D4.3 | Supply of Data Networking System Hardware along with associated software & accessories. | 6 | | |
| | | D4.4 | Supply of Telephone System Hardware along with associated software & accessories. | 8 | | |
| | | D4.5 | Supply of Master Clock System Hardware along with associated software & accessories. | 3 | | |
| | | D4.6 | Supply of 48V DC Battery Backup System Hardware along with associated accessories. | 3 | | |
| | | D4.7 | Supply of MTRC System Hardware along with associated accessories | 67 | | |
| | | D4.8 | Supply of balance Indoor and outdoor equipment | 2 | | |
| | Installation | D4.9 | Installation of all indoor equipment | 3 | | Review and Acceptance of Installation Test Report by the Engineer. |
| | | D4.10 | Installation of all outdoor equipment | 1 | | |
| | Installation | D4.11 | Installation of Earthing and Surge Protection equipment | 1 | | Review and Acceptance of Installation Test Report by the Engineer. |
| | System acceptance test | D4.12 | Supply and installation of software and System Acceptance Test | 3 | | Review and Acceptance of System Acceptance Test Report by the Engineer. |
| | | | TOTAL | 100 | | |

Note:

1. Payment will be made on completion of each payment stage as per weightage given in this schedule.
2. Adjustment to Contract Price pursuant to GCC 13.8 shall be applicable to the payments of works executed under this Cost Centre / Price Schedule.

Price Schedule D5

Apportionment of Contract Price for Payment of Cost Centre

TELECOM WORKS IN AUTOMATIC BLOCK SECTIONS & SINGLE LINE SECTIONS

(Sub-clause 14.4, GC)

| Cost Centre | Item of Work | Sub-Cost Centre | Stage Payment (Stage to be completed to qualify for payment of Sub-Cost Centre) | Weightage (%) | Cost | Payment Procedure |
|---|--------------------|-----------------|---|---------------|--|--|
| (1) | (2) | (3) | (4) | (5) | | (5) |
| D5 [Telecom works in Automatic Block Sections & Single Line Sections] | Supply of material | D5.1 | Supply of Optic Fibre Cables including HDPE Duct | 24 | 57 % of the Contract Price for Price Schedule D [Telecommunication Works] Stage payment will be made proportionally for the track kilometers completed by the contractor. | On supply of material at site as per approved quantity duly inspected by the appropriate authority and verified by the Engineer. |
| | | D5.2 | Supply of OFC System Hardware along with associated software & accessories. | 22 | | |
| | | D5.3 | Supply of Cab Radio complete with power supply, battery pack, antenna, software & accessories | 2 | | |
| | | D5.4 | Supply of OPH & GPH complete with accessories, battery pack and carry case and 100% spare batteries | 9 | | |
| | | D5.5 | Supply of Radio Towers complete with antenna, cables, aviation lighting Earthing etc. | 15 | | |
| | | D5.6 | Supply of BSS System Hardware along with associated accessories for MTRC | 4 | | |
| | | D5.7 | Supply of 48V DC Battery Backup System Hardware along with associated accessories. | 8 | | |
| | | D5.8 | Supply of balance Indoor and outdoor equipment | 2 | | |
| | Installation | D5.9 | Installation of all Indoor equipment | 1 | | Review and acceptance of Installation Test Report by the Engineer. |
| | | D5.10 | Installation of all outdoor equipment | 1 | | |
| | | D5.11 | Laying, Termination & Testing of Outdoor Telecom Cables | 10 | | |
| | Installation | D5.12 | Installation of Earthing and Surge Protection equipment | 1 | | Review and acceptance of Installation Test Report by the Engineer. |

| | | | | | | |
|--|------------------------|-------|------------------------|------------|--|---|
| | System Acceptance Test | D5.13 | System Acceptance Test | 1 | | Review and acceptance of System Acceptance Test Report by the Engineer. |
| | | | TOTAL | 100 | | |

Note:

1. Telecom Works in Automatic Block Sections shall cover all Telecom Works between two adjacent Crossing Stations/ Junction Stations and shall also include Telecom Works at TSS, SP, SSP and other Buildings.
2. Payment will be made on prorata completion of each payments Stage as per weightage given in this schedule.
3. Adjustment to Contract Price pursuant to GCC 13.8 shall be applicable to the payments of Works executed under this Cost Centre / Price Schedule.

Price Schedule D6

Apportionment of Contract Price for Payment of Cost Centre

INTEGRATED TESTING & COMMISSIONING AND FINAL TAKING - OVER

(Sub-clause 14.4, GC)

| Cost Centre | Item of Work | Sub-Cost Centre | Stage Payment (Stage to be completed to qualify for payment of Sub-Cost Centre) | Weightage (%) | Cost | Payment Procedure |
|---|--|-----------------|---|---------------|--|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| D6 [Integrated Testing & Commissioning and Final Taking - Over] | Integrated Testing & Commissioning and Final Taking - Over | D6.1 | Successful Completion of Integrated Testing & Commissioning | | 2 % of the Contract Price for Price Schedule D [Telecommunication Works] | |
| | | D6.1.1 | Successful Completion of Integrated Testing & Commissioning of New Bhaupur – New Sujatpur section | 25 | | Review and Acceptance of Integrated Testing and Commissioning Report by the Engineer. |
| | | D6.1.1 | Successful Completion of Integrated Testing & Commissioning of New Sujatpur – Deen Dayal Upadhyay section | 25 | | Review and Acceptance of Integrated Testing and Commissioning Report by the Engineer. |
| | | D6.2 | Final Taking - Over Certificate for the complete work | 50 | | Issue of taking over Certificate by the Engineer. |
| | | | Total | 100 | | |

Note:

- Adjustment to Contract Price pursuant to GCC 13.8 shall be NOT applicable to the payments of Works executed under this Cost Centre / Price Schedule.
- Payment will be made completion of each Payment Stage as per weightage given in this schedule.

Price Schedule D7

Apportionment of Contract Price for Payment of Cost Centre

CONTRACT SPARES

(Sub-clause 14.4, GC)

| Cost Centre | Item of Work | Sub-Cost Centre | Stage Payment (Stage to be completed to qualify for payment of Sub-Cost Centre) | Weightage (%) | Cost | Payment Procedure |
|----------------------|-----------------|-----------------|--|---------------|--|--|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| D7 [Contract Spares] | Contract Spares | D7.1 | Supply of Contract Spares along with all other associated accessories | 100 | 4 % of the Contract Price for Price Schedule D [Telecommunication Works] | On Supply of Contract Spare to the Employer as per approved list duly inspected by the Appropriate Authority and Approved by the Engineer. |
| | | | Total | 100 | | |

Note:

1. Payment will be made on completion of each Payment Stage as per weightage given in this schedule.
2. Adjustment to Contract Price pursuant to GCC 13.8 shall be applicable to the payments of Works executed under this Cost Centre / Price Schedule.

Price Schedule D8

Apportionment of Contract Price for Payment of Cost Centre

SPECIAL TOOLS & TEST EQUIPMENT

(Sub-clause 14.4, GC)

| Cost Centre | Item of Work | Sub-Cost Centre | Stage Payment (Stage to be completed to qualify for payment of Sub-Cost Centre) | Weightage (%) | Cost | Payment Procedure |
|-------------------------------------|----------------------------------|-----------------|--|---------------|--|--|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| D8 [Special Tools & Test Equipment] | Special Tools and Test Equipment | D8.1 | Supply of Special Tools and Test Equipment along with all other associated accessories, Operation and Maintenance Manual and Calibration Certificate | 100 | 4 % of the Contract Price for Price Schedule D (Telecommunication) | On Supply of Special Tools and Test Equipment to the Employer as per approved list duly inspected by the Appropriate Authority and Approved by the Engineer. |
| | | | Total | 100 | | |

Note:

1. Adjustment to Contract Price pursuant to GCC 13.8 shall be applicable to the payments of Works executed under this Cost Centre / Price Schedule.
2. Payment will be made on completion of each Payment Stage as per weightage given in this schedule.

Price Schedule D9

Apportionment of Contract Price for Payment of Cost Centre

TRAINING

(Sub-clause 14.4, GC)

| Cost Centre | Item of Work | Sub-Cost Centre | Stage Payment (Stage to be completed to qualify for payment of Sub-Cost Centre) | Weightage (%) | Cost | Payment Procedure |
|---------------|--------------|-----------------|--|------------------|--|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| D9 [Training] | Training | D9.1 | Training | 100 | 1 % of the Contract Price for Price Schedule D (Telecommunication Works). | On competition of Training as per Approved Training Plan and Submission of Training Manuals duly Reviewed and/or Approved by the Engineer. |
| | | | Total | 100 | | |

Note:

1. Payment will be made on completion of each Payment Stage as per weightage given in this schedule.
2. Adjustment to Contract Price pursuant to GCC 13.8 shall not be applicable to the payments of Works executed under this Cost Centre / Price Schedule.

Price Schedule E

Apportionment of Contract Price for Payment of Cost Centre

BUILDING AND STRUCTURE WORKS

(Sub-clause 14.4, GC)

| Price Schedule Cost Centre | No. | Cost Center | Weightage (%) | Cost |
|---|-----|---------------------------------|------------------|---|
| (1) | (2) | (4) | (5) | (6) |
| E [Building and Structure Works] | E1 | Building and Structure Works | 100 | % as in Schedule E (Building & Structure Works) of Appointment of Contract Price. |
| | | Total | 100 | |

The proportions as indicated by the Employer in the table above are not negotiable and stage payment shall be regulated accordingly as also set out in schedules E-1. Refer Sub-Clause 14.4 – Particular Conditions of Contract for further details.

Price Schedule E1

Apportionment of Contract Price for Payment of Cost Centre

BUILDING AND STRUCTURE WORKS

(Sub-clause 14.4, GC)

| Cost Centre | Item of work | Sub-Cost Centre | Stage Payment (Stage to be completed to qualify for Payment of Sub- Cost Centre) | Weightage (%) | Cost | Payment Procedure |
|-------------------------------------|--------------------------------|-----------------|--|---------------|---|--|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| E1 [Buildings and Structures Works] | Buildings and Structures works | E1.1 | On completion of Foundation upto plinth level as per the Employer's Requirement. | 25% | 100% of the contract price for Price Schedule E [the payment will be made proportionally for total number of buildings and structural] | Acceptance of the civil works by the Engineer |
| | | E1.2 | On completion of brick work up to roof level including fixing of door and window frames as per the Employer's Requirement. | 20% | | Acceptance of the civil works by the Engineer |
| | | E1.3 | On completion of roof casting, plastering, fixing door / window shutters, Painting door window shutters works in the buildings, electrical conducting works and final finishing with all works complete as per the Employer's Requirement. | 40% | | Acceptance of the civil works by the Engineer |
| | | E1.4 | On completion of Boundary wall, circulating area, stairs, roads, drainage, water supply works outside the buildings, street lighting, if any. | 15% | | Issue of completion certificate for the Buildings and Structures by the Engineer |

Note:

- Adjustment to Contract Price pursuant to GCC 13.8 shall be applicable to the payments of Works executed under this Cost Centre / Price Schedule.
- Payment will be made on Pro-rata completion of each Payment Stage as per weightage given in this schedule subject to approval to this effect by the engineer.
- Status of Auto Location Hut (ALH) & Relay Hut (RH) already executed in the section is given below, however status of work are tentative. Exact ALH & RH work has to be assessed by the contractor himself. Any modification/alteration/addition, if required has to be done by contractor.
- The above work is executed at various locations in the entire section.
- Contractor has to complete the balance activities to achieve the concerned sub-cost center of the above executed works at his own cost.
- This includes supply of required materials for which no extra claim will be given.

Auto Location Huts (ALHs) to be constructed by contractor

| S.No. | ALH No. | Chainage | Tentative Status of ALH |
|-------|---------|----------|-------------------------|
| 1 | 201 | 129.080 | Column Below Plinth |
| 2 | 202 | 133.680 | Excavation |
| 3 | 203 | 142.752 | Slab completed |
| 4 | 204 | 148.281 | Slab completed |
| 5 | 205 | 153.490 | Plaster work completed |
| 6 | 206 | 158.160 | Plaster work completed |
| 7 | 207 | 167.820 | Brick work completed |
| 8 | 208 | 173.700 | Brick work completed |
| 9 | 209 | 177.620 | Tie beam completed |
| 10 | 210 | 183.640 | PCC completed |
| 11 | 211 | 189.403 | Slab completed |
| 12 | 212 | 197.785 | Column Below Plinth |
| 13 | 213 | 202.040 | Brick work completed |
| 14 | 214 | 207.964 | Slab completed |
| 15 | 215 | 213.700 | Brick work completed |
| 16 | 216 | 219.400 | Slab completed |
| 17 | 217 | 224.900 | Slab completed |
| 18 | 218 | 229.900 | Slab completed |
| 19 | 219 | 240.400 | Slab completed |
| 20 | 220 | 243.976 | Slab completed |
| 21 | 221 | 248.960 | Slab completed |
| 22 | 222 | 254.504 | Slab completed |
| 23 | 223 | 259.542 | Slab completed |
| 24 | 224 | 265.700 | Slab completed |
| 25 | 225 | 275.060 | Column Below Plinth |
| 26 | 226 | 280.991 | Column Below Plinth |
| 27 | 227 | 287.038 | Column Below Plinth |
| 28 | 228 | 292.558 | Plinth Beam completed |
| 29 | 229 | 301.180 | Column Below Plinth |
| 30 | 230 | 306.500 | Foundation completed |
| 31 | 231 | 312.640 | Plinth Beam completed |
| 32 | 232 | 318.600 | Column Below Plinth |
| 33 | 233 | 324.644 | Column Below Plinth |
| 34 | 234 | 329.200 | Slab completed |
| 35 | 255 | 465.469 | Column Below Plinth |
| 36 | 256 | 471.340 | Column Below Plinth |
| 37 | 257 | 474.957 | Slab completed |
| 38 | 258 | 480.653 | Brick work completed |
| 39 | 259 | 491.500 | NIL |
| 40 | 260 | 497.760 | Column Below Plinth |
| 41 | 261 | 502.100 | Excavation |
| 42 | 262 | 506.400 | NIL |

Relay Huts (RHs) to be constructed by contractor

| S.No. | Station Name | Chainage | RH No. | Tentative Status |
|-------|--------------|---------------|---------------|--------------------------|
| 1 | New BZM | 484.440 | RH-01 | NIL |
| | | 486.940 | RH-02 | NIL |
| 2 | New MRE | 294.980 | RH-01 | NIL |
| | | 332.300 | RH-02 | Column below Plinth beam |
| 3 | New KCN | 267.480 | RH-01 | NIL |
| | | 269.740 | RH-02 | NIL |
| 4 | New UND | 233.720 | RH-01 | Column below Plinth beam |
| | | 235.840 | RH-02 | Layout & Marking |
| 5 | New MZP | 191.700 | RH-01 | Layout & Marking |
| | | 193.680 | RH-02 | NIL |
| 6 | New DAP | 161.500 | RH-01 | Column below Plinth beam |
| | | 163.440 | RH-02 | Slab |
| 7 | New ARW | 138.200 | RH-01 | NIL |
| | | 140.480 | RH-02 | NIL |
| 8 | DDU | To be decided | To be decided | NIL |

List of ALH and RH to be handed over by DFCCIL to Bidder

1. Auto location huts (ALHs)

The present status is given below. However, civil work of these ALHs will be completed by Employer and handed over to successful contractor.

| S. No. | ALH No. | Chainage | Status of ALH |
|--------|---------|----------|-----------------------|
| 1 | 235 | 336.240 | Plinth beam completed |
| 2 | 236 | 342.244 | Plinth beam completed |
| 3 | 237 | 348.740 | PCC Completed |
| 4 | 238 | 354.540 | Slab completed |
| 5 | 239 | 360.586 | Column upto Slab |
| 6 | 240 | 366.934 | Plinth beam completed |
| 7 | 241 | 372.650 | Foundation Completed |
| 8 | 242 | 383.350 | Foundation Completed |
| 9 | 243 | 389.500 | Slab completed |
| 10 | 244 | 395.050 | Tie beam Completed |
| 11 | 245 | 400.757 | Slab completed |
| 12 | 246 | 406.590 | Slab completed |
| 13 | 247 | 412.250 | Foundation Completed |
| 14 | 248 | 417.700 | Foundation Completed |
| 15 | 249 | 427.259 | Slab completed |
| 16 | 250 | 432.905 | Layout and Marking |
| 17 | 251 | 437.035 | Foundation Completed |
| 18 | 252 | 442.999 | Slab completed |
| 19 | 253 | 448.942 | Slab completed |
| 20 | 254 | 454.917 | Plinth beam completed |

2. Relay Huts (RHs)

The present status is given below. However, civil work of these RHs will be completed by Employer and handed over to successful contractor.

| S. No. | Station Name | Chainage | RH No. | Status |
|--------|--------------|----------|--------|--------------------------|
| 1 | New SJT | 332.530 | RH-01 | Column below Plinth beam |
| | | 334.540 | RH-02 | Column below Plinth beam |
| 2 | New RUB | 377.240 | RH-01 | Column below Plinth beam |
| | | 379.230 | RH-02 | - |
| 3 | New MHW | 421.630 | RH-01 | Column below Plinth beam |
| | | 423.640 | RH-02 | Column below Plinth beam |
| 4 | New CNB | 459.500 | RH-01 | Column below Plinth beam |
| | | 461.300 | RH-02 | Column below Plinth beam |