

Price Schedule 2.1 (Rev. 1)
Apportionment of Contract Price for
SIGNALLING WORKS

(Sub-clause 14.4, GC)

Price Schedule	No.	Cost Centre	Weightage (%)	Cost
(1)	(2)	(3)	(4)	(5)
2.1 [Signalling Works]	2.1.1	Design and Documentation	5	% as in Cost Centre 2.1 of Apportionment of Contract Price.
	2.1.2	Signalling Works at 7 Crossing stations	10	
	2.1.3	Signalling Works at 5 Junction Stations	16	
	2.1.4	Signalling Works in Automatic Block Sections	46	
	2.1.5	Train Management System (TMS) and Service & Diagnostic System (S&D)	10	
	2.1.6	Supply of Contract Spares and Special Tools & Test Equipment	8	
	2.1.7	Integrated Testing & Commissioning and Final Taking-Over	4	
	2.1.8	Training	1	
			Total	

Price Schedule 2.1.1 (Rev. 1)

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)
2.1.1 [Design and Documentation]	Design and Documentation	2.1.1.1	Submission of Management Plans	5	5 % of the Contract Price for Price Schedule 2.1 [Signalling Works]	After Review /Approval with or without comments by the Engineer
		2.1.1.2	Submission of Safety Assurance Plans and Documents	10		
		2.1.1.3	Submission of Preliminary Designs & Documents	15		
		2.1.1.4	Submission of Detailed Designs & Documents	30		
		2.1.1.5	Submission of Construction /Installation Designs & Documents	10		
		2.1.1.6	Submission of As Built Documents	20		
		2.1.1.7	Submission of O & M Manuals	10		
			TOTAL		100%	

Note:

1. 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.
2. Payment will be made on Prorata completion of each Payment Stage as per weightage given in this schedule.

Price Schedule 2.1.2 (Rev. 1)

Apportionment of Contract Price for Payment of Cost Centre SIGNALLING WORKS AT 7 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)	
2.1.2 [Signalling Works At 7 Crossing Stations]	Supply of material	2.1.2.1	Supply of Signalling Cable, Power cable and Quad Cable	20	10 % of the Contract Price for Price Schedule 2.1 [Signalling Works] For One Crossing Station, the Apportioned price is 10% / 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	
		2.1.2.2	Supply of EI hardware equipment along with associated System software and accessories	14			
		2.1.2.3	Supply of power supply equipment and batteries along with associated accessories	2			
		2.1.2.4	Supply of Track Vacancy detection hardware equipment along with associated System software and accessories	21			
		2.1.2.5	Supply of Signals and Point machines along with associated accessories	5			
		2.1.2.6	Supply of balance indoor equipment	2			
		2.1.2.7	Supply of balance outdoor equipment	2			
	Installation	2.1.2.8	Laying, Termination & Testing of outdoor cables	7			Review and Acceptance of Installation test report by the
	2.1.2.9	Installation of all indoor equipment	7				

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)
		2.1.2.10	Installation of all outdoor equipment	5		Engineer
		2.1.2.11	Supply and installation of Earthing, Surge and Lightning Protection equipment for complete works	5		Review and Acceptance of Installation Test Report by the Engineer
	Any other item	2.1.2.12	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.
	System Acceptance Test	2.1.2.13	Supply and installation of Application software and System Acceptance Test	9		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 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.
4. Item 2.1.2.12 will be deemed to have been executed after successful Integrated testing and commissioning.

Price Schedule 2.1.3 (Rev. 1)

Apportionment of Contract Price for Payment of Cost Centre SIGNALLING WORKS AT 5 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)
2.1.3 [Signalling Works at 5 Junction Stations]	Supply of material	2.1.3.1	Supply of Signalling cable, Power cable and Quad Cable	20	16 % of the Contract Price for Price Schedule 2.1 [Signalling Works] Apportionment price for 5 Junction stations will be as under: a) Mughalsarai: 30% of 16% b) Karchana: 22% of 16% c) Others: 16 % of 16% each	On supply of material at site as per approved quantity duly inspected by the appropriate authority and verified by the Engineer
		2.1.3.2	Supply of EI hardware equipment along with associated System software and accessories	14		
		2.1.3.3	Supply of power supply equipment and batteries along with associated accessories	2		
		2.1.3.4	Supply of Track Vacancy Detection hardware equipment along with associated System software and accessories	20		
		2.1.3.5	Supply of Signals and Point Machines along with associated accessories	5		
		2.1.3.6	Supply of equipment for Block Proving by Axle Counter for Single line sections	1		
		2.1.3.7	Supply of balance indoor equipment	2		
		2.1.3.8	Supply of balance outdoor equipment	2		

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)
	Installation	2.1.3.9	Laying, Termination & Testing of outdoor cables	7		Review and Acceptance of Installation test report by the Engineer
		2.1.3.10	Installation of all indoor equipment	7		
		2.1.3.11	Installation of all outdoor equipment	5		
	Installation	2.1.3.12	Supply and Installation of Earthing, Surge and Lightning Protection equipment for complete works	5		Review and Acceptance of Installation Test Report by the Engineer
	Any other item	2.1.3.13	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.
	System Acceptance Test	2.1.3.14	Supply and installation of Application software and System Acceptance Test	9		Review and Acceptance of System Acceptance Test Report by the Engineer.
			TOTAL	100 %		

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 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.
4. Item 2.1.3.13 will be deemed to have been executed after successful Integrated testing and commissioning.

Price Schedule 2.1.4 (Rev. 1)

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)
2.1.4 [Signalling Works in Automatic Block Sections]	Supply of material	2.1.4.1	Supply of Signalling cable, Power cable and Quad Cable	27	46 % of the Contract Price for Price Schedule 2.1 [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
		2.1.4.2	Supply of EI hardware equipment along with associated System software and accessories	10		
		2.1.4.3	Supply of power supply equipment and batteries along with associated accessories	2		
		2.1.4.4	Supply of Track Vacancy detection hardware equipment along with associated System software and accessories	20		
		2.1.4.5	Supply of signals along with associated accessories	1		
		2.1.4.6	Supply of Electric Lifting Barriers & Sliding Boom along with associated accessories.	1		
		2.1.4.7	Supply of balance indoor equipment	2		
		2.1.4.8	Supply of balance outdoor equipment	2		
	Installation	2.1.4.9	Laying, Termination & Testing of outdoor cables	8		
		2.1.4.10	Installation of all indoor equipment	7		
		2.1.4.11	Installation of all outdoor	5		

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)
			equipment			
		2.1.4.12	Supply and installation of Earthing, Surge and Lightning Protection equipment for complete works	5		Review and Acceptance of Installation Test Report by the Engineer
	Any other item	2.1.4.13	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.
	System acceptance test	2.1.4.14	Supply and installation of Application software and System Acceptance Test	9		Review and Acceptance of System Acceptance Test Report by the Engineer.
			TOTAL	100%		

Note:

1. Payment will be made on Prorata 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 2.1.4.13 will be deemed to have been executed after successful Integrated testing and commissioning.

Price Schedule 2.1.5 (Rev. 1)

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)
2.1.5 [Train Management System (TMS) and Service and Diagnostics System (S&D)]	Supply of material	2.1.5.1	Supply of TMS hardware equipment along with associated Cables, associated software & accessories for OCC	3	10 % of the Contract Price for Price Schedule 2.1 [Signalling Works]	On supply of material at site as per approved quantity duly inspected by the appropriate authority and verified by the Engineer
		2.1.5.2	Supply of TMS hardware equipment along with associated Cables, associated software & accessories for locations other than OCC.	15		
		2.1.5.3	Supply of power supply equipment and batteries along with associated accessories for OCC.	2		
		2.1.5.4	Supply of video wall display system along with associated accessories for TMS and SCADA at OCC	21		
		2.1.5.5	Supply of Service and Diagnostic System hardware equipment along with associated Cables and accessories for OCC –Server, Switches, CMU, FEP, Monitors etc.	1		
		2.1.5.6	Supply of Service and Diagnostic System hardware	21		

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)
			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.			
		2.1.5.7	Supply of balance equipment for TMS	1		
		2.1.5.8	Supply of balance equipment for S&D System	1		
	Installation	2.1.5.9	Installation of all TMS equipment including Video Wall Display System at OCC	6		Review and Acceptance of Installation Test Report by the Engineer
		2.1.5.10	Installation of all TMS equipment at locations other than OCC	3		
		2.1.5.11	Installation of all equipment for S&D system at OCC	3		
		2.1.5.12	Installation of all equipment for S&D system at stations and Auto Location Huts	6		
		2.1.5.13	Supply and installation of Earthing, Surge and Lightning Protection equipment for complete works.	3		
	Any other item	2.1.5.14	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.

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)
	System Acceptance Test	2.1.5.15	Supply and installation of software and System Acceptance Test for TMS	7		Review and Acceptance of System Acceptance Test Report by the Engineer
		2.1.5.16	Supply and installation of software and System Acceptance Test for S&D system	6		
			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 2.1.5.14 will be deemed to have been executed after successful Integrated testing and commissioning.

Price Schedule 2.1.6 (Rev. 1)

Apportionment of Contract Price for Payment of Cost Centre

SUPPLY OF CONTRACT SPARES AND 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)
2.1.6 [Supply of Contract Spares and Special Tools & Test equipment]	Contract Spares	2.1.6.1	Supply of Contract Spares for;		8 % of the Contract Price for Price Schedule 2.1 [Signalling Works]	On Supply of 'Contract Spares, Special Tools & Test Equipment to the Employer as per approved list duly inspected by the appropriate authority and approved by the Engineer
		(a)	Cables and Wires-All types	15		
		(b)	Electronic Interlocking-Cards, Modules complete with interconnecting cables & connectors, Control Terminal and all other associated accessories	15		
		(c)	Power Supply-Cards, Modules, Equipment complete with interconnecting cables & connectors and all other associated accessories	5		
		(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	25		
		(e)	Signals and Point Machines	5		

		(f)	TMS and S&D system	10		
		(g)	Balance items/ equipment/material	5		
	Special Tools & Test equipment	2.1.6.2	Supply of Special Tools & Test equipment	20		
			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.