

C.2.2.1 : INDEX TO BILL OF QUANTITIES**SECTION 1 Rick Turner Structural Steel Bridge**

PART AA	PRELIMINARIES
PART AB	GENERAL SPECIFICATIONS
PART AH	OCCUPATIONAL HEALTH and SAFETY
PART B	SITE CLEARANCE
PART F	PROTECTION WORKS
PART L	STRUCTURAL WORK

SECTION 2 Samora Machel Cable Stayed Bridge

PART C	CONCRETE WORK
PART F	PROTECTION WORKS
PART L	STRUCTURAL WORK

SECTION 3 Miscellaneous Items

PART B	SITE CLEARANCE
PART F	PROTECTION WORKS

STRUCTURAL MAINTANANCE OF STEEL BRIDGES WITHIN ETHEKWINI MUNICIPALITY BOUNDARIES**C.2.2.2 : BILL OF QUANTITIES****SECTION 1 Rick Turner Structural Steel Bridge****PART AA PRELIMINARIES**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	GCC 2015	GENERAL CONDITIONS OF CONTRACT (GCC 2015) READ IN CONJUNCTION WITH THE CONTRACT DATA	sum	1		
		Fixed Charge obligations				
2	GCC 2015	Time Related obligations	sum	1		
3	SANS 1921-1	SANS 1921-1 : GENERAL ENGINEERING AND CONSTRUCTION WORKS READ IN CONJUNCTION WITH THE ASSOCIATED SPECIFICATION DATA IN THE SCOPE OF WORKS	sum	1		
		Fixed Charge Items				
4	SANS 1921-1	Time Related Items	sum	1		
5	C1.2.3.1	COMMUNITY LIAISON OFFICER	PC Sum	50000	1.00	50 000.00
		Allow for a CLO to be appointed.				
6	C1.2.3.1	Handling fee on above item	%	50000		
7	C1.2.3.1	LOCAL LABOUR	sum	1		
		Allow for the weekly submission of proof of employment of local labour				
8		Contractor fixed obligations	sum	1		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

R**PART AB GENERAL SPECIFICATIONS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PS 19	a) Design, Supply, erect and maintain access structures and work platforms inclusive of dismantling, moving and re-erecting at various locations on the structure as required as this includes general access and screens under sidewalks	sum	1		
2		b) Dismantle and remove access structures and all work platforms from site at end of work	sum	1		
3		c) Access at the end of maintenance period at bridge structures for Engineer's inspection	sum	1		
4	AB.4	Contractor's Camp Site / Store Yard	sum	1		
5		Insurance of works	sum	1		

Part Continued on next page

STRUCTURAL MAINTANANCE OF STEEL BRIDGES WITHIN ETHEKWINI MUNICIPALITY BOUNDARIES

Part Continued **PART AB GENERAL SPECIFICATIONS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
6		Sureties	sum	1		
7	AB.6	Allow for Cost of Samples and Site Control Testing required by the Engineer (Provisional Sum)	sum	1		
8	AB.7	Initial supply of all signs, barricades and delineators	sum	1		
9	PS 1.3	Accommodation of traffic on M4 Southern Freeway under the bridge - High Traffic Volume	sum	1		
10	PS 1.3	Accommodation of traffic along Rick Turner road and Samora Machel road - Medium Traffic Volume	sum	1		
11	AB.7	Maintenance of Pedestrian and Traffic Control Facilities including on and under the bridge and rail traffic under the bridge	sum	1		
12	AB.7	Maintenance of all signs, barricades and delineators including relocation of traffic control facilities	sum	1		
13	PS 11	Provision of Site Security for the duration of the project	sum	1		
14		Provision of Toilet Facilities for the duration of the project	sum	1		
15	PS 1.3	Employment of Traffic Safety Officer on full time basis	sum	1		
16		Supplementary Traffic Control Facilities	sum	1		
17		Temporary Access for Bridge Maintenance and this to provide access working platforms above and below bridge structures :-	sum	1		
18		Work on, Over, Under or adjcent to railway lines and near high voltage equipment	sum	1		
19		Allow for Progress Photographs (Provisional Sum)	sum	1		
20		Allow for the following Additional Items which the tenderer requires to be priced separately :-	sum	1		
21		a)	sum	1		
22		b)	sum	1		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

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STRUCTURAL MAINTANANCE OF STEEL BRIDGES WITHIN ETHEKWINI MUNICIPALITY BOUNDARIES**PART AH OCCUPATIONAL HEALTH and SAFETY**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	AH.14.1	Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations	sum	1		
2	AH.14.2	Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations	sum	1		
3	AH.14.3	Submission of the Health and Safety File	sum	1		
4		Review of Contractor's Health and Safety documentation and weekly audit of Health and Safety Precautions on site by Professional Safety Consultants	sum	1		
5	PS 10.4	Employment of Professional Health and Safety Consultant on part time basis for the duration of the project	sum	1		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

R

PART B SITE CLEARANCE

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	B.8.2	General clearance and grubbing in road reserve to spoil	m3	20		
2	B.8.2	General clearance and grubbing in contractor's camp site	m2	400		
3	B.8.7	Removal of damaged structural steel items from existing bridge structure	t	1		
4	B.8.8	Handling the stockpile of grit blasting material and disposal	sum	1		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

R

PART F PROTECTION WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	F.8.7	Grade 25/19 concrete to fence poles footing	m3	15		
2	PS.20	Supply and install 2.1m high Clearview smart panel fence with 2.6m high 76mm square poles or similar approved.	m	100		
3	PS 2.4 and PS 18	Protection of existing service ducts at the bridge deck soffit whilst work in progress including the insulators supporting the OHTE wires under railway lines.	sum	1		
4	PS 16	Remove and replace of damaged existing service ducts to match existing specification. i.e Class 34 heavy duty uPvc service ducts (SABS approved only).	m	200		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

R

STRUCTURAL MAINTANANCE OF STEEL BRIDGES WITHIN ETHEKWINI MUNICIPALITY BOUNDARIES**PART L STRUCTURAL WORK**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1		Supply and Install new galvanised 50mm diameter of tubular steel handrailing system on sidewalk to match existing.Rate to includes supply of galvanised brackets and bolts.	m	150		
2		Supply and Install of new galvanised 5mm thick floor steel plates to suit existing.Rate to includes supply of galvanised bolting sytem to suit exist pre-drilled holes.	m2	70		
3	PS 13.12	Roof structural steel bridge members: Abrasive blast cleaning to clean steel, SA 2.5 and Painting as per specified paint Sytem-1. i.e all tranverse beams, sections and gusset plates etc.	m2	2000		
4	PPS 13.12	Vertical structural steel bridge members: Abrasive blast cleaning to clean steel, SA 2.5 and Painting as per specified paint Sytem-1 on all girders, sections,gusset plates etc.	m2	1500		
5	PS 13.12	Vertical structural steel bridge members on sidewalk parapets: Abrasive blast cleaning to clean steel, SA 2.5 and Painting as per specified paint Sytem-1 on girders, sections,steel floor plates etc.	m2	2000		
6	PS 13.12	Bridge Deck soffit structural steel members over Southern/M4 freeway and Railway line: Abrasive blast cleaning to clean steel, SA 2.5 and Painting as per specified paint Sytem-1 on all girders, steel sections, rib plates etc.	m2	9200		
7	PS 13.12	Steel pipes:Abrasive blast cleaning to clean steel, SA 2.5 and Painting as per specified paint Sytem-1	m2	500		
8	PS 13.11	Structural steel repairs:- Remove and replace of all damaged structural steel members at the bridge soffit to match existing over M4 Freeway. i.e steel plates & bolts. Rate to includes supply and installation of galvanized steel member and painting.	t	1		
9	PS 13.12	Floor structural steel plates on a sidewalk: Abrasive blast cleaning to clean steel, SA 2.5 and Painting as per specified paint Sytem-1 (Rate to includes removal and replacing on its original position)	m2	1500		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES**R**

STRUCTURAL MAINTANANCE OF STEEL BRIDGES WITHIN ETHEKWINI MUNICIPALITY BOUNDARIES**SECTION 2 Samora Machel Cable Stayed Bridge****PART C CONCRETE WORK**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1		Repairs on broken concrete using 25/19 Mpa. Rates includes all preparations, supply and placing.	m3	5		
2		Supply and placing of stabilised G7 materials on Cable stayed bridge abutment	m3	5		
3		Repairs on existing brick paved sidewalk using clay bricks to match existing	m2	10		
4		Repairs on existing concrete abutment with non-shrink mortar grout such as Pro-struct 528/529 or similar approved according to Engineer's/ Manufactures specification	m2	50		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

R

PART F PROTECTION WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	F.8.1	Topsoiling from stockpile: thickness 100 mm	m2	30		
2	F.8.3	Grass planting and sodding	m2	30		
3	F.8.7	Grade 25/19 concrete to fence poles footing	m3	15		
4	PS.20	Supply and install 2.1m high Clearview smart panel fence with 2.6m high 76mm square poles or similar approved.	m	100		
5	PS.20	Supply and install Standard clearview smart panel pedestrian gate or similar approved (Dimensions : 1.5m wide X 2m high)	no.	2		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

R

PART L STRUCTURAL WORK

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PS 13	Steel handrailing sysytem: Abrasive blast cleaning to clean steel, SA 2.5 and Painting as per specified paint Sytem-1 and Painting as per specified paint Sytem-1. Paint colour as per existing structure	m2	200		
2	PS 13	Structural steel pier members: Abrasive blast cleaning to clean steel, SA 2.5 and Painting as per specified paint Sytem-1. Paint colour as per existing structure	m2	40		

Part Continued on next page

STRUCTURAL MAINTANANCE OF STEEL BRIDGES WITHIN ETHEKWINI MUNICIPALITY BOUNDARIES
Part Continued PART L STRUCTURAL WORK

Item	Clause	Description	Unit	Quantity	Rate	Amount
3	PS 13	Structural steel bridge deck soffit members: Abrasive blast cleaning to clean steel, SA 2.5 and Painting as per specified paint Sytem-1. Paint colour as per existing structure	m2	300		
4	PS 13	Cable stayed bridge Tower: Abrasive blast cleaning to clean steel, SA 2.5 and Painting as per specified paint Sytem-1. Paint colour as per existing structure	m2	60		
5		Treatment of all cable strands on Pedestrian Cable Stayed bridge Tower by means of abrasive cleaning and apply a suitable linseed oil for structural steel maintenance	m	120		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES
R

STRUCTURAL MAINTANANCE OF STEEL BRIDGES WITHIN ETHEKWINI MUNICIPALITY BOUNDARIES**SECTION 3 Miscellaneous Items****PART B SITE CLEARANCE**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	B.8.5	Removal of 1.8 m high steel palisade fence and spoil at tip Rate to include all haulage	m	60		
2		Excavations for Gabion wall installation and remove unsuitable material to spoil. (Rate to includes all haulages)	m3	10		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

R**PART F PROTECTION WORKS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PS 17	Supply and Installation of Gabion boxes : 1000 mm depth	m3	50		
2	PS 17	Supply and Installation of geofabric (Bidim U49 or similar approved)	m2	250		
3		Backfilling using imported G7 materials to 95% MODAASHTO (Rate to includes all haulages and royalties)	m3	5		
4		Backfilling using materials from stockpile to 93% MODAASHTO.	m3	5		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

R

STRUCTURAL MAINTANANCE OF STEEL BRIDGES WITHIN ETHEKWINI MUNICIPALITY BOUNDARIES**C.2.2.3 : SUMMARY OF BILL OF QUANTITIES****Section**

1	Rick Turner Structural Steel Bridge		R	_____
AA	PRELIMINARIES	R	_____	
AB	GENERAL SPECIFICATIONS	R	_____	
AH	OCCUPATIONAL HEALTH and SAFETY	R	_____	
B	SITE CLEARANCE	R	_____	
F	PROTECTION WORKS	R	_____	
L	STRUCTURAL WORK	R	_____	
2	Samora Machel Cable Stayed Bridge		R	_____
C	CONCRETE WORK	R	_____	
F	PROTECTION WORKS	R	_____	
L	STRUCTURAL WORK	R	_____	
3	Miscellaneous Items		R	_____
B	SITE CLEARANCE	R	_____	
F	PROTECTION WORKS	R	_____	
SUB TOTAL				R _____
ADD VAT (15%) - (only if a registered VAT Vendor)				R _____
TOTAL CARRIED TO FORM OF OFFER AND ACCEPTANCE (C.1.1)				R _____

NOTE: The Awarded Contractor would need to register with SARS for VAT