

REPAIR OF ROAD FAILURE ON THE R711 BETWEEN CLARENS AND FOURIESBURG

2025/26 Financial year

Bill of Quantities

SECTION C1.2

Item	Description	Unit	Quantity	Rate	Amount (Rand)
<b>C1.2</b>	<b>GENERAL REQUIREMENTS AND PROVISIONS</b>				
C1.2.4	Stakeholder liaison	month	8		
C1.2.5	Safety:				
C1.2.5.1	Health and safety plan	Lump sum	1		
C1.2.5.2	Implementation of health and safety plan	month	8		
C1.2.8	Dayworks:				
C1.2.8.1	Personnel:				
	(a) Unskilled labourer	h	20		
	(b) Semi-skilled labourer	h	20		
	(c) Skilled labourer	h	20		
	(d) Gang leader	h	20		
	(e) Foreman	h	20		
	(f) Skilled Artisan	h	20		
C1.2.8.2	Construction equipment (specify size and / or model number):				
	(a) Motor grader	h	20		
	(b) Vibratory roller	h	20		
	(c) Pneumatic roller	h	20		
	(d) Front end loader	h	20		
	(e) Tractor loader backhoe	h	20		
	(f) Excavator	h	20		
	(g) Compressor	h	20		
	(h) Other equipment (specify)	h	20		
C1.2.8.3	Vehicles (specify size):				
	(a) Light delivery vehicle	km	200		
	(b) Flatbed truck	km	200		
	(c) Dump truck	km	200		
	(d) Other vehicles	km	200		
BC1.2.10	Protection, Removal, Realignment and Replacement of services				
	(a) Utility Services	Prov sum	1	20 000,00	20 000,00
	(b) Contractors Handling cost and profit in respect of sub-item BC1.2.10(a)	%	20 000		
BC1.2.11	(i) Laboratory Tests for Engineer's Quality assurance/ acceptance Control	Prov sum	1	1 000 000,00	1 000 000,00
	(ii) Contractor's handling cost and profit in respect of Sub-item BC1.2.11(i)	%	1 000 000		
Total Carried Forward					

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SECTION C1.2

Item	Description	Unit	Quantity	Rate	Amount (Rand)
Brought Forward					
BC 1.2.12	(i) Site Surveyor for Engineer's quality assurance/ acceptance control	Prov sum	1	500 000,00	500 000,00
	(ii) Contractor's handling cost and profit in respect of Sub-item BC1.2.12(i)	%	500 000		
BC 1.2.13	(i) Occupational Health and Safety Agent for Engineer's quality assurance/acceptance control	Prov sum	1	350 000,00	350 000,00
	(ii) Contractor's handling cost and profit in respect of sub-item BC1.2.13(i)	%	350 000		0,00
BC1.2.14	(i) Enviromental Compliance agent for Engineer's quality assurance/ acceptance control	Prov sum	1	350 000,00	350 000,00
	(ii) Contractor's handling cost and profit in respect to sub-item BC1.2.14(i)	%	350 000		
BC 1.2.15	(i) Engineer's design and supervision cost	Prov sum	1	3 000 000,00	3 000 000,00
	(ii) Contractors handling cost and profit in respect to sub item BC1.2.15(i)	%	3 000 000		
BC 1.2.16	(i) Portion of works identified to be completed by local subcontractors inline with project specifications	Prov sum	1	5 156 102,00	5 156 102,00
	(ii) Contractors handling cost and profit in respect to sub item BC1.2.16(i)	%	5 156 102		
Total Carried Forward To Summary					



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REPAIR OF ROAD FAILURE ON THE R711 BETWEEN CLARENS AND FOURIESBURG

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SECTION C1.4

Item	Description	Unit	Quantity	Rate	Amount (Rand)
<b>C1.4</b>	<b>FACILITY FOR THE ENGINEER</b>				
C1.4.1.1	Offices and conference room	m²	170		
C1.4.1.2	Laboratories	m²	160		
C1.4.1.3	Open concrete working floors and verandas	m²	240		
C1.4.1.4	Roofs over open concrete working floors and verandas	m²	240		
C1.4.1.6	Car ports	(No.)	2		
C1.4.1.7	Ablution unit	(No.)	1		
C1.4.1.13	Rented housing paid for by the Contractor	PC sum	1	50 000,00	50 000,00
C1.4.1.14	Contractor's handling costs, profit and all other charges in respect of item C1.4.1.13	(%)	50 000		
C1.4.2.8	Notice boards	(m2)	1		
C1.4.2.9	White boards	m²	1		
C1.4.3.1	Items measured by number Office swivel chair	(No.)	1		
Total Carried Forward					

Item	Description	Unit	Quantity	Rate	Amount (Rand)
Brought Forward					
C1.4.3.2	Office chair	(No.)	5		
C1.4.3.4	Laboratory high chair	(No.)	1		
C1.4.3.5	Office desk with 3 drawers (at least one lockable drawer)	(No.)	1		
C1.4.3.6	Typist desk (L-shaped)	(No.)	1		
C1.4.3.8	Conference table	(No.)	1		
C1.4.3.9	Bookcase	(No.)	1		
C1.4.3.10	Filing cabinet	(No.)	1		
C1.4.3.11	General purpose steel cabinet with shelves	(No.)	1		
C1.4.3.13	220/250 volt power outlet plug point	(No.)	2		
C1.4.3.14	400/231 volt 3-phase power outlet plug point	(No.)	2		
C1.4.3.15	Single 1500m, 58 watt fluorescent tube ceiling light	(No.)	2		
C1.4.3.16	Single 1500mm, 22 watt LED tube ceiling light	(No.)	2		
C1.4.3.17	11 watt compact fluorescent bulb ceiling light	(No.)	2		
C1.4.3.18	7 watt LED bulb ceiling light	(No.)	2		
C1.4.3.19	Wash-hand basin	(No.)	2		
C1.4.3.20	Laboratory basin	(No.)	2		
C1.4.3.21	Extractor fan	(No.)	2		
C1.4.3.23	Fire extinguisher 9,0 kg, dry powder type	(No.)	2		
C1.4.3.24	Air-conditioning unit	No	1		
Total Carried Forward					



Item	Description	Unit	Quantity		Amount (Rand)
Brought Forward					
C1.4.3.26	Concrete specimen curing bath	(No.)	1		
C1.4.3.27	Waste paper basket	(No.)	2		
C1.4.3.28	UPS / Voltage stabiliser	(No.)	2		
C1.4.3.29	A3 / A4 colour printer, copier, scanner	(No.)	1		
C1.4.3.30	A4 colour printer, copier, scanner	(No.)	1		
C1.4.3.31	Rain gauge	(No.)	1		
C1.4.3.32	Minimum/maximum atmospheric temperature gauge	(No.)	1		
C1.4.3.33	Digital thermometer	(No.)	2		
C1.4.3.35	3,0m aluminium straight edge complete with two measuring	(No.)	1		
C1.4.3.36	Measuring wheel	(No.)	1		
C1.4.3.37	First aid kit	(No.)	1		
C1.4.3.38	Standpipe complete with 30m of 19mm dia. heavy duty hose pipe	(No.)	1		
C1.4.4	Prime cost items:				
C1.4.4.1	Cell phones costs, including pro-rata rentals, for calls made in	PC sum	1	25 000,00	25 000,00
C1.4.4.2	Handling costs and profit in respect of item C1.4.4.1	%	25 000	0,00	
C1.4.4.5	The provision of internet connectivity and WiFi data for Engineer's site staff	PC sum	1	40 000,00	40 000,00
C1.4.4.6	Handling costs and profit in respect of item C1.4.4.5	%	40 000	0,00	
C1.4.4.7	The provision of paper and ink for a combination colour printer/copier/scanner	PC sum	1	20 000,00	20 000,00
C1.4.4.8	Handling costs and profit in respect of item C1.4.4.7	%	30 000	0,00	
Total Carried Forward					

Item	Description	Unit	Quantity	Rate	Amount (Rand)
Brought Forward					0,00
C1.4.5	Services at site offices, laboratories and site accommodation				
C1.4.5.1	Fixed costs	Lump sum	1		
C1.4.5.2	Running costs	month	8		
C1.4.8.1	Supply and installation of all required security measures at the Engineers site office and laboratories	Lump sum	1		
C1.4.8.2	Provision of security guards/watchmen and an armed response services at the Engineers site offices and laboratories	month	8		
Total Carried Forward to summary					

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Bill of Quantities

SECTION C1.5

Item	Description	Unit	Quantity	Rate	Amount (Rand)
<b>C1.5</b>	<b>ACCOMMODATION OF TRAFFIC</b>				
C1.5.2	Accommodation of vehicular traffic	month	8		
C1.5.4	Construction of temporary deviations	m²	48 000		
C1.5.5	Maintenance of temporary deviations:				
C1.5.5.9	Grading of temporary deviations and existing roads used as detours	km	200		
C1.5.5.10	Watering of temporary deviations and existing roads used as detours	kl	50 000		
C1.5.5.11	Other road maintenance work ordered by the Engineer	Prov sum	1	500 000,00	500 000,00
C1.5.5.12	Handling cost, profit and all other charges in respect of item C1.5.6.11	%	500 000		
C1.5.6	Removal of temporary deviations	km	40		
C1.5.7	Temporary traffic control facilities				
C1.5.7.1	Delineators including mounting bases and ballast:				
	(a) Single sided, reversible left or right (1200mm x 300mm)	No.	50		
	(b) Double sided, reversible left or right (800mm x 200mm)	No.	100		
C1.5.7.2	Traffic cones, minimum height 750mm	No.	100		
C1.5.7.3	Flagmen	man-shif	1 000		
C1.5.7.4	Traffic controllers	man-shif	360		
C1.5.7.5	Provision of illuminated traffic signs:				
	(a) Sign mounted flashing amber lights mounted on a backing board which is:				
	(i) 900mm wide x 150mm high	No.	6		
	(ii) 1200mm wide x 200mm high	No.	6		
	(b) Flashing LED illuminated arrow board	No.	5		
	(c) Illuminated road sign – R & TR series	No.	25		
Total Carried Forward					





### Bill of Quantities

Amount  
(Rand)

Total Carried Forward To Summary

REPAIR OF ROAD FAILURE ON THE R711 BETWEEN CLARENS AND FOURIESBURG

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SECTION C1.7

Item	Description	Unit	Quantity	Rate	Amount (Rand)
<b>C1.7</b>	<b>LOADING AND HAULING</b>				
C1.7.1	Loading				
C1.7.1.2	Loading from heaps or windrow using machines and/some hand labour were necessary	m³	500		
C1.7.2	Hauling				
C1.7.2.1	Hauling material to spoil and off-loading it at a designated spoil or stockpile area				
	(a) Cleared and grubbed material (organic matter and all other unsuitable or waste material)	m³-km	1 500		
	(b) Soil and gravel material	m³-km	5 000		
	(c) Boulders, hard material and concrete	m³-km	250		
Total Carried Forward To Summary					



REPAIR OF ROAD FAILURE ON THE R711 BETWEEN CLARENS AND FOURIESBURG

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SECTION C3.2

Item	Description	Unit	Quantity	Rate	Amount (Rand)
<b>C3.2</b>	<b>CULVERTS</b>				
C3.2.1	Excavation for culvert structures:				
C3.2.1.1	Excavating in all material situated within the following depth ranges below the surface level:				
	(a) 0 m to 1,5 m	m³	500		
	(b) Exceeding 1,5 m and up to 3,0 m	m³	1 000		
	(c) Etc., in increments of 1,5 m	m³	150		
C3.2.1.4	Extra over sub-item C3.2.1.1 for excavation in hard or boulder material, irrespective of depth	m³	150		
C3.2.1.5	Extra over sub-item C3.2.1.1 for excavation in stabilised existing road layers, irrespective of depth	m³	150		
C3.2.2	Backfilling:				
C3.2.2.1	Using the excavated material	m³	850		
C3.2.2.2	Using imported selected material:				
	(a) From commercial sources (state type)	m³	850		
C3.2.3	Concrete pipe culverts:				
C3.2.3.3	On Class C bedding (75D, 900mm diameter)	m	50		
C3.2.7	Cast-in-situ concrete and formwork:				
C3.2.7.2	In complete in situ floor slabs for rectangular culverts, manholes and catchpits, including formwork, joints and Class U2 surface finish (class of concrete indicated) (installed at a standard depth of 1,0 m)	m³	60		
C3.2.7.5	In inlet and outlet structures including kerbs, chutes and downpipes, skewed ends, catchpits, manholes, thrust and anchor blocks, excluding formwork but including Class U2 surfacing finish (class of concrete indicated)	m³	60		
C3.2.7.6	Formwork of concrete under items C3.2.7	m²	100		
C3.2.10	Reinforcement:				
C3.2.10.1	Mild steel bars	t	5		
C3.2.10.2	High-tensile steel bars	t	5		
C3.2.10.3	Welded steel fabric	kg	250		
C3.2.12	Demolition of concrete members or elements:				
C3.2.12.1	Full member or element (location and description)	m³	50		
C3.2.12.2	Partial member or element (location and description)	m³	50		
C3.2.18	Benching	m³	10		
C3.2.19	Accessories:				
Total Carried Forward					

### Bill of Quantities

Amount  
(Rand)

Total Carried Forward To Summary

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SECTION C4,2

Item	Description	Unit	Quantity	Rate	Amount (Rand)
<b>C4.2</b>	<b>CUT MATERIALS</b>				
C4.2.4	Excavating of materials in box cuts, material obtained from:				
C4.2.4.1	Soft excavation	m³	4 000		
C4.2.4.2	Boulder excavation class A	m³	800		
C4.2.4.3	Boulder excavation class B	m³	800		
C4.2.7	Removal of unsuitable stable cut material to spoil:				
C4.2.7.1	In layer thicknesses of 200 mm and less	m³	800		
C4.2.7.2	In layer thicknesses exceeding 200 mm	m³	800		
C4.2.9	Excavate material to spoil in sites designated by the Contractor,				
C4.2.9.1	Soft excavation, overburden and unsuitable material	m³	1 000		
C4.2.9.2	Boulder excavation class A	m³	150		
C4.2.9.3	Boulder excavation class B	m³	150		
C4.2.12	Finishing the side slopes:				
C4.2.12.1	Cuttings:				
	(a) In soft material	m²	500		
	(c) In hard material	m²	500		
	(d) In soft material using labour enhanced methods of	m²	500		
Total Carried Forward To Summary					



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SECTION C4,4

Item	Description	Unit	Quantity	Rate	Amount (Rand)
<b>C4.4</b>	<b>COMMERCIAL MATERIALS</b>				
C4.4.2	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers:				
C4.4.2.1	Pavement layer material:				
	(a) Type G1 material	m³	1 000		
	(e) Type G5 material	m³	1 000		
	(e) Type G7 material	m³	1 000		
C4.4.2.3	Drainage blanket layer material	m³	1 000		
C4.4.4	Cementitious stabilising agents:				
C4.4.4.1	Cement	t	100		
C4.4.2.5	Fill material in the earthworks:				
	(a) Normal or coarse fill	m³	1 000		
C4.4.2.6	Pioneer material	m³	1 000		
Total Carried Forward To Summary					

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SECTION C5,1

Item	Description	Unit	Quantity	Rate	Amount (Rand)
<b>C5.1</b>	<b>ROADBED</b>				
C5.1.1.2	Compaction of in-situ material to 93 % of MDD	m <sup>3</sup>	500		
C5.1.1.5	Compaction of imported material to 93 % of MDD	m <sup>3</sup>	500		
C5.1.3.1	Excavate material to spoil from roadbed construction, material obtained from:				
	(a) Soft excavation	m <sup>3</sup>	2 500		
	(d) Hard excavation other than blasting)	m <sup>3</sup>	500		
C5.1.4.1	In layer thicknesses of 200 mm and less:				
	(a) Stable material	m <sup>3</sup>	300		
	(b) Unstable material	m <sup>3</sup>	300		
C5.1.4.2	In layer thicknesses exceeding 200 mm:				
	(a) Stable material	m <sup>3</sup>	500		
	(b) Unstable material	m <sup>3</sup>	500		
C5.1.6	Roller-pass compaction:				
C5.1.6.1	Grid rollers	m <sup>2</sup>	6 000		
C5.1.6.2	Pad foot vibratory rollers	m <sup>2</sup>	6 000		
C5.1.6.3	Smooth drum vibratory rollers	m <sup>2</sup>	6 000		
C5.1.6.7	High energy impact compactor / roller (HEIC)	m <sup>2</sup>	8 000		
C5.1.11	Construction of roadbed comprising a pioneer layer	m <sup>3</sup>	300		
C5.1.12	Excavation for benches:				
C5.1.12.1	Excavation for benches:				
	(a) Side-cut to fill in soft material	m <sup>3</sup>	500		
C5.1.13	Construction of a levelling layer:				
C5.1.13.2	Over a constructed pioneer layer compacted to 90 % MDD	m <sup>3</sup>	165		
Total Carried Forward To Summary					

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SECTION C5,2

Item	Description	Unit	Quantity	Rate	Amount (Rand)
<b>C5.2</b>	<b>FILL</b>				
C5.2.2	Fill construction:				
C5.2.2.1	Normal fill material in compacted layer thicknesses of 200 mm and less:				
	(a) Compacted to 90 % of MDD	m³	1 500		
	(c) Roller-pass compaction	m²	200		
C5.2.2.4	Rock fill material all as per Clause A5.2.7.6	m²	1 500		
C5.2.3	Side-cut to fill compacted to 93 % of MDD in compacted layer thicknesses of 200 mm and less	m³	200		
C5.2.6	Fill material in shoulder widening:				
C5.2.6.1	Fill material in shoulder widening compacted to 93 % of MDD	m³	150		
C5.2.8	Breaking down oversize fill material on the road:				
C5.2.8.1	By normal grid rolling as per clause A5.3.7.3b) (i) to (vii)	m²-pass	3 000		
C5.2.9	Removal of oversize material	m³	600		
C5.2.10	Finishing off rock fill slopes:				
C5.2.10.2	Finishing off rock fill slopes with soft material using labour enhancement and light, hand equipment	m³	400		
Total Carried Forward To Summary					



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SECTION C5,3

Item	Description	Unit	Quantity	Rate	Amount (Rand)
<b>C5.3</b>	<b>ROAD PAVEMENT LAYERS</b>				
C5.3.1	Compiling and implementing M&U plans for the construction of all the pavement layers	No	1		
C5.3.2	Construction of pavement layers:				
C5.3.2.1	Construction of layers using conventional construction methods:				
	(a) Lower selected subgrade layer (150mm thick of G7) compacted to 93 % of MDD	m³	500		
	(c) Upper selected subgrade layer (150mm thick of G7 ) compacted to 93 % of MDD	m³	500		
	(h) Gravel shoulder layer (150 mm) compacted to 95 % of MDD	m³	200		
	(l) Upper subbase gravel layer (chemically stabilised) (layer thickness indicated) compacted to 95 % of MDD	m³	500		
	(aa) G1 crushed stone base layer (150mm) compacted to 88 % of AD (Category B roads)	m³	1 200		
Total Carried Forward To Summary					

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## 2023/2024 Manila Bill of Quantities

## SECTION C8.1

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REPAIR OF ROAD FAILURE ON THE R711 BETWEEN CLARENS AND FOURIESBURG

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SECTION C9.1

Item	Description	Unit	Quantity	Rate	Amount (Rand)
<b>C9.1</b>	<b>ASPHALT LAYERS</b>				
C9.1.1	Asphalt mix designs:				
C9.1.1.1	Stone skeletal mixes:				
	(a) Continuously graded base or surfacing (AE1)	lump sum	1		
C9.1.3	Application of bond coat:				
C9.1.3.2	Applied in restricted areas using a portable pressure sprayer	ℓ	2 000		
C9.1.5	Asphalt surfacing:				
C9.1.5.1	New construction:				
	(a) Stone skeletal mix – continuously graded as defined (40 mm, A-E1 modified binder/level 2 design)	m²	7 000		
C9.1.7	Placing and compacting asphalt in restricted areas:				
C9.1.7.1	Extra over payment items C9.1.4.1 and C9.1.5.1 (state layer thickness, mix class, binder type, nominal maximum particle size and placing technique (hand / paver))	m²	500		
C9.1.9	Application of rolled in chippings (state nominal size):				
C9.1.9.2	By hand in restricted areas	m²	7 000		
C9.1.10	Variation rates:				
C9.1.10.1	Bitumen (A-E1)	t	1		
C9.1.10.2	Aggregate	t	1		
C9.1.10.3	Active filler (lime unless stated in contract document)	t	1		
C9.1.10.5	Rolled-in chippings	t	1		
C9.1.13	Coring of asphalt layers:				
C9.1.13.1	100 mm diameter	No	10		
Total Carried Forward To Summary					

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Item	Description	Unit	Quantity	Rate	Amount (Rand)
<b>I1000</b>	<b>GUIDELINES FOR SUBCONTRACTING AND LABOUR ENHANCEMENT</b>				
I10.01	Project Liaison Committee costs	Prov sum	1	80 000,00	80 000,00
	(a) Handling cost and profit in respect of Item G10.01 above	%	80 000		
I10.02	Community Liaison Officer salary	Prov sum	1	100 000,00	100 000,00
	(a) Handling cost and profit in respect of Item G10.02 above	%	100 000		
I10.03	Training:				
	(a) General training of potential ABE™s	Prov sum	1	100 000,00	100 000,00
	(b) Training of the temporary workforce:				
	(i) Technical training	Prov sum	1	100 000,00	100 000,00
	(ii) HIV/ AIDS training	Prov sum	1	100 000,00	100 000,00
	(iii) OHS Training	Prov sum	1	100 000,00	100 000,00
	(c) Training of Technical Staff	Prov sum	1	100 000,00	100 000,00
	(c) Handling cost and profit in respect of Items G10.03 (a) (b) (i) (ii) (iii)	%	500 000		
I10.06	Penalties				
	(Refer to Part C3: Guidelines for subcontracting and labour enhancement for the calculation of penalties)				
Total Carried Forward To Summary					

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SUMMARY OF SECTIONS

Section	Description	Amount (Rand)
C1.2	GENERAL REQUIREMENTS AND PROVISIONS	
C1.3	CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL	
C1.4	ENGINEER'S FACILITY	
C1.5	ACCOMMODATION OF TRAFFIC	
C1.6	CLEARING AND GRUBBING	
C1.7	LOADING AND HAULING	
C3.2	CULVERTS	
C4.2	CUT MATERIALS	
C4.4	COMMERCIAL MATERIALS	
C5.1	ROADBED	
C5.2	FILL	
C5.3	ROAD PAVEMENT LAYERS	
C5.4	STABILISATION	
C8.1	PRIME COAT	
C9.1	ASPHALT LAYERS	
I1000	GUIDELINES FOR SUBCONTRACTING AND LABOUR ENHANCEMENT	
	<b>SUBTOTAL</b>	
1	Add 5% Contingencies	
	<b>SUBTOTAL</b>	
2	Add 15% Vat	
	<b>SUBTOTAL</b>	
<b>TOTAL PROJECT COST (BID AMOUNT)</b>		



**APPOINTMENT OF A CONTRACTOR ON CIDB LEVEL 6 CEPE/7 CE OR HIGHER FOR THE REPAIRS OF THE SLOPE EMBANKMENT AND PAVEMENT FAILURE SECTION (KM 18+000 AND KM 19+000) AS A RESULTS OF FLOODING, ON PRIMARY ROAD P51/1(R711) BETWEEN FOURIESBURG AND CLARENS, FOR A PERIOD OF 8 MONTHS**

**PART C3: SCOPE OF WORKS**

**SECTION C3.1 STANDARD SPECIFICATIONS**

The standard specifications on which this contract is based are the “**Standard Specifications for Road and Bridge Works for State Road Authorities – October 2020 Edition**” prepared and drafted by COTO.

The following SANS specifications are also referred to in this document and the Contractor is advised to obtain them from Standards South Africa (a division of SABS) in Pretoria

SANS 1914-1 to 6 (2002):	Targeted Construction Procurement
SANS 1921-1 (2004):	Construction and Management Requirements for Works Contracts Part 1: General Engineering and Construction Works and where accommodation of traffic is involved.
SANS 1921-2 (2004):	Construction and Management Requirements for Works Contracts; and Part 2: Accommodation of Traffic on Public Roads Occupied by the Contractor.

All references to SABS Standards which are replaced with corresponding SANS Specifications, have to be read in their new format.

## **SECTION C3.2: PROJECT SPECIFICATIONS**

The Project Specifications, consisting of two parts, form an integral part of the Contract and supplements the Standard Specifications.

**PART A** contains a general description of the works, the site and the requirements to be met.

**PART B** contains variations, amendments and additions to the Standard Specifications and, if applicable, the Particular Specifications.

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## **PART A: GENERAL**

### **PS1 EMPLOYER'S OBJECTIVES**

The Employer's general objective is to repair the slope embankment and pavement failures between Km 18+000 and Km 19+00, between Fouriesburg and Clarens to a safe standard for public use. Additionally, the Employer aims to achieve the following particular objectives:

- Offers employment opportunities and uplifts the local community, particularly in Fouriesburg and Clarens.
- To deliver suitable public infrastructure in a cost effective way,
- To improve mobility and access to nearby towns for transportation facilities as part of economic growth.
- Create employment for 4 laborers for every one million spent.
- Create employment opportunities for local subcontractors, with a total of 30% of net construction amount /value (excl. Professional fees, CPA and Contingencies).
- Provide work experience for two departmental students.
- To provide training for local labor in social as well as in labor intensive construction skills.

### **PS2 LOCATION OF THE WORKS**

Refer to the locality plan included in Part C4 of this document.

### **PS3 EXTENT OF THE WORKS**

This section of the Project Document is a basic outline of the works, and does not limit the work to be carried out under this contract.

The works required under this contract consist of the following activities:

- **Establishment on site**
- **Clearing and grubbing**
- **Accommodation of traffic**

A temporary bypass will be constructed to divert traffic around the remedial construction works.

- **Removal of failed embankment and pavement materials**

The soil/fill materials inside the depression shall be removed to spoil. It may be possible to re-use this material, but this must be verified by laboratory testing. It may not be possible to remove all material and during the bulk excavation works it may be decided to only remove material up to a certain level/depth

- **Construction of pavement layers**

Extensive construction of pavement layers using conventional construction methods will be done between Km 18+000 and Km 19+000, which will include the following:

- Construction of a 150 mm G1 crushed stone base layer compacted to 88% of AD.
- Construction of a 150 mm upper sub base layer (chemically stabilized) and compacted to 95% MDD.
- Construction of a 150 mm G7 upper selected subgrade layer and compacted to 93 % MDD.
- Construction of a 150 mm G7 lower selected subgrade layer and compacted to 93 % MDD.

- **Resurfacing**

Surfacing of the repaired section will be done through as follows:

- Stone skeletal mix – 40 mm Continuously graded asphalt

- **Construction of erosion protection**

- The resultant 'crater' around the new culvert structure must be backfilled with an inert, granular material, placed, and compacted in sufficiently thin layers.
- The side slopes will be protected against erosion by the placement of a topsoil 'veneer' layer and the establishment of vegetation.

- **Construction of anchored gabions retaining wall**

Retaining walls will be approximately 1.5 m high and with a total length of approximately 500 m on both sides of the road (Between Km 18+000 and Km 19+000)

- **Reinforced concrete works**
- **Enhancement of drainage systems**

There are damaged box culverts located within the failure zone that will be removed during the embankment repair. These culverts will be replaced with a suitably sized culvert structure, spanning diagonally across both lanes with inlet possibly near the existing sandy 'pit' and will be taken down to the toe of the embankment.

- **The following work items have been identified as suitable for execution by local subcontractors to assist the contractor in achieving its CPG(30 % of contract value as interpreted under contract data):**
  - Concrete channeling and concrete linings for open drains.
  - Construction of small concrete and other structures.
  - Pitching, stonework and protection against erosion.
  - Landscaping.
  - Installation of kerbing and channeling
  - Installation of guardrails.
  - Erection of fencing.
  - Finishing the road and road reserve.
  - Site Security Services
  - Road sign and studs installation
  - Road marking

**PS4 NATURE OF GROUND AND SUBSOIL CONDITIONS**

A thorough evaluation of ground and subsoil conditions, including percussion borehole drilling, will be conducted once the Contractor is appointed.

**PS5 CONSTRUCTION AND MANAGEMENT REQUIREMENTS**

**PS5.1 Quality Assurance (QA)**

The Contractor will be solely responsible for the production of work that complies with the Specifications. To this end it will be the full responsibility of the Contractor to institute an appropriate Quality Assurance (QA) system on site.



The Engineer (Client representative) will audit the Contractor's quality assurance (QA) system on a regular basis to verify that adequate independent checks and tests are being carried out and to ensure that the Contractor's own control is sufficient to identify any possible quality problems, which could cause a delay or failure.

With the nature of this project not including services of consultants, the contractors Quality Assurance system is to include and accommodate the employer's quality assurance/acceptance systems.

**PS5.2 Management and disposal of water and surplus material**

The Contractor shall pay special attention to the management and disposal of water and storm water on the site. It is essential that all completed works or parts thereof are kept dry and properly drained.

Claims for delay and for repair of damage caused to the works as a result of the Contractor's failure to properly manage rain and surface water, will not be considered.

The Contractor shall dispose of all excess or unsuitable material at approved spoil sites.

The Contractor shall be responsible for all arrangements necessary to obtain such spoil sites.

**PS5.3 Management of the environment**

The Contractor shall pay special attention to the following:

**(a) Natural vegetation**

The Contractor shall confine his operation to as small an area of the site as may be practical for the purpose of constructing the works.

Only those trees and shrubs directly affected by the works and such others as the Engineer may direct in writing shall be cut down and stumped. The natural vegetation, grassing and other plants shall not be disturbed other than in areas where it is essential for the execution of the work or where directed by the Engineer.

**(b) Fires**

The Contractor shall comply with the statutory and local fire regulations. He shall also take all necessary precautions to prevent any fires. In the event of fire the Contractor shall take active steps to limit and extinguish the fire and shall accept full responsibility for damages and claims resulting from such fires which may have been caused by him or his employees.

**PS6 SITE FACILITIES**

**PS6.1 Contractor's camp site office and depot**

The Contractor is responsible for providing a suitable site for the contract site office and to provide accommodation for his personnel and labourers.

Prior to establishment, the Contractor must obtain the approval of and permission from the Client regarding the location of site office.

**PS6.2 Accommodation of employees**

No employees, except for security guards, will be allowed to sleep or be accommodated on the site.

No housing is available for the Contractor's employees and the Contractor shall make his own arrangements to house his employees and to transport them to site.

No informal housing or squatting will be allowed.

The Contractor shall provide the necessary ablution facilities at his camp site and the site of the works for the use of his employees. Only chemical toilets will be allowed where temporary facilities have to be provided.

**PS6.3 Power supply, water and other services**

The Contractor shall make his own arrangements concerning the provision of electrical power, water and all other services at the site office. No direct payment will be made for the provision of electricity, water and other services.

The cost thereof shall be deemed to be included in the rates and amounts tendered for the various items of work for which these services are required, or in the Contractor's Preliminary and General items as the case may be.

**PS6.4 Security**

The Contractor shall provide security watchmen for the contract as he deems fit at no extra cost for the Employer. The Contractor must ensure that all his employees as well as the employees of his subcontractors are able to identify themselves as members of the construction team.

**PS7 REQUIREMENTS FOR ACCOMMODATION OF TRAFFIC**

**PS7.1 General**

The Contractor will be responsible for the safe and easy passage of public traffic next to or adjacent to the construction site.

**PS7.2 Basic requirements**

The travelling public shall have the right of way on public roads, and the Contractor shall make use of approved methods to control the movement of his equipment and vehicles so as not to constitute a hazard on the road.

The Contractor shall ensure that all road signs, barricades, traffic lights, delineators, flagmen and speed control measures are effective and that courtesy is extended to the public at all times.

Failure to maintain road signs, warning signs, traffic lights or flashing lights, etc. in a good condition shall constitute ample reason for the Engineer to suspend the work until the road signs, etc. have been reinstituted to specification.

The Contractor may not commence constructional activities affecting existing roads before adequate provision has been made to accommodate traffic in accordance with the requirements of this document and the South African Road Traffic Signs Manual.

The Contractor shall provide and grant access to persons whose properties fall within or adjoin the area in which he is working.

**PS7.3 Traffic Safety Officer**

The Contractor shall appoint a suitable traffic safety officer to be responsible for the arrangement and maintenance of all the measures for the accommodation of traffic for the duration of the project. Duties of the traffic safety officer shall be as set out in Section 1.5 and shall also be in compliance with the Occupational Health and Safety Act 1993 and the Construction Regulations 2014.



**PS8 OCCUPATIONAL HEALTH AND SAFETY**

**PS8.1 General Statement**

It is a requirement of this contract that the Contractor shall provide a safe and healthy working environment and to direct all his activities in such a manner that his employees and any other persons, who may be directly affected by his activities, are not exposed to hazards to their health and safety.

To this end the Contractor shall assume full responsibility to conform to all the provisions of the Occupational Health and Safety Act No 85 and Amendment Act No 181 of 1993, and the OHSA 1993 Construction Regulations 2014 issued on February 2014 by the Department of Labour and the COVID 19 Occupational Health and Safety Measures in Workplaces COVID 19 (C19 OHS), 2020, issued by the department of Employment and Labour.

**PS8.2 Health and Safety Specifications and Plans**

**(a) Employer's Health and Safety Specification**

The Employer's Health and Safety Specification will be included in the tender documents as part of the Particular Specifications. (Included in Section C3.3)

**(b) Bidder's Health and Safety Plan**

The Contractor shall submit within 14 days after the commencement date his own documented Health and Safety Plan he proposes to implement for the execution of the work under the contract. His Health and Safety Plan must at least cover the following:

- i) a proper risk assessment of the works, risk items, work methods and procedures in terms of Regulations 7 to 28;
- ii) pro-active identification of potential hazards and unsafe working conditions;
- iii) provision of a safe working environment and equipment;
- iv) statements of methods to ensure the health and safety of subcontractors, employees and visitors to the site, including safety training in hazards and risk areas (*Regulation 5*);
- v) monitoring health and safety on the site of works on a regular basis, and keeping of records and registers as provided for in the Construction Regulations;

- vi) details of the Construction Supervisor, the Construction Safety Officers and other competent persons he intends to appoint for the construction works in terms of Regulation 6 and other applicable regulations; and
- vii) detail of methods to ensure that his Health and Safety Plan is carried out effectively in accordance with the Construction Regulations 2003.

The Contractor's Health and Safety Plan will be subject to approval by the Employer, or amendment if necessary, before commencement of construction work. The Contractor will not be allowed to commence work, or his work will be suspended if he had already commenced work, before he has obtained the Employer's written approval of his Health and Safety Plan.

***Note : Time lost due to delayed commencement or suspension of the work as a result of the Contractor's failure to obtain approval for his safety plan, shall not be used as a reason to claim for extension of time or standing time and related costs.***

#### **PS8.3 Cost of compliance with the OHS Act and Construction Regulations**

The rates and prices tendered by the Contractor shall be deemed to include all costs for conforming to the requirements of the Act, the Construction Regulations and the Employer's Health and Safety Specification as applicable to this contract.

Should the Contractor fail to comply with the provisions of the Construction Regulations, he will be liable for penalties as provided in the Construction Regulations and in the Employer's Health and Safety Specification.

## **PART B: MATTERS RELATING TO THE STANDARD SPECIFICATIONS**

### **C3.2 Specification for the Work**

#### **Notes to tenderer:**

1. In certain clauses the Standard Specifications allow a choice to be specified in the project specifications between alternative materials or methods of construction and for additional requirements to be specified to suit a particular contract.

Details of such alternatives or additional requirements applicable to this contract are contained in this part of the project specifications.

It also contains some additional specifications required for this particular contract.

2. The number of each clause and each payment item in this part of the project specifications consists of the prefix B followed by a number corresponding to the number of the relevant clause or payment item in the standard specifications.

The number of a new clause or a new payment item which does not form part of a clause or a payment item in the standard specifications and which is included here, is also prefixed by B followed by a new number.

The new numbers follow on the last clause or item number used in the relevant section of the standard specifications.

All materials shall comply with the specifications as set out in the COTO Standard Specifications for Road and Bridge Works for State Road Authorities October 2020.



## SECTION 1.2: GENERAL REQUIREMENTS AND PROVISIONS

### BA1.2.3 GENERAL

*Replace Clause A1.2.3 with the following:*

"The General Conditions of Contract for Construction Works, 3<sup>rd</sup> Edition 2015, published by the South African Institute of Civil Engineering, together with the Special Conditions of Contract, forming part of the contract, will be applied".

All references in the COTO Standard Specifications have been amended accordingly to reflect the appropriate General Conditions of Contract relevant for the Contract. Each COTO clause reference is tabulated in Table 1.2/1 below (context of reference is also given) together with the relevant equivalent clause in the SAICE General Conditions of Contract for Construction Works applicable for this contract. All references to the "schedule of quantities" in the Standard Specifications shall be amended to the "Bill of Quantities".

Whereas every effort has been made to include all of the affected clauses in the table, there may be some omissions. In every case, however, the SAICE General Conditions of Contract for Construction Works, as amended by the Special Conditions of Contract in Part C1.2: Contract Data of this Volume, shall apply and the Contractor shall be responsible for the interpretation of the equivalent clause.

**TABLE 1.2/1: REFERENCES IN COTO STANDARD SPECIFICATIONS TO THE RELEVANT SAICE GENERAL CONDITIONS OF CONTRACT FOR CONSTRUCTION WORKS 2015**

COTO Standard Specifications for Road and Bridge Works for South African Road Authorities (Draft Standard) (October 2020)		SAICE General Conditions of Contract for Construction Works 3 <sup>rd</sup> Edition 2015	
Clause no.	Description or Reference	Clause no.	Description or Reference
A1.2.3.4	Extension of time for delays caused by rainfall	5.12	Extension of time for Practical Completion
A1.2.3.5	Handing-over of the site of the works	5.4	Access to site
A1.2.3.7	Legal and Contractual requirements and responsibility to the public and Employer	4.3	Legal Provisions
A1.2.3.10	Notices, signs and advertisements	4.5	Notices and Fees
A1.2.3.11	Ordering of daywork	6.5	Dayworks
A1.2.3.14	Remedial Work	7.9	Urgent remedial work

COTO Standard Specifications for Road and Bridge Works for South African Road Authorities (Draft Standard) (October 2020)		SAICE General Conditions of Contract for Construction Works 3 <sup>rd</sup> Edition 2015	
Clause no.	Description or Reference	Clause no.	Description or Reference
A1.2.3.19	Temporary drainage and dewatering	8.1& 8.2	Protection of works & Care of the works
A1.2.7.1	Programme of work	5.6	Programme

#### B1.2.7.1 PROGRAMME OF WORK

*Add the following after the title:*

"The Contractor shall include with his tender a preliminary programme. The programme shall be in the form of a simplified bar chart with sufficient details to show clearly how the works will be performed within the time for completion as stated in the Contract Data.

The Contractor shall be deemed to have allowed fully in his tendered rates and prices as well as in his programme for all possible delays due to adverse weather conditions and special non-working days as specified in the Project Specifications and in the Contract Data.

It is essential that the construction programme, which shall conform in all respects to Clause 5(6) of the General Conditions of Contract, be furnished within the time stated in the Contract Data. The preliminary programme to be submitted with the tender shall be used as basis for this programme."

##### (a) General

*Insert the following at the beginning of the clause:*

"The Contractor shall submit his programme at the closing of the tender together with his billed tender document. The programme shall be in the form of a bar chart (Gantt chart) or any other time-activity form acceptable to the Engineer, and shall clearly show:

- i) The proposed rate of progress in order to complete the works within the required period as tendered, showing the various activities, their durations and proposed resourcing levels (major plant and labour) for each element of the works. Sufficient detail shall be provided to enable the Engineer to be able to gauge construction progress. All activities, including establishment on site, trimming and

finishing and the completion of all minor ancillary works are to be included in the programme.

- ii) The sequence of activities and any dependencies (time or resource related) between them.
- iii) The critical path activities.
- iv) Key dates in respect of work to be carried out, or information, etc., to be provided, by others.
- v) Other information specifically required by the Engineer.

**When compiling his programme, the Contractor shall, inter alia, take into consideration and make allowance for:**

- i) Unexpected weather conditions and their effects.
- ii) Known physical conditions or artificial obstructions.
- iii) The accommodation and safeguarding of public traffic.
- iv) Restrictions of the total length of deviation open to traffic at any one time. Simultaneous work on adjacent sections shall not be allowed.
- v) All special non-working days as defined in Part C1.2: Contract Data.
- vi) All training, especially safety training, to be completed before an activity is commenced.

**The following details shall be submitted together with the programme:**

- i) The number of working hours per day, working days per week, assumed holiday or shut down periods on which the programme is based.
- ii) The overall labour and major plant resource levels on which the programme is based.
- iii) The detailed traffic accommodation proposals on which the programme is based (road or lane closures, lengths of sections to be worked, timing etc).
- iv) A budget forecast of the value of completed work, excluding CPA and contingencies but including VAT, month by month, for the full contract period.



These additional items shall also be revised when any revision is made to the programme. Failure to comply with these requirements entitles the Engineer to use a programme based on his own assumptions to evaluate claims for extension of time for completion of the works, or for additional compensation.

Minor revisions to the approved programme may be introduced from time to time by mutual agreement between the Contractor and the Engineer. Should the Engineer believe that a major revision of the programme is required, the Contractor will be notified in writing and an updated programme shall be submitted within two weeks of receipt of such notification.

It should be noted that it is in the Contractor's interest to provide a comprehensive programme giving as much information as possible about the times allowed for the various activities as well as resource or other limitations affecting the programme, since the approved programme may be used to evaluate any claims in terms of the General Conditions of Contract for extension of time.

**The Contractor shall submit to the Engineer, at least three working days before each monthly site meeting, copies of the following:**

- i) The contract programme with progress charts and programme graphs updated to reflect the actual progress to date.
- ii) A summary of progress on site over the month preceding the site meeting. The report shall be in the form of a detailed narrative to the contract programme.
- iii) Details of activities running late, indicating what steps have been or will be taken to ensure that the work is completed within the specified time.
- iv) A report on all labour, plant and materials on site.
- v) All other appendices to the monthly site meeting minutes as required by the Employer."

#### **BA 1.2.7.2 THE SETTING OUT OF WORK AND PROTECTION OF BEACONS (where required)**

*Add the following before the last paragraph:*

"The section to be rehabilitated or constructed have not been set out.

Benchmarks required for construction control shall be established by the Contractor. The Contractor shall survey the existing benchmarks and submit the results for checking and approval by the Engineer within 14 days after the Commencement date.

Where instructed by the Engineer, the Contractor shall stake the road at 20m point intervals along the road before the start of any construction activities. Cross sections shall be taken to the width of the road reserve, indicated by the existing fence line or as prescribed by the Engineer either side of the road center line at the 20m point intervals. The cross sections have to be submitted to the Engineer for checking and approval in the format required by the Engineer (including electronic format).

The Contractor shall submit written notice to the Engineer in the form of "job requests" of at least three working days before the intention of setting out or commencing any portion of the Works especially if the Works are to be checked. Such notice shall include the time, location and type of Work to be set out or checked. The Contractor shall complete setting out or surveying any part of the works ahead of his submitted construction programme to allow the Engineer adequate time to check the setting out or the survey and to give his approval to proceed or give instructions for alterations, additions and omissions."

*Add the following before the first sentence of the last paragraph:*

"No separate payment will be made for any setting-out, staking, taking cross sections, checking benchmarks, referencing existing road markings or any work described in this clause."

*Add the following paragraph:*

"The Contractor shall take care that property beacons, trigonometrical survey beacons or setting-out beacons are not displaced or destroyed without the consent of the Engineer. Property beacons and trigonometrical survey beacons that have been displaced or destroyed shall be replaced by a registered Land Surveyor, who shall certify such replacement.

The cost of replacing all beacons displaced or destroyed during the course of the contract without the consent of the Engineer shall be the Contractor's responsibility and included in the tender rates."

#### **B1.2.8 WORKMANSHIP AND QUALITY CONTROL**

*Add the following after the title:*

"The Contractor shall implement a quality assurance system in accordance with ISO 9001 and appoint a quality manager who shall ensure that members of the Contractor's staff comply with the requirements of the quality system. The quality system and the methods used to implement it shall be described in a quality plan produced by the Contractor. The quality manager shall be resident on site full time. No construction activities shall take place on site before the Engineer approves the quality plan".

**a) Process control**

The Contractor shall arrange for all tests required for process control to be done by a laboratory acceptable to and approved by the Engineer.

The Contractor may establish his own laboratory on site or he may employ the services of an independent commercial laboratory. The costs for these tests shall be deemed to be included in the relevant rates and no additional payment will be made for testing as required.

*Add the following:*

"The Contractor shall submit the quality assurance system he proposes using to the Engineer, for his approval, within two weeks of the site handover. Once accepted by the Engineer the Contractor shall not deviate from it unless written notification of proposed changes have similarly been submitted and approved. The system shall record the lines and levels of responsibility and indicate the method by which testing procedures will be conducted.

**b) Acceptance control**

*Add the following:*

The process control test results submitted by the Contractor for approval of materials and workmanship may be used by the Engineer for acceptance control.

However, before accepting any work, the Engineer may have further control tests carried out by a laboratory of his choice. The cost of such additional tests will be covered by a Provisional Sum provided under Section 20 in the Bill of Quantities, but tests that failed to confirm compliance with the specifications, will be for the account of the Contractor.

An acceptance control system will be set up by the Engineer (Employer), which will include scheduled checks of the contractor's quality control system by means of various schedules to be submitted in a weekly and/or in a monthly basis.

The schedules will include but not limited to the following:

- Quality acceptance control testing
- Electronic Daily Diaries which include photographic evidence of work done submitted on a daily basis.
- Hard copy daily diaries prepared for signing on a weekly or bi-weekly basis.
- Inspection requests submitted electronically and backed up with hard copies for signing on site. (Requests to be submitted 24hr in advance)
- Monthly labour and Progress reports."



*Add the following:*

"The Contractor's place of testing and laboratories shall be subject to inspection and approval by the Engineer.

No routine levelling or material testing will be executed by the Engineer on behalf of the Contractor. The Engineer will only check the levels and laboratory test results of the Contractor after the information has been submitted to him in writing. The Engineer may however perform acceptance control testing.

No work executed will be measured for payment unless the results submitted have been checked and approved."

#### **B1.2.8.2 ACCEPTANCE QUALITY CONTROL**

*Remove the second, third and fourth sentences and replace with the following:*

The engineer may carry out testing at the cost of the Employer in either the Engineer's laboratory or one approved by him.

An acceptance control system will be set up by the Engineer (Employer), which will include scheduled checks of the contractor's quality control system by means of various schedules to be submitted in a weekly and/or in a monthly basis.

The schedules will include but not limited to the following:

- Quality acceptance control testing
- Electronic Daily Diaries which include photographic evidence of work done submitted on a daily basis.
- Hard copy daily diaries prepared for signing on a weekly or bi-weekly basis.
- Inspection requests submitted electronically and backed up with hard copies for signing on site. (Requests to be submitted 24hr in advance)
- Monthly labour and Progress reports.

#### **BA1.2.8.3 CERTIFICATE OF PRACTICAL COMPLETION OF THE WORKS**

Notwithstanding that there might be natural or programmed sections of the works that will result in them being completed in their entirety before other sections, no consideration shall be given to the issuing of practical completion certificates for portions of the works. The use of any completed roadway or portions of the work, whether for unhindered use by the public or for accommodation of traffic while other portions are being constructed, shall not constitute use or occupation by the Employer.



In addition to the listed specified items of work and regardless of the degree of beneficial occupation by the Employer, the works shall be considered for practical completion only if the following criteria also have been met:

- i) The estimated cost to complete the outstanding work is less than 2% of the tendered value of work plus the cost of any variation or extra work orders, but excluding CPA and VAT.
- ii) The written list of outstanding items of work can be completed within 28 days of the list having been accepted in writing by the Contractor.
- iii) Any information in the Contractor's possession, which is required by the Engineer and has been requested in writing, has been supplied.
- iv) All road work and storm water drainages have been completed in accordance with the project specification.

The contents of this General Conditions of Contracts, together with the above amendment, shall be applied equally to the issue of a Certificate of Practical Completion.

#### **BA.1.2.8.4**

#### **INFORMATION FURNISHED BY THE EMPLOYER**

*Add the following new clause:*

"Quantities regarding the distribution and extent of repair work items were compiled and calculated to the best of the Engineer's knowledge and available information at the time of the design and could be subject to significant variations at the construction stage. Such variations shall, however, not form grounds for a claim by the Contractor in terms of the General Conditions of Contract."

#### **BA 1.2.3.4**

#### **EXTENSION OF TIME FOR DELAYS CAUSED BY RAINFALL**

Change the existing heading of clause BA 1.2.3.4 to read as above and wherever the expression "rainfall" is encountered replace it with "inclement weather"

*Delete the entire clause and replace with the following:*

"For the purposes of calculating an extension of time due to climatic conditions in terms of clause 5(12)(2) of the General Conditions of Contract, the number of days more than the number of working days anticipated to be lost due to climatic conditions shown in Table B1215/1 shall be taken into account:

**TABLE B1215/1**  
**ANTICIPATED DAYS LOST DUE TO INCLEMENT WEATHER CONDITIONS**

EXPECTED NUMBER OF WORKING DAYS LOST DUE TO INCLEMENT WEATHER CONDITION			
January	3	July	3
February	3	August	3
March	3	September	3
April	3	October	3
May	3	November	3
June	3	December	3

The following climatic conditions can be classified as inclement weather conditions:

- Cold weather conditions,
- Windy conditions,
- Misty conditions,
- Excessive dust storms, and
- Rainy conditions (more than 10 mm rain per day).

The Engineer will certify a day lost due to the above climatic conditions or inclement weather conditions only if:

- (a) no work on the critical path (delay in critical path) according to the latest approved programme for completion of the works could be carried out during that specific working day or if
- (b) only 30% or less of the work force and plant planned for that specific day, could work.

The extension of time as a result of inclement weather and/or abnormal climatic conditions will be calculated monthly as being equal to the absolute value of the number of days certified by the Engineer as lost due to climatic conditions, less the number of days in Table B1215/1. The total extension of time for the contract will be the sum of the monthly extensions.

Extension of time for portions of a month shall be calculated *pro-rata*.

If approved extensions of time extend the completion date beyond the start of the Contractor's holiday in December, the holiday period shall not be considered as working days, as defined in the Contract Data. Any remaining extension of time at this date shall be calculated from the first statutory working day in January the following year, provided that the contractor has shown in his programme that he intends to close during the traditional Christmas / New Year break."

#### **BA1.2.3.5**

#### **HANDING-OVER OF THE SITE OF THE WORKS**

*Add the following :*

"Upon the handing-over of the site the Contractor shall immediately assume responsibility for the road reserve within the limits of this contract as set out in the specifications.

Prior to the commencement of work the Contractor and the Engineer shall together carry out a joint inspection of the road section. During such an inspection, notes shall be made of all damaged fences, guardrails, signs and any other notable problems or features that exist at the time of hand-over. The following matters should be agreed at the time of handing-over:

- i) The limits, lengths, widths and areas of construction.
- ii) The location of kilometer markers and reference beacons
- iii) The location of stockpile areas and the responsibilities of the Contractor with regard to the road reserve area and the stockpile sites (fencing, re-establishment, height of stockpile, etc.).
- iv) The method of accommodation of public traffic with regard to safety, sight distances, interference with existing road signs and road markings both within the work area and providing advance warning before the work area.
- v) The method of construction and supervisory control measures."

#### **BA1.2.3.6**

#### **LEGAL PROVISIONS**

*Add the following new paragraph :*

"The Contractor shall take note of the new Construction Regulations 2003 recently promulgated under the Occupational Health and Safety Act (Act 85 of 1993) and its Regulations, in particular the Construction Regulations 2017 No. R.

1010 promulgated 18 July 2003 as well as the COVID 19 Occupational Health and Safety Measures in Workplaces COVID 19 (C19 OHS), 2020, issued by the department of Employment and Labour. The Contractor shall in terms of sub clause 5(1) of these regulations provide a comprehensive health and safety plan detailing the hazards identified on this project and the procedures required to mitigate, reduce and/or control the said hazards.

The scope of the work to be carried out under this contract is indicated, but not limited to, this section and in other sections of this document and on the drawings and shall include the health and safety specification as well as COVID 19 OHS Specifications.

The Contractor shall at all times be responsible for full compliance with the approved plan as well as the Construction Regulations."

#### **BA 1.2.3.10 NOTICES, SIGNS AND ADVERTISEMENTS**

*Delete the last sentence and replace with the following:*

"All signboards erected in accordance with the drawings or as approved advertisements for the Contractor's establishment, shall be removed at the same time as the de-establishment of the Contractor's camp. Payment under sub-item 13.01 for the final installment of 15% of the tendered lump sum shall not be made unless all the advertisements, notices and temporary signs have been removed."



**C1.2 GENERAL REQUIREMENTS AND PROVISIONS**  
**PART C: MEASUREMENT AND PAYMENT**

Add the following new payment items :

ITEM	UNIT
------	------

**BC1.2.10 Protection, removal, realignment and replacement of services**

- |    |  |                |
|----|--|----------------|
| a) | Utility Services   |                |
| b) | Contractor's handling cost and profit in respect of sub-item B12.01(a)(i)(ii)(iii) | Percentage (%) |

The prime cost item shall be paid in accordance with the provisions of the General Conditions of Contract.

The tendered percentage is a percentage of the amount actually spent under the prime-cost item, which shall include full compensation for the profit in connection with providing the specified service."

ITEM	UNIT
------	------

- |               |  |                                |
|---------------|--|--------------------------------|
| BC1.2.11 (i)  | Laboratory tests for Engineer's quality assurance acceptance control .....   | <b>Provisional (Prov. Sum)</b> |
| BC1.2.11 (ii) | Contractor's handling cost and profit in respect of sub-item BC1.2.11(i) .....   | <b>Percentage (%)</b>          |
|               | <ul style="list-style-type: none"> <li>▪ Quality assurance control testing will be carried out by an external laboratory as nominated by the Engineer.</li> <li>▪ Any payment claimed under this provisional sum item shall be certified on the engineer's receipt of the Contractor's submitted tax invoice(s) as received from the Engineer's selected external laboratory.</li> <li>▪ The tendered percentage is a percentage of the amount actually spent under the provisional sum item, for the Contractor's handling cost and profit in respect of sub-item B1.2.11(i)."</li> </ul> |                                |

ITEM	UNIT
------	------

- |               |   |                                |
|---------------|---|--------------------------------|
| BC1.2.12 (i)  | <b>Site Surveyor</b> for Engineer's quality Assurance/ acceptance control .....   | <b>Provisional (Prov. Sum)</b> |
| BC1.2.12 (ii) | Contractor's handling cost and profit in respect of sub-item BC1.2.12(i) .....  | <b>Percentage (%)</b>          |
|               | <ul style="list-style-type: none"> <li>▪ Quality assurance control testing will be carried out by an external Surveyor as nominated by the Engineer.</li> </ul> |                                |

▪ Any payment claimed under this provisional sum item shall be certified on the engineer's receipt of the Contractor's submitted tax invoice(s) as received from the Engineer's selected external Surveyor.

▪ The tendered percentage is a percentage of the amount actually spent under the provisional sum item, for the Contractor's handling cost and profit in respect of sub-item B1.2.12(i)."

ITEM	UNIT
BC1.2.13 (i)	<b>Occupational Health and Safety Agent</b> for Engineer's quality Assurance/ acceptance control ..... <b>Provisional (Prov. Sum)</b>
BC1.2.13 (ii)	Contractor's handling cost and profit in respect of sub-item BC1.2.13(i) ..... <b>Percentage (%)</b>
	<p>▪ Quality assurance control testing will be carried out by an external Agent as nominated by the Engineer.</p> <p>▪ Any payment claimed under this provisional sum item shall be certified on the engineer's receipt of the Contractor's submitted tax invoice(s) as received from the Engineer's selected Agent.</p> <p>The tendered percentage is a percentage of the amount actually spent under the provisional sum item, for the Contractor's handling cost and profit in respect of sub-item B1.2.13(i)." </p>

ITEM	UNIT
BC1.2.14 (i)	<b>Environmental compliance agent</b> for Engineer's quality Assurance/ acceptance control ..... <b>Provisional (Prov. Sum)</b>
BC1.2.14 (ii)	Contractor's handling cost and profit in respect of sub-item BC1.2.14(i) ..... <b>Percentage (%)</b>
	<p>▪ Quality assurance control testing will be carried out by an external Agent as nominated by the Engineer.</p> <p>▪ Any payment claimed under this provisional sum item shall be certified on the engineer's receipt of the Contractor's submitted tax invoice(s) as received from the Engineer's selected Agent..</p> <p>The tendered percentage is a percentage of the amount actually spent under the provisional sum item, for the Contractor's handling cost and profit in respect of sub-item B1.2.14(i)." </p>

ITEM	UNIT
BC1.2.15	(i) Engineer's design and supervision cost.... Provisional (Prov. Sum)
BC1.2.15	(ii) Contractor's handling cost and profit in respect of sub-item BC1.2.15(i) .....Percentage (%) <ul style="list-style-type: none"> <li>Engineering designs and drawings will be done by an external Engineer as nominated by the Engineer</li> </ul>
BC1.2.16	(i) Portion of the Works identified by the Employer or Engineer to be completed by Local Subcontractors.... Provisional (Prov. Sum)
BC1.2.16	(ii) Contractor's handling cost and profit in respect of sub-item BC1.2.15(i) allowed for the Main Contractor's interaction with local subcontractors as well as facilitation of monthly payments to the nominated subcontractor for works completed under this pay item.....Percentage (%) <ul style="list-style-type: none"> <li>The local subcontractors will submit an itemised claim and an associated invoice to the Contractor. Payment under Item BC1.2.16 (ii) will be considered upon the submission of a claim by the Main Contractor to the Engineer.</li> </ul> <p><b>Note: Implementation of all subcontracting program will be done in line with PART C4 of the project specification, which looks into the procurement, appointment and payment of all local subcontractors appointed in the contract.</b></p>

## SECTION 1.3: CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS

### BA1.3 GENERAL REQUIREMENTS

*Add the following new clause:*

#### A1.3.9 Legal and contractual requirements and responsibilities to the public

There has been recent legislation promulgated by Government that improves mutual obligations on the Employer and Contractor in the performance of their duties to society and to the built and natural environment.

To assist the Contractor in understanding and assessing his obligations, and thus to make allowances for the cost of compliance with this legislation, the following additional specifications are included in the Project Specifications, C3.3:

- **Section C: Particular Specification** contains the HIV/AIDS requirements for the project.
- **Section D: Particular Specification** contains the specification that regulates the Contractor's construction methods so far as to ensure the health and safety of his employees and of the public.  
A new pay item has been made available under this section to allow the Contractor to make separate provision for the cost of health and safety measures during the construction process.
- **Section E: Particular Specification** contains the Environmental Management Programme for this project. Its provisions regulate the Contractor's construction methods to ensure responsible conduct and treatment of the environment relevant to the project. No separate payment mechanism has been made available for the Contractor to allow for his compliance with relevant environmental legislation. The Contractor shall include such costs in the existing payment items under section 1.2 Payment. However, non-compliance with the provisions of this section may lead to the imposition of penalties.
- **Section F: Particular Specification** contains guidelines for Stakeholder and Community Liaison, and targeted labour and targeted Enterprises utilization and development.
- **Section G: Particular Specification** contains guidelines for generic labour-intensive specification.
- **Section H: Particular Specification** contains guidelines for EPWP Projects



- **Section I:** Particular Specification contains guidelines for subcontracting and labour enhancement

<b>BC 1.3.1</b>	<b>PAYMENT ITEM</b>	<b>UNIT</b>
-----------------	---------------------	-------------

**BC1.3.1 The Contractor's general obligations**

*Add the following payment sub-item :*

“BC1.3.1.4) Health and safety obligation .....month”

*Add the following paragraphs after the as paragraphs*

Payment for time related costs arising from extensions of time granted by the Employer, where the Contractor is fairly entitled to such compensation in terms of the Conditions of Contract, will be calculated by taking account only of pay items for which the unit of measurement is “month”. All pay items for which the unit of measurement is "month" are deemed to be based on 22 working days per month. Account shall be taken of all time related items scheduled in Section 1.3, 1.4 and 1.5.”

Should the combined total tendered for sub items (C1.3.1.1) and (C1.3.1.3) exceed 15% of the tender sum (excluding CPA, contingencies and VAT), the Tenderer shall state his reasons in writing for tendering in this manner.

The Tenderer's attention is drawn to **Form G: Amendments, Qualifications and Alternatives** (to be completed by the Tenderer). If the Tenderer should require additional compensation for his obligations under section 1.3 (over and above the total tendered for item B1.3.1) by including such additional compensation in the tendered rates and/or lump sum of items in the Bill of Quantities, these items and the value of such additional compensation shall also be indicated in writing in a letter attached to Form G.

Payment of the rate per month for sub-item (1.3.1.4) shall include full compensation for all the Contractor's obligations relevant to health and safety legislation and all safety requirements.

A Contractor who tenders zero for this pay item shall not be relieved of his statutory obligations. A nil rate offered shall be deemed not as an omission but as deliberate notice that costs have been included in the tendered rates for individual items of work or in the other Preliminary and General pay items.

## **SECTION 1.5: ACCOMMODATION OF TRAFFIC**

### **BA1.5.1 SCOPE**

*Add the following to the end of this clause:*

"It is a condition of this contract that traffic is accommodated taking into account the provisions of the latest edition of the South African Road Traffic Signs Manual (SARTSM). The latest version for use in the accommodation of traffic is Volume 2, Chapter 13 of the June 1999 edition. Copies of this publication are available from the South African National Roads Agency Limited, P O Box 415, Pretoria 0001.

### **BA1.5.3.2 GENERAL REQUIREMENTS**

*Add the following after the last paragraph:*

Failure to maintain road signs, warning signs or flicker lights, etc. in a good condition shall constitute ample reason for the Engineer to stop the works until the road signs, etc. have been repaired and are operating to his satisfaction.

The Contractor may not commence constructional activities before adequate provision has been made to accommodate traffic in accordance with the requirements of the drawings, specifications and the South African Road Traffic Signs Manual.

The Contractor is to supply, erect, operate and maintain all the road signs and other equipment shown on the drawings or in the specifications or as directed by the Engineer, necessary to safely carry out his traffic control responsibilities.

The Engineer may instruct the Contractor to carry out minor works at isolated positions outside the limits of the site. The Contractor shall be responsible for the safety of the traveling public at those positions during the contract period.

#### **BA1.5.7.12 Traffic Safety Officer**

*Add the following to the end:*

"The Contractor shall submit a CV of the candidate to the Engineer for approval before the candidate is appointed as the Traffic Safety Officer".

#### **BA1.5.6.1 TEMPORARY TRAFFIC-CONTROL FACILITIES**

##### **C, D,E) Temporary signs, Traffic Cones and traffic signals**

*Add the following after the last paragraph:*

"The Contractor shall be responsible for the protection and maintenance of all signs and barricades and shall at his own cost replace any that have been damaged, lost, or stolen.

All temporary road signs required to remain in position for some time shall be pole mounted as shown on the drawings.

The covering of permanent road signs, if applicable, shall be by utilizing a Hessian bag that shall be pulled over the sign in the form of a hood and fastened to the signposts.

Plastic bags or other materials and fastened by means of adhesive tape shall not be permitted.

#### **BA 1.5.6.2 ILLUMINATED TRAFFIC SIGNS AND SAFETY DEVICES**

*Delete the specification and replace with the following:*

"The Engineer has the authority and responsibility to enforce compliance with the approved Accommodation of Traffic Plan as submitted by the Contractor and approved for execution by the Engineer.

##### **(i) Vehicle mounted flashing lights**

All construction vehicles and plant used on the works, including vehicles and plant operated by subcontractors and/or suppliers, shall be equipped with rotating amber flashing lights and warning signs as prescribed by law.

Rotating lights shall have an amber lens of minimum height of 200 mm and shall be mounted in such a way as to be highly visible from all directions. The lights on construction vehicles shall always be switched on while vehicles are being operated. All LDV's and cars operating on site shall also be equipped with rotating amber flashing lights which shall be placed so as to be highly visible and operated

continuously while the vehicles are maneuvering in or out of traffic or are travelling or parked alongside roads open to public traffic.

Rotating lights and the "CONSTRUCTION VEHICLE" signs on the Contractor's vehicles and plant shall not be paid for separately but shall be included in the rates covering the use of the vehicles.

The Contractor shall supply and maintain rotating amber lights together with temporary mounting brackets to the Engineer and supervisory personnel for the duration of the contract period.

Vehicles and plant that do not comply with these requirements shall be removed from the site.

ii) Sign mounted flashing lights

Two amber flashing lights shall be vertically mounted on top of the traffic signs at each end of each traffic accommodation section as shown on the drawings. The lights shall be operated during the hours of darkness when in operation."

#### **BA1.5.6.5 FLAGMEN**

During the daytime, at least two flagmen shall be provided at each traffic control point in addition to the traffic signal operator, one flagman at the 80 km/h sign and a second roving flagman to indicate to the traffic at the end of the queue to stop. At night time only one roving flagman equipped with a "Stromberg Light man" xenon strobe, or similar approved, and a torch is required at each traffic control point as well as the traffic light operator. No flagman shall be on duty for a period of more than 10 hours per day.

Flagmen shall have in their possession, at all times, certification that they have attended and passed an accredited course in flagging techniques before being allowed onto the construction site.

Flags shall be made from bright red material and shall be square with a minimum side length of 600 mm. The flag shall be attached to a staff at least 1,0 m in length.

In terms of lateral clearance and safety, flagmen shall stand on the shoulder of the lane of traffic that is being controlled and under no circumstances shall flagmen be permitted to stand within the traffic lane. In order to obtain maximum visual impact for the travelling public, flagmen shall stand alone."



**i) Temporary rumble strips**

Where ordered by the Engineer, the Contractor shall install temporary rumble strips. The distances between units will be as directed by the Engineer."

**(j) Traffic signals**

A traffic signal control system shall consist of four traffic signals, each with three aspects, and shall include the control devices, power supply and mountings.

Temporary traffic signals and control shall comply with the following requirements:

- (a) the signals and power supply shall be capable of operating under all weather conditions for uninterrupted periods of at least 24 hours
- (b) standard signal faces with 210mm diameter red, amber and green aspects shall be provided by the Contractor
- (c) traffic signal lights shall comply with SABS 1450-1988. Aspects shall be fitted with 50W tungsten halogen lamps
- (d) two standard signal faces, erected on opposite sides of the road, shall be provided to control each direction of traffic flow
- (e) two 1000W floodlights, mounted on 3,5m timber posts shall be provided at the start and end of each section where traffic is controlled by means of traffic signals
- (f) in the event of failure of the traffic signals an immediate system of STOP and GO control, with operators equipped with two-way radios, shall be available.

Sufficient personnel, equipped with two-way radios in good order and additional batteries, shall be provided to operate the traffic signal control system in shifts not exceeding 8 hours. The same personnel shall not be on duty throughout an entire night.

All traffic signals shall be under constant supervision of at least two operators to ensure that there is no interruption of the service, that any malfunction of the traffic signal equipment is immediately detected and the safety of road users ensured by implementing manual traffic control operations.

No separate payment shall be made for operators controlling the traffic signals. The tendered rate for item B15.11 shall include full compensation for such operators. No separate payment shall be made for relocating the signals."

#### **BA 1.5.7.6 MAINTENANCE OF EXISTING ROADS USED AS DETOURS**

*Add the following:*

"The Contractor shall indemnify the Employer against all proceedings, claims, actions, damages and costs which may arise from or be related to damage to vehicles or property or injury to persons as a result of loose stones or aggregates on the road surface or as a result of bituminous applications during the construction of the works.

The Contractor shall arrange his activities so that construction traffic and equipment do not unnecessarily obstruct public traffic or force it to a complete standstill. The flow of public traffic shall always take precedence and the Contractor shall not stop or delay public traffic to make way for construction traffic."

## **CHAPTER 5: EARTHWORK & PAVEMENT LAYERS CONSTRUCTIONS**

### **SECTIONS 5.1: ROADBED**

#### **BA5.1.3.1 ROADBED MATERIAL INVESTIGATION**

*Add the following:*

"Visual assessments for existing road conditions have been done. However, trial pits and laboratory tests will be conducted on the existing road layers upon appointment of the Contractor. The results will inform adjustments to the roadbed treatment design, ensuring an optimised rehabilitation strategy."

#### **BA 5.3.3.2 USE OF MATERIAL**

*Add the following after the first paragraph:*

The material classification for pavement layers under this contract shall be as follows:

Extensive construction of pavement layers using conventional construction methods will be done between Km 18+000 and Km 19+000, which will include the following:

- Construction of a 150 mm G1 crushed stone base layer compacted to 88% of AD.
- Construction of a 150 mm upper sub base layer (chemically stabilized) and compacted to 95% MDD.
- Construction of a 150 mm G7 upper selected subgrade layer and compacted to 93 % MDD.
- Construction of a 150 mm G7 lower selected subgrade layer and compacted to 93 % MDD.

#### **BA 5.4.5.3 Cementitious Stabilising Agents**

*Remove the last sentence and replace with the following:*

"Samples of all materials to be stabilised will be provided to the Engineer's laboratory for testing and compilation of stabilisation mix design, prior to commencement of any trial sections."

*Add the following:*

"Where reference is made in this Specification or the Standard Specifications to the cement specifications, e.g. SABS 471: Portland cement and rapid hardening Portland cement, it shall be replaced with the new specification:

SABS ENV 197-1 "Cement compositions, specifications and conformity criteria, Part 1: Common cements.

***On this Contract CEM II 32.5 AL or available approved alternative shall be used for stabilisation purposes"***

#### **BA 5.4.5.5 Water for Stabilisation**

*Add the following:*

"Provision of construction water is the responsibility of the contract and thus all tests and quality assurance procedures are to be done by him/her. No additional cost will be made in lieu of testing possible water sources."

#### **BA 5.4.7.3 Chemical Pre-treatment and Stabilisation**

*Amend as follows:*

"Apply of cementitious agent by mechanical means will not apply on this contract unless prior approval is granted by the project manager, in leu of time constraints on the contract. All stabilisation and/or modifying agents are to be applied by hand to increase job creation."

#### **BA 5.4.7.7 Protection and curing of chemically stabilised layers**

*Amend as follows:*

"Items b,c,d will not apply unless prior approval has been granted by the project manager on a case by case basis."



### SECTION C3.3: PARTICULAR SPECIFICATIONS

In addition to the Standardised and Project Specifications the following Particular Specifications shall apply to this contract and are bound in hereafter.

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## SECTION C: HIV/AIDS REQUIREMENTS

### C1001 SCOPE

This specification contains all requirements applicable to the Contractor for creating HIV/AIDS awareness amongst all of the Workers involved in this project for the duration of the construction period, through the following strategies:

- Raising awareness about HIV/AIDS through education and information on the nature of the disease, how it is transmitted, safe sexual behaviour, attitudes towards people affected and people living with HIV/AIDS, how to live a healthy lifestyle with HIV/AIDS, the importance of voluntary testing and counseling, the diagnosis and treatment of Sexually Transmitted Infections and the closest health Service Providers.
- Informing Workers of their rights with regard to HIV/AIDS in the workplace.
- Providing Workers with access to condoms and other awareness material that will enable them to make informed decisions about sexual practices.

### C1002 DEFINITIONS AND ABBREVIATIONS

#### a) Definitions

**Service Provider:** The natural or juristic person recognised and approved by the Department of Public Works as a specialist in conducting HIV/AIDS awareness programs.

**Service Provider Workshop Plan:** A plan outlining the content, process and schedule of the training and education workshops, presented by a Service Provider which has been approved by the Representative/Agent.

**Worker:** Person in the employ of the Contractor or under the direction or supervision of the Contractor or any of his Sub-contractors, who is on site for a minimum period of 30 days in all.

#### b) Abbreviations

HIV : Human Immunodeficiency Virus  
AIDS : Acquired Immune Deficiency Syndrome  
STI : Sexually Transmitted Infection

### C1003 BASIC METHOD REQUIREMENT

The Contractor shall, through a Service Provider, conduct onsite workshops with the Workers.

The Service Provider shall develop and compile a Service Provider Workshop Plan to be presented at the workshops and which will be best suited for this project to achieve the specified objectives with regard to HIV/AIDS awareness.

The Service Provider Workshop Plan shall be based on the following information provided by the Contractor:

- Number of Workers and Sub-contractors on site
- When new Workers or Sub-contractors will join the construction project
- Duration of Workers and Sub-contractors on site

- 
- How the maximum number of Workers can be targeted with workshops
  - How the Contractor prefers workshops to be scheduled, e.g. three hourly sessions per Worker, or one 2,5 hour workshop per Worker
  - Profile of Workers, including educational level, age and gender (if available)
  - Preferred time of day or month to conduct workshops
  - SDFA Gantt chart reflecting the construction programme, for scheduling of workshops
  - Suitable venues for workshops.

The Contractor shall submit the Service Provider Workshop Plan for approval within 14 days after the Commencement Date. After approval by the Representative/Agent, the Contractor shall make available a suitable venue that will be conducive to education and training.

The Service Provider Workshop Plan shall address, but will not be limited to the following:

- a) The nature of the disease
- b) How it is transmitted
- c) Safe sexual behavior
- d) Post exposure services such as voluntary counseling and testing (VCT) and nutritional plans for people living with HIV/AIDS
- e) Attitudes towards other people with HIV/AIDS
- f) Rights of the Worker in the workplace
- g) How the Awareness Champion will be equipped prior to commencement of the HIV/AIDS awareness programme with basic HIV/AIDS information and the necessary skills to handle questions regarding the HIV/AIDS awareness programme on site sensitively and confidentially
- h) How the Service Provider will support the Awareness Champion
- i) Location and contact numbers of the closest clinics, VCT facilities, counseling services and referral systems
- j) How the workshops will be presented, including frequency and duration
- k) How the workshops will fit in with the construction programme
- l) How the Service Provider will assess the knowledge and attitude levels of attendees to structure workshops accordingly
- m) How the video will be used
- n) How the Service Provider will elicit maximum participation from the Workers
- o) A questions and answers slot (interactive session).

The Service Provider Workshop Plan shall encompass the Specific Learning Outcomes (SLO) as stipulated.

**C1004 HIV/ AIDS AWARENESS EDUCATION AND TRAINING**

**a) Workshops**

The Contractor shall ensure that all Workers attend the workshops.

The workshops shall adequately deal with all the aspects contained in the Service Provider Workshop Plan. A video of HIV/AIDS in the construction industry, which can be obtained from all Regional Offices of the Department of Public Works, is to be screened to Workers at workshops.

In order to enhance the learning experience, groups of not exceeding 25 people shall attend the interactive sessions of the workshops.

**b) Recommended practice**

**i) Workshop schedule**

Presenting information contained in the Service Provider Workshop Plan can be divided in as many workshop sessions as deemed practicable by the Contractor, provided that all Workers are exposed to all aspects of the workshops as outlined in the Service Provider Workshop Plan.

Breaking down the content of information to be presented to Workers into more than one workshop session however, has the added advantage that messages are reinforced over time while providing information. Workers will also have an opportunity to ask questions at a following session.

**ii) Service providers**

A database of recommended service providers is available from all regional offices of the Department of Public Works.

**iii) HIV/AIDS specific learning outcomes and assessment Criteria**

Workers shall be exposed to workshops for a minimum duration of two-and-a-half hours.

**c) Displaying of plastic laminated posters and distribution of information booklets.**

The Contractor shall obtain a set of four laminated posters conveying different key messages and information booklets, which are available from all Regional Offices of the Department of Public Works.

The above-mentioned posters and information booklets have been prepared to raise awareness and to share information about HIV/AIDS and STI's.

Posters or display stands shall be displayed on site as soon as possible, but not later than 14 days after the date of site handover.

Posters shall be displayed in areas highly trafficked by Workers, including toilets, rest areas, the site office and compounds.

The posters on display must always be intact, clear and readable.

Information booklets must be distributed to all Workers as soon as possible, but not later than 14 days after site handover, or as soon as the Worker joins the site.



**C1005 PROVIDING WORKERS WITH ACCESS TO CONDOMS**

The Contractor shall provide and maintain condom dispensers and make both male and female condoms, complying with the requirements of SABS ISO 4074, available at all times to all Workers at readily accessible points on site, for the duration of the contract. The Contractor may obtain condom dispensers from the Department of Health and condoms may be obtained from the Local Clinic or the Department of Health.

At least one male and one female condom dispenser and a sufficient supply of condoms, all to the approval of the Representative/Agent, shall be made available on site within 14 days of site hand over. Contractors should note that arrangements to obtain condoms from the Department of Health Clinics prior to site hand over may be necessary, to ensure that condoms are available within 14 days of site handover.

Condoms shall be made available in areas highly trafficked by Workers, including toilets, the site office and compounds.

**C1006 ENSURING ACCESS TO HIV/AIDS TESTING AND COUNSELLING FACILITIES AND TREATMENT OF SEXUALLY TRANSMITTED INFECTIONS (STI)**

The Contractor shall provide Workers with the names of the closest Service Providers that provide HIV/AIDS testing and counseling and Clinics providing Sexually Transmitted Infection (STI) diagnosis and treatment. Information on these Service Providers and Clinics must be displayed on a poster of a size not smaller than A1 in an area highly trafficked by Workers.

**C1007 APPOINTMENT OF AN HIV/AIDS AWARENESS CHAMPION**

Within 14 days of site handover the Contractor shall appoint an Awareness Champion from amongst the Workers, who speaks, reads and writes English, who speaks and understands all the local languages spoken by the Workers and who shall be on site during all stages of the construction period. The Contractor shall ensure that the Awareness Champion has been trained by the Service Provider on basic HIV/AIDS information, the support services available and the necessary skills to handle questions regarding the HIV/AIDS programme in a sensitive and confidential manner.

The Awareness Champion shall be responsible for :

- a) Liaising with the Service Provider on organising awareness workshops
- b) Filling condom dispensers and monitoring condom distribution
- c) Handing out information booklets
- d) Placing and maintaining posters.

**C1008 MONITORING**

The Contractor shall grant to the Representative/Agent reasonable access to the construction site, in order to establish that the Contractor complies with his obligations regarding HIV/AIDS awareness under this contract.

## SECTION D: OCCUPATIONAL HEALTH AND SAFETY

### D1001 GENERAL

#### a) Tender Document

This document is the pre-contract Health and Safety Specification which must be used by the Principal Contractor and Sub Contractors appointed by the Principal Contractor to compile Health and Safety Plans for this project and forms part of the tender documentation.

**The Principal Contractor and Sub Contractors' particular attention is drawn to paragraph 2 of this specification whereby**

***"Upon award of the contract, the contractor is to assume and adopt the function and duties of the Principal Contractor as set out in the Construction Regulations 2003 No. R. 1010 promulgated 18 July 2003."***

The health and safety specifications outlined herein must be taken into account and due allowance made within the pricing of appropriate items contained within the specification. Where the Tenderer is of the opinion that a requirement is missing or is not adequately specified then this shall be drawn to the Client / Client's Agent's attention during the tender period. In the absence of any direction to the contrary, the Tenderer shall as part of the tender submission, set out the details of such discrepancy together with the costs associated therewith, separately identified and included within the tender figure.

#### b) Principal Contractor

The successful Tenderer will on signing of the contract be required to fulfill the function and duties of the Principal Contractor as set out in the Construction Regulations 2003 No. R. 1010 promulgated 18 July 2003.

#### c) Start of Construction Phase

The construction phase shall not commence until the Principal Contractor's Health and Safety Plan was considered and approved by the Client / Client's Agent and Design Team. The Client / Client's Agent shall discuss and negotiate with the Principal Contractor the contents of the Health and Safety Plan submitted by the Principal Contractor before finally approving it for implementation.

The construction phase shall not commence until written permission is received from the Client / Client's Agent. In this respect the Client / Client's Agent may rely on the advice of the Design Team as to the adequacy and comprehensiveness of the Plan offered by the Principal Contractor.

In preparing their detailed Health and Safety Plan based on the relevant sections of this Health and safety Specifications supplied to them by the Client, Client's Agent, contractors must allow for the adoption of safe working procedures and co-ordinate and rationalize activities to avoid controllable hazards arising due to clashes of activities.

#### d) Sub-Contractors, Suppliers & Designers

The Principal Contractor shall ensure that all direct appointments in connection with this project include provisions for the compliance of his sub-contractors, suppliers and designers, etc, with the relevant provision of the Occupational Health and Safety Act

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(Act 85 of 1993) and its Regulations, in particular the Construction Regulations 2003 No. R. 1010 promulgated 18 July 2003.

**e) Liaison**

The Principal Contractor shall together with all his appointees, liaison with the Client / Client's Agent as required under the Regulations and agrees procedures for the transfer of relevant Information in respect of designs and in connection with the preparation of the Health and Safety File.

**f) Advice**

The Tenderer shall, as part of the tender submission, indicate where advice will or may be required of the Client / Client's Agent in respect of the competence of the Tenderer's designers and the adequacy of resources allocated or to be allocated by them.

**g) Undertaking by Principal Contractor and Sub-Contractors appointed by the Principal Contractor**

The Principal Contractor as well as Sub-Contractors appointed by him / her shall undertake in writing to ensure that the provisions of the Occupational Health and Safety Act (Act 85 of 1993) and its Regulations, in particular the Construction Regulation of 2003 No. R 1010 and any amendments or re-enactments thereto are complied with. The attached Occupational Health and Safety provisions undertaking form for the Principal Contractor in Appendix 1 shall be completed and signed by the Managing Director of the company / firm awarded the tender.

**h) Client's Occupational Health and Safety Agent :**

Name : (The successful Tenderer will be informed)  
Address :  
  
Tel :  
Fax :  
Mobile :

**D1002 INFORMATION REQUIREMENTS**

The contractor must provide the following information.

**a) General**

- The Principal Contractor / Sub-Contractor shall have an OHS Policy in accordance with the OHS(Occupational Health and Safety Act, Act 85 of 1993) and include a copy of the Policy in the Health and Safety Plan to be submitted by the Principal Contractor / Sub-Contractor.
- The Principal Contractor / Sub-Contractor shall promptly display a copy of the Company's OHS Policy on the OHS Notice Board for the duration of the contract and include it into information provided to persons at the contract OHS induction.
- The Principal Contractor shall develop a Contract specific OHS Management Commitment Statement based on the Company's OHS Policy.
- The Principal Contractor's Managing Director shall sign the Commitment Statement and prominently display a copy on the OHS Notice Board for the duration of the contract. A copy of the Commitment Statement shall be included



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in information provided to persons at the Contract OHS induction and a copy shall also be supplied to each sub-contractor.

**b) Management**

- Details of the personnel and management systems to be put in place to prepare, manage, implement, conduct and monitor the Health and Safety Plan for the project. Broadly speaking your :
  - Organisation's internal structure that establishes SHE (Safety, Health and Environmental) ROLES, RESPONSIBILITIES, ACCOUNTABILITIES, and REPORTING RELATIONSHIPS,
  - SHE (Safety, Health and Environmental) PLANS, POLICIES, PROCEDURES, DIRECTIVES and STANDARDS that provide instructions as to how activities and functions are to be carried out,
  - SHE (Safety, Health and Environmental) CONTROLS, INSPECTIONS, REVIEWS, etc. built into construction operations to ensure that performance is consistent with SHE (Safety, Health and Environmental) objectives and requirements,
  - SHE (Safety, Health and Environmental) COMMUNICATION MECHANISMS for collecting, handling and reporting information.

In other words Management Systems that specifies WHO is going to do WHAT, WHERE, WHEN, Why and HOW.

- Details of relevant qualifications and experience held by the persons nominated above, including recent health and safety education and training undertaken.
- Procedures for determining the competence of contractors engaged on the project, whether employed by the contractor directly or by others, to fulfill their duties under the Construction Regulations 2003 (No. R. 1010 Promulgated 18 July 2003).

**c) Hazard Identification, Risk Assessment and control**

- The Principal Contractor / Sub-Contractor shall detail and implement procedures that will identify hazards, assess risks and determine suitable control measures as they arise throughout term of the contract. These procedures shall both comply with and be implemented and managed in accordance with the specification.
- The Principal Contractor / Sub-Contractor shall detail and implement procedures that ensure control measures are evaluated for effectiveness and modified as necessary. The evaluation procedure shall detail the responsibilities, timelines and records that will be kept as part of the process.
- Where Risk is controlled through administrative control measures, the Principal Contractor / Sub-Contractor shall ensure that the administrative measures are:
  - Clearly documented and those personnel responsible for implementation and management are explicitly defined;
  - Understood by all relevant personnel through training and assessment;
  - Implemented as documented and promptly reviewed for effectiveness following initial implementation;



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- Amended and authorized as required;
  - Adequately supervised, managed and audited to ensure continuing compliance;
  - Available at all times wherever the measures are being implemented.
  - Any piece of plant or equipment not complying with the specification shall cease operation until the Principal Contractor / Sub-Contractor can demonstrate to the satisfaction of the Client / Client's Agent that the piece of non-conforming plant or equipment conforms to these requirements.

**d) Health and Safety Plan**

The Principal Contractor / Sub-Contractor shall develop a Health & Safety Plan to reflect variations in design or changes in site conditions and liaise with the Client /Client's Agent.

The Principal Contractor shall develop this Health and Safety Plan so that it :

- Incorporates the contractor's approach to managing the construction work to ensure the health and safety of all persons carrying out the construction work and all persons who may be affected by their work.
- Includes the risk assessments prepared by all Contractors under their duties set out in the Construction Regulations 2003 and any other relevant legislation (i.e. the OHS Act and Regulations, etc).
- Includes the arrangements for ensuring that, where appropriate or specifically requested, all Contractors / Sub-Contractors prepare suitable and sufficient method statements for their construction works which incorporate adequate measures for ensuring the health and safety of all persons who may be affected by these works.
- Incorporates the common arrangements for site safety, statutory notices and registers etc.
- Includes the site rules to be adopted for controlling the risks to health and safety during the construction phase(s) or the project.
- Includes reasonable arrangements for monitoring compliance with health and safety legislation and site rules.
- Includes reasonable measures to ensure co-operation between all Contractors and Sub-Contractors in respect of health and safety provisions and prohibitions.
- Includes the steps to be taken to ensure that only authorized persons are allowed into any premises or parts of the site / premises where construction work is being carried out.
- Includes arrangements for emergency procedures
- Includes arrangements for ensuring that, so far as is reasonably practicable, every Contractor and Sub-Contractor is provided with comprehensible information about the risks to health and safety of that Contractor / Sub-Contractor, or of any employees or other persons under their control, arising out of the construction works, including the emergency procedures

- Includes details of the arrangements for ensuring, so far as is reasonably practicable, that the employees or other persons under the control of any Contractor / Sub-Contractor, and any visitors to the site, receive adequate information about the risks to their health and safety arising out of the construction works and, where necessary, adequate training to carry out their work in a safe and healthy manner.
- Includes arrangements for providing all persons at work on the site and visitors to the site with the opportunity and means of discussing and offering advice on health and safety issues relating to the construction works.
- Includes arrangements for the reporting of any accidents, injuries or dangerous occurrences, including conforming to the statutory requirements.
- Can be modified as the work proceeds to take account of any information received from Contractors / Sub-Contractors, any experience gained during the course of the project or any changes necessary as a result of unforeseen circumstances or alterations to the design.

**e) Programme**

A time estimate required by the contractor to implement the Health & Safety Plan sufficiently for works to commence on site.

**f) Cost**

A detailed breakdown of costs allowed in the contractor's tender for preparing, managing, implementing and monitoring the Health and Safety Plan, and for complying with the requirements imposed on the Principal Contractors under the Construction Regulations of 2003(No. R. 1010 Promulgated 18 July 2003).

**D1003 GENERAL SITE SAFETY**

**a) Safety training and education**

The Principal Contractor shall detail the OHS competencies and training received by its contract management personnel.

The Principal Contractor's Health and Safety Plan shall have a detailed register of the skills and competencies for all personnel for the activities that the personnel will undertake under the contract. (e.g. mobile plant operators, crane operators etc.)

The Principal Contractor shall demonstrate and maintain documentary evidence of competencies on site for the duration of the contract.

**b) Induction training**

The Principal Contractor / Sub-Contractor shall develop and detail a Site Induction Training Programme as part of the Occupational Health and Safety Plan to be submitted to the Client / Client's Agent prior to commencement of construction that includes as a minimum :

- i) Training related to hazards likely to be encountered on Site and control measures that have been developed in response to these hazards;
- ii) Roles and Responsibilities;
- iii) The requirements of the Health and Safety Plan submitted and approved;

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- iv) Address the identified issues in the Fire Safety, Emergency, Evacuation and Rescue Plan to ensure that all Site personnel are aware of procedures in the event of an incident or emergency occurring.

The Principal Contractor / Sub-Contractor shall evaluate all persons undertaking the site Induction Training through a written test to ensure that inductees have an understanding of the OHS (Occupational Health and Safety) requirements for the contract. The written tests shall be signed and dated by the person undertaking the induction training to attest to their understanding and be retained by the Principal Contractor / Sub-Contractor as a record that the training has been completed.

**c) Induction training for specified work**

The Principal Contractor/Sub-Contractor shall conduct Site Specific Occupational Health and Safety Induction Training for all personnel, the Client/Client's Agent and all visitors not escorted on Site by inducted persons.

The Principal Contractor / Sub-Contractor shall evaluate all persons undertaking the Site Induction Training through a written test to ensure that inductees have an understanding of the OHS (Occupational Health and Safety) requirements for the contract. The written tests shall be signed and dated by the person undertaking the induction training to attest to their understanding and be retained by the Principal Contractor / Sub-Contractor as a record that the training has been completed.

**d) Recording and reporting of injuries**

Make arrangements for all contractors to report accidents, ill health and dangerous occurrences notifiable to the Department of Labour under Section 24 of the OHS Act (Occupational Health and Safety Act, Act 85 of 1993) (Reporting to DOL (Department of Labour) Inspector regarding certain incidents).

All lost time incidents associated with the contract works or reportable as defined by Section 24 of the OHS Act shall be immediately reported to the Client / Client's Agent.

The Principal Contractor / Sub-Contractor shall provide a detailed report of all accidents / incidents, including events that could have become lost time incidents were it not for fortuitous circumstances to the Client / Client's Agent within 5 days of the incident occurring. The Principal Contractor / Sub-Contractor shall provide copies of all reports and information associated with the incidents to the Client / Client's Agent. Copies of reports must be placed on the Health and Safety File.

Where the Principal Contractor / Sub-Contractor has been:

- Served with a prohibition, contravention or improvement notice under the OHS Act; or
- Required to comply with any order issued by an inspector for the Department of Labour;

The Principal Contractor / Sub-Contractor shall immediately supply a copy of that notice, order or notification to the Client / Client's Agent.

Where the Principal Contractor / Sub-Contractor have been served with a summons or are convicted of any offence in relation to occupational health and safety, the Principal Contractor / Sub Contractor shall immediately supply a copy of that summons to the Client / Client's Agent.

The Principal Contractor / Sub-Contractor shall detail the reporting and investigation procedures for incident investigation. The procedures shall include the investigating



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officer responsible and the time limits imposed for reporting and investigating the incident and to implement corrective action in a timely manner so as to prevent a recurrence.

The client / Client's Agent may participate in or undertake an investigation into the incident, injury or illness at its discretion and the Principal Contractor / Sub-Contractor shall cooperate with and provide assistance to the investigation organised and undertaken by the Client / Client's Agent.

**e) First aid**

Establish and implement a first aid programme to provide emergency treatment to victims of accidents, chemical substances or excessive exposure to toxic substances.

The programme shall include :

- proper first aid facilities administered by qualified personnel,
- first aid boxes,
- first aid room, where there are 500 or more workers on site,
- training and re-training of first-aiders,
- first aid treatment procedures,
- standard procedures,
- special procedures, e.g. for poisoning,
- maintenance of first aid facilities

All first-aid provisions shall comply with the OHS Act (Act 85 of 1993).

**f) Fire protection and prevention**

- Appropriate measures must be taken to avoid the risk of fire.
- Sufficient and suitable storage must be provided for flammable liquids, solids and gases.
- Smoking must be prohibited and notices in this regard must be prominently displayed in all places containing readily combustible or flammable materials;
- Combustible materials must not accumulate on the construction site.
- Welding, flame cutting and other hot work may only be done after the appropriate precautions have been taken to reduce the risk of fire.
- Suitable and sufficient fire-extinguishing equipment must be placed at strategic locations and such equipment must be maintained in good working order
- A sufficient number of workers must be trained in the use of fire-extinguishing equipment.

**g) Site emergency procedures**

The Principal Contractor/Sub-Contractor shall establish an Emergency Evacuation and Rescue plan.

The plan shall include the following detail:



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- The role and responsibility of every individual in the work area on fire safety emergency evacuation and rescue
  - General work area precautions, fire prevention, detection, protection and warning alarm systems
  - Fire fighting and rescue equipment including types of fire extinguishers
  - Fire safety measures for Site accommodation
  - Escape and communication
  - Fire brigade access, facilities and coordination
  - Fire drills and training including the use of firefighting equipment
  - Material storage including flammable liquids, gasses and waste.

The Principal Contractor / Sub-Contractor shall ensure that all procedures, precautionary measures and safety standards stipulated in the Plan are communicated, implemented and complied with by all workers including other interfacing contractors on Site.

The Principal Contractor / Sub-Contractor shall practice their emergency preparedness within six (6) weeks of the commencement of work and at least four (4) monthly intervals thereafter

The Principal Contractor / Sub-Contractor shall review and ensure the adequacy of the Plan as the work progress.

The Principal Contractor / Sub-Contractor shall conduct monthly checks on fire fighting equipment and test alarms and detection devices installed on Site and document findings in a register which shall be on site at all times for inspection.

The Principal Contractor / Sub-Contractor shall conduct weekly inspections of escape routes, fire brigade access, fire fighting facilities and working areas to ensure that the requirements stipulated in the Fire Safety, Emergency, Evacuation and Rescue Plan are complied with. All inspection records shall be documented in registers and kept in the Health and Safety file for inspection at any time.

#### **h) Housekeeping**

Suitable housekeeping must continuously be implemented on the construction site, including:

- proper storage of materials and equipment
- removal of scrap, waste and debris at appropriate intervals.

Loose materials shall not be placed or allowed to accumulate on the site so as to obstruct access and egress from workplaces and passageways.

#### **i) Stacking and storage**

- Adequate storage areas are must be provided
- Storage areas must be kept neat and under control.

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**j) Illumination**

Provide adequate artificial lighting when work is carried out after dark or inside buildings.

**k) Sanitation / Hygiene**

Provision of site hygiene facilities:

- One sanitary facility for every 30 workers
- Adequate washing facilities
- One shower facility for every 15 workers.

Drying sheds, huts, rooms or other accommodation for sheltering during bad weather, storing clothes and taking meals. Facilities should include tables and chairs, suitable means for boiling water and a supply of wholesome drinking water.

The contractor shall provide reasonable and suitable living accommodation for the workers at construction sites which are remote from their homes and where adequate transportation between the site and their homes, or other suitable living accommodation, is not available.

**l) Personal protective equipment**

The Principal Contractor / Sub-Contractor shall provide and maintain suitable PPE (Personal Protective Equipment) for all employees employed on the Site.

The Principal Contractor / Sub-Contractor shall ensure that such PPE comply with the requirements of the OHS Act (Occupational Health and Safety Act, Act 85 of 1993).

The Principal Contractor / Sub-Contractor shall also ensure that all equipment is properly used by his / her employees during the course of their work.

The Principal Contractor / Sub-Contractor shall record all issues of all equipment to his / her employees in documented registers and such registers shall be kept in the Health and Safety File on site and made available for inspection at all times.

The Principal Contractor / Sub-Contractor shall provide the Client / Client's Agent with a colour code by which employees will be identified with regard to occupations, responsibilities, accountabilities, reporting relationships and access to different locations on site. (e.g. hard hats, overalls, etc.)

PPE shall be provided, used, and maintained in a sanitary and reliable condition wherever it is necessary by reason of hazards

All personal protective equipment shall be of safe design and construction for the work to be performed.

**m) Permit to work requirements**

Institute a "hot work" permit system in respect of:

- metalwork flame cutting,
- site welding.

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**n) Lock-out**

Institute a "Lock-out" procedure in respect of controlling energy so as to prevent unexpected operation or activation of machinery or equipment. This procedure must include a written policy, specific procedures, rules and supervisory follow-up, covering the positive locking of switches and valves to ensure that alterations, maintenance, set-up and or other work can be performed safely.

**o) Monthly Health and Safety Audits**

The Principal Contractor shall carry out monthly Health and Safety Audits on the measures contained within his / her Health and Safety Plan submitted to the Client / Client's Agent as well as Health and Safety Plans submitted by Sub-Contractors appointed by the Principal Contractor to demonstrate that the required level of health and safety are being achieved and maintained and compile a full report to the Client / Client's Agent on such audit.

The Client / Client's Agent will audit the Principal Contractor as well as his / her Sub-contractor's Health and Safety Plans from time to time and will advise the Principal Contractor of any matter with which he / she is not satisfied and the Principal Contractor shall take such steps as are necessary to satisfy the Client / Client's Agent.

The Client / Client's Agent will carry out such audits as he / she considers necessary but not less than monthly.

The Principal Contractor shall make available, specialist personnel as the Client / Client's Agent may consider necessary for the performance of such audits.

The Principal Contractor shall develop and maintain an Audit Schedule that details the audits planned to be undertaken by the Principal Contractor of the work under the contract, including sub-contractors, for the duration of the contract. The Audit Schedule shall form part of the Health and Safety Plan that needs to be submitted by the Principal Contractor.

Audit reports shall detail the scope of the audit, the audit questions and the audit findings.

The Client / Client's Agent shall be promptly provided with copies of all audit reports together with other documentation to show that all matters raised have been appropriately addressed.

Unless otherwise directed by the Client / Client's Agent the Principal Contractor / Sub-Contractor shall undertake its initial OHS Audit within 4 weeks of commencement of work. The Principal Contractor / Sub-Contractor shall undertake subsequent OHS Audits at a frequency not less than once every 3 months.

All Principal Contractor's OHS Audits shall include an assessment of Sub-Contractor compliance with the approved OHS Plan.

**p) Management review**

The Principal Contractor shall undertake an independent review of the Health and Safety Plan for the contract in accordance with the requirements of the OHS Act, relevant Regulations and in particular the Construction Regulations 2003.

A review shall be undertaken 3 months after commencement of the contract and every 6 months thereafter for the duration of the contract.



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Following the completion of the review, the Principal Contractor shall submit a written report that details the suitability, adequacy and effectiveness of the OHS Plan and to certify that the Site procedures, practices and operations are in accordance with the contract.

**q) Provision of information**

- Provide Sub-Contractors appointed by him / her with the relevant sections of the Health and Safety specifications pertaining to the construction work which has to be performed.
- Where changes are brought to the design and construction, provide sufficient information and appropriate resources to the Sub-Contractor to execute the work safely.
- Discuss and negotiate with Sub-Contractors the contents of the Health and Safety Plan / Plans submitted by them and finally approve such plans for implementation.
- Ensure that copies of Health and Safety plans compiled by the Principal Contractor and his / her Sub-Contractors are available on request to an employee, DOL Inspector, contractor, Client / Client's Agent.
- The Principal Contractor / Sub-Contractor shall detail procedures that will ensure that personnel are suitably consulted and communicated with during the planning and application of work activities associated with the contract.
- The Principal Contractor / Sub-Contractor shall detail the procedures for the identification, assessment and control of hazards associated with the day-to-day work activities. These procedures shall include requirements for consultation with personnel involved in the work activity.
- The Principal Contractor / Sub-Contractor shall have procedures for ensuring that OHS information is communicated to and from its personnel. The Principal Contractor / Sub-Contractor shall hold OHS meetings with all personnel or their representatives at the site on a weekly basis.
- Minutes shall be recorded for all OHS meetings and posted on OHS notice boards within 48 hours of the meeting.
- The Principal Contractor / Sub-Contractor shall maintain at the Site an OHS Notice Board located in a prominent position and accessible to all personnel, for the distribution of OHS information.
- The Principal Contractor / Sub-Contractor shall as a minimum, establish and implement procedures for reporting relevant and timely information with regard to OHS Performance and incidents.
- The Principal Contractor / Sub-Contractor shall establish, implement and maintain a controlled copy of all Contract OHS documentation on Site.
- Where the Principal Contractor / Sub-Contractor's Health and Safety Plan references other documentation including the contract, the Principal Contractor / Sub-Contractor shall ensure that section and clause numbers are clearly denoted in its Health and Safety Plan. All documentation referenced in the Health and Safety Plan shall be available on Site for the duration of the contract.
- Ensure that Health and Safety Files kept by Sub-Contractors appointed by the Principal Contractor is kept on site and made available to an inspector, Client / Client's Agent.



- Hand over a consolidated health and safety file to the Client / Client's Agent upon completion of construction work, including all drawings, designs, materials used and other similar information concerning the completed structure.
- In addition to the Health and Safety File compile a comprehensive and updated list of all contractors on site accountable to the Principal Contractor as well as the agreements between the parties and the type of work done by them.

**r) Stop the execution of construction work**

Stop any construction / construction related work conducted by any person on the construction site, which is not in accordance with the Principal Contractor's health and safety plan and or the health and safety plans of Sub-Contractors which poses a threat to the health and or safety of persons.

**s) Handing over of Project Health and Safety File**

- Hand over a consolidated health and safety file to the Client / Client's Agent upon completion of construction work, including all drawings, designs, materials used and other similar information concerning the completed structure.
- In addition to the Health and Safety File compile and hand over a comprehensive and updated list of all contractors on site accountable to the Principal Contractor as well as the agreements between the parties and the type of work done by them.

**t) Records and records management**

- The control of records shall be in accordance with the Principal Contractor's / Sub-Contractor's approved Health and Safety Plan for the contract.
- Records shall be registered, ordered and retained on Site in the Health and Safety File for the duration of the contract.

**D1004 CHEMICAL HAZARDS**

The following construction materials and substances to be used in the works have been identified as potentially posing special health and/or safety hazards during the project:

**a) Substances**

- Asphalt
- Bitumen
- RTH Tar prime
- Synthetic Polymer (Polyester / Polypropylene / Polyethylene)
- Stabilising agents
- Anionic stable grade emulsion
- Rubber
- Bitumen Rubber mix
- Hydrophilic aggregates
- Cationic emulsion
- Proprietary chemical additive
- Styrene
- Butadiene rubber (SBR latex)
- Cleaning agent
- Paint

- Oxygen
- Acetylene
- Diesel
- Petrol
- Weed killer

**b) Material**

- Cement
- Lime
- Mud rock
- Shale
- Clay
- Synthetic fibre filter fabric
- Geo-textile (synthetic polymer)
- Crushed aggregate
- Weathered dolerite gravel
- Fine slurry
- Crusher dust
- Paving blocks

Adhesives / solvents which may make personnel ill by breathing in vapours, irritation if in contact with skin and eyes and can be highly flammable.

Cement can cause ill health by:

- Skin contact, cement burns and dermatitis.
- Eye contact, irritation and inflammation.
- Inhalation of dust, irritation to nose and throat and causes difficulty with breathing.
- Oil based paint can cause illness by breathing in vapours.
- Silicone sealant with fungicide can cause skin irritation.
- Timber preservative / flame retardant which can cause irritation to the skin, eyes, nose and throat and harmful if ingested.
- Paving slabs which may contain silica can, when cut, create dust which may affect the lungs.
- Chemical cleaners can cause ill health mainly by:
  - Skin contact, acids and alkalis are highly corrosive and destructive to body tissue causing burns.
  - Inhaling fumes or mist, concentrated solutions of acids and alkalis emit toxic and corrosive fumes.

All materials contained within aerosol containers which are pressurised. Contractors are required to take appropriate measures to manage the risks arising and to provide details of their proposed measures within their tenders and to incorporate adequate method statements within the Health and Safety Plan.

This is not a definitive list of all potential harmful products. Other materials and substances commonly used during construction may also present health or safety hazards, however, it is deemed that these should be familiar to the average competent Contractor as part of routine risk and OHS (Occupational Health, Safety and Hygiene) assessments and are therefore not included here.

Adopt all precautionary measures provided by manufacturers for storage, use and application of specified materials.

Data sheets for these, and any other materials that will be used for the works, are to be obtained by the contractor from the manufacturers.

## **D1005 SAFETY HAZARDS**

### **a) Tools**

#### **i) Hand tools**

- Employers shall not issue or permit the use of unsafe hand tools
- Wrenches, including adjustable, pipe, end, and socket wrenches shall not be used when jaws are sprung to the point that slippage occurs
- Impact tools, such as drift pins, wedges, and chisels, shall be kept free of mushroomed heads
- The wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight in the tool.

#### **ii) Portable electrical tools**

No person shall use a portable electric tool with an operating voltage which exceeds 50 to earth unless :

- it is connected to a source of electrical energy incorporating an earth leakage protection device which meets the requirements of section 36 of the OHS Act ; or
- it is connected to a source of high frequency electrical energy derived from a generator which is used solely for supplying energy to such portable electric tool and which arrangement is approved by the chief inspector ; or
- it is clearly marked that it is constructed with double or reinforced insulation.

Portable electric tools, together with its flexible cord and plug shall be maintained in a serviceable condition.

## **D1006 EXCAVATIONS**

- The contractor shall ensure that all excavation work is carried out under the supervision of a competent person who has been appointed in writing.
- The contractor shall evaluate the stability of the ground before excavation work begins.



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- The Contractor shall take suitable and sufficient steps in order to prevent any person from being buried or trapped by a fall or dislodgement of material in an excavation;
  - The contractor shall not permit any person to work in an excavation which has not been adequately shored or braced.
  - Shoring and bracing may not be necessary where:
    - the sides of the excavation are sloped to at least the maximum angle of repose measured relative to the horizontal plane; or
    - such an excavation is in stable material:
    - Provided that :
      - permission being given in writing by the appointed competent person upon evaluation by him or her of the site conditions; and
      - where any uncertainty pertaining to the stability of the soil still exists, the decision from a professional engineer or a professional technologist competent in excavations shall be decisive and such a decision shall be noted in writing and signed by both the competent person and a professional engineer or technologist, as the case may be;
  - Take steps to ensure that the shoring or bracing is designed and constructed in such a manner rendering it strong enough to support the sides of the excavation in question;
  - Ensure that no load, material, plant or equipment is placed or moved near the edge of any excavation where it is likely to cause its collapse and thereby endangering the safety of, any person, unless precautions such as the provision of sufficient and suitable shoring or bracing are taken to prevent the sides from collapsing;
  - Cause convenient and safe means of access to be provided to every excavation in which persons are required to work and such access shall not be further than 6m from the point where any worker within the excavation is working;
  - Cause every excavation, including all bracing and shoring, to be inspected-
    - daily, prior to each shift;
    - after every blasting operation;
    - after an unexpected fall of ground;
    - after substantial damage to supports; and
    - after rain,

by a competent person in order to pronounce the safety of the excavation to ensure the safety of persons, and those results are to be recorded in a register kept on site and made available to an inspector, client, client's agent, contractor or employee upon request;

    - Cause every excavation which is accessible to the public or which is adjacent to public roads or thoroughfares, or whereby the safety of persons may be endangered, to be-
    - adequately protected by a barrier or fence of at least one meter in height and as close to the excavation as is practicable; and
    - provided with warning illuminants or any other clearly visible boundary indicators at night or when visibility is poor



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- Cause warning signs to be positioned next to an excavation within which persons are working or carrying out inspections or tests.

#### **F1007 FORMWORK AND SUPPORT WORK**

The contractor shall ensure that-

- all formwork and support work operations are carried out under the supervision of a competent person who has been appointed in writing for that purpose;
- all formwork and support work structures, are adequately designed, erected, supported, braced and maintained so that they will be capable of supporting all anticipated vertical and lateral loads that may be applied to them and also that no loads are imposed onto the structure that the structure is not designed to withstand.
- The designs of formwork and support work structures are done with close reference to the structural design drawings and where any uncertainty exists, the structural designer should be consulted.
- All drawing pertaining to the design of formwork or support work structures are kept on the site and are available on request by an inspector, contractor, client, client's agent or employee.
- All equipment used in the formwork or support work structure are carefully examined and checked for suitability by a competent person, before being used.
- All formwork and support work structures are inspected by a competent person immediately before, during and after the placement of concrete or any other imposed load and thereafter on a daily basis until the formwork and support work structure has been removed and the results have been recorded in a register and made available on site.
- If, after erection, any formwork and support work structure is found to be damaged or weakened to such a degree that its integrity is affected, it shall be safely removed or reinforced immediately.
- Adequate precautionary measures are taken in order to-
  - Secure any deck panels against displacement, and
  - Prevent any person from slipping on support work or formwork due to the application of formwork or support work release agents.
- The health of any person is not affected through the use of solvents or oils or any other similar substances.
- Upon casting concrete, the support work or formwork structure should be left in place until the concrete has acquired sufficient strength to support safely, not only its own weight but also any imposed loads and not removed until authorisation has been given by a competent person.
- Provision is made for safe access by means of secure ladders or staircases for all work to be carried out above the foundation bearing level.

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- All employees required to erect, move or dismantle formwork and support work structures are provided with adequate training and instruction to perform these operations safely
  - The foundation conditions are suitable to withstand the weight caused by the formwork and support work structure and any imposed loads, such that the formwork and support work structure are stable.

#### **D1008 CONSTRUCTION VEHICLES**

The contractor shall ensure that all construction vehicles and mobile plants :

- are of an acceptable design and construction ;
- are maintained in a good working order ;
- are used in accordance with their design and the intention for which they were designed, having due regard to safety and health ;
  - are operated by workers who have received appropriate training and been certified competent and been authorised to operate such machinery ; and
  - are physically and psychologically fit to operate such construction vehicles and mobile plant by being in possession of a medical certificate of fitness
- have safe and suitable means of access ;
- are properly organised and controlled by providing adequate signalling or other control arrangements to guard against the dangers relating to the movement of vehicles and plant, in order to ensure their continued safe operation ;
- are prevented from falling into excavations, water or any other area lower than the working surface by installing adequate edge protection, which may include guardrails and crash barriers ;
- where appropriate, are fitted with structures designed to protect the operator from falling material or from being crushed should the vehicle or mobile plant overturn ;
- are equipped with an electrically operated acoustic signalling device and a reversing alarm ;
- are on a daily basis inspected prior to use, by a competent person who has been appointed in writing and the findings of such inspection is recorded in a register.

The contractor shall furthermore ensure that :

- no person rides or be required or permitted to ride on any construction vehicle or mobile plant otherwise than in a safe place provided thereon for that purpose ;
- every construction site is organised in such a way that pedestrians and vehicles can move safely and without risks to health ;
- the traffic routes are suitable for the persons using them, sufficient in number, in suitable positions and of sufficient size ;
- every traffic route is, where necessary indicated by suitable signs ;

- all construction vehicles and mobile plant left unattended at night, adjacent to a freeway in normal use or adjacent to construction areas where work is in progress, shall have appropriate lights or reflectors, or barricades equipped with appropriate lights or reflectors, in order to identify the location of the vehicles or plant ;
- bulldozers, scrapers, loaders, and other similar mobile plant are, when being repaired or when not in use, fully lowered or blocked with controls in a neutral position, motors stopped and brakes set ;
- whenever visibility conditions warrant additional lighting, all mobile plant are equipped with at least two headlights and two taillights when in operation ;
- tools and material are secured in order to prevent movement when transported in the same compartment with employees ;
- vehicles used to transport employees have seats firmly secured and adequate for the number of employees to be carried ; and
- when workers are working on or adjacent to public roads, reflective indicators are provided and worn by the workers.

#### **D1009 ELECTRICAL INSTALLATIONS**

- Before construction commences and during the progress thereof, adequate steps must be taken to ascertain the 'presence of and guard against danger to workers from any electrical cable or apparatus.
- All parts of electrical installations and machinery must be of adequate strength to withstand the working conditions on construction sites;
- In working areas where the exact location of underground electric power lines is unknown, employees using jackhammers, shovels or other hand tools which may make contact with a power line, must be provided with insulated protective gloves or otherwise that the handle of the tool being used is insulated;
- All temporary electrical installations must be inspected at least once a week and electrical machinery on a daily basis before use on a construction site by competent persons and the records of these inspections must be recorded in a register to be kept on site.
- The control of all temporary electrical installations on the construction site must be designated to a competent person who has been appointed in writing.

#### **D1010 USE AND STORAGE OF FLAMMABLE LIQUIDS**

- Where flammable liquids are being used, applied or stored it must be done in such a manner that would cause no fire or explosion hazard, and that the workplace is effectively ventilated :

Provided that where the workplace cannot effectively be ventilated :

- every employee involved is provided with a respirator, mask or breathing apparatus of a type approved by the chief inspector ; and
- steps are taken to ensure that every such employee, while using or applying flammable liquid, uses the apparatus supplied to him or her ;



- No person smokes in any place in which flammable liquid is used or stored, and the contractor shall affix a suitable and conspicuous notice at all entrances to any such areas prohibiting such smoking ;
- Flammable liquids on a construction site is stored in a well-ventilated reasonably fire resistant container, cage or room and kept locked with proper access control measures in place ;
- An adequate amount of efficient fire-fighting equipment is installed in suitable locations around the flammable liquids store with the recognized symbolic signs ;
- Only the quantity of flammable liquid needed for work on one day is to be taken out of the store for use ;
- All containers holding flammable liquids are kept tightly closed when not in actual use and, after their contents have been used up, to be removed from the construction site and safely disposed of ;
- Where flammable liquids are decanted, the metal containers are bonded or earthed ;
- No flammable material such as cotton waste, paper, cleaning rags or similar material is stored together with flammable liquids.

**D1011 DISPOSAL OF MATERIALS**

See "Environmental Management Plan" in the Tender Document.

**D1012 WELDING AND CUTTING**

No contractor shall require or permit welding or flame cutting operations to be undertaken unless :

- the person operating the equipment has been fully instructed in the safe operation and use of such equipment and in the hazards which may arise from its use ;
- effective protection is provided and used for the eyes and respiratory system and, where necessary, for the face, hands, feet, legs, body and clothing of persons performing such operations, as well as against heat, incandescent or flying particles or dangerous radiation ;
- leads and electrode holders are effectively insulated ; and
- the workplace is effectively partitioned off and where not practicable all other persons exposed to the hazards are warned and provided with suitable protective equipment.

No contractor shall require or permit electric welding to be undertaken in wet or damp places, inside metal vessels or in contact with large masses of metal, unless :

- the insulation of the electrical leads is in a sound condition ;
- the electrode holder is completely insulated to prevent accidental contact with current carrying parts ;
- the welder is completely insulated by means of boots, gloves or rubber mats ; and
- at least one other person who has been properly instructed to assist the welder in case of an emergency is and remains in attendance during operations.



No contractor shall require or permit welding, flame cutting, grinding, soldering or similar work to be undertaken in respect of any tube, tank, drum, vessel or similar object or container where such object or container :

- is completely closed, unless a rise in internal pressure cannot render it dangerous; or
- contains any substance which, under the action of heat, may :
  - ignite or explode ; or
  - react to form dangerous or poisonous substances.

Where hot work involving welding, cutting, brazing or soldering operations is carried out at places, other than workplaces which have been specifically designated and equipped for such work, the employer shall take steps to ensure that proper and adequate fire precautions are taken.

## **D1013 BLASTING AND USE OF EXPLOSIVES**

### **a) Safety distances**

The contractor shall :

- apply the safety distances for the respective categories of explosives as stipulated in Annexure 1 of the Explosives regulations ;
- where less than five kilograms of explosives is used, apply to the chief inspector of occupational health and safety for a determination of a safety distance which the employer shall enforce.

### **b) Supervision of explosives**

In order to ensure that the provisions of the Act and its regulations in relation to explosives workplaces are complied with, the contractor shall in writing appoint a competent and certificated person in a full-time capacity to be explosives manager in respect of every workplace where explosives are being used, tested, stored or manufactured.

The contractor shall appoint one or more persons, who are suitably qualified and experienced, as authorized supervisors to assist the explosives manager.

The contractor shall ensure that :

- the explosives manager :
  - approves in writing the rules, methods, materials, equipment and tools to be used in the danger area ;
  - ensures that all persons under his or her control are informed of the hazards related to their tasks and are thoroughly trained in safe work procedures, in particular with respect to shock, friction risk of fire, or static electricity, and are familiar with the requirements of the Explosives regulations ;
  - prescribes all protective clothing and equipment to be used in the danger area ;
  - ensures that the processes and equipment specified in schedule licences are safe and appropriate for the manufacturing processes envisaged for the workplace.
- the supervising official :
  - is at all times in a position to exercise control over the operations reports without delay to the explosives manager any plant or equipment under his or her control that has or may have posed a risk ;
  - ensure that all rules implemented in the interest of health and safety are at all times complied with ;
  - stop all work involving explosives if he or she becomes aware of any risk posed to the health and safety of persons.

**c) Safe handling of explosives**

The contractor shall ensure that :

- all explosives or ingredients thereof are at all times free of foreign material ;
- all reasonable precautions are taken to prevent the spillage of explosives ;
- cleaning procedures in the case of a spillage of explosives are prescribed in writing by the explosives manager: Provided that where no cleaning procedures have been prescribed any unusual spillage of explosives shall be reported immediately to the supervising official ;
- all waste, paper, timber, rags, cotton and similar materials that have been in contact with explosives or an ingredient of an explosive are disposed of in a manner prescribed in writing by the explosives manager: Provided that at the end of the working day all waste and floor sweepings from danger areas shall be deposited in the designated places ;
- the explosives or partly mixed explosives are conveyed as soon and as carefully as possible and taking such precautions and in such a manner as will effectively guard against any accidental ignition or explosion ;
- only containers provided for the conveyance of explosives are used for transporting explosives or partly mixed explosives and that such containers are at all times kept clean, free from grit and in a good state of repair ;
- vehicles containing explosives are left unattended only in designated places.

The contractor shall ensure that :

- all material, equipment, tools or similar articles used in a danger area are decontaminated after such use, and that no person makes use of any such article that has not been decontaminated after use in a contaminated area ;
- the certification of the decontamination process is certified and approved by the explosives manager or a person authorized by the explosives manager.

Unless permission has been granted by the chief inspector of occupational health and safety, no contractor shall use :

- explosives in workplaces other than explosives workplaces approved by the chief inspector of occupational health and safety ;
- any explosives for which no provision is made in Explosives regulations.

No contractor shall allow unauthorized access to such explosives or bury, dump, hide or abandon any explosives.

No contractor shall use any explosive material for blasting purposes unless :

- he or she is in possession of a written permission issued by or under the authority of the chief inspector of occupational health and safety ;

- he or she is undergoing training while using such blasting material under the immediate and constant supervision of a person who is in possession of permission.

**d) Dangerous areas**

The contractor shall ensure that entry and exit from danger areas is only permitted :

- at the permanent authorized point of entry or exit: Provided that entry or exit at any other point may be authorized by the explosives manager or a person authorized by him if the authorized gatekeeper has been informed thereof ;
- for persons and vehicles authorized thereto by the explosives manager or a person authorized by him ;
- to visitors under escort by an authorized person who is aware of the hazards attached to the danger area.

The contractor shall keep a register of the entries and exits and that register shall be available on the premises for inspection by an inspector.

No person shall :

- enter the danger area with :
  - tobacco;
  - matches, cigarette lighters or other devices capable of generating heat or spark sources ;
  - intoxicating liquor or narcotics ;
  - food, medicine or drinkable fluids: Provided that authorization to enter with such articles may be granted by the explosives manager for purposes of consumption in licensed mess rooms and smoking areas: Provided further that special rules for the control of such consumption and smoking, approved by the chief inspector of occupational health and safety shall be made in writing and shall be enforced by the employer, self-employed person or user ; or
  - radio transmitters or cellular telephones ; or

The contractor shall ensure that hazard warning signs are clearly displayed at the entrance to any danger area.

**D1014 VESSELS UNDER PRESSURE**

**a) Manufacturer's data plate**

Every user of a boiler or pressure vessel shall cause a manufacturer's plate with the following minimum particulars to be securely fixed in a conspicuous place to the shell of every such a boiler or pressure vessel:

- i) Name of manufacturer;
- ii) country or origin;
- iii) year of manufacture;



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- iv) manufacturer's serial number;
  - v) name, number and date of the standard of design;
  - vi) design gauge pressure in Pa (design pressure)
  - vii) maximum permissible operating pressure in Pa
  - viii) operating temperature;
  - ix) capacity in cubic meters; and
  - x) mark of an approved inspection authority.

No person shall remove such a manufacturer's plate or wilfully damage or alter the particulars stamped thereon.

**b) Portable gas containers**

No user shall use or require or permit a portable gas container to be used, and no user shall fill, place in service, handle, modify, repair, inspect or test any portable gas container, other than in compliance with standards incorporated into the Vessels under Pressure regulations.

**c) Hand held fire extinguishers**

No user shall use, require or permit the use of a hand held fire extinguisher unless designed, constructed, filled, recharged, reconditioned, modified, repaired, inspected or tested in accordance with a safety standard incorporated into the Vessels under Pressure regulations.

No person shall fill, recharge, recondition, modify, repair, inspect or test any hand held fire extinguisher unless a holder of a permit issued by the South African Bureau of Standards in terms of SABS 1475.

**d) Gas and fuel use, equipment and systems**

No person shall handle, store or distribute a gas fuel in any manner, including the filling of a container, other than in accordance with a health and safety standards.

**e) Inspection and test**

Any user of a boiler or pressure vessel shall cause, where reasonably practicable, such a boiler or pressure vessel, including the appurtenances and automatic controls and indicators, to be subjected to an internal and external inspection, and a hydraulic pressure test to 1.25 times the maximum permissible safe operating pressure as the case may be :

- by an approved inspection authority before commissioning after installation, re-erection or repairs ;
- by a person appointed in writing by the user and who is competent to do such inspections and tests by virtue of their training, knowledge and experience in the operation, maintenance, inspection and testing of a boiler or pressure vessel within 36 months from the date of the previous internal and external inspection and hydraulic pressure test: Provided that where a pressure vessel is not subjected to corrosion, the user may dispense with the internal inspection and hydraulic pressure test subject to the written approval of an approved

inspection authority: Provided further that an inspector may require a specific boiler or pressure vessel to be inspected or tested more frequently or permit a specific boiler or pressure vessel to be inspected or tested less frequently.

**f) Record keeping**

Any user of a vessel under pressure shall keep on his premises a record which shall be open for inspection by an inspector in which the results of inspections, tests, modifications and repairs shall be recorded, dated and signed by the competent person.

**g) Maintenance**

No user shall use, cause or permit a vessel under pressure or gas fuel system, including all automatic controls, indicators and appurtenances, to be used unless it is at all times maintained in a safe working condition and the efficiency thereof is proved by regular testing.

No user shall use or cause or permit a vessel under pressure to be used unless it is kept clean and free from any :

- carbonized oil or other inflammable material which may ignite under working conditions ;
- material which may cause corrosion ; or
- material which is liable to chemical reaction which may cause an uncontrolled rise in pressure.

**D1015 PHYSICAL HAZARDS**

**a) Ergonomics**

- Ensure that assigned tasks do not exceed the limits of the performance capacities of the worker.
- Prevent injury or any detrimental effects to the health of the worker
- Provide that tasks and working conditions will not lead to impairments.

**b) Noise**

No contractor shall require or permit an employee to work in an environment in which he is exposed to an equivalent noise level equal to 85 dB(A) or higher. The contractor shall reduce the equivalent noise level to below 85 dB(A) or, where this is not reasonably practicable, he shall reduce the level to as low as is reasonably practicable and take all reasonable steps to isolate the source of the noise acoustically. Where the equivalent noise level in any workplace cannot be reduced to below 85 dB(A) the contractor shall prohibit any person from entering a noise zone unless such person wears hearing protectors.

The contractor shall provide, free of charge, hearing protectors to each employee who works in or, to any person who is required or permitted to enter a noise zone, and no contractor shall require or permit any person to work in or enter such noise zone, and no person shall work in or enter such noise zone, unless he wears such hearing protectors in the correct manner: Provided that where the equivalent noise level to which employees are exposed, is such that the attenuation of the hearing protectors

does not reduce the said noise to below 85 dB(A) the employer concerned shall limit the time during which employees work in that noise zone in such a way that they are not exposed to an equivalent noise level equal to 85 dB(A) or higher.

The contractor shall properly instruct any person who is required to wear hearing protectors in the use of such protectors and inform him of noise zones where the wearing thereof is compulsory.

The contractor shall :

- ensure that every employee employed in a noise zone is subjected to audiometric examinations conducted in accordance with section 7 of SABS 083, by an audiometrist approved by the chief inspector ;
- keep records of the results of each audiometric examination and make such records available for inspection by an inspector if he so requires ; and
- keep such records for a minimum period of 30 years after termination of employment: Provided that if the employer ceases activities all such records shall be forwarded to the regional director.

**c) Vibration**

Whole-body vibration occurs when the body is supported on a surface which is vibrating (e.g., when sitting on a seat which vibrates, standing on a vibrating floor or recumbent on a vibrating surface). Whole-body vibration occurs in all forms of transport and when working near some industrial machinery.

Hand-transmitted vibration is the vibration that enters the body through the hands. It is caused by various processes where vibrating tools or work pieces are grasped or pushed by the hands or fingers. Exposure to hand-transmitted vibration can lead to the development of several disorders.

**D1016 SITE WIDE ELEMENTS**

**a) Site access and egress**

- Access to the site will involve crossing the public footpath.
- Store materials and plant away from means of access for the general public and occupants.
- Remove rubbish and demolition materials regularly. Do not allow to accumulate on flat roofs.
- Maintain free access through designated means of escape at all times
- Agree with the Employer / Employer's Agent delivery points for materials before commencing works.

**b) Visitors to the site**

- All visitors to report to the Principal Contractor's reception area for OHS Induction training.
- All visitors to sign the visitor's registration document.
- All visitors to be provided with a Visitors Permit to enable them to access the construction site.
- All un-inducted visitors must be accompanied on the construction site by an inducted person.
- No visitors shall be allowed to access the construction site without wearing the necessary PPE.



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**c) Deliveries**

Access will involve crossing the public footpath.

**d) Emergencies**

Ensure that there are adequate escape routes and that they are kept clear at all times.

**e) Location of temporary site accommodation**

See Site Lay-out Plan.

**f) Location of materials unloading and storage**

Materials are to be unloaded and stored in locations which will not in any way affect access or egress to the site or the works.

**g) Traffic and pedestrian routes**

The road, public footpaths and access way are to be kept open at all times. All necessary signage and barriers are to be put in place to protect pedestrians at the site entrance and access and egress points.

**h) Environment**

See Environmental Management Plan.

**i) Safety**

- Ensure that all employees are aware of the Health and Safety policy and put into place arrangements to ensure that all visitors and workers new to the site are aware of the site safety provisions.
- Locate underground electricity cables, mark and take precautions to avoid.
- Ensure that cartridge operated tools are operated by trained personnel and in accordance with the maker's instructions that the gun is cleaned regularly and kept in a secure place when not in use.
- Protect people who may be exposed to health risks arising from hazardous substances.

**D1017 CONTINUING LIAISON**

The procedures for consideration and evaluation of the health and safety implications of Contractor designed elements of the works must follow the recognised principles of prevention and protection and take account of the issues highlighted in this OHS Specification.

The following information is to be submitted by the Contractor to the Client / Client's Agent in sufficient time to allow adequate consideration by the Client / Client's Agent and, where appropriate, the design team, and the provision of relevant information to those persons affected by the works, prior to the commencement of the relevant works:

- Suitable and sufficient information to demonstrate that health or safety issues have been adequately considered.
- Risk assessments.
- A list of health and/or safety hazards identified which cannot be designed out.
- A list of any materials or substances which are specified or inherent in the design which is potentially hazardous to health and/or safety.



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**a) Unforeseen eventualities**

The following action is to be taken in the event of unforeseen eventualities arising during the construction stage of the project which require significant design changes, or affect the resources required to carry out the work without risk to health and/or safety, or have other health or safety implications.

The Client / Client's Agent and, where possible, the Principal Contractor are to be advised as soon as possible.

Full details of the relevant health and safety issues involved are to be reviewed with the Client / Client's Agent and Principal Contractor as soon as possible.

Full details of any revised designs, risk assessments and identified hazards and/or hazardous materials and substances are to be issued to the Client / Client's Agent and Principal Contractor in sufficient time to allow for the revision of the Health and Safety Plan and notification of all persons affected by the health and/or safety implications of the changes prior to the commencement of the affected works.

**b) Site liaison**

Liaise with all other contractors and implement any agreed changes to the Health and Safety Plan arising from such liaison. Set up regular training for all operatives including induction training for all staff upon arrival to site.

**c) Health and Safety File**

Provide the Planning Supervisor with any relevant information which the contractor believes should be incorporated into the Health and Safety File.

**d) Design development**

Provide the Client / Client's Agent with all design information prepared by sub-Contractors.

Arrange liaison meetings with sub-contractors to discuss and review health and safety issues arising from the sub-contractors' designs.

**D1018 CONCLUSION**

The hazards listed above were identified posing potential threats to the health and or safety of persons that will work on the contract. Although every effort were made to ensure that every possible hazard was identified OHSEC can not guarantee this, therefore it is imperative for the contractor to conduct a comprehensive risk identification and hazard assessment in order to make certain that all hazards are identified.

## **SECTION E : ENVIRONMENTAL MANAGEMENT REQUIREMENTS**

### **E1001 LEGAL REQUIREMENTS**

#### **a) General**

Construction will be according to the best industry practices, as identified in the project documents. This EMP, which forms an integral part of the contract documents, informs the contractor as to his duties in the fulfillment of the project objectives, with particular reference to the prevention and mitigation of environmental impacts caused by construction activities associated with the project. The contractor should note that obligations imposed by the EMP are legally binding in terms of environmental statutory legislation and in terms of the additional conditions to the general conditions of contract that pertain to this project. In the event that any rights and obligations contained in this document contradict those specified in the standard or project specifications then the latter shall prevail.

#### **b) Statutory and other applicable legislation**

The contractor is deemed to have made himself conversant with all legislation pertaining to the environment, including provincial and local government ordinances, which may be applicable to the contract.

### **E1002 ADMINISTRATION OF ENVIRONMENTAL OBLIGATIONS**

#### **a) Appointment of a Designated Environmental Officer (DEO)**

For the purposes of implementing the conditions contained herein, the contractor shall submit to the engineer for approval the appointment of a nominated representative of the contractor as the DEO for the contract. The request shall be given, in writing, at least fourteen days before the start of any work clearly setting out reasons for the nomination, and with sufficient detail to enable the engineer to make a decision. The engineer will, within seven days of receiving the request, approve, reject or call for more information on the nomination. Once a nominated representative of the contractor has been approved he/she shall be the DEO and shall be the responsible person for ensuring that the provisions of the EMP are complied with during the life of the contract. The engineer will be responsible for issuing instructions to the contractor where environmental considerations call for action to be taken. The DEO shall submit regular written reports to the engineer, but not less frequently than once a month.

The engineer shall have the authority to instruct the contractor to replace the DEO if, in the engineer's opinion, the appointed officer is not fulfilling his/her duties in terms of the requirements of the EMP or this specification. Such instruction will be in writing and shall clearly set out the reasons why a replacement is required.

There shall be an approved DEO on the site at all times. The DEO will be allowed to fulfill also other duties on the contract.

#### **b) Administration**

Before the contractor begins each construction activity the DEO shall give to the engineer a written statement setting out the following:

- The type of construction activity.
- Locality where the activity will take place.

- Identification of the environmental aspects and impacts that might result from the activity.
- Methodology for impact prevention for each activity or aspect.
- Methodology for impact containment for each activity or aspect.
- Emergency/disaster incident and reaction procedures.
- Treatment and continued maintenance of impacted environment.

The contractor may provide such information in advance of any or all construction activities provided that new submissions shall be given to the engineer whenever there is a change or variation to the original.

The engineer may provide comment on the methodology and procedures proposed by the DEO, but he shall not be responsible for the contractor's chosen measures of impact mitigation and emergency/disaster management systems. However, the contractor shall demonstrate at inception and at least once during the contract that the approved measures and procedures function properly.

**c) Good housekeeping**

The Contractor shall undertake "good housekeeping" practices during construction. This will help avoid disputes on responsibility and allow for the smooth running of the contract as a whole. Good housekeeping extends beyond the wise practice of construction methods that leaves production in a safe state from the ravages of weather to include the care for and preservation of the environment within which the site is situated.

**E1003 TRAINING**

The designated environmental officer (DEO) must be conversant with all legislation pertaining to the environment applicable to this contract and must be appropriately trained in environmental management and must possess the skills necessary to impart environmental management skills to all personnel involved in the contract.

The contractor shall ensure that adequate environmental training takes place. All employees shall have been given an induction presentation on environmental awareness. Where possible, the presentation needs to be conducted in the language of the employees. The environmental training should, as a minimum, include the following:

- The importance of conformance with all environmental policies
- The environmental impacts, actual or potential, of their work activities;
- The environmental benefits of improved personal performance;

Their roles and responsibilities in achieving conformance with the environmental policy and procedures and with the requirement of the Agency's environmental management systems, including emergency preparedness and response requirements;

The potential consequences of departure from specified operating procedures;

The mitigation measures required to be implemented when carrying out their work activities.

In the case of permanent staff the contractor shall provide evidence that such induction courses have been presented. In the case of new staff (including contract labour) the contractor shall inform the engineer when and how he intends concluding his environmental training obligations.



**E1004      ACTIVITIES/ASPECTS CAUSING IMPACTS**

A list of possible causes of environmental impacts that occur during construction activities is given in the Table, which is to be found at the end of Part C. This list is not exhaustive, and shall be used for guideline purposes only.

**E1005      ENVIRONMENTAL MANAGEMENT OF CONSTRUCTION ACTIVITIES**

**a)      Site establishment**

**i)      Site plan**

The contractor shall establish his construction camps, offices, workshops, staff accommodation and testing facilities on the site in a manner that does not adversely affect the environment. However, before construction can begin, the contractor shall submit to the engineer for his approval, plans of the exact location, extent and construction details of these facilities and the impact mitigation measures the contractor proposes to put in place.

The plans shall detail the locality as well as the layout of the waste treatment facilities for litter, kitchen refuse, sewage and workshop-derived effluents. The site offices should not be sited in close proximity to steep areas, as this will increase soil erosion. Preferred locations would be flat areas along the route. If the route traverses water courses, streams and rivers, it is recommended that the offices, and in particular the ablution facilities, aggregate stockpiles, spoil areas and hazardous material stockpiles are located as far away as possible from any water course as possible. Regardless of the chosen site, the contractor's intended mitigation measures shall be indicated on the plan. The site plan shall be submitted not later than the first site meeting. Detailed, electronic colour photographs shall be taken of the proposed site before any clearing may commence. These records are to be kept by the engineer for consultation during rehabilitation of the site.

**ii)      Vegetation**

The contractor has a responsibility to inform his staff of the need to be vigilant against any practice that will have a harmful effect on vegetation.

The natural vegetation encountered on the site is to be conserved and left as intact as possible. Vegetation planted at the site shall be indigenous and in accordance with instructions issued by the engineer. Only trees and shrubs directly affected by the works, and such others as may be indicated by the engineer in writing, may be felled or cleared. In wooded areas where natural vegetation has been cleared out of necessity, the same species of indigenous trees as were occurring, shall be re-established.

The project specification for the rehabilitation of the grass cover shall be strictly adhered to. Any proclaimed weed or alien species that propagates during the contract period shall be cleared by hand before seeding. Fires shall only be allowed in facilities or equipment specially constructed for this purpose. A firebreak shall be cleared and maintained around the perimeter of the camp and office sites.



**iii) Rehabilitation**

The area where the site offices were erected will require rehabilitation at the end of the contract. All construction material, including concrete slabs and braai areas shall be removed from the site on completion of the contract.

**iv) Water for human consumption**

Water for human consumption shall be available at the site offices and at other convenient locations on site.

All effluent water from the camp / office sites shall be disposed of in a properly designed and constructed system, situated so as not to adversely affect water sources (streams, rivers, pans dams etc). Only domestic type wastewater shall be allowed to enter this drain.

**v) Heating and cooking fuel**

The contractor shall provide adequate facilities for his staff so that they are not encouraged to supplement their comforts on site by accessing what can be taken from the natural surroundings. The contractor shall ensure that energy sources are available at all times for construction and supervision personnel for heating and cooking purposes.

**b) Sewage treatment**

Particular reference in the site establishment plan shall be given to the treatment of sewage generated at the site offices, site laboratory and staff accommodation and at all localities on the site where there will be a concentration of labour. Sanitary arrangements should be to the satisfaction of project management, the local authorities and legal requirements.

Safe and effective sewage treatment will require one of the following sewage handling methods: septic tanks and soak-aways, dry-composting toilets such as "Enviro Loos", or the use of chemical toilets which are supplied and maintained by a subcontractor. The type of sewage treatment will depend on the geology of the area selected, the duration of the contract and proximity (availability) of providers of chemical toilets. Should a soak-away system be used, it shall not be closer than 800 metres from any natural water course or water retention system. The waste material generated from these facilities shall be serviced on a regular basis. The positioning of the chemical toilets shall be done in consultation with the engineer.

Toilets and latrines shall be easily accessible and shall be positioned within walking distance from wherever employees are employed on the works. Use of the veld for this purpose shall not, under any circumstances, be allowed.

Outside toilets shall be provided with locks and doors and shall be secured to prevent them from blowing over. The toilets shall also be placed outside areas susceptible to flooding. The contractor shall arrange for regular emptying of toilets and shall be entirely responsible for enforcing their use and for maintaining such latrines in a clean, orderly and sanitary condition to the satisfaction of the engineer.

**c) Waste management**

The contractor's intended methods for waste management and waste minimisation shall be implemented at the outset of the contract. All personnel shall be instructed to dispose of all waste in the proper manner.

**i) Solid waste**

Solid waste shall be stored in an appointed area in covered, tip proof metal drums for collection and disposal. A refuse control system shall be established for the collection and removal of refuse to the satisfaction of the engineer. Disposal of solid waste shall be at a Department of Water Affairs and Forestry (DWAF) licensed landfill site or at a site approved by DWAF in the event that an existing operating landfill site is not within reasonable distance from the site offices and staff accommodation. No waste shall be burned or buried at or near neither the site offices, nor anywhere else on the site, including the approved solid waste disposal site.

**ii) Litter**

No littering by construction workers shall be allowed. During the construction period, the facilities shall be maintained in a neat and tidy condition and the site shall be kept free of litter.

Measures shall be taken to reduce the potential for litter and negligent behaviour with regards to the disposal of all refuse. At all places of work the contractor shall provide litter collection facilities for later safe disposal at approved sites.

**iii) Hazardous waste**

Hazardous waste such as bitumen, tar, oils etc. shall be disposed of in a Department of Water Affairs and Forestry approved landfill site. Special care shall be taken to avoid spillage of tar or bitumen products such as binders or pre-coating fluid to avoid water-soluble phenols from entering the ground or contaminating water.

Under no circumstances shall the spoiling of tar or bituminous products on the site, over embankments, in borrow pits or any burying, be allowed. Unused or rejected tar or bituminous products shall be returned to the supplier's production plant. Any spillage of tar or bituminous products shall be attended to immediately and affected areas shall be promptly reinstated to the satisfaction of the engineer.

**d) Control at the workshop**

The contractor's management and maintenance of his plant and machinery will be strictly monitored according to the criteria given below, regardless whether it is serviced on the site (i.e. at the place of construction activity or at a formalised workshop).

**i) Safety**

All the necessary handling and safety equipment required for the safe use of petrochemicals and oils shall be provided by the contractor to, and used or worn by, the staff whose duty it is to manage and maintain the contractor's and his subcontractor's and supplier's plant, machinery and equipment.

**ii) Hazardous material storage**

Petrochemicals, oils and identified hazardous substances shall only be stored under controlled conditions. All hazardous materials e.g. tar or bitumen binders shall be stored in a secured, appointed area that is fenced and has restricted



entry. Storage of tar or bituminous products shall only take place using suitable containers to the approval of the engineer.

The contractor shall provide proof to the engineer that relevant authorisation to store such substances has been obtained from the relevant authority. In addition, hazard signs indicating the nature of the stored materials shall be displayed on the storage facility or containment structure. Before containment or storage facilities can be erected the contractor shall furnish the engineer with details of the preventative measures he proposes to install in order to mitigate against pollution of the surrounding environment from leaks or spillage. The preferred method shall be a concrete floor that is bunded. Any deviation from the method will require proof from the relevant authority that the alternative method proposed is acceptable to that authority. The proposals shall also indicate the emergency procedures in the event of misuse or spillage that will negatively affect an individual or the environment.

**iii) Fuel and gas storage**

Fuel shall be stored in a secure area in a steel tank supplied and maintained by the fuel suppliers. An adequate bund wall, 110% of volume, shall be provided for fuel and diesel areas to accommodate any leakage spillage or overflow of these substances. The area inside the bund wall shall be lined with an impervious lining to prevent infiltration of the fuel into the soil. Any leakage, spillage or overflow of fuel shall be attended to without delay.

Gas welding cylinders and LPG cylinders shall be stored in a secure, well-ventilated area.

**iv) Oil and lubricant waste**

Used oil, lubricants and cleaning materials from the maintenance of vehicles and machinery shall be collected in a holding tank and sent back to the supplier. Water and oil should be separated in an oil trap. Oils collected in this manner, shall be retained in a safe holding tank and removed from site by a specialist oil recycling company for disposal at approved waste disposal sites for toxic/hazardous materials. Oil collected by a mobile servicing unit shall be stored in the service unit's sludge tank and discharged into the safe holding tank for collection by the specialist oil recycling company.

All used filter materials shall be stored in a secure bin for disposal off site. Any contaminated soil shall be removed and replaced. Soils contaminated by oils and lubricants shall be collected and disposed of at a facility designated by the local authority to accept contaminated materials.

**e) Clearing the site**

In all areas where the contractor intends to, or is required to clear the natural vegetation and soil, either within the road reserve, or at designated or instructed areas outside the road reserve, a plan of action shall first be submitted to the engineer for his approval.

The plan shall contain a photographic record and chainage/land reference of the areas to be disturbed. This shall be submitted to the engineer for his records before any disturbance/stockpiling may occur. The record shall be comprehensive and clear, allowing for easy identification during subsequent inspections.

The contractor shall be responsible for the re-establishment of grass within the road reserve boundaries for all areas disturbed during road construction. This includes, for example, service roads, stockpile areas, stop/go facilities, windrows and wherever material generated for, or from, road construction has to be stored temporarily or otherwise within the road reserve, or at designated or instructed areas outside the road reserve. This responsibility shall extend until expiry of the defects notification period.

**f) Soil management**

**i) Topsoil**

Topsoil shall be removed from all areas where physical disturbance of the surface will occur and shall be stored and adequately protected. The contract will provide for the stripping and stockpiling of topsoil from the site for later re-use. Topsoil is considered to be the natural soil covering, including all the vegetation and organic matter. Depth may vary at each site. The areas to be cleared of topsoil shall include the storage areas. All topsoil stockpiles and windrows shall be maintained throughout the contract period in a weed-free condition. Weeds appearing on the stockpiled or windrowed topsoil shall be removed by hand. Soils contaminated by hazardous substances shall be disposed of at an approved Department of Water Affairs and Forestry waste disposal site. The topsoil stockpiles shall be stored, shaped and sited in such a way that they do not interfere with the flow of water to cause damming or erosion, or itself be eroded by the action of water.

Stockpiles of topsoil shall not exceed a height of 2m, and if they are to be left for longer than 6 months, shall be analysed, and if necessary, upgraded before replacement. Stockpiles shall be protected against infestation by weeds.

The contractor shall ensure that no topsoil is lost due to erosion – either by wind or water. Areas to be topsoiled and grassed shall be done so systematically to allow for quick cover and reduction in the chance of heavy topsoil losses due to unusual weather patterns. The contractor's programme shall clearly show the proposed rate of progress of the application of topsoil and grassing. The contractor shall be held responsible for the replacement, at his own cost, for any unnecessary loss of topsoil due to his failure to work according to the progress plan approved by the engineer. The contractor's responsibility shall also extend to the clearing of drainage or water systems within and beyond the boundaries of the road reserve that may have been affected by such negligence.

**ii) Subsoil**

The subsoil is the layer of soil immediately beneath the topsoil. It shall be removed, to a depth instructed by the engineer, and stored separately from the topsoil if not used for road building. This soil shall be replaced in the excavation in the original order it was removed for rehabilitation purposes.

**g) Drainage**

The quality, quantity and flow direction of any surface water runoff shall be established prior to disturbing any area for construction purposes. Cognisance shall be taken of these aspects and incorporated into the planning of all construction activities. Before a site is developed or expanded, it shall be established how this development or expansion will affect the drainage pattern. Recognised water users / receivers shall not be adversely affected by the expansion or re-development. No water source shall be polluted in any way due to proposed changes.



Streams, rivers, pans, wetlands, dams, and their catchments shall be protected from erosion and from direct or indirect spillage of pollutants such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate, tailings, wash water, organic materials and bituminous or tar products.

The contractor shall submit to the engineer his proposals for prevention, containment and rehabilitation measures against environmental damage of the identified water and drainage systems that occur on the site. Consideration shall be given to the placement of sedimentation ponds or barriers where the soils are of a dispersive nature or where toxic fluids are used in the construction process. The sedimentation ponds must be large enough to contain runoff so that they function properly under heavy rain conditions.

**h) Earthworks and layer works**

This section includes all construction activities that involve the mining of all materials, and their subsequent placement, stockpile, spoil, treatment or batching, for use in the permanent works, or temporary works in the case of deviations. Before any stripping prior to the commencement of construction, the contractor shall have complied with the requirements of sections E1008(e) and E1008(g). In addition, the contractor shall take cognisance of the requirements set out below.

**i) Quarries and borrow pits**

The contractor's attention is drawn to the requirement of the Department of Minerals and Energy that before entry into any quarry or borrow pit, an EMP for the establishment, operation and closure of the quarry or borrow pit shall have been approved by the Department.

It is the responsibility of the contractor to ensure that he is in possession of the approved EMP or a copy thereof, prior to entry into the quarry or borrow pit. The conditions imposed by the relevant EMP are legally binding on the contractor and may be more extensive and explicit than the requirements of this specification. In the event of any conflict occurring between the requirements of the specific EMP and these specifications the former shall apply. The cost of complying with the requirements shall be deemed to be included in existing rates in the Bill of Quantities.

**ii) Excavation, hauling and placement**

The contractor shall provide the engineer with detailed plans of his intended construction processes prior to starting any cut or fill or layer. The plans shall detail the number of personnel and plant to be used and the measures by which the impacts of pollution (noise, dust, litter, fuel, oil, and sewage), erosion, vegetation destruction and deformation of landscape will be prevented, contained and rehabilitated. Particular attention shall also be given to the impact that such activities will have on the adjacent built environment. The contractor shall demonstrate his "good housekeeping", particularly with respect to closure at the end of every day so that the site is left in a safe condition from rainfall overnight or over periods when there is no construction activity.

**iii) Spoil sites**

The contractor shall be responsible for the safe siting, operation, maintenance and closure of any spoil site he uses during the contract period, including the defects notification period. This shall include existing spoil sites that are being

re-entered. Before spoil sites may be used proposals for their locality, intended method of operation, maintenance and rehabilitation shall be given to the engineer for his approval. The location of these spoil sites shall have signed approval from the affected landowner before submission to the engineer. No spoil site shall be located within 500m of any watercourse. A photographic record shall be kept of all spoil sites for monitoring purposes. This includes before the site is used and after re-vegetation.

The use of approved spoil sites for the disposal of hazardous or toxic wastes shall be prohibited unless special measures are taken to prevent leaching of the toxins into the surrounding environment. Such special measures shall require the approval of the relevant provincial or national authority.

The same shall apply for the disposal of solid waste generated from the various camp establishments. The engineer will assist the contractor in obtaining the necessary approval if requested by the contractor.

Spoil sites will be shaped to fit the natural topography. These sites shall receive a minimum of 75mm topsoil and be grassed with the recommended seed mixture. Slopes shall not exceed a vertical: horizontal ratio of 1:3. Only under exceptional circumstances will approval be given to exceed this ratio. Appropriate grassing measures to minimise soil erosion shall be undertaken by the contractor. This will include both strip and full sodding. The contractor may motivate to the engineer for other acceptable stabilising methods. The engineer may only approve a completed spoil site at the end of the defects notification period upon receipt from the contractor of a landowner's clearance notice and an engineer's certificate certifying slope stability. The contractor's costs incurred in obtaining the necessary certification for opening and closing of spoil sites shall be deemed to be included in the tendered rates for spoiling.

#### **iv) Stockpiles**

The contractor shall plan his activities so that materials excavated from borrow pits and cuttings, in so far as possible, can be transported direct to and placed at the point where it is to be used. However, should temporary stockpiling become necessary, the areas for the stockpiling of excavated and imported material shall be indicated and demarcated on the site plan submitted in writing to the engineer for his approval, together with the contractor's proposed measures for prevention, containment and rehabilitation against environmental damage.

The areas chosen shall have no naturally occurring indigenous trees and shrubs present that may be damaged during operations. Care shall be taken to preserve all vegetation in the immediate area of these temporary stockpiles. During the life of the stockpiles the contractor shall at all times ensure that they are:

- Positioned and sloped to create the least visual impact;
- Constructed and maintained so as to avoid erosion of the material and contamination of surrounding environment; and
- Kept free from all alien/undesirable vegetation.

After the stockpiled material has been removed, the site shall be re-instated to its original condition. No foreign material generated / deposited during construction shall remain on site. Areas affected by stockpiling shall be landscaped, top soiled, grassed and maintained at the contractor's cost until clearance from the engineer and the relevant National Authority is received.



Material milled from the existing road surface that is temporarily stockpiled in areas approved by the engineer within the road reserve, shall be subject to the same condition as other stockpiled materials. Excess materials from windrows, in situ milling or any detritus of material from road construction activities may not be swept off the road and left unless specifically instructed to do so in the contract drawing or under instruction from the engineer

In all cases, the engineer shall approve the areas for stockpiling and disposal of construction rubble before any operation commences and shall approve their clause only when they have been satisfactorily rehabilitated.

**v) Blasting activities**

Wherever blasting activity is required on the site (including quarries and/or borrow pits) the contractor shall rigorously adhere to the relevant statutes and regulations that control the use of explosives. In addition, the contractor shall, prior to any drilling of holes in preparation for blasting, supply the engineer with a locality plan of the blast site on which shall be shown the zones of influence of the ground and air shock-waves and expected limits of fly-rock. The plan shall show each dwelling, structure and service within the zones of influence and record all details of the dwellings/structures/services including existing positions, lengths and widths of cracks, as well as the condition of doors, windows, roofing, wells, boreholes etc. The contractor, alone, shall be responsible for any costs that can be attributed to blasting activities, including the collection of fly-rock from adjacent lands and fields. The submission of such a plan shall not in any way absolve the contractor from his responsibilities in this regard. The contractor shall also indicate to the engineer the manner in which he intends to advertise to the adjacent communities and/or road users the times and delays to be expected for each individual blast.

**i) Batching sites**

Asphalt plants are considered scheduled processes listed in the second schedule to the Atmospheric Pollution Prevention Act, 1965 (Act No. 45 of 1965). Should the use of an asphalt plant be considered on site, the contractor shall be responsible to obtain the necessary permit from the Department of Environmental Affairs and Tourism, regardless of where they are located.

Crushing plants and concrete batching plants, whether sited inside or outside of defined quarry or borrow pit areas, shall be subject to the requirements of the Department of Minerals and Energy legislation as well as the applicable industrial legislation that governs gas and dust emissions into the atmosphere. Such sites will be the subject of regular inspections by the relative authorities during the life of the project. In addition, the selection, entry onto, operation, maintenance, closure and rehabilitation of such sites shall be the same as for those under section (h)(iii), with the exception that the contractor shall provide additional measures to prevent, contain and rehabilitate against environmental damage from toxic/hazardous substances. In this regard the contractor shall provide plans that take into account such additional measures as concrete floors, bunded storage facilities, linings to drainage channels and settlement dams. Ultimate approval of these measures shall be from the relevant national authority, as shall approval of closure. The engineer will assist the contractor in his submissions to the relevant authority.

Effluent from concrete batch plants and crusher plants shall be treated in a suitable designated sedimentation dam to the legally required standards to prevent surface and groundwater pollution. The designs of such a facility should be submitted to the engineer for approval.



The contractor shall invite the relevant department to inspect the site within 2 months after any plant is commissioned and at regular intervals thereafter, not exceeding 12 months apart

**j) Spillages**

Streams, rivers and dams shall be protected from direct or indirect spillage of pollutants such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate, tailings, wash water, organic materials and tar or bituminous products. In the event of a spillage, the contractor shall be liable to arrange for professional service providers to clear the affected area.

Responsibility for spill treatment lies with the contractor. The individual responsible for, or who discovers a hazardous waste spill must report the incident to his/her DEO or to the engineer. The Designated Environmental Officer will assess the situation in consultation with the engineer and act as required. In all cases, the immediate response shall be to contain the spill. The exact treatment of polluted soil / water shall be determined by the contractor in consultation with the DEO and the engineer. Areas cleared of hazardous waste shall be re-vegetated according to the engineer's instructions

Should water downstream of the spill be polluted, and fauna and flora show signs of deterioration or death, specialist hydrological or ecological advice will be sought for appropriate treatment and remedial procedures to be followed. The requirement for such input shall be agreed with the engineer. The costs of containment and rehabilitation shall be for the contractor's account, including the costs of specialist input.

**k) Areas of specific importance**

Any area, as determined and identified within the project document as sensitive or of special interest within the site shall be treated according to the express instructions contained in these specifications or the approved EMP. The contractor may offer alternative solutions to the engineer in writing should he consider that construction will be affected in any way by the hindrance of the designated sensitive area or feature. However, the overriding principle is that such defined areas requiring protection shall not be changed. Every effort to identify such areas within the site will have been made prior to the project going out to tender. The discovery of other sites with archaeological or historical interest that have not been identified shall require ad hoc treatment.

**i) Archaeological sites**

If an artifact on site is uncovered, work in the immediate vicinity shall be stopped immediately. The contractor shall take reasonable precautions to prevent any person from removing or damaging any such article and shall immediately upon discovery thereof inform the engineer of such discovery. The National Monuments Council is to be contacted who will appoint an archaeological consultant. Work may only resume once clearance is given in writing by the archaeologist. (Read with General Condition of Contract).

**ii) Graves and middens**

If a grave or midden is uncovered on site, or discovered before the commencement of work, then all work in the immediate vicinity of the graves/middens shall be stopped and the engineer informed of the discovery. The National Monuments Council should be contacted and in the case of

graves, arrangements made for an undertaker to carry out exhumation and reburial. The undertaker will, together with the National Monuments Council, be responsible for attempts to contact family of the deceased and for the site where the exhumed remains can be re-interred.

**l) Noise control**

The contractor shall endeavor to keep noise generating activities to a minimum. Noises that could cause a major disturbance, for instance blasting and crushing activities, should only be carried out during daylight hours. Compliance with the appropriate legislation with respect to noise, shall be mandatory.

Should noise generating activities have to occur at night the people in the vicinity of the drilling shall be warned about the noise well in advance and the activities kept to a minimum.

**m) Dust control**

Dust caused by strong winds shall be controlled by means of water spray vehicles. Dust omission from batching plants shall be subject to the relevant legislation and shall be the subject of inspection by the relevant office of the Department of Minerals and Energy.

**n) Alien vegetation**

The contractor shall be held responsible for the removal of alien vegetation within the road reserve disturbed during road construction. This includes, for example, service roads, stockpile areas, stop/go facilities, windrows and wherever material generated for or from road construction has been stored temporarily or otherwise within the road reserve. This responsibility shall extend for the duration of the defects notification period.

**E1006 RECORD KEEPING**

The engineer and the DEO will continuously monitor the contractor's adherence to the approved impact prevention procedures and the engineer shall issue to the contractor a notice of non-compliance whenever transgressions are observed. The DEO should document the nature and magnitude of the non-compliance in a designated register, the action taken to discontinue the non-compliance, the action taken to mitigate its effects and the results of the actions. The non-compliance shall be documented and reported to the engineer in the monthly report.

Copies of any record of decision or EMP's for specific borrow pits or quarries used on the project shall be kept on site and made available for inspection by visiting officials from the employer or relevant environmental departments.

**E1007 COMPLIANCE AND PENALTIES**

The contractor shall act immediately when such notice of non-compliance is received and correct whatever is the cause for the issuing of the notice. Complaints received regarding activities on the construction site pertaining to the environment shall be recorded in a dedicated register and the response noted with the date and action taken. This record shall be submitted with the monthly reports and a verbal report given at the monthly site meetings.

Any avoidable non-compliance with the above-mentioned measures shall be considered sufficient ground for the imposition of a penalty.



Contents	Environmental Impacts				
	Pollution type	Deformation of landscape	Soil erosion	Alien vegetation	Sensitive areas
Camp establishment	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
Housing, offices and laboratories	Waste treatment Hazardous waste Water supply Spillage Storage Noise/lights	Selection of site Preserve indigenous vegetation Preserve topsoil Demarcate sensitive areas	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
Accommodation of traffic	Waste treatment Hazardous waste Water supply Spillage Storage Noise/lights Dust control	Selection of site Preserve indigenous vegetation Preserve topsoil Demarcate sensitive areas Maintenance of windrows	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
Overhaul	Spillage Storage Noise/lights Dust control Exhaust fumes Washing waste	Turning circles Parking areas	Restrict access to sensitive areas	Protection of indigenous vegetation Preserve topsoil	
Clearing and grubbing	Waste treatment Hazardous waste Water supply Noise /lights Dust control	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Protection of indigenous vegetation Preserve topsoil	
Drainage	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
Borrow pits	Waste treatment Hazardous waste	Selection of site Preserve indigenous vegetation	Selection of site Preserve indigenous vegetation	Preserve indigenous vegetation Preserve	



Contents	Environmental Impacts				
	Pollution type	Deformation of landscape	Soil erosion	Alien vegetation	Sensitive areas
	Water supply Spillage Storage	Preserve topsoil	Preserve topsoil	topsoil Management of weeds	
Stockpiling	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
Mass earthworks	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
Pavement layers	Waste treatment Hazardous waste Water supply Spillage Storage Noise / lights Dust control	Selection of site Preserve indigenous vegetation Preserve topsoil Demarcate sensitive areas Maintenance of windrows	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
Asphalt works / sealing operations	Waste treatment Hazardous waste Water supply Spillage Storage Noise / lights Dust control Smoke control Storage of materials	Selection of site Preserve indigenous vegetation Preserve topsoil Turning circles Parking areas	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil	
Ancillary road works	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
Structures	Waste	Selection of site	Selection of site	Preserve	

Contents	Environmental Impacts				
	Pollution type	Deformation of landscape	Soil erosion	Alien vegetation	Sensitive areas
	treatment Hazardous waste Water supply Spillage Storage	Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil	indigenous vegetation Preserve topsoil Management of weeds	
Concrete pavements, etc	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	

## **SECTION F: STAKEHOLDER AND COMMUNITY LIAISON, AND TARGETED LABOUR AND TARGETED ENTERPRISES UTILISATION AND DEVELOPMENT**

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## **F1001            SCOPE**

This section describes the structured engagement with project Stakeholders and affected Communities. It also guides the selection and the enhanced utilization and development of Targeted Labour and Targeted Enterprises.

The scope of the work described in this section shall be based on the Employer's 14 principles for project liaison, sub-contracting and labour sourcing in all Department of Community Safety, Roads and Transport projects, which are stipulated below:

- Establish project steering committee (PSCs) in each project to create a platform for project liaison, works execution, sub-contracting, and employment facilitation.
- Department of Community Safety, Roads, and Transport to allow the PSC members to nominate the chairperson and provide secretarial support. Representation to comprise: Department; contractor; consultant; business representatives; traditional representatives; provincial and municipal government representatives (not politicians); community representatives; CLO and any other critical local stakeholder that may be deemed necessary by the PSC.
- Community Liaison Officer (CLO) selection to be done under the auspices of the PSC.
- Definition of a target area (sometimes referred to as a local area or traffic area) to be done under the auspices of the PSC.
- Setup a database of local subcontractors and suppliers (and consultants where relevant) to be done under the auspices of local municipal structures within the respective district. The final database to be signed off by the local district municipality.
- Setup of database of local labour for the targeted area to be done under the auspices of the PSC. The final list to be signed off by the PSC. An agreed system of labour selection from the database is to be agreed at the PSC.
- Handover of signed-off databases for sub-contracting and labour to contractor for open tender process and recruitment respectively done by the contractor in the presence of the Employer, Consultant (where applicable), Municipal officials during the briefing session.
- Tender to be conducted by contractor using government principles (e.g., public advertisement, received bids, evaluation of bids, awarding of bids and announcement of bidders and prices). Informing the winning bidders in the PSC.
- Appeals on the tender process to be escalated to the Department for an independent review.
- Capability assessments of contractors and suppliers to be done by the local or district municipality prior to tender stage, to identify any deficiencies in skills and experience.
- In the absence of available local database, the open briefing session will serve as sourcing or development of local data base for this particular project. For labour, skills assessments are to be done at recruitment stage.
- Contractor development support and training to be coordinated and conducted, ahead, prior to project commencement.
- Identification of works areas that are deliverable by local service providers, and areas where

capabilities are not available locally. All works areas where capabilities are not available locally shall be imported and locals will be given an opportunity to learn.

- Formal contracting arrangements to be ensured for all projects.
- Communication to be streamlined through the PSC and used to manage expectations of local business and communities.
- These principles are applied to facilitate better project level liaison with local communities and structures. They also serve to ensure communication and transparency in the execution of works and to ensure inclusivity in the allocation of projects to benefit black business and local communities as prescribed in the PPPFA for local subcontracting.

## **F1002 DEFINITIONS AND APPLICABLE LEGISLATION**

### **a) Definitions**

Unless inconsistent with the context, in these specifications, the following terms, words or expressions shall have the meanings hereby assigned to them:

#### **- Business Coaching**

Business coaching establishes an atmosphere of mutual trust, respect, responsibility and accountability to motivate the business owner and his team. To that end, the business coach must conduct an ethical and competent practice, based on appropriate professional experience and business knowledge.

#### **- Community<sup>1</sup>**

South African Citizens, as defined in terms of the South African Citizenship Act, 1995 (Act 88 of 1995), who permanently reside within the Target Area(s) of the project.

#### **- Contract Participation**

A process by which the Employer implements Government's objectives by setting targets to enhance Targeted Labour and Targeted Enterprises' utilization and development, which the Contractor shall achieve as a minimum.

#### **- Contract Participation Goal (CPG)**

The monetary value of the targets set by the Employer in the Contract Participation process and stated in the Contract Data.

- Contract Participation Performance (CPP)
- The measure of the Contractor's progress in achieving the CPG.
- Designated Group<sup>2, 3</sup>
  - Unless otherwise permissible in terms of procurement regulations or the PPPFA, it is the groups used to define Targeted Labour and the ownership and/or control of Targeted Enterprises and shall be restricted to:
    - black designated groups as defined in the codes of good practice issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act 53 of 2003);
    - black people as defined in section 1 of the Broad-Based Black Economic Empowerment Act, 2003 (Act 53 of 2003);
    - black people who are women and who are South African citizens;
    - black people who are youth as defined in section 1 of the National Youth Development Agency Act, 2008 (Act No. 54 of 2008);
    - black people who are people with disabilities as defined in section 1 of the Employment Equity Act, 1998 (Act No. 55 of 1998);
    - black people who are military veterans as defined in section 1 of the Military Veterans Act, 2011 (Act No. 18 of 2011);
    - black people who are living in rural or underdeveloped areas or townships;
    - small enterprises as defined in section 1 of the National Small Enterprise Act, 1996 (Act No. 102 of 1996);
    - Exempted Micro Enterprises (EMEs) as defined in terms of the code of good practice on black economic empowerment issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003), with an annual turnover of R10 million or less (Amended Codes of Good Practice); and Qualifying Small Enterprises (QSEs) as defined in terms of the code of good practice on black economic empowerment issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003) with an annual total turnover of between R10million and R50 million.

#### Guidance

Guidance is anticipating where one might go wrong, or where one is doing a task in a



complicated, inefficient or ineffective way, and giving help, advice and direction as to how to achieve a better result. Guidance is mostly given by a person in the direct reporting line, but can be given by anyone. Guidance is not imparting skills, but suggesting ways to improve performance.

#### Labour

Persons:

- a. who are employed by the Contractor or a Subcontractor in the performance of the Contract; and
- b. who resides in the Project Area; and
- c. whose monthly earnings are derived from hours worked for a fixed hourly rate which is adjusted from time to time by legislation (as a statutory minimum) and the Contractor's or Subcontractor's employment policies;
- d. but who are not Targeted Labour.

#### **Note:**

The personnel employed by the suppliers of goods and material are not defined as "Labour" for the purposes of this Contract.

#### Mentoring

Mentoring is a professional relationship in which an experienced business person assists another by giving advice and imparting their knowledge and wisdom in developing special skills and knowledge that will enhance the less experienced person's professional and personal growth. The objective is to equip the business owner and his team to improve their decision-making skills, being focused and make positive progress quickly.

#### Mobilization Period

The period from the Commencement Date until the physical commencement of the Works, as defined in the Conditions of Contract.

#### Project Area

The area through which the road under construction traverse or which is adjacent to and/or in proximity to project operations.

#### Project Steering Committee (PSC)<sup>4</sup>

The Committee that represents the project's Stakeholders and the Communities affected by the project.

#### Community Liaison Officer (CLO)<sup>5</sup>

The person who acts as the liaison officer for the project. The CLO facilitates the employment of Targeted Labour and attends to the day to day project, Stakeholder, and Community

matters that impact on the parties to the project.

#### Project Management Team (PMT)

The Team comprising the Employer's representative, i.e. the Project Manager, the Engineer and the Contractor, or their duly delegated representatives, who is jointly responsible for the successful execution of the project.

#### Stakeholders<sup>6</sup>

Any Person who is affected by the Employer's operations in the Target Area(s) and/or who has an interest or concern in the project, either as a decision maker, participant or affected party and may include, amongst others, the following entities:

- Relevant Municipal departments;
- Traditional authorities;
- Community interest groups;
- Organised youth representation;
- Organised women representation;
- Organised disabled people representation;
- Other structured community groups such religion, education, farming, etc.
- Local transport industry forums, e.g. Bus and taxi;
- Business sector forums;
- Road user forums;
- Environmental interest groups;
- Road safety interest groups;
- Any other recognized relevant and representative structure.

#### Subcontractor

An entity appointed by the Contractor to execute a portion of the Works as defined in the Conditions of Contract.

#### Target Area

The geographic area defined in the Contract Data for Targeted Labour and which typically are:

- one or more Local Municipalities;

- one or more Wards that are predominantly located within an area and within a predefined radius of the construction activity;
- one or more of the areas listed in the definition of Designated Groups.

Based on market research and/or resources and skills audits, the Contractor, in liaison with the PSC, could also identify and agree Target Areas where preference would be given to Targeted Enterprises from these areas for sub-contracting.

#### Targeted Enterprise<sup>7</sup>

A Targeted Enterprise is an entity to which the Contractor sub-contracts a percentage of the contract value as a condition of contract and which is:

- i. an EME or QSE;
- ii. an EME or QSE which is at least 51% owned by black people;
- iii. an EME or QSE which is at least 51% owned by black people who are youth;
- iv. an EME or QSE which is at least 51% owned by black people who are women;
- v. an EME or QSE which is at least 51% owned by black people with disabilities;
- vi. an EME or QSE which is 51% owned by black people living in rural or underdeveloped areas or townships;
- vii. a cooperative which is at least 51% owned by black people;
- viii. an EME or QSE which is at least 51% owned by black people who are military veterans; or
- ix. more than one of the categories referred to in paragraphs a to h; and which is tax and COID compliant.

#### Targeted Enterprise Construction Manager

The full-time staff member or service provider appointed by the Contractor to develop, implement and monitor the training, development and support of Targeted Labour and Targeted Enterprises. The Targeted Enterprise Construction Manager also mentors, guides and coaches the Targeted Enterprises.

#### Targeted Enterprise Procurement Coordinator (TE Procurement Coordinator)

The person employed, or entity appointed, by the Contractor to facilitate the procurement of Targeted Enterprises.

#### Target Group

It is a group of business entities and/or groups selected from the Designated Group as defined in the



Targeted Labour<sup>8</sup>

Persons:

who are Employed by the Contractor or a Subcontractor in the performance of the Contract; and  
whose monthly earnings are derived from hours worked for a fixed hourly rate which is adjusted from time to time by legislation (as a statutory minimum) and the Contractor's or Subcontractor's Employment policies; and

permanently reside in the Target Area(s) or who are recognized as being residents of the Target Area(s) based on identification and association with, and recognition by, the residents of the Target Area(s); and

who are defined as a Target Group in the Contract Data.

i. Training

Training refers to the process of teaching a Trainee, usually in a classroom or simulated work environment situation where principles, skills, knowledge and theory are taught and demonstrations are given. Assignments are then set to ensure that the Trainee can apply what has been taught. Training is done by a specialist in the subject, and who is qualified and accredited to train. The objective is to improve the competency of the participant.

a. **Applicable Legislation, Regulations and Standards**

The following Acts, as amended from time to time, are predominant amongst those which apply to the Construction Industry and are listed here for reference purposes only:

- i. The Constitution of South Africa;
- ii. Public Finance Management Act, 1999 (Act No. 1 of 1999);
- iii. Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000) and its regulations;
- iv. Construction Industry Development Board Act, 2000 (Act No. 38 of 2000);
- v. Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003).
- vi. The South African National Roads Agency Limited and National Roads Act, 1998 (Act No. 7 of 1998); and
- vii. The Skills Development Act, 1998 (Act No. 97 of 1998).
- viii. The following Standards and Practice Notes, as amended from time to time, are applicable in terms of Targeted Labour and Targeted Enterprises and are used fully or portions thereof:
- ix. SANS 10845: 2015, Parts 5, 7 and 8; and
- x. CIDB Standard for Contract Participation Goals for Targeted Enterprises and Labour through Construction Works Contracts, 31 October 2017.

## **F1003 TARGET GROUP PARTICIPATION**

### **a) Objective**

Amongst others, the key objectives of Government are to extend economic opportunities and build entrepreneurial capacity in rural or underdeveloped areas or townships by:

- i. optimizing the utilization of local resources in the project area;
- ii. developing these local resources in the execution of the project; and
- iii. maximizing the amount of funds retained within the project area.

To give effect to these objectives the Contractor shall:

- a. recruit Targeted Labour from the Target Area(s) as stated in the Contract Data; and
- b. subcontract Targeted Enterprises based on market research and/or skills and resources audits of the rural or underdeveloped areas or townships within the project area.

### **b) Targeted Labour Database**

A Labour Database of Targeted Labour will be compiled by the community leaders (ward/ PR Councilors and/or mayoral community member or traditional leadership), with input from the Project Steering Committee (PSC). Once endorsed by the PSC, the CLO shall utilize this Database to source Targeted Labour as required by the Contractor.

The Labour Database shall be updated as and when required and as agreed with the PSC. Only Labour recruited from the Labour Database will be measured for Contract Participation Performance (CPP).

### **c) Targeted Enterprise Database**

Following market research and/or a resources and skills audit of Targeted Enterprises in the project area, the Contractor shall apply the CPG criteria in the Contract Data to compile a *preliminary* Targeted Enterprise Database of eligible Targeted Enterprises.

To inform the market research and/or resources and skills audit, the Contractor shall use, as a minimum, National Treasury's CSD and the CIDB contractor database. Other databases, e.g. the Local Municipality's Economic Development database, may also be considered to determine the available resources and skills in the Project Area. The purposes of the preliminary Targeted Enterprise Database are:

- i. for the PMT to determine if the required resources and skills to execute

the identified Targeted Enterprise work packages are available in the anticipated Target Area(s);

- ii. for the PSC to verify that Targeted Enterprises on the preliminary Targeted Enterprise Database are authentic in terms of the Contract Data and other Database criteria agreed with the Employer, Engineer and the PSC, and
- iii. for the PSC to alert possible eligible or qualifying Targeted Enterprises that are not on the preliminary Database of the opportunity.

Based on the above considerations, additional criteria for the Targeted Enterprise Database may be agreed with the Employer, Engineer and PSC to ensure that the SMME enterprises is targeted as intended by the Employer.

Once the Targeted Enterprise Database has been agreed with the Employer and the Engineer, and endorsed by the PSC, the Contractor shall invite Targeted Enterprises to tender for the Targeted Enterprise work packages and preference shall be given to those Targeted Enterprises that adheres to the Database criteria.

**Note:**

- a. The Targeted Enterprise Database shall be a "live database". In essence, it is thus not the Database that is approved by the PMT and endorsed by the PSC, but rather the *criteria* for compiling the Database.
- b. Any Targeted Enterprise may respond to the invitation to tender, but preference shall be given to those Targeted Enterprises that adheres to the Database criteria, which shall be measured by means of a functionality evaluation.

The Targeted Enterprise Database criteria shall be updated at every instance that a new tender or group of similar tenders are being let for Targeted Enterprise work packages.

Targeted Enterprises within the Project Area shall be encouraged and assisted to register on the CSD and to be compliant with all other statutory requirements.

**d) Contract Participation Goal (CPG)**

The CPG is the monetary value of the targets set by the Employer and will be calculated as follows:

$$\text{CPG} = \text{Final Contract Value} \times (\% \text{ Targeted Labour} + \% \text{ Targeted Enterprise})$$

The Final Contract Value is the total value of the Contractor's final certified work measured at the date of issue of the Taking-Over Certificate. The Final



Contract Value include the value of scheduled work and extra work but exclude any Contract Price Adjustment and adjustments for reduced payments, Rise and Fall, Retention Money, Penalties and VAT.

The value of the Prime Cost Sums scheduled under item F10.05 will not necessarily make up the full value of the works required to meet the minimum target set by the Employer for Targeted Enterprises and/or Targeted Labour. It is the Contractor's responsibility to assess the work required to meet the targets and, if necessary, to engage additional Targeted Enterprises and/or Targeted Labour to execute work on the Contract as well to ensure that the minimum targets are achieved.

**e) Contract Participation Performance (CPP)**

The CPP is the monetary value of the Contractor's actual progress towards achievement of the CPG calculated as follows:

$$\text{CPP} = \text{total value (excluding VAT) of Targeted Labour contribution} + \text{total value of Targeted Enterprises contribution (excluding VAT)}$$

The Contractor's CPP shall be monitored monthly to determine the extent to which it is striving to achieve the CPG. The basis of monitoring shall be the levels of the individual contributions for Targeted Labour, Targeted Enterprises and Target Groups. Monthly returns, in the format required by the Employer, shall be submitted by the Contractor with each interim Payment Certificate.

To assist in the measurement of the CPP the Contractor shall include in its contract programme details of how the CPG will be achieved. The detail shall be provided not later than 1 (one) month after the Engineer has accepted the original construction programme and updated with every subsequent revision.

As an incentive to encourage the Contractor to exceed the CPG, a bonus is offered, measured as follows:

$$\text{The bonus} = 0.05 \times (\text{CPP} - \text{CPG})$$

Any bonus due (or portion thereof) shall be calculated on the Final Contract Value (excluding CPA). No bonus shall apply if either the Targeted Labour, Targeted Enterprises and/or any individual sub-targets for Target Groups are not reached.

Penalties for Targeted Labour and for Targeted Enterprises shall be calculated as follows:

$$\text{Penalty Targeted Labour} = 0.15 \times (\text{Sum (TL } n - \text{ TG } n) - 1.2 \times$$

L dp)

Where:

Data.

**n**= Each lowest order subgroup of Targeted Labour stipulated in the Contract

**TL**= Monetary value of the Targeted Labour calculated at the percentage stipulated in the Contract Data applied to the final contract value (excluding VAT).

**TG**= Cumulative monetary value of Targeted Labour Employed on the contract by the Contractor and all Subcontractors.

**L dp**= Cumulative monetary value of black Disabled Persons Employed on the Contract by the Contractor and all Subcontractors.

**(TL n - TG n)** = The monetary values calculated unless if any calculated value is negative, then it shall be a zero value.

$$\text{Penalty Targeted Enterprises} = 0.15 \times (\text{Sum } (TE \text{ n} - TGE \text{ n}) - 1.2 \times TE \text{ mv} - 1.2 \times TE \text{ dp})$$

Where:

**N** = Each lowest order subgroup of Targeted Enterprise stipulated in the Contract Data.

**TE** = Monetary value (excluding VAT) of Targeted Enterprises calculated at the percentage stipulated in the Contract Data applied to the final contract value (excluding VAT).

**TGE** = Cumulative monetary value (excluding VAT) by Targeted Enterprises subcontracted to the contract by the Contractor and 50% of the cumulative monetary value (excluding VAT) by Targeted Enterprise suppliers of goods and/or services.

**TE mv** = Cumulative monetary value (excluding VAT) by Targeted Enterprises being majority owned by black Military Veterans, subcontracted to the Contract by the Contractor.

**TE dp** = Cumulative monetary value (excluding VAT) by Targeted Enterprises being majority owned by black Disabled Persons, subcontracted to the Contract by the Contractor.

**(TE n - TGE n)** = The monetary values calculated unless if any calculated value is negative, then it shall be a zero value.

Total Penalty = Penalty Targeted Labour + Penalty Targeted Enterprises

Targeted Labour =  $0.15 \times (D - D0) \times CA100$

Where:

D= the tendered contract participation goal percentage;

Do= the contract participation goal which the Employer's

representative certifies, based on the credits passed, as being  
achieved upon completion of the contract;

CA = the contract amount;

P = the monetary value of penalty payable.

This formula is based on 10 points out of a total of 100 points being allocated to the contract participation goal so that the penalty is 1.5 times more severe than the points granted.

The total Penalty value shall be the sum of the Targeted Labour and Targeted Enterprises Penalty values unless the total Penalty value is negative then it shall be a zero value.

Interim penalty valuations should be calculated to interim Payment Certificate values (excluding VAT) to establish the anticipated final outcome, and to plan corrective actions, but must not be applied to the interim certificate value.

Any Penalty payable shall be calculated on, and applied to, the Final Contract Value.

**f) Accredited Registration**

The CPP for Targeted Enterprises shall only be accepted if the respective Targeted Enterprises comply fully with the definition of a Targeted Enterprise, and documentary evidence to support the claim lodged with the Engineer before the work, goods or service may be considered as having been performed by a Targeted Enterprise. The responsibility for producing evidence of the respective documentation shall rest with the Contractor.

The Contractor shall assume responsibility for the compilation and maintenance of comprehensive records detailing each Targeted Enterprise's progress.

**g) Contractor's Responsibility**

In terms of the Conditions of Contract, all Targeted Labour recruitment and Employment and Targeted Enterprises subcontracting, as well as its associated risks, shall remain the sole responsibility of the Contractor. The Employers CPG requirements, and the compulsory utilization of project specific



Targeted Labour and Targeted Enterprises databases, shall not relieve the Contractor of its obligations under the Contract and shall not attract any liability to the Employer.

#### **F1004            STAKEHOLDER AND COMMUNITY LIAISON AND SOCIAL FACILITATION**

##### **a)     Purpose**

To give effect to the need for transparency and inclusion in the process of delivering services, the Contractor shall liaise with the project Stakeholders and affected Communities for the duration of the Contract's life cycle. This shall be achieved through structured engagement with the PSC which was established by the Employer for this purpose.

##### **b)     Contractor's Responsibility**

- i.     Stakeholder and Community engagement shall be executed based on the Employer's social facilitation principles and processes.
- ii.    The Contractor shall make use of the PSC as the official communication channel, and utilize it to facilitate harmonious relationships, with project Stakeholders and affected Communities. The PSC shall be held accountable to disseminate project information discussed at the PSC to its respective constituencies.
- iii.   As a party to the functioning of the PSC, the Contractor shall delegate from among its site personnel a responsible person to serve on, and participate in, the PSC and its business.
- iv.    The Contractor shall provide the PSC with any assistance and information that it requires to execute its duties, e.g. training, meeting venue on site, Target Group reports, etc.
- v.     **Note:** in terms of the Conditions of Contract, all Targeted Labour recruitment and Employment, and Targeted Enterprises' selection and sub-contracting, as well as its associated risks, shall remain the sole responsibility of the Contractor. The Employer's assistance in establishing a PSC and providing a CLO to the Contractor shall not relieve the Contractor of its obligations under the Contract and shall not attract any liability to the Employer.

##### **c)     Project Steering Committee (PSC)**

A PSC has either been established prior to commencement of the Contract or shall be established as soon as possible by the Employer. The PSC consists of representatives of project Stakeholders and affected Communities. The Employer, Engineer and Contractor also become parties to the PSC at the relevant project stages and as far as it is within the scope of their respective

roles and responsibilities.

PSC meetings shall be chaired by the nominated member from the PSC with consultation of the Employer representative in a facilitating capacity and not a decision-making capacity. The PSC will nominate within member's representative a secretariat to take minutes of PSC meetings. Representatives of project Stakeholders and affected Communities on the PSC may appoint a caucus chairperson.

Secretarial support other than taking minutes at PSC meetings shall be provided by the CLO.

**d) Duties of the PSC**

The PSC is the official communication channel through which the Employer, Engineer and Contractor communicates with project Stakeholders and affected Communities on project matters, as well as to communicate the impact that the project has or may have on project Stakeholders and the affected Communities.

The PSC is also the official communication channel through which project Stakeholders and the affected Communities communicates with the Employer, Engineer and Contractor on the impact that the project has on them, or is anticipated to have on them, or on any other project matters.

The Department of Police, Roads and Transport Project Facilitating Unit Guidelines requires of the PSC to execute specific duties during each stage of the project, i.e. from project initiation to project completion. Some of these duties overlap project stages and hence, a detailed description is provided here.

**i. Project Construction Stage**

- a. Meet formally prior to the monthly site meeting, or as may be required, to discuss and resolve project matters, which are of interest or concern to project Stakeholders and the affected Communities, the Employer, the Engineer and/or the Contractor.
- b. Give input to the PMT in establishing the eligibility and preference criteria to employ Targeted Labour and subcontract Targeted Enterprises and endorse the agreed criteria.
- c. Peruse and endorse the Project Databases compiled by the PMT from which Targeted Labour will be Employed and Targeted Enterprises will be subcontracted.
- d. Verify that the criteria and methodologies applied by the

Contractor to employ Targeted Labour and subcontract Targeted Enterprises were executed in a fair and transparent manner, and within the Employer's and Government's Supply Chain Management Policies.

- e. Verify that the conditions of Employment and the conditions of subcontracting, in the Employment of Targeted Labour and subcontracting of Targeted Enterprises were applied in a fair and transparent manner and according to the Employer's Employment and subcontracting requirements.
- f. Make recommendations to the PMT on the training needs, eligibility criteria and selection criteria, for the provision of training to Targeted Labour, Targeted Enterprises, Designated Groups, project Stakeholders and the affected Communities.
- g. Observe and verify that training programmes and support programmes, which the Contractor committed to, are implemented and executed as intended.
- h. Inform the entities whom they represent of any project matters which the PMT wishes to communicate with project Stakeholders and the affected Communities.
- i. Inform the entities whom they represent of any project matters that are impacting or may impact, either positively or negatively, on project Stakeholders and the affected Communities.
- j. Inform the PMT of Stakeholder and/or Community requests and/or needs, which could possibly be addressed within the project's Scope of Work.
- k. Inform the PMT of any road safety concerns within the project area(s) and advise the PMT of possible mitigating measures and/or road safety programs that will be most feasible for acceptance by the affected Communities to promote road safety.
- l. Inform the PMT of any project matters that are impacting, or are anticipated to impact, negatively on project Stakeholders and the affected Communities.
- m. Agree with the PMT on a dispute resolution mechanism to resolve any disputes that may arise between the PMT and the PSC, project Stakeholders and/or affected Communities.
- n. Assist the PMT to liaise with project Stakeholders and the affected Communities to resolve any disputes between the



Employer, Engineer and/or Contractor and project Stakeholders and the affected Communities, which occurred due to the project.

**e) Duties of the CLO**

The CLO shall facilitate the Employment of Targeted Labour and shall coordinate communication between the PMT and the PSC to address the day to day project, Stakeholder, Community and labour matters that impact on the parties to the project.

The Department of Police, Roads and Transport Project Facilitation Unit Guidelines requires of the CLO to execute specific duties during each stage of the project, i.e. from project initiation to project completion. Some of these duties overlap project stages and hence, a detailed description is provided here.

The CLO shall execute the following duties:

- i. Except for taking the minutes of PSC meetings, which is a duty of the nominated secretariat by the PSC, the CLO shall provide a secretariat function to the PSC which includes, amongst others, the following:
  - a. Schedule meetings;
  - b. Compile meeting agendas;
  - c. Compile document packages for meetings;
  - d. Distribute minutes of meetings;
  - e. Assist PSC to formulate their communication in writing;
  - f. Distribute written communication to and from the PMT and the PSC;
  - g. Keep records of all the above and any other PSC documentation; and
  - h. Provide any other reasonable secretariat function pertaining to the PSC.
- ii. Attend all PSC meetings to report on the day to day project, Stakeholder and Community matters that impact on the parties to the project.
- iii. Attend all monthly site meetings to report on the day to day project, Stakeholder and community matters that impact on the parties to the project.
- iv. Attend any other meetings related to the project and in which any of the project Stakeholders, affected Communities, Targeted Labour and Targeted Enterprises are involved.
- v. Maintain a full-time presence on site to monitor and address the day to day project, Stakeholder and Community matters that impact on the

parties to the project.

- vi. Maintain a full-time presence on site to assist the PMT in the day to day liaison with project Stakeholders and affected Communities.
- vii. Typical information to be disseminated by the CLO includes:
  - a. basic Scope of the Works and how it will affect the Community;
  - b. project programme and regular progress updates;
  - c. anticipated Employment and subcontracting opportunities;
  - d. project programme as it pertains to the Employment of Targeted Labour and subcontracting of Targeted Enterprises;
  - e. Occupational Health and Safety precautions; and
  - f. any other information relevant to project Stakeholders and the affected Communities.
- viii. Be well acquainted with the contractual requirements as it pertains to Targeted Labour Employment and training requirements.
- ix. Assist the PMT and PSC to establish and agree the eligibility and selection criteria to be followed when Employing Targeted Labour.
- x. Assist the PMT in its resources and skills audits by providing a coordinating function between the PMT, project Stakeholders, and the affected Communities.
- xi. Ensure that Targeted Labour databases, compiled from the resources and skills audits, are based on the agreed eligibility and selection criteria and that it is updated as and when required.
- xii. Coordinate the selection and Employment of Targeted Labour based on the agreed eligibility and selection criteria and based on the Contractor's labour requirements.
- xiii. Ensure that each Targeted Labourer enters into an Employment contract which adheres to current and relevant Labour legislation.
- xiv. Ensure that each Targeted Labourer understands the conditions of his/her Employment with an emphasis on the Employment start date, end date and wages payable.
- xv. Identify and inform the PMT of any relevant training required by the Targeted Labour.
- xvi. Attend all disciplinary proceedings to ensure that hearings are fair and conducted in accordance to the current and relevant Labour legislation.

- xvii. Be proactive in identifying PSC, project Stakeholder, affected Communities (including Targeted Labour and/or Targeted Enterprise Subcontractor), requirements, disputes, unrest, strikes, etc. and bring it to the attention of the PMT.
- xviii. Assist the PMT to liaise with the PSC, project Stakeholders and the affected Communities to resolve any disputes, which occurs due to the project.
- xix. Other than the document records to be kept as mentioned in (i) above, keep record of all other documents and processes pertaining to the Employment of Targeted Labour and any other records that may be of relevance to the functions of the PSC.
- xx. Produce and submit a monthly report to the PMT and the PSC on PSC meetings, other meetings attended by the CLO, Targeted Labour employment, and project Stakeholder, affected Community and any other project matters that impact on the parties to the project.

#### **F1005 MOBILIZATION PERIOD**

During the site establishment stage, but prior to the commencement of the Works, the Contractor or its authorised representative, shall become acquainted with the lines of communication and the agreed dispute resolution mechanism between the PMT, PSC, project Stakeholders and affected Communities. The Contractor shall also follow the agreed eligibility and qualifying criteria and processes and procedures to employ Targeted Labour and subcontract Targeted Enterprises.

##### **a. Duties of the Contractor**

During the Mobilization Period, the Contractor shall, where required, execute the following duties:

- i. For the subcontracting of Targeted Enterprises:
  - a. Liaise with the Employer, Engineer and PSC to structure and finalize the work packages to be subcontracted to Targeted Enterprises.
  - b. Liaise with the Employer, Engineer and PSC to determine the Targeted Enterprise Database criteria for the subcontracting of Targeted Enterprises.
  - c. Compile the Targeted Enterprise Database(s) for endorsement by the PSC.
  - d. Undertake a skills audit of the Targeted Enterprises which appear on the Targeted Enterprise Database(s).



- e. Based on the skills audit, and in consultation with the Employer, Engineer and PSC, identify the pre-tender training requirements of Targeted Enterprises.
  - f. Provide an opportunity to Targeted Enterprises to receive the identified pre-tender training.
  - g. Tender the initial work packages and subcontract the first group of Targeted Enterprises for commencement of the Works.
- ii. For the Employment of Targeted Labour:
- a. Liaise with the Employer, Engineer, PSC and CLO to compile the Labour Database(s) for the Employment of Targeted Labour.
  - b. Undertake a skills audit of the Targeted Labour which appear on the Targeted Labour Database(s).
  - c. Based on the skills audit, and in consultation with the Employer, Engineer, PSC and CLO, identify the training requirements of Targeted Labour to make them more Employable. Provide an opportunity to eligible Targeted Labour to receive the identified training to enable them to be more Employable.
  - d. Select and appoint the first group of Targeted Labour for commencement of the Works.
- iii. Produce an acceptable CPG Plan, which sets out how the Contractor intends to achieve the various CPG targets as stated in the Contract Data, complete with dates, work packages and values of work.

**Notes:**

- (i) The accepted CPG Plan and any amendments thereof shall be made available to the PSC for their monitoring purposes.
- (ii) The Employer and the Engineer shall monitor progress and adherence to the CPG Plan in the same manner as they would monitor the works programme.
- (iii) It is acknowledged that all training requirements cannot be addressed during the Mobilization Period and that training will take place over the duration of the Contract.
- (iv) The training provided to both Targeted Enterprises and Targeted Labour during the Mobilization Period shall focus on the activities and/or skills required for the commencement of the Works and shall include the mandatory Occupational Health and Safety training.

The Mobilization Period shall only be concluded once the CPG Plan has been accepted by, and all the duties above have been executed to the satisfaction of, the Employer and the Engineer.

**Note:**

The Mobilization Period was introduced as an aid to the Contractor to allow for his planning to obtain the CPG as required in the Contract Data. An extension of the Mobilization Period will therefore not form grounds for an extension of the Contract duration and hence, any costs incurred by the Contractor for an extension of the Mobilization Period shall be for the Contractor's cost. Should an extension of the Mobilization Period result in a delay of the Contract, the Employer's delay penalties shall apply.

**F1006 PROJECT MANAGEMENT TEAM (PMT)**

The PMT, which consists of the Employer, Engineer, and the Contractor, or their representatives, is a party to the PSC and is co-responsible for successful project Stakeholder and Community liaison. The PMT is also responsible for the successful implementation of the Employer's Targeted Labour and Targeted Enterprise utilization and development goals.

**a) Duties of the Employer and the Engineer**

To implement the Employer's Targeted Labour and Targeted Enterprise goals, and as members of the PMT, the Employer and the Engineer shall provide support the Contractor by executing the following duties:

- i. Make recommendations to the Contractor in the identification and structuring of the work packages to be subcontracted to Targeted Enterprises, and agree to the scope and extent of the work packages.
- ii. Verify that the Targeted Enterprise Database(s) has been updated prior to the letting of every new set of subcontracts.
- iii. Endorse all Databases and approve tender procedures, tender documents, tender submission requirements and adjudication processes for the subcontracting of Targeted Enterprises.
- iv. Review all tender adjudication reports and monitor that the criteria and procedures applied by the Contractor to subcontract Targeted Enterprises are executed in a fair and transparent manner, and are within the Employer's and Government's Supply Chain Management Policies.
- v. Endorse subcontract agreements and ensure that the conditions of subcontracting with Targeted Enterprises are fair and transparent and within the prescripts of the Contract requirements.

- vi. Monitor the management of Targeted Enterprise subcontracts and ensure that conditions such as the application of penalties, the termination of contracts, etc. are applied in a fair and transparent manner and within the prescripts of the agreement.
- vii. Verify that the Labour Database(s) from which Targeted Labour will be Employed is updated prior to every new Labour intake.
- viii. Monitor that the criteria and procedures applied by the Contractor to employ Targeted Labour are executed in a fair and transparent manner, and is within the Contract requirements.
- ix. Monitor that the conditions of Employment of Targeted Labour are applied in a fair and transparent manner and within the prescripts of the current and relevant Labour legislation.
- x. Make recommendations to the Contractor in the identification of the training requirements of Targeted Labour and Targeted Enterprises and approve the proposed training programmes.
- xi. Monitor that training programmes and support programmes, which the Contractor committed to, are implemented and executed as intended.

#### **F1007 TENDER PROCESS FOR TARGETED ENTERPRISES**

While the Contractor may utilise service providers, sub-contractors and suppliers of its choice and selected via its own internal processes, for the subcontracting of Targeted Enterprises based on the Employer's Contract Participation Goals, the Contractor shall follow the prescripts of this Section D, with specific reference to F1003 to F1007.

The Contractor shall appoint a Targeted Enterprise Procurement Coordinator (TE Procurement Coordinator) to facilitate the subcontracting of work to Targeted Enterprises as listed in the Contract Data. For Contracts with a value of less than R 100 million the Contractor may appoint a TE Procurement Coordinator from its site staff. For Contracts with a value of more than R 100 million the Contractor shall employ or subcontract a dedicated TE Procurement Coordinator, whose sole responsibility will be the management of Targeted Enterprise procurement and sub-contracting matters.

The TE Procurement Coordinator shall be knowledgeable with, and has experience in, the management of road construction and ancillary works, National Treasury supply chain management legislation and regulations, and stakeholder relations management.

The TE Procurement Coordinator shall develop and establish the eligibility and functionality criteria and tender processes and procedures for subcontracting, which shall adhere to the Employer's and Government's Supply Chain Management Policies and requirements as set out in the Contract Data and which shall be approved by the PMT and endorsed by the PSC.



The establishment and implementation of the eligibility and functionality criteria, and tender processes and procedures for subcontracting include, amongst others, the following tasks:

**(i) Tender Preparation**

- a. Compile preliminary list of subcontracting packages.

Based on the Contract Data and the Scope of the Works, the Contractor shall compile a preliminary list of the work packages (types and number) that are anticipated to be subcontracted to Targeted Enterprises.

The Contractor shall refer to the construction activities that has been identified as being suitable for construction by Targeted Enterprises as listed in F1009 of these Project Specifications, and to any other construction activities which are required to execute the Works in terms of this Contract, to determine how to unbundle or package subcontracts for Targeted Enterprises.

- b. Conduct a resources and skills audit.

Based on the preliminary list of work packages, the Contractor shall conduct a resources and skills audit to determine the availability of the required resources and skills in the Project Area. The Contractor shall consult the following databases as a minimum:

- a. Construction Industry Development Board (CIDB) contractor database.
- b. Municipal Local Economic Development (LED) department.
- c. National Treasury's Central Supplier Database (CSD).
- d. Identify Targeted Enterprises, Target Groups and Target Area(s).

Based on the resources and skills audit, the Contractor shall identify the Targeted Enterprises (CIDB grades and types), Target Groups (woman, youth, etc.) and the Target Area(s) which are anticipated to benefit from the subcontracting opportunities.

- e. Compile a Contract Participation Goal (CPG) Plan.

Based on the information in paragraphs i. to iii. above, the Contractor shall compile a CPG Plan which contains a list of work packages (types and number) to be subcontracted to Targeted Enterprises, as well as the eligibility and functionality criteria and preliminary Targeted Enterprise Database(s) for each work package.

- f. Table CPG Plan to the PMT and the PSC

Following the stakeholder and community liaison process described in F1004, the Contractor shall table the CPG Plan to the PMT for its approval and to the PSC for its endorsement.

The Contractor shall ensure that the tender requirements and the outcome of different tendering scenarios are explained to the PSC, specifically with respect to the outcomes of:

- g. Functionality structuring and scenarios,
- h. Price and Preference,
- i. Eligibility criteria, and
- j. Negotiation processes (if applicable).

If required, the Contractor shall make amendments to the CPG Plan based on the PMT's instructions and/or the PSC's recommendations.

- k. Alert Targeted Enterprises of the opportunities and establish a helpdesk.

The Contractor shall alert Targeted Enterprises of the subcontracting opportunities and inform them of the eligibility and functionality criteria by making it known in local newspapers and on community notice boards.

The Contractor shall establish a helpdesk at a suitable and easy accessible location to provide guidance to Targeted Enterprises to get their statutory requirements in order in anticipation of the subcontracting opportunities.

- l. Compiling tender documents.

The Contractor shall compile the Targeted Enterprise tender documents for each subcontract package. If the Employer have a pro-forma tender document available, the Contractor shall use this document.

In compiling the subcontract tender documents, the Contractor shall include in each tender document any Conditions of Tender that may be relevant, and shall also include the subcontract agreement. The Contractor shall compile each subcontract tender document in a manner that facilitates the achievement of all objectives and principles pertaining to the development of the Targeted Enterprises.

The draft subcontract tender documents shall be approved by the PMT before their use.

(i) **Tender Process**

(ii) Advertise the subcontract packages.

The Contractor shall advertise the subcontract packages and invite Targeted Enterprises to tender for the respective subcontract packages. Advertisements shall be placed in local newspapers, on community notice boards, local radio stations (if available) and any other place or medium as agreed with the PSC.

If the Employer have a pro-forma of a Tender Notice available, the Contractor shall use this document without the employer's logo attached to it, only contractor's logo.

m. Conduct a tender briefing and tender training session where necessary.

For each subcontract package, the Contractor shall conduct a compulsory briefing session to explain the Scope of the Works, as well as the eligibility and functionality criteria and tender process, to the Targeted Enterprises.

An Attendance Register shall be completed by all attendees and Minutes shall be taken during the briefing session. The Minutes of the briefing session shall be distributed to all attendees as an Addendum to the Tender Documents.

The Contractor shall conduct a tender training session as a component of the tender briefing to interested Targeted Enterprises. Minimum tender submission documents.

It shall be a condition of tender that Targeted Enterprises include in their tender submissions the following documentation (if applicable, based on the CIDB grade required):

- (i) Proof of the Tenderer's B-BBEE contribution level.
- (ii) Proof that the Tenderer is an EME entity.
- (iii) Proof that the Tenderer is registered on National Treasury's CSD.
- (iv) Proof that the Tenderer is compliant with the COID act.
- (v) Proof that the Tenderer is tax compliant.
- (vi) Proof that the Tenderer is registered with the CIDB in the required grading and class (not applicable to suppliers).



n. Tender closure and opening of tenders.

Tenders for the subcontract packages shall close at a stipulated time and date. Tenders shall be placed in a formal Tender Box, of a design approved by the PMT, and located at the Contractor's site office.

The tender opening shall be conducted by the Contractor who shall publicly announce and record the names of all bidders and their tender prices.

**c. Tender Evaluation**

The Contractor shall evaluate the tenders and it shall be a condition of tender that tenders will only be accepted from Targeted Enterprises that fully comply with the definition of a Targeted Enterprise as described in the Contract Data.

The Contractor shall evaluate the tenders based on (1) Compliance, (2) Eligibility, (3) Functionality and (4) Price and Preference.

**a. Stage 1 – Functionality**

Note that no Targeted Enterprise may be prohibited from responding to the invitation to tender, however, preference shall be given to those Targeted Enterprises that adheres to the Targeted Enterprise Database criteria by means of a functionality evaluation. For this reason "locality" and "CIDB grading and class" forms part of the functionality criteria and a higher weighting shall be allocated to these two criteria

Functionality shall be scored based on:

- (i) Locality (target area)
- (ii) CIDB grade and class (targeted entity)
- (iii) Experience (if applicable)
- (iv) Plant and equipment (if applicable)
- (v) Any other relevant and agreed Designated Groups, e.g. woman, youth, etc.

Tenderers have to score a minimum number of points for functionality, e.g. 60/100 and tenderers that do not obtain the threshold are not further evaluated. The minimum number of points or threshold shall be established by the Contractor in consultation with the PMT and may vary depending on the Works

to be subcontracted or any other valid considerations.

**b. Stage 2 – Price and Preference**

Tenderers that obtained the minimum threshold for functionality shall be further evaluated on their Price and Preference submissions, i.e.

i. Price= 80 %

j. Preference= 20 %

The highest scoring tenderer for each subcontract package shall be checked for eligibility.

The Contractor shall state in the tender advertisement and in the tender documents that only one subcontract package shall be awarded to an individual entity at any one time per project, meaning that a Targeted Enterprise may be awarded a work package and on conclusion thereof may be awarded a subsequent work package, but more than one work package may not be awarded simultaneously for an individual project.

If a tenderer tendered for more than one subcontract package and scored the highest points in more than one package, the Contractor shall award to the tenderer the work package that has the most economic benefit to the Employer.

**c. Stage 3 – Eligibility Check**

Conventionally, eligibility is the first criteria to be checked during a tender evaluation process. However, in the case of Targeted Enterprises, which are typically of CIDB grades CE1 to CE4, the eligibility check often results in a substantial number of tenderers to be partially compliant or non-compliant.

Subsequently, the evaluator has to engage with a number of tenderers to resubmit proof of valid documents, which is not only a tedious task, but often results in confrontation, especially if tenderers are informed that they have been found non-compliant during the first stage of the evaluation process.

With eligibility being the last check, the evaluator only have to engage with the preferred tenderers for each subcontract package, should any documents need to be verified and/or resubmitted.

The highest scoring tenderer for each subcontract package shall

be checked for eligibility with respect to the following criteria (if applicable, based on the CIDB grade required):

- (i) Proof of the Tenderer's B-BBEE contribution level.
- (ii) Proof that the Tenderer is an EME or QSE entity.
- (iii) Proof that the Tenderer is registered on National Treasury's CSD.
- (iv) Proof that the Tenderer is compliant with the COIDA act.
- (v) Proof that the Tenderer is tax compliant.
- (vi) Proof that the Tenderer is registered with the CIDB in the required grading and class (not applicable to suppliers).

If the highest scoring tenderer fails to meet any of the eligibility criteria, he will be given predetermined number of calendar days to become compliant. The number of calendar days shall be agreed with the PMT and the PSC, with a default of 5 days.

If the highest scoring tenderer fails to submit the requested information in the required timeframe, he shall be deemed non-compliant and the evaluator shall check the second highest tenderer for eligibility. This process is repeated until a preferred tenderer is identified to be proposed in the Tender Report.

**d. Appoint successful Targeted Enterprises**

- a. Table the Tender Report to the PMT and the PSC.

The Contractor shall table the Tender Report for each subcontract package to the PMT and the PSC for their endorsement prior to award of the subcontract.

- b. Negotiating rates with Targeted Enterprises.

- c. Rates

If the Contractor has tendered rates for work items in the subcontract package and the tenderer who scored the highest points tendered higher rates than that of the Contractor, The Contractor may enter into negotiation with the tenderer.

If the Contractor fails to negotiate a feasible rate with the tenderer, he may:

- (i) approach the next highest point scoring, compliant tenderer for negotiation, after it has been tabled to the



PSC; or

- (ii) obtain the Employer's approval to utilise the provisional sum (if applicable), which has been provided to make provision for the Preliminary and General items of Targeted Enterprises and/or to compensate for the differences between the rates of the Contractor and that of Targeted Enterprises. The Employer shall not approve rates that is higher than 25% of that of the Contractor.

d. Provisional Sum

If the Employer has provided a provisional sum for the work items in the subcontract package, the Contractor shall report on the feasibility of the higher points scoring tenderer's rates to the PMT.

- (i) If the highest points scoring tenderer's rates are deemed feasible, the Contractor shall obtain the Employer's approval to utilise the provisional sum provided for the work items.

- (ii) If the highest points scoring tenderer's rates are deemed not feasible and the Employer does not approve the utilization of the relevant provisional sum, the Contractor may enter into negotiation with the preferred tenderer for a feasible rate.

iii. Low rates and/or tenders submitted by Targeted Enterprises.

The Contractor shall report to the PMT on the feasibility of rates and/or provisional sums of tenderers who tendered exceptionally low rates and/or provisional sums. Exceptionally low rates and/or provisional sums are those that are more than ten percent (10%) less than what the Contractor tendered, or would have tendered in the case of a provisional sum.

- (i) If the rates and/or provisional sums of those tenderers who tendered exceptionally low rates and/or provisional sums are deemed feasible, the Contractor may continue to include these tenders in his tender evaluation.

- (ii) If the rates and/or provisional sums of those

tenderers who tendered exceptionally low rates and/or provisional sums are deemed not feasible, the Contractor may disqualify these tenders from his tender evaluation.

**Note:** The Employer strongly discourages the appointment of Targeted Enterprises that did not tender feasible rates and/or provisional sums.

#### Payment to the Contractor

- i. The Employer shall not remunerate the Contractor for accepting higher rates and/or provisional sums tendered by Targeted Enterprises.
- ii. If the Employer provided a provisional sum for preliminary and general items of Targeted Enterprises and/or to compensate for the differences between the rates of the Contractor and that of Targeted Enterprises, the Employer shall limit its remuneration to the Contractor to the sum provided.
- iii. The Employer shall only approve the utilisation of provisional sums if it is satisfied that the rates and/or provisional sums of Targeted Enterprises are feasible and that the provisional sum is utilised for its intended purposes.
- iv. The Contractor's TE Procurement Coordinator shall assist successful Targeted Enterprises to enter into a subcontract agreement with the Contractor.

#### **F1008 GENERAL RESPONSIBILITIES OF THE CONTRACTOR TOWARDS TARGETED ENTERPRISES**

The Contractor shall have the responsibilities described in this Section, F1008, towards all Targeted Enterprises subcontracted in terms of the Contract Participation Goals stated in the Contract Data.

The Contractor shall appoint a dedicated Targeted Enterprise Construction Manager (TE Construction Manager) whose sole responsibility shall be to assist with the execution of its responsibilities towards Targeted Enterprises and Target Groups as prescribed in this Section D, with an emphasis on F1008 and F1010. Amongst others, the TE Construction Manager shall facilitate the training, mentoring, development and support of Targeted Enterprises.

The TE Construction Manager shall have as a minimum a National Diploma: Management of Civil Engineering Construction Processes (NQF Level 5) or equivalent qualification and shall have at least 5 years' experience as a Site Agent, managing construction processes in the fields of roads maintenance, new roads construction, roads rehabilitation, structures, etc. In addition, he shall have ample knowledge of, and experience in, the requirements of training and mentoring in the road construction environment.

The TE Construction Manager shall have on his team one (1) TE Site Supervisor for every six (6) Targeted Enterprises which are in their respective construction phases and

one (1) Senior TE Supervisor for every six (6) TE Site Supervisors. The qualifications and/or experience of TE Site Supervisors and Senior TE Supervisors shall be relevant and of a suitable level to enable them to supervise the level of Targeted Enterprise and the specific works under construction. Below is an indicative organogram of the TE Construction Manager and his team.

The TE Construction Manager shall develop and establish a Targeted Enterprise Training, Development and Support Programme, which shall be approved by the PMT and endorsed by the PSC prior to implementation, and which shall adhere to Government's and the Employer's Transformation and Supply Chain Management Policies and principles.

**a) General Obligations**

The Contractor shall, with the assistance of the TE Construction Manager, comply with the following obligations:

- i. Assist the Targeted Enterprises in instituting a quality assurance system;
- ii. Provide adequate training, coaching, guidance, mentoring and any other identified and approved assistance to Targeted Enterprises;
- iii. Provide support and any other identified and approved assistance to ensure that the Targeted Enterprises meet their obligations and commitments with respect to their subcontracts, and
- iv. Ensure that the CPG objectives are achieved.

**b) Subcontract Agreements**

The Contractor, in liaison with the PMT, shall conclude the subcontract agreements and provide the necessary management support to the Targeted Enterprises. The subcontract agreements shall be in accordance with the provisions of amended sub-clause 4.4 of the Conditions of Contract and shall be consistent with the terms and conditions of this Contract.

A copy of each subcontract agreement shall be filed with the Engineer after the PMT has confirmed that it is in accordance with the provisions of this Contract and after it has been endorsed by the PSC.

**Note:**

To protect Targeted Enterprises' competitive advantage and/or tender strategy, only the main subcontract agreement shall be available to the PSC for endorsement and not the pricing structure and/or Schedule of Quantities.

The subcontract agreement shall be the SAFCEC subcontract agreement, which shall also include for the following:

- i. The allowable sources from which Labour may be drawn in terms of the Contract;
- ii. The terms and conditions relating to the recruitment, Employment and remuneration of Labour engaged on the Contract;
- iii. The terms and conditions relating to payment of the Targeted Enterprise;
- iv. Sanctions in the event of failure by the Targeted Enterprise to comply with the terms and conditions of the subcontract agreement; and
- v. Dispute avoidance and resolution procedures.

**Note:**

Special Conditions of Contract shall only be applied once approved by the PMT.

**c) Quality of Work and Performance of Targeted Enterprises**

The Contractor shall closely monitor and supervise all Targeted Enterprises and shall train, coach, guide, mentor and assist each Targeted Enterprise in all aspects of management, execution and completion of its subcontract. This shall typically include assistance with planning of the Works, sourcing and ordering of materials, labour relations, monthly measurements and invoicing procedures. The extent and level of such training, coaching, guidance, mentoring, and assistance to be provided by the Contractor shall commensurate with the level of subcontract applicable and shall be directed at enabling the Targeted Enterprise to achieve the successful execution and completion of its subcontract.

The Contractor shall give reasonable warning to the Targeted Enterprise when any contravention of the terms and conditions of the subcontract has occurred or appears likely to occur. The Contractor shall, whenever feasible, give the Targeted Enterprise reasonable opportunity to make good any such contravention, or to avoid such contravention, and shall render all reasonable assistance to the Targeted Enterprise in this regard.

**d) Dispute Avoidance and Resolution Procedures**

When any disputes arise as provided for in the subcontract, the Contractor shall explain fully to the Targeted Enterprise that such actions are provided for in the subcontract. If such action is contemplated this shall be discussed with the PMT before any action is taken and communicated with the PSC as soon as action has been taken.

If the Targeted Enterprise, in the opinion of the Engineer, fails to comply with any of the criteria listed below, the Engineer shall issue a written warning to the Contractor, stating all the areas of non-compliance. A copy of the letter of



warning shall be forwarded to the Employer. The criteria are as follows:

- i. Acceptable standard of work as set out in the specifications;
- ii. Progress in accordance with the time constraints in the Targeted Enterprise's tender document;
- iii. Punctual and full payment of the workforce and suppliers;
- iv. Site safety; and
- v. Accommodation of traffic.

The Targeted Enterprise shall have 21 days from the date of receipt of the letter of warning by the Contractor to address and rectify the issues raised by the Engineer, except for sub-clauses (iv) and (v) above, for which the reaction time shall be in accordance with the relevant specifications for those aspects of the Works, but which shall not be longer than 24 hours. Failure by the Targeted Enterprise to comply with a deadline, will be sufficient grounds for the Contractor to apply a penalty or terminate the subcontract provided that the PMT is satisfied that the Contractor has made every effort to correct the performance of the Targeted Enterprise.

The Targeted Enterprise shall have the right to dispute any ruling given or deemed to have been given by the Contractor, Engineer or Employer. Provided that, unless the Targeted Enterprise shall, within 21 days after his receipt of a ruling or after a ruling shall have been deemed to have been given, give written notice (hereinafter referred to as a Dispute Notice) to the Contractor, referring to the relevant clause(s) in the subcontract agreement, disputing the validity or correctness of the whole or a specified part of the ruling, he shall have no further right to dispute that ruling or the part thereof not disputed in the said notice.

#### **F1009 WORK SUITABLE FOR EXECUTION BY TARGETED ENTERPRISES**

The following work items have been identified as suitable for execution by Targeted Enterprises to assist the Contractor in achieving its CPG:

- a) Clearing and grubbing.
- b) Concrete channelling and concrete linings for open drains.
- c) Construction of small concrete and other structures.
- d) Pitching, stonework and protection against erosion.
- e) Erection of guardrails.
- f) Landscaping.
- g) Finishing the road and road reserve.

- h) Site Security Services (consider Military Veterans if identified by Empowerment Impact Assessment).
- i) Add other work types including work that may form part of the main activities to meet the minimum CPG target(s).
- j) Any other work identified by the Employer to be executed in the Target Area.

From the above work items, the following have been identified as suitable for execution by CIDB CE1 and CE2 Targeted Enterprises:

- i. Concrete sidewalks.
- ii. Side drains.
- iii. Clearing and grubbing.
- iv. Construction and clearing of drains.
- v. Any other work identified by the Employer to be executed in the Target Area.

**Note:**

A Prime Cost Sum for the work listed as (i) to (vi) is allowed under pay item F10.05, but where pay items for all or some of the listed work are scheduled, the quantities have been reduced in line with the Prime Cost Sum amount scheduled.

The work to be carried out by Targeted Enterprises is not limited to the work listed above and the Contractor may need to engage Targeted Enterprises on other aspects of the Works to achieve the CPG.

**F1010 TRAINING, COACHING, GUIDANCE, MENTORING and assistance**

**a) Purpose of the Training and Skills Development Programme(s)**

Skills development forms an integral part of the Employer's Transformation and Community Development Policies and hence, it is important to the Employer that Targeted Labour and Targeted Enterprises be equipped with skills that can be used to gain meaningful future Employment and secure subcontracting opportunities.

It is, therefore, a requirement of this Contract that the Contractor provide adequate Training, Coaching, Guidance, Mentoring and assistance to the Targeted Labour and Targeted Enterprises, to ensure skills development within the Construction Industry.

The Contractor shall, in collaboration with the PMT, develop a Training and Skills Development Programme(s) which shall be managed by the Contractor's TGDC.

**b) Skills Audit and Analysis**

Prior to developing the Training and Skills Development Programme(s), the Contractor shall conduct a Skills Audit and Analysis of its own Employees and those of its Subcontractors to determine their levels of education, existing qualifications, and skills sets. The outcome of the Skills Audit and Analysis shall be used to develop a Training and Skills Development Programme(s) that will benefit both the Employee and the Construction Industry at large.

Included in the Skills Audit and Analysis shall be a separate section, analyzing the education, qualifications and skills sets of the Targeted Enterprises subcontracted by the Contractor to develop a Training and Skills Development Programme(s) that will develop and improve the ability of small business owners and their supervisory staff to better manage their enterprises.

**c) Developing the Training and Skills Development Programme(s)**

The employer shall be involved in the decision making and quality control pertaining to the development and implementation of the Training and Skills Development Programme(s) facilitated through this Contract.

The Employer has no service agreement or memorandum of understanding with any education and training quality assurance body and, therefore, does not function as the "Employer" as defined under any three-party-agreement between the Trainee, the Training Provider and the Employer.

However, the Employer requires similar outcomes to that of formal learnership programmes and the Contractor shall structure a Training and Skills Development Programme(s) in a manner that permits continued access to further learning and qualifications within a defined programme.

The complete Training and Skills Development Programme shall be approved by the PMT and endorsed by the PSC before any training commence.

**d) The Training Service Provider**

While the Contractor's TE Construction Manager will manage the Training, Development and Support Programme(s) and mentor subcontractors from a practical point of view, the Contractor shall subcontract a Training Service Provider to implement the theoretical training components of the Programme(s) by applying the Employer's Supply Chain Management Policy for second tier procurement.

The Training Service Provider entity shall be accredited, and have in its employ Practitioners, Assessors and Moderators whom are registered, with the Construction Education Training Authority (CETA). Proof of accreditation and registration shall be current, valid and list the NQF levels and Unit Standards for which the entity and its staff are accredited.

The training and competency levels required of the Training Service Provider and

its staff are provided in the table below:

**a. Generic Skills Training**

Generic skills shall be taught where the need has been identified and approved by the Employer and/or the Engineer.

The Contractor shall make representation to the PMT, who shall approve candidates that should attend such courses as they deem appropriate. Those selected shall receive formal generic skills training in a programmed and progressive manner. The PSC and/or the PMT may also identify a need for generic skills training.

Typical training programmes could comprise some or all of the following modules:

- Basic hygiene and HIV/AIDS awareness;
- Road safety;
- Basic management of the environment;
- Tourism awareness and opportunities;
- Managing personal finance;
- Adult Basic Education and Training (ABET);
- Community based training programmes (e.g. knitting, computer skills, plant/machine operator, etc.).

All generic skills training shall be accredited by the relevant Sector Education and Training Authority (SETA) and shall be provided with accredited entities and/or individuals.

**b. Community Training**

Community training shall be taught where the need has been identified.

Community training needs shall be identified by the PSC, who shall submit their proposal to the PMT for consideration and inclusion in to the Contract. While the PMT shall consider the training needs of the Community, the PMT shall inform the PSC of the training limitations, as well as of the training that could be undertaken through the Contract. Candidates shall be identified through the Community structures. The selected candidates shall receive formal skills training in a programmed and progressive manner in compliance with subclause (d). Priority shall be given to training that will equip the Community with skills that will enhance their Employability.

**c. Training Facilities**



The Contractor shall be responsible for providing everything necessary to offer the various training workshops and modules including:

- i. a suitable venue with sufficient furniture, lighting and power,
- (ii) all necessary stationery consumables and study material,
- (iii) transport for attendees.

Before commencing with any structured training, the Contractor shall submit his intended programme to the PMT for approval of its subject content and proposed trainers, and the Contractor shall, if so instructed by the PMT, alter or amend the programme and/or course content.

#### **F1011 LABOUR ENHANCED CONSTRUCTION**

The Contractor's attention is drawn to the fact that it is an objective of the Contract to maximise the labour content of certain operations or portions thereof. In this regard, where the specified work allows for a choice between mechanical or labour-enhanced means, the former should generally be kept to the practical minimum.

Before commencing with any labour enhanced operations the Contractor shall discuss his intentions with the Engineer, and shall submit to the Engineer on a monthly basis, daily labour returns indicating the numbers of temporary personnel Employed on the Works and the activities on which they were engaged.

**Note:**

Activities that are conventionally done by labour methods, e.g. gabions, shall not qualify under this section.

#### **F1012 COMMUNITY DEVELOPMENT**

##### **a) Corporate Social Investment (CSI)**

The Contractor shall demonstrate its willingness to actively participate in the social development initiatives for local Communities affected by the Contract. To this end, the Contractor shall provide details of CSI initiatives it will actively pursue under Form D9: Corporate Social Investment. The Employer will evaluate the CSI initiatives as part of the tender evaluation under "*other objective criteria*" of the Preferential Procurement Policy Framework Act, 2000.

##### **b) Community Development Projects**

The Employer will identify Community Development Projects to the benefit of the local Communities. These projects shall be undertaken primarily by Targeted Labour and Targeted Enterprises from within these Communities, under supervision of the Contractor.

Although executed as a component of the main contract, the Employer shall

register a separate project number for such Community Development Projects and the Contractor shall submit a separate invoice for the Community Development Project.

Community Development Projects shall not add towards the Contractor's CPG and shall be additional efforts towards the Employer's transformation and socio-economic development goals.

## **SECTION G:      GENERIC LABOUR-INTENSIVE SPECIFICATION**

The Generic Labour-intensive specification below is the same as SANS 1921-5, Construction and management requirement for works contracts- Part 5: Earthworks activities which are to be performed by hand and should be included in the Scope of Works without amendment or modification as set out below.

### **G1001      SCOPE**

This specification establishes general requirements for activities which are to be executed by hand involving the following:

- i)      trenches having a depth of less than 1,5 meters
- ii)     storm water drainage
- iii)    low-volume roads and sidewalks
- iv)    Traffic accommodation on low, medium and high traffic volume roads
- v)     Patch works
- vi)    Road markings and road sign installation
- vii)   Road furniture
- viii)   Slurry seals, crack seal
- ix)    General routine and periodic maintenance

### **G1002      PRECEDENCE**

Where this specification is in conflict with any other standard or specification referred to in the Scope of Works to this Contract, the requirements of this specification shall prevail.

#### **a)      Hand-excavatable material is material:**

- i)      granular materials:
  - whose consistency when profiled may in terms of Table 1 be classified as very loose, loose, medium dense, or dense; or
  - where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 15 blows of a dynamic cone penetrometer is required to penetrate 100mm;
- ii)     cohesive materials:
  - whose consistency when profiled may in terms of table 1 be classified as very soft, soft, firm, stiff and stiff / very stiff; or
  - where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 8 blows of a dynamic cone penetrometer is required to penetrate 100mm;

#### **Note:**

- 1)      A boulder, a cobble and gravel is material with a particle size greater than 200mm, between 60 and 200mm.

- 2) A dynamic cone penetrometer is an instrument used to measure the in-situ shear resistance of a soil comprising a drop weight of approximately 10 kg which falls through a height of 400mm and drives a cone having a maximum diameter of 20mm (cone angle of 60° with respect to the horizontal) into the material being used.

**Table 1: Consistency of materials when profiled**

GRANULAR MATERIALS		COHESIVE MATERIALS	
CONSISTENCY	DESCRIPTION	CONSISTENCY	DESCRIPTION
Very loose	Crumbles very easily when scraped with a geological pick.	Very soft	Geological pick head can easily be pushed in as far as the shaft of the handle.
Loose	Small resistance to penetration by sharp end of a geological pick.	Soft	Easily dented by thumb; sharp end of a geological pick can be pushed in 30-40mm; can be moulded by fingers with some pressure.
Medium dense	Considerable resistance to penetration by sharp end of a geological pick.	Firm	Indented by thumb with effort; sharp end of geological pick can be pushed in up to 10mm; very difficult to mould with fingers; can just be penetrated with an ordinary hand spade.
Dense	Very high resistance to penetration by the sharp end of geological pick; requires many blows	Stiff	Can be indented by thumb-nail; slight indentation produced by pushing geological pick point into soil; cannot be moulded by fingers.
Very dense	High resistance to repeated blows of a geological pick.	Very stiff	Indented by thumb-nail with difficulty; slight indentation produced by blow of a geological pick point.

**b) Trench excavation**

All hand excavatable material in trenches having a depth of less than 1,5 meters shall be excavated by hand.

**c) Compaction of backfilling to trenches (areas not subject to traffic)**

Backfilling to trenches shall be placed in layers of thickness (before compaction) not exceeding 100mm. Each layer shall be compacted using hand stampers

- to 90% Proctor density;
- such that in excess of 5 blows of a dynamic cone penetrometer (DCP) is required to penetrate 100 mm of the backfill, provided that backfill does not comprise more than 10% gravel of size less than 10mm and contains no isolated boulders, or
- such that the density of the compacted trench backfill is not less than that of the surrounding undisturbed soil when tested comparatively with a DCP.

**d) Excavation**

All hand excavatable material including topsoil classified as hand excavatable shall be excavated by hand. Harder material may be loosened by mechanical means prior to excavation by hand. The excavation of any material which



presents the possibility of danger or injury to workers shall not be excavated by hand.

**e) Clearing and grubbing**

Grass and small bushes shall be cleared by hand.

**f) Shaping**

All shaping shall be undertaken by hand.

**g) Loading**

All loading shall be done by hand, regardless of the method of haulage.

**h) Haul**

Excavation material shall be hauled to its point of placement by means of wheelbarrows where the haul distance is not greater than 150 m.

**i) Off-loading**

All material, however transported, is to be off-loaded by hand, unless tipper trucks are utilised for haulage

**j) Spreading**

All material shall be spread by hand.

**k) Compaction**

Small areas may be compacted by hand provided that the specified compaction is achieved.

**l) Grassing**

All grassing shall be undertaken by sprigging, sodding, or seeding by hand.

**m) Stone pitching and rubble concrete masonry**

All stone required for stone pitching and rubble concrete masonry, whether grouted or dry, must to be collected, loaded, off loaded and placed by hand. Sand and stone shall be hauled to its point of placement by means of wheelbarrows where the haul distance is not greater than 150m. Grout shall be mixed and placed by hand.

**n) Manufactured Elements**

Elements manufactured or designed by the Contractor, such as manhole rings and cover slabs, precast concrete planks and pipes, masonry units and edge beams shall not individually, have a mass of more than 320kg. In addition, the items shall be large enough so that four workers can conveniently and simultaneously acquire a proper hand hold on them.

**Table 2: Skills programme for supervisory and management staff**

Personnel Level	NQF	Unit standard titles	Skills programme description
Team leader/ Supervisor	2	Apply Labour-Intensive Construction Systems and Techniques to Work Activities	This unit standard must be completed, and
		Use Labour-Intensive Construction Methods to Construct and Maintain Roads and Storm water Drainage	} any one of these unit standards
		Use Labour-Intensive Construction Methods to Construct and Maintain Water and Sanitation Services	
		Use Labour-Intensive Construction Methods to Construct, Repair and Maintain Structures.	
Foreman/ Supervisor	4	Implement Labour-Intensive Construction Systems and Techniques.	This unit standard must be completed, and
		Use Labour-Intensive Construction Methods to Construct and Maintain Roads and Storm water Drainage	} any one of these unit standards
		Use Labour-Intensive Construction Methods to Construct and Maintain Water and Sanitation Services	
		Use Labour-Intensive Construction Methods to Construct, Repair and Maintain Structures	
Site Agent/ Manager (i.e. the contractor's most senior representative that is resident on the site)	5	Manage Labour – Intensive Construction Processes	Skills Programme against this single unit standard

## **SECTION H: GUIDELINES FOR EPWP PROJECTS**

### **Payment for the labour-intensive component of the Works**

Payment for works identified in the Scope of Work as being labour-intensive shall only be made in accordance with the provisions of the Contract if the works are constructed strictly in accordance with the provisions of the Scope of Work. Any non-payment for such works shall not relieve the Contractor in any way from his obligations either in contract or in delict.

### **Applicable labour laws**

The Ministerial Determination, Special Public Works Programmes, issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Labour in Government Notice N° R63 of 25 January 2002, as reproduced below, shall apply to works described in the scope of work as being labour intensive and which are undertaken by unskilled or semi-skilled workers.

#### **H1001. Introduction**

- a) This document contains the standard terms and conditions for workers employed in elementary occupations on an Expanded Public Works Programme (EPWP). These terms and conditions do NOT apply to persons employed in the supervision and management of an EPWP.
- b) In this document –
  - "department" means any department of the State, implementing agent or contractor;
  - "employer" means any department, implementing agency or contractor that hires workers to work in elementary occupations on a EPWP;
  - "worker" means any person working in an elementary occupation on a EPWP;
  - "elementary occupation" means any occupation involving unskilled or semi-skilled work;
  - "management" means any person employed by a department or implementing agency to administer or execute an EPWP;
  - "task" means a fixed quantity of work;
  - "task-based work" means work in which a worker is paid a fixed rate for performing a task;
  - "task-rated worker" means a worker paid on the basis of the number of tasks completed;
  - "time-rated worker" means a worker paid on the basis of the length of time worked.

#### **H1002. Terms of work**

- a) Workers on an EPWP are employed on a temporary basis.
- b) A worker may NOT be employed for longer than 24 months in any five-year cycle on an EPWP.
- c) Employment on an EPWP does not qualify as employment as a contributor for the purposes of the Unemployment Insurance Act 30 of 1966.

#### **H1003. Normal hours of work**

- a) An employer may not set tasks or hours of work that require a worker to work–
  - more than forty hours in any week
  - on more than five days in any week; and
  - for more than eight hours on any day.
- b) An employer and worker may agree that a worker will work four days per week. The worker may then work up to ten hours per day.

- c) A task-rated worker may not work more than a total of 55 hours in any week to complete the tasks allocated (based on a 40-hour week) to that worker.

**H1004. Meal breaks**

- a) A worker may not work for more than five hours without taking a meal break of at least thirty minutes' duration.
- b) An employer and worker may agree on longer meal breaks.
- c) A worker may not work during a meal break. However, an employer may require a worker to perform duties during a meal break if those duties cannot be left unattended and cannot be performed by another worker. An employer must take reasonable steps to ensure that a worker is relieved of his or her duties during the meal break.
- d) A worker is not entitled to payment for the period of a meal break. However, a worker who is paid on the basis of time worked must be paid if the worker is required to work or to be available for work during the meal break.

**H1005. Special conditions for security guards**

- a) A security guard may work up to 55 hours per week and up to eleven hours per day.
- b) A security guard who works more than ten hours per day must have a meal break of at least one hour or two breaks of at least 30 minutes each.

**H1006. Daily rest period**

Every worker is entitled to a daily rest period of at least eight consecutive hours. The daily rest period is measured from the time the worker ends work on one day until the time the worker starts work on the next day.

**H1007. Weekly rest period**

Every worker must have two days off every week. A worker may only work on their day off to perform work which must be done without delay and cannot be performed by workers during their ordinary hours of work ("emergency work").

**H1008. Work on Sundays and public holidays**

- a) A worker may only work on a Sunday or public holiday to perform emergency or security work.
- b) Work on Sundays is paid at the ordinary rate of pay.
- c) A task-rated worker who works on a public holiday must be paid:
  - (i) the worker's daily task rate, if the worker works for less than four hours;
  - (ii) double the worker's daily task rate, if the worker works for more than four hours.



- d) A time-rated worker who works on a public holiday must be paid:
  - (i) the worker's daily rate of pay, if the worker works for less than four hours on the public holiday;
  - (ii) double the worker's daily rate of pay, if the worker works for more than four hours on the public holiday.

#### **H1009. Sick leave**

- a) Only workers who work four or more days per week have the right to claim sick pay in terms of this clause.
- b) A worker who is unable to work on account of illness or injury is entitled to claim one day's paid sick leave for every full month that the worker has worked in terms of a contract.
- c) A worker may accumulate a maximum of twelve days' sick leave in a year.
- d) Accumulated sick-leave may not be transferred from one contract to another contract.
- e) An employer must pay a task-rated worker the worker's daily task rate for a day's sick leave.
- f) An employer must pay a time-rated worker the worker's daily rate of pay for a day's sick leave.
- g) An employer must pay a worker sick pay on the worker's usual payday.
- h) Before paying sick-pay, an employer may require a worker to produce a certificate stating that the worker was unable to work on account of sickness or injury if the worker is:
  - (i) absent from work for more than two consecutive days; or
  - (ii) absent from work on more than two occasions in any eight-week period.
- i) A medical certificate must be issued and signed by a medical practitioner, a qualified nurse or a clinic staff member authorised to issue medical certificates indicating the duration and reason for incapacity.
- j) A worker is not entitled to paid sick-leave for a work-related injury or occupational disease for which the worker can claim compensation under the Compensation for Occupational Injuries and Diseases Act.

#### **H1010. Maternity leave**

- a) A worker may take up to four consecutive months' unpaid maternity leave.
- b) A worker is not entitled to any payment or employment-related benefits during maternity leave.
- c) A worker must give her employer reasonable notice of when she will start maternity leave and when she will return to work.
- d) A worker is not required to take the full period of maternity leave. However, a worker may not work for four weeks before the expected date of birth of her child or for six weeks after the birth of her child, unless a medical practitioner, midwife or qualified nurse certifies that she is fit to do so.

- e) A worker may begin maternity leave:
  - (i) four weeks before the expected date of birth; or
  - (ii) on an earlier date:
    - (a) if a medical practitioner, midwife or certified nurse certifies that it is necessary for the health of the worker or that of her unborn child; or
    - (b) if agreed to between employer and worker; or
  - (iii) on a later date, if a medical practitioner, midwife or certified nurse has certified that the worker is able to continue to work without endangering her health.
- f) A worker who has a miscarriage during the third trimester of pregnancy or bears a stillborn child may take maternity leave for up to six weeks after the miscarriage or stillbirth.
- g) A worker who returns to work after maternity leave, has the right to start a new cycle of twenty-four months' employment, unless the EPWP on which she was employed has ended.

#### **H1011. Family responsibility leave**

- a) Workers, who work for at least four days per week, are entitled to three days paid family responsibility leave each year in the following circumstances:
  - (i) when the employee's child is born;
  - (ii) when the employee's child is sick;
  - (iii) in the event of a death of:
    - (a) the employee's spouse or life partner;
    - (b) the employee's parent, adoptive parent, grandparent, child, adopted child, grandchild or sibling.

#### **H1012. Statement of conditions**

- a) An employer must give a worker a statement containing the following details at the start of employment:
  - (i) the employer's name and address and the name of the EPWP;
  - (ii) the tasks or job that the worker is to perform; and
  - (ii) the period for which the worker is hired or, if this is not certain, the expected duration of the contract;
  - (iv) the worker's rate of pay and how this is to be calculated;
  - (v) the training that the worker will receive during the EPWP.
- b) An employer must ensure that these terms are explained in a suitable language to any employee who is unable to read the statement.
- c) An employer must supply each worker with a copy of these conditions of employment.

#### **H1013. Keeping records**

- a) Every employer must keep a written record of at least the following:
  - (i) the worker's name and position;
  - (ii) in the case of a task-rated worker, the number of tasks completed by the worker;
  - (iii) in the case of a time-rated worker, the time worked by the worker;
  - (iv) payments made to each worker.
- b) The employer must keep this record for a period of at least three years after the

completion of the EPWP.

#### **H1014. Payment**

- a) An employer must pay all wages at least monthly in cash or by cheque or into a bank account.
- b) A task-rated worker will only be paid for tasks that have been completed.
- c) An employer must pay a task-rated worker within five weeks of the work being completed and the work having been approved by the manager or the contractor having submitted an invoice to the employer.
- d) A time-rated worker will be paid at the end of each month.
- e) Payment must be made in cash, by cheque or by direct deposit into a bank account designated by the worker.
- f) Payment in cash or by cheque must take place:
  - (i) at the workplace or at a place agreed to by the worker;
  - (ii) during the worker's working hours or within fifteen minutes of the start or finish of work;
  - (iii) in a sealed envelope which becomes the property of the worker.
- g) An employer must give a worker the following information in writing;
  - (i) the period for which payment is made;
  - (ii) the numbers of tasks completed or hours worked;
  - (iii) the worker's earnings;
  - (iii) any money deducted from the payment;
  - (iv) the actual amount paid to the worker.
- h) If the worker is paid in cash or by cheque, this information must be recorded on the envelope and the worker must acknowledge receipt of payment by signing for it.
- i) If a worker's employment is terminated, the employer must pay all monies owing to that worker within one month of the termination of employment.

#### **H1015. Deductions**

- a) An employer may not deduct money from a worker's payment unless the deduction is required in terms of a law.
- b) An employer must deduct and pay to the SA Revenue Services any income tax that the worker is required to pay.
- c) An employer who deducts money from a worker's pay for payment to another person must pay the money to that person within the time period and other requirements specified in the agreement law, court order or arbitration award concerned.



- d) An employer may not require or allow a worker to:
- (i) repay any payment except an overpayment previously made by the employer by mistake;
  - (ii) state that the worker received a greater amount of money than the employer actually paid to the worker; or
  - (iii) pay the employer or any other person for having been employed.

#### **H1016. Health and safety**

- a) Employers must take all reasonable steps to ensure that the working environment is healthy and safe.
- b) A worker must:
  - (i) work in a way that does not endanger his/her health and safety or that of any other person;
  - (ii) obey any health and safety instruction;
  - (iii) obey all health and safety rules of the EPWP;
  - (iv) use any personal protective equipment or clothing issued by the employer;
  - (v) report any accident, near-miss incident or dangerous behaviour by another person to their employer or manager.

#### **H1017. Compensation for injuries and diseases**

- a) It is the responsibility of the employers (other than a contractor) to arrange for all persons employed on a EPWP to be covered in terms of the Compensation for Occupational Injuries and Diseases Act, 130 of 1993.
- b) A worker must report any work-related injury or occupational disease to their employer or manager.
- c) The employer must report the accident or disease to the Compensation Commissioner.
- d) An employer must pay a worker who is unable to work because of an injury caused by an accident at work 75% of their earnings for up to three months. The employer will be refunded this amount by the Compensation Commissioner. This does NOT apply to injuries caused by accidents outside the workplace such as road accidents or accidents at home.

#### **H1018. Termination**

- a) The employer may terminate the employment of a worker for good cause after following a fair procedure.
- b) A worker will not receive severance pay on termination.
- c) A worker is not required to give notice to terminate employment. However, a worker who wishes to resign should advise the employer in advance to allow the employer to find a replacement.
- d) A worker who is absent for more than three consecutive days without informing the employer of an intention to return to work will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.
- e) A worker who does not attend required training events, without good reason, will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.



#### **H1019. Certificate of service**

- a) On termination of employment, a worker is entitled to a certificate stating:
  - (i) the worker's full name;
  - (ii) the name and address of the employer;
  - (iii) the EPWP on which the worker worked;
  - (iv) the work performed by the worker;
  - (v) any training received by the worker as part of the EPWP;
  - (vi) the period for which the worker worked on the EPWP;
  - (vii) any other information agreed on by the employer and worker.

## SECTION I: GUIDELINES FOR SUBCONTRACTING AND LABOUR ENHANCEMENT

### SECTION I: GUIDELINES FOR SUBCONTRACTING AND LABOUR ENHANCEMENT

#### I1001 DEFINITIONS

**The community** means individual and communal property owners, organised groups of road users, other interest groups and departments or spheres of government that may be affected by the location, construction, operation and maintenance of the road to which this contract applies.

**"National Small Business Support Strategy"** means the national policy in respect of small business support as published by the Minister in the Gazette, and includes the policy as stated in the White Paper on National Strategy for the Development and Promotion of Small Business in South Africa.

**"Small business"** means a separate and distinct business entity, including co-operative enterprises and non-governmental organisations, managed by one owner or more which, including its branches or subsidiaries, if any, is predominantly carried on in any sector or sub-sector of the economy mentioned in column 1 of the Schedule below and which can be classified as a micro-, a very small, a small or a medium enterprise by satisfying the criteria mentioned in columns 3, 4 and 5 of the Schedule opposite the smallest relevant size or class as mentioned in column 2 of the Schedule.

#### SCHEDULE OF SMME CLASSIFICATIONS

Sector	Size of class	Total full-time equivalent of paid employees : less than	Total annual turnover : less than	Total gross asset value (fixed property excluded): less than
Construction	Medium	200	R26,0m	R4,0m
	Small	50	R6,0m	R1,0m
	Very small	20	R2,0m	R0,4m
	Micro	5	R0,15m	R0,1m

**"Conventional contract"** means any contract for the execution of civil engineering or building or similar construction works, in which the liabilities and responsibilities of the two parties thereto are assigned essentially in a manner which is consistent with that set out in the General Conditions of Contract 2004, or other similar documents.

**"Conventional subcontract"** shall be similarly and appropriately construed.

**"Contract Participation Goal"** (or CPG), is the value of goods, services and works, excluding VAT, for which the Contractor has to engage labour and subcontractors.

**"Contractor"** means any person or group of persons in association, or firm, or body corporate who is registered with the Construction Industry Development Board (CIDB) and:

- a) have a contractor grading designation equal to or higher than a contractor grading designation specified for the Contract, or
- b) contractors registered as potentially emerging enterprises with the CIDB who are registered in one contractor grading designation lower than that required in terms of a) above

**"Subcontractor"** or **"Sub-contractor"** shall be similarly and appropriately construed.

**Emerging Contractor** means an ABE that cannot reasonably be categorised as a conventional contractor defined above.

**Affirmable Business Enterprise (ABE) :** a business which adheres to statutory labour practices, is a legal entity, registered with the South African Revenue Service and a continuing and Independent Enterprise for profit, providing a Commercially Useful Function and :

- a) Which is at least two thirds owned by one or more historically disadvantaged individuals (HDI's) or, in the case of a company, at least two thirds of the shares are owned by one or more previously disadvantaged individual; and
- b) Whose management and daily business operations are in the control of one or more of the previously disadvantaged individuals who effectively own it

**"Key Personnel"** means all contracts managers, site agents, materials and survey technicians, trainers, supervisors, foremen, skilled plant operators, and all other personnel in the permanent employ of the Contractor or his subcontractor who possess special skills and/or who play key roles in the Contractor's or subcontractor's operations.

**"Worker"** for the purposes of this specification means any person, not being one of the defined key personnel of the Contractor or his subcontractor, who is engaged by the Contractor or subcontractor to participate in the execution of any part of the contract works and shall include unskilled labour, semi-skilled and skilled labour, artisans, clerical workers and the like.

**"Workforce"** means the aggregate body comprising all workers and shall, unless the context dictates otherwise, include the workforces of the Contractor and all his subcontractors.

**"Subcontractor"** means any person or group of persons in association, or firm, or body corporate (whether formally constituted or otherwise) not being the Contractor, to whom specific portions or aspects of the works are sublet or subcontracted by the Contractor in accordance with the provisions of the contract.

**Level of subcontractor** means the level of responsibility carried by and the assistance to be provided to the different grades of sub-contractor in the execution of subcontracts.

**"PLC"** is the Project Liaison Committee

**"Project Committee"** is the committee comprising out of the Employer's representative, The Engineer or his representative, the Contractor or his representative and the CLO.

**"CLO"** is the Community Liaison Officer as appointed by the Contractor and paid under the Contract.

## **I1002 COMMUNITY PARTICIPATION**

### **a) Purpose**

In order to give effect to the need for participation and transparency in the process of appointing labour, the community should participate in the decision making process throughout the life of a project. This shall be achieved through structured engagement between those responsible for the delivery of the project and the community.

### **b) Structure and composition**

A Project Liaison Committee (PLC) may be formed from representatives of the Employer, the Engineer, the Contractor and the community if the project is such that a specific community can be identified.



**c) Procedures**

- i) The PLC deals with labour and ABE involvement on the project and shall meet at least once every month until such time as it is of the opinion that it could fulfill its tasks by meeting less frequently.
- ii) The PLC shall make recommendations by consensus. If consensus can not be reached, the decision of the Employer will be final in cases that have no financial implications for the Contractor or where payment is to be made from PC items. Where the financial responsibility for the successful completion of the works rests with the Contractor, the Contractor's decision shall be final. In fulfilling its tasks, the PLC shall be guided by the relevant sections of this specification and the supplementary documents.

**d) Tasks of the PLC**

- i) To assist with community liaison and resolution of disputes.
- ii) To devise fair and transparent procedures that will assist the Contractor in the engagement of labour and the award of sub-contracts to ABE's.
- iii) To advise on and monitor labour issues.
- iv) To assist in resolving labour disputes.

**e) Assistance to the PLC**

- i) The Contractor may appoint a competent local person as a Community Liaison Officer to assist the Contractor in the day to day liaison with the communities directly affected by the project.

**I1003**

**USE, DEVELOPMENT AND SUPPORT OF ABE'S WITHOUT CIDB REGISTRATION AND LOWER CATEGORIES CIDB REGISTERED SUB- CONTRACTORS**

**a) Extent of the works to be executed by lower categories CIDB registered sub-contractors and ABE's (or HDI's)**

A major objective of the RDP is to extend economic opportunities and entrepreneurial capacity to all localities by the optimum utilisation of the resources existing in the vicinity of projects, the development of these resources in the execution of the project, and by maximising the amount of project funds retained within the project locality.

The Engineer shall advise the Free State Provincial Government: Department of Community safety, Roads and Transport on the contract participation goal (CPG) for lower categories CIDB registered sub- contractors and local ABE's that may be achieved on the project. This CPG will be stated in the Contract Data.

Upon receipt of a fully motivated written application from the Contractor, the target may be reduced. The circumstances for such a reduction may include inter alia the following:

- non-receipt of valid tenders from lower categories CIDB registered sub-contractors and ABE's;
- default or failure of appointed lower categories CIDB registered sub- contractors and ABE's to complete sub-contracts;

**b) Terms and conditions of the subcontract agreements**

The terms and conditions of each subcontract agreement shall be as mutually agreed between the Contractor and the Sub-contractor/s.

Each subcontract agreement shall contain terms and conditions which assign the responsibilities and liabilities of the two parties to the subcontract.

The terms and conditions of the subcontract agreement shall further be such as to specifically ensure that the provisions of this contract pertaining to:

- the allowable sources from which workers may be drawn;
- the terms and conditions relating to the recruitment and employment of the workers
- any training to be provided to the temporary workforce;
- shall apply in respect of all workers engaged and employed by any Sub-contractor.

Except where it is in conflict with the responsibilities of the Sub-contractor under a particular level of sub-contract, the terms and conditions of the sub-contract agreement shall:

- include an entitlement of the sub-contractor to receive such training and support as is contemplated in this contract; and

- an obligation on the Sub-contractor to participate and co-operate in such training as is provided for in this contract.

The Contractor shall be responsible for the compilation of each subcontract agreement and for ensuring that terms and conditions thereof are consistent with all requirements as specified in, or reasonably to be inferred from, the provisions of this contract. The Contractor shall bear all costs associated with the compilation of the subcontract documentation and the conclusion of the agreement.

In addition to the provisions of General Conditions of Contract, the final terms and conditions of each subcontract agreement shall be subject to the approval of the Engineer, which approval shall be obtained by the Contractor prior to entering into the subcontract agreement and which approval shall not be unreasonably withheld.

The Contractor shall include a condition of the subcontract that Sub-contractors shall apply for CIDB Registration in the accomplished category.

**c) Formulation of subcontracts**

**i) Scope, extent and level of subcontracts**

The Contractor shall submit a list of subcontracts that he proposes to let to the PC setting out :

- the scope and extent of the works to be included in any particular subcontract;
- the time at which subcontracts will be let; and
- the duration of the subcontract;

The scope and extent of the proposed subcontracts shall be framed in such a manner as will facilitate the achievement of all objectives and principles pertaining to ABE's use and development as are stated in or as may reasonably be inferred from the conditions of this contract, due cognizance being taken of:

- the prevailing levels, ability, resources and previous experience of the potential candidates available;
- the training and assistance to be provided to the ABE's in terms of this contract;

- the period allowed in the Appendix for completion of the Works and the approved programme of works;
- the Scope of Works described in the Project Specifications; and all constraints and conditions contained in this contract, as may impact upon the subcontract.

The level to be applicable to any particular subcontract shall be selected by the Contractor, in accordance with the following criteria:

- the level of subcontract shall be commensurate with the scope and extent of Works included in the subcontract; and
- the level of subcontract shall be selected taking due cognizance of:
  - the prevailing levels of the available candidates;
  - the assistance to be provided by the Contractor to the ABE's for any given level of subcontract;
  - the training and support to be provided to the ABE's in terms of the contract;
  - the training as may have previously been provided to candidate ABE's under this or other contracts.

The Contractor shall formulate the subcontracts in a manner that will facilitate optimum use of available potential ABE's.

#### **d) Engagement of Sub-contractors**

The Contractor shall submit a program and procedures that will show the optimum use of lower categories CIDB registered sub- contractors and ABE's on the contract along the following guidelines.

##### **i) Identification and general training of potential Sub-contractors**

The Contractor will, through an appropriate public information campaign in the vicinity of the project, invite potential sub-contractors to attend information sessions about the scope of the works, the RDP objectives of the project and the Scope of Works that could be undertaken by sub-contractors.

Potential sub-contractors shall be invited to attend training workshops that could include the following modules :



- Estimating and tendering
- Conditions of contract and specifications
- Basic business appreciation
- Statutory obligations pertaining to the requirements and procedures of inter alia:
  - Site tax/income tax deductions from the amounts due to their employees;
  - The Occupational Health and Safety Act 1993; (Act No 85 of 1993);
  - Value-added tax (VAT) and other taxes for which the small subcontractor may be liable;
  - His status as an employer.

The training shall be conducted by an accredited training agency and the candidates who successfully complete the training shall receive certificates and their names retained on a list of potential Tenderers.

## ii) **Advertisement**

The contractor shall compile an advertisement setting out the scope and type of work that will be let out to subcontractors and inviting interested parties to obtain tender qualification forms. The tender qualification form shall elicit information from prospective Tenderers that will assist the Contractor in determining the eligibility of the applicant to perform at a particular level of subcontract. This advertisement shall be run in appropriate daily newspapers if available and displayed at public buildings, shops and other places in the vicinity of the project and disseminated through various community structures.

Notwithstanding the above requirements to advertise publicly for invitations to qualify for tenders, the Contractor may invite specific eligible Sub-contractors as he may select.

The Contractor shall scrutinize the applications in terms of previous experience, equipment, labour force, financial position and location, but without identification, and allocate them to the type of work that they could potentially undertake, having regard also for further training and support.

If after the initial allocation, there should be an excessive number of candidates, a further selection shall be made to reduce the number of potential Tenderers per subcontract to no more than five.

**iii) Invitation and site inspection**

Applicants who satisfy the pre-qualification process shall be invited to attend a site inspection, conducted jointly by the Engineer and the Contractor at which the tender documents shall be handed over and the exact scope and requirement of each sub-contract explained.

**iv) Adjudication and award**

Upon receipt of the tenders, the Contractor shall adjudicate the tenders and make proposed awards, based on criteria such as balance of rates, overall tender price against realistic cost to deliver in time and at a reasonable margin of profit.

**e) Training, Mentoring, Guidance and Assistance**

**i) Structured training and support**

The PLC may assist in identification of the contract workers to undergo training as specified in the training programme specifications in paragraph 9 of this section.

The PLC may assist with formalising a structured development programme for ABE subcontractors, having regard for the resources and experience of the ABE's that have been engaged and the scope and level of the subcontracts, in accordance with the criteria set out below.

**ii) Co-operative venture**

ABE or HDI contractors who have been identified in the pre-qualification stage and who have some experience and equipment, but who operate independently with little training and backup, should be brought together with a view to forming a co-operative venture to allow them to access work requiring varied skills and equipment and of a larger magnitude.

**iii) Lower categories CIDB registered sub-contractors and ABE or HDI support office**

Such an office shall be part of the Contractor's own site establishment and shall provide administrative and technical services exclusively to lower categories CIDB registered sub- contractors and HDI's that have been selected according to the processes defined in these project specifications. The following support shall be provided:

- Materials ordering
- Invoicing
- Wage packaging
- Cost control
- Work scheduling
- Setting out of work
- Measurement of work done
- Training

Such an office shall be staffed in joint venture between the Contractor, who shall be paid an amount under the contract for Sub contractor support, the Employer via the training allowed for in the contract, and the Sub-contractors who shall pay a service fee.

**iv) Financial assistance to ABE's**

The Contractor shall tender to assist ABE's with:

- Funding of wages between payment certificates at the start of the contract
- Payment for materials channelled through their accounts
- Guarantees for financing of equipment

**v) Supply of services and materials**

As part of the pre-tender communication strategy, local business and local community structures should be informed of the needs so that they can prepare themselves to take advantage of the opportunities to provide goods and services.

The supply only of material as well as the supply of labour through labour brokers who will work under the supervision of the Contractor, shall not count towards the target of work done by ABE's.

**vi) Accredited training**

Over and above the in-task training provided to the workforce, training by accredited training providers shall be provided to lower categories CIDB registered sub- contractors and ABE's as enterprises with the aim of progressing through the levels as defined. The Contractor shall assist in facilitating in the delivery of the training, by instructing and motivating the lower categories CIDB registered sub- contractors and ABE's regarding attendance and participation therein. The Contractor shall further make all reasonable efforts to co-ordinate the programming of the lower categories CIDB registered sub-contractors and ABE's work with that of the delivery of the structured training.

**I1004 DISPUTE AVOIDANCE AND RESOLUTION PROCEDURES**

The Contractor shall at all times apply the terms and conditions of the subcontract fairly and justly, taking due cognizance of the level of sophistication and experience of the particular lower categories CIDB registered sub- contractors and ABE's concerned, as well as the level of subcontract applicable.

The Contractor shall closely monitor and supervise all Sub-contractors and wherever feasible, shall give reasonable warning to the Sub-contractors when any contravention of the terms of the subcontract has occurred or appears likely to occur.

The Contractor shall, whenever feasible, give the Sub-contractors reasonable opportunity to make good any such contravention, or to avoid such contravention and shall render all reasonable assistance to the Sub-contractors in this regard.

When taking any disciplinary actions or imposing any penalties as are provided for in the subcontract, the Contractor shall explain fully to the Sub-contractors that such actions are provided for in the subcontract.

If any dispute should arise between the Contractor and a Sub-contractor, such dispute shall be resolved in accordance with the provisions of the subcontract. Notwithstanding, either party may at any time, refer any dispute to the Engineer for consideration, with a view to facilitating the resolution thereof.

**I1005 CONTRACTOR'S LIABILITY**

No provision or requirement set out in this specification shall be deemed to relieve the Contractor of any liability or obligation under the contract, and in accordance with the



provisions of sub-clause 6.4 of the General Conditions of Contract, the Contractor shall be fully liable for the acts, defaults and neglects of any Sub-contractors, his agents or employees, as fully as if they were the acts, defaults and neglects of the Contractor, his agents or employees.

Nothing contained in this specification shall be deemed to constitute or imply any warranty given by the Contractor to any party that any Sub-contractor to whom a subcontract is awarded in accordance with the provisions of this specification:

- can or will actually achieve the successful execution and completion of the subcontract ;
- nor
- will not suffer losses or damages as a result of the acceptance of his tender/quotation.

#### **I1006      CERTIFICATE OF EXPERIENCE**

The Contractor shall on the completion of each and every subcontract completed in accordance with the provisions of this specification, issue free of charge to the Sub-contractors certificates stating:

**a)      Contract data:**

- Contract title;
- Contractor's full name and address;
- Engineer's name and address;
- Employer's name;

**b)      Subcontract data:**

- Sub-contractor's name and address;
- Scope or extent of the subcontract works;
- Value of the subcontract works;
- Applicable level of the subcontract;
- Duration of the subcontract;
- Date of completion of the subcontract;
- Description of the training undergone by the Sub-contractor and certifying the Sub-contractor's completion of the subcontract.

The format, layout and appearance of certificates shall be at the Contractor's discretion, provided always that they shall be respectable and presentable in accordance with the general standards of normal business practice. All certificates shall be signed by the Engineer and a senior representative of the Contractor, who has been duly authorized thereto.

#### **I1007      LABOUR ENHANCED CONSTRUCTION**

The Contractor's attention is drawn to the fact that it is an objective of the contract to maximize the labour content of certain operations or portions thereof. In this regard, where the specified work allows for a choice between mechanical or labour-enhanced means, the former shall generally be kept to the practical minimum.

The Contractor shall submit on a monthly basis, daily labour returns to the Engineer indicating the numbers of temporary personnel employed on the works and the activities on which they were engaged.

#### **I1008      TEMPORARY WORKFORCE**

##### **a)      Record of workforce**

The Contractor shall maintain accurate and comprehensive records of all workers engaged on the contract and shall provide to the Engineer at monthly intervals from the commencement of the contract, interim records substantiating the actual numbers of employment opportunities which have been generated to date and the amounts actually paid in respect thereof. Such interim records shall be in a format approved by the Engineer.

The Contractor shall, on completion of the contract, and as a pre-requisite to the release of any retention money, provide the Engineer with independently audited documentary evidence of the total number of employment opportunities actually generated during the contract.

The value of the target number (minimum Contract Participation Goal) for local labour is prescribed in Part C1.2.2: Contract Data.

##### **b)      Recruitment and selection procedures**

The Contractor shall be responsible for the final selection of workers to constitute the temporary workforce but in doing so, shall adhere to the procedures adopted by the PLC or CLO along the following guidelines:

The Contractor shall advise the Engineer in writing, of the numbers of each category of temporary worker which he requires, together with the personal attributes which he considers desirable that each category of worker shall possess (taking due cognizance of the provisions of the contract relating to training).

The PLC or CLO shall take the necessary actions to identify potential workers for the temporary workforce from communities in the vicinity of the works. The details of all persons applying for employment shall be recorded, including inter-alia:

- Name, address, age and sex
- Marital status and number of dependants
- Qualifications and previous work experience (whether substantiated or not)
- Period since last economically active
- Preference for type of work or task.

The PLC or CLO shall make a selection of workers from amongst the applicants, taking due cognizance of his requirements for the workforce as supplied by the Contractor and the provisions of the contract in regard to the provision of training to selected members of the workforce and in accordance with the following principles:

No potential temporary worker shall be precluded from selection by virtue of a lack of skill in any suitable operation forming part of the works, unless:

- all available vacancies have been or can be filled by temporary workers who already possess suitable skills; or
- the completion period allowed in the contract, or the remaining portion of the contract period (as the case may be) is insufficient to facilitate the creation of the necessary skills;

The Contractor shall make a final selection from the list provided by the PLC or CLO using the following criteria:

- preference shall be given to the long term unemployed and single heads of households
- in so far as is reasonably practicable, give priority to accommodating the applicants' expressed preferences regarding the types of work for which they are selected and shall not be prejudicial to youth over the age of eighteen years and women.

The same provisions shall apply as is in respect of the selection of additional or replacement members of the workforce as may be necessary from time to time during the contract.

**c) Terms and Conditions Pertaining to the Employment of the Temporary Workforce**

The onus shall be on the Contractor to ensure that all the requirements of all the acts relating to the employment of workers are observed.

**d) Labour Relations and Worker Grievance Procedures**

In accordance with the provisions of the General Conditions of Contract, the Contractor shall, at his own cost, be fully responsible for the establishment and maintenance of satisfactory labour relations on site and the resolution of all grievances of temporary workers as may occur.

The Contractor shall at all times adhere to the accepted norms and standards of labour relations prevailing generally in the civil engineering construction industry and shall conduct himself in a fair and reasonable manner, within the constraints as may be imposed upon him by the terms of the contract.

In the event of any temporary worker engaged by the Contractor in terms of the contract, being aggrieved on any issue, he shall have the right to nominate and be supported in any inquiry or disciplinary hearing or investigation instituted by the Contractor, by one member of the temporary workforce.

In the event of any grievance not being satisfactorily resolved through the application of normal dispute resolution procedures described above, then either the Contractor or the worker concerned may require that the matter be referred to the Engineer for further consideration, with a view to facilitating resolution thereof.

**I1009 TRAINING OF THE TEMPORARY WORKFORCE**

Selected members of the workforce are to be provided at least with structured training by a nominated subcontractor, in accordance with the provisions of this section. The Contractor shall make all necessary allowances in his program of work to accommodate and facilitate the delivery of such structured training.



Sub-contractors' workforces will be entitled to receive accredited training that will improve on task skills necessary for the execution and successful completion of the various subcontracts. The Contractor, in conjunction with the Engineer, shall monitor each Sub-contractor's progress closely and shall identify those who will benefit from structured construction skills training.

The technical training shall comprise of items selected from Section H of Part C3.3 and which are relevant to this project.

#### **I1010 ACCREDITED TRAINING AND ATTENDANCE**

Only qualified trainers employed by training agencies who are accredited by the Civil Engineering Industry Training Scheme (CEITS), or any other institution recognized by the Department of Labour shall deliver all training certificates affirming the successful participation in the various courses and shall be presented to each attendant.

The Contractor shall facilitate in the delivery of training, by instructing and motivating the relevant Sub-contractor regarding his staff's attendance and participation therein.

The Contractor shall further make all reasonable efforts to co-ordinate Sub-contractors' work with that of the delivery of the structured training

The provision of structured training shall not relieve the Contractor of any of his obligations in terms of clause 21 of the General Conditions of Contract and the Contractor shall remain fully liable for the provision, at his own cost, of any other training of the workforce, additional to the structured training, as deemed to be necessary by the Contractor to achieve the execution and completion of the works strictly in accordance with the provisions of the contract.

#### **I1011 PENALTIES FOR NON-COMPLIANCE**

Any deliberate failure or neglect by the Contractor to comply with the provisions of this specification, or any deliberate omission or neglect by the Contractor in adhering to or applying the principles as are described and inherent in this specification, shall be deemed to constitute a warrant for the Engineer to act in terms of clause 55.1.5 of the General Conditions of Contract or the penalties specified for non attaining the prescribed CPG's will be applied and doubled.

**I1012 MEASUREMENT AND PAYMENT**

ITEM	UNIT
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<b>I10.01 Project Liaison Committee costs</b> .....provisional (Prov) sum	
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The provisional sum provided shall cover payments made by the Contractor to duly elected and approved community members for attending official PLC meetings.

ITEM	UNIT
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<b>I10.02 Community Liaison Officer salary</b> .....provisional (Prov) sum	
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The provisional sum provided shall cover the salary of the duly elected and approved CLO.

ITEM	UNIT
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<b>I10.03 Training</b>	
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a) General training of lower categories CIDB and ABE's .....provisional (Prov) sum	
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The provisional sum provided shall cover all the cost of the training as described in Section I1003 of the Particular Specifications.

b) Training of the temporary workforce	
i) Technical training .....provisional (Prov) sum	
ii) HIV/AIDS.....provisional (Prov) sum	

The provisional sums provided shall cover all the cost for the training of the temporary workforce.

ITEM	UNIT
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<b>I10.04 Handling costs and profits in respect of items</b>	
<b>I10.01, I10.02 and I10.03</b> .....percentage (%)	

The tendered percentage is a percentage of the amounts actually spent under the items, which shall include full compensation for the handling costs of the Contractor, and the profit in connection with the training.

*APPOINTMENT OF A CONTRACTOR ON CIDB LEVEL 6 CEPE/7 CE ONLY FOR THE REPAIRS OF THE SLOPE EMBANKMENT AND PAVEMENT FAILURE SECTION (KM 18+000 AND KM 19+000) AS A RESULTS OF FLOODING, ON PRIMARY ROAD P51/1(R711) BETWEEN FOURIESBURG AND CLARENS, FOR A PERIOD OF 8 MONTHS*

**APPOINTMENT OF A CONTRACTOR ON CIDB LEVEL 6 CEPE/7 CE OR HIGHER FOR THE REPAIRS OF THE SLOPE EMBANKMENT AND PAVEMENT FAILURE SECTION (KM 18+000 AND KM 19+000) AS A RESULTS OF FLOODING, ON PRIMARY ROAD P51/1(R711) BETWEEN FOURIESBURG AND CLARENS, FOR A PERIOD OF 8 MONTHS**

## **PART C4: SITE INFORMATION**

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<b>C4.3</b>	<b>LOCALITY PLAN</b>	<b>C4-2</b>

#### C4.1 SURVEYS/BEACONS

The Tenderer is to note that all survey control and beacon are based on localised grid positions and levels.

The details for the relevant survey control will be issued to the successful contractor at the commencement of the contract.

#### C4.2 PAVEMENT INFORMATION

The Tenderer is to refer to Part C3 of this document for information regarding the construction of the pavement.

#### C4.3 LOCALITY PLAN

