

## C 2.2. BILL OF QUANTITIES

PROJECT NO: 529

**APPOINTMENT OF A PANEL OF THREE (03) SERVICE PROVIDERS FOR THE SUPPLY AND DELIVERY OF MACHINERY AND EQUIPMENT FOR FIRE AND RESCUE SERVICE AS AND WHEN REQUIRED FOR A PERIOD OF 36 MONTHS.**

No	Description	Unit	Rate
<b>Appointment of a panel for service providers for the supply and delivery of machinery and equipment for fire and rescue services as and when required for a period of 36 months</b>			
1.1	<p>Appointment of a panel for service providers for the supply and delivery of machinery and equipment for fire and rescue services as and when required for a period of 36 months</p> <p>Nkangala District Municipality consider the fact that fire fighting equipment is a vital part of any emergency response team. It can help save lives, as well as protect property and assets.</p>	36 months	

### Scope firefighting equipment's

Description	RESCUE AND EXTRICATIONS	QTY	YEAR 1	YEAR 2	YEAR 3
1. Portable Generator	7KVa Capacity AVR Fuel type Petrol 25L tank size With Wheels Electric Key Start Overload protection 230v 50Hz	1			
2. Hydraulic power unit	Hydraulic oil tank capacity - min. 5l/max. 7l Working pressure nominal - 100 bar Pressure relief valve set at - 110 bar	1			
3. Hydraulic spreader	1 Double action cylinder  1 Ergonomically shaped control handle with integrated safety device and piloting  1 Set of hoses 0.5m long, with automatically locking anti-pollution HP quick action	1			

	<p>couplers fitted with metal protection plugs</p> <p>2 Forged high strength light alloy arms fitted with interchangeable serrated tips without tools. The tips are made from high strength, hardened and anti-corrosion treated steel</p>				
4. Hydraulic shears	CU 4035 C NCT II cutter Versatile blade design with straight toothed part of the blade for grip and cutting performance, curved outer part to pull material	1			
5. Hydraulic rams	<p>Stroke 156mm</p> <p>Capacity 10t</p> <p>Closed Height 247mm</p> <p>Single/Double Acting Single</p> <p>Manufacturer Series</p> <p>RC Extended Height 403mm</p> <p>Cylinder</p> <p>Effective Area 14.5cm<sup>2</sup></p> <p>Oil Capacity 226cm<sup>3</sup></p> <p>Outside Diameter 57mm</p> <p>Maximum Operating Pressure 700bar</p> <p>Weight 4.4kg</p>	1			
6. High lift jack	<p>All-cast construction.</p> <p>3175kg tested capacity.</p> <p>1.5m long.</p> <p>Top winch-connector clamp is fitted as standard.</p> <p>High quality and durable red powder coated finish.</p> <p>Safe use information including rated load details and operating instructions attached to product.</p> <p>Two-piece handle and socket, proven to be the most reliable and effective design.</p> <p>Lifts, winches, clamps, &amp; more.</p>	1			
7. Trench screw jacks cribbing air chisel	<p>Max. working pressure 12 / 1.2 (bar/Mpa) 174 psi</p> <p>locking system locknut</p> <p>strut type pneumatic</p> <p>Performance stroke 1030 mm</p> <p>40.6 in</p>	1			

	retracted length 1620 mm 63.8 in extended length 2650 mm104.3 in force at working pressure 6 / 0.6 (kN/t) Dimensions, weight and temperature weight, ready for use 18 kg 39.7 lb dimensions (AxBxC) 1620 x 100 x 100 mm 63.8 x 3.9 x 3.9 in				
8. emergency tripod lights	Voltage: 220V It's rated IP65 meaning it's ideal for outdoor situations where wind, dust & rain is expected Lumens: 1000 Light Angle: 120 Material: Aluminum	1			
9. Various air bags (high- and /or low pressure	HLB Sizes (3, 10, 12 and 32) air bag, made of aramid reinforced nitril rubber NBR, is light weight, flexible as well as durable. The non- slip design provides grip on all surfaces.	1			
10. Block and tackle /turfor ( come-along ) system	<p><b>Load Capacity:</b> Measured in tons (e.g., 1 ton, 2 ton, 5 ton), indicating the maximum weight the system can safely lift.</p> <p><b>Lift Height:</b> The maximum vertical distance the load can be raised (3 meters, 2.5 meters).</p> <p><b>Chain Type: Material and Construction:</b> The materials used in the block and tackle (e.g., steel) and the construction details heavy-duty, robust) affect its durability and suitability for different environments.</p> <p><b>Test Certificate:</b> A certificate may be provided to confirm the system has been tested to meet safety and performance standards.</p> <p><b>Operating Mechanism:</b> Manual or electric, with manual systems typically using a hand chain to operate the lifting mechanism.</p> <p><b>Safety Features:</b></p>				

	Brakes, overload protection, and other safety features may be included				
11. Traffic cones	Weight: 1kg Dimensions: 27 x 27 x 47cm Material: Plastic Colour: Orange	1			
12. Window breaker or window punch	Window punch is rescue tool. It is made of anodized aluminum with heat-treated steel head. Its spring mechanism allows for breaking the window in a controlled manner.	1			
13. Cervical collar (small. Medium and large)	Collar adjust from neckless to tall adult neck sizes. Stores completely flat. Horizontal sizing line. Flip chin piece for easy airway access. Nasal cannula holders located on collar body.	1			
14. Short spine board / K.E.D and Long spine board	Large - 850 mm Width - 400 mm Height - 15 mm Weight - 3,5 Kg Load capacity - 150 Kg	1			
15. Scoop stretcher	Material: aluminium alloy Colour: Silver Expanded size: 214 * 42 * 7cm Folding size: 167 * 42 * 7cm Packing size: 170 * 44 * 7cm Maximum load: 159kg Net weight: 8kg packing list: 1X stretcher	1			
16. Head blocks	Side blocks with wide Velcro closures, allowing for a snug fit. Should come with a head/chin straps and a base plate that fastens easily to the board. No metal components. It's waterproof and buoyant, perfect for water rescues. Easy to clean and disinfect for reuse. The Head Immobilizer is made with the highest grade of foam with a vinyl coating that is sure to last.	1			
17. Spider hardness	Colour Coded Webbing with Velcro Straps thread through	1			

	the board and secure around the patient using buckles Size adjustable from paediatric to adult. Compatible with almost any spine board or scoop stretcher Stores easily				
<b>FORCIBLE ENTRY</b>					
18. Carborandum Cutter	Abrasive Material: Silicon Carbide (also known as Carborandum). Bond: Resin or reinforced bond for durability and safety. Shape: Typically disc-shaped, with various diameters and thicknesses available. Cutting Speed: Designed for efficient cutting, Applications: Cutting metal (steel, stainless steel), plastic, and other materials. Reinforced: Reinforced discs	1			
19. Halogan Tool/Bar	It features electrostatic paint for increasing the tool's resistance against harsh weather conditions.  This halligan bar has all forged, high carbon heat-treated steel construction for preventing bending / breaking due to hard impacts against solid and metallic surfaces.  It has a long stem for maximising leverage and minimising force requirement.	1			
20. Pick head Axe	8 lbs. Pick head Axe; 36 in. Fiberglass Handle	1			
21. Pry Axe	Top Cut axe blade design.  Long, sharp, tapered pike.  Spanner wrench built into the axe head.  Extendable, lockable, replaceable claw inserts.  Tool head and claw inserted forged from high alloy steel	1			

	<p>and heat treated for maximum strength.</p> <p>High-phosphorous electroless nickel plating for hardness, wear resistance and corrosion protection.</p> <p>3 interchangeable claw designs: standard, cutting and compact.</p> <p>Unique locking lever allows the tool to be used in two positions, closed and extended.</p> <p>Molded rubber handle offers a non-slip grip.</p> <p>Hole in the tool head to insert the claw shaft to pry and split in forcible entry.</p>				
22. Hack Axe	<p>Handle length: 845mm</p> <p>Axe weight: 4.5lb</p>	1			
23. Ceiling hook	A traditional pike pole fitted to a pole constructed of fiberglass strands pultruded over a Honey comb core offers strength, safety, durability and it easy to manoeuvre	1			
24. Rotary/Circular saw	<p>Saw Type - Circular Saw</p> <p>Corded/Cordless - Cordless</p> <p>Diameter - 20mm</p> <p>Brushed/Brushless Motor - Brushed</p> <p>Blade Diameter - 165mm</p> <p>Maximum Speed - 3700rpm</p> <p>Voltage Rating- 18V</p> <p>Battery Type - Body Only</p>	1			
25. Reciprocating Saw	<p>Saw Type - Circular Saw</p> <p>Corded/Cordless - Cordless</p> <p>Diameter - 20mm</p> <p>Brushed/Brushless Motor - Brushed</p> <p>Blade Diameter - 165mm</p> <p>Maximum Speed - 3700rpm</p> <p>Voltage Rating- 18V</p> <p>Battery Type - Body Only</p>	1			
26. Bolt Cutter	<p>Model: 10244</p> <p>Made of: steel</p>	1			

	Cutting ability up to 3/8 inch or 1cm Length: 24inch or 600mm Weight: 5lb or 2.26kg 24 inch bolt cutter				
27. Crawbar	Made of carbon steel Heat treated, polished and powder coated Bar length: 24in or 600mm Bar thickness 13/16 or 20mm Chisel width: 1-3/16in or 30mm Claw width: 1-5/16 or 35mm Colour: bright orange Weight: 4lb or 1.8kg	1			
28. Sledge Hammer	hammer sledge 6.3kg Rubber handle 750mm	1			
29. Claw Hammer	Weight of Head - grams - 570 g Length [mm]- 340 mm	1			
30. Chisel	1 1/2" (38mm) Fire sharp Heavy Duty Masonry Chisel				
31. Fire blankets	Working temperatures: up to 1000°C Fireproof material: according to DIN 4102 with normative against fire BS 476 Flashpoint: +1200°C Melting point: +1450 – 1650°C Thermal shock: 300°C Auto ignition: 435°C at 100% O <sup>2</sup>	1			
<b>GROUND LADDERS</b>					
32. Single ladder	Safe working load : 115kg Maximum static vertical load : 150kg Steps: 22 Height: 6.0m Wide rung for long term comfort Slip resistance ladder feet for added safety and stability Dimension 6000(L) x 430 (W) X 65 (H) mm	1			
33. Roof ladder	2-Piece integral set that transforms a Modular Scaling Ladder into a roof ladder Foldable and easy to stow Includes rubber spacer to protect roof from damage	1			

	Wheels make it easy to roll the ladder up the roof pitch to a secure hooked position				
34. Folding ladder	<p>Tested and manufactured according to EN 1147 and BS</p> <p>Built with 28 mm reinforced square-profile rungs that are milled and welded to the beams</p> <p>Joints lock into place and ensure a secure climb</p> <p>Can be used as both a stepladder and leaning ladder</p> <p>Suitable for a maximum load of 2 persons</p>	1			
35. Extension ladder	<p>Tested and manufactured according to ÖNORM F 4047 and EN 1147 standards</p> <p>Built with swaged firefighting rungs (34 mm in diameter) which are milled into the beams</p> <p>Equipped with side mounted slide guides which reduce friction for smooth extension with minimal pull-out force needed</p> <p>New ladder slide guides eliminate the need for guide brackets</p> <p>New rope brake: immediately prevents the ladder from collapsing, as well as aids the ladder in folding smoothly</p> <p>New design allows for more stability with less weight</p> <p>Suitable for a maximum load of 2 person</p>	1			



HOSES AND HOSE FITTINGS					
36. Rubber hoses	Outer / Inner: Rubber layers with adhesion layers. Bursting Pressure: 62 bar (6200 kPa) Testing Pressure: 24 bar (2400 kPa) Working Pressure: 16 bar (1600 kPa) Diameters Available: 38, 45, 65, 100 mm Designed especially for firefighting, chemical spillage, wash down, water transfer, marine mining, oil field and construction.	1			
37. Double jacket hose	Service Pressure - 400 psi. Test Pressure - 800 psi. Burst Pressure - 1,200 psi. Inside Diameter - 3 inches. Lay Flat Width - 5.5 inches. Length - 25 feet. Couplings - 3" NH/NST fire hose threads. Material - Double jacket polyester. Lining - Inside rubber. Colour - red	1			
38. Divider breaching (Siamese wye)	Suitable for 2.5" (64mm) lay flat hose Inlet: 2½" Instantaneous Male to BS 336 Outlet: 2 x 2½" Instantaneous Female to BS 336 Gunmetal	1			
39. Collector breaching (Siamese wye)	Size and Threads: Common sizes include 2.5" and 4", with various thread types like Storz, NH, and NST. Material Specifications: Aluminum alloy (hardcoat anodized and powder coated) and brass are common. Pressure Rating: Must be capable of withstanding the pressures encountered in fire suppression operations.	1			

	<p>NFPA Compliance: Often built to meet National Fire Protection Association (NFPA) standards.</p> <p>Corrosion Resistance: Essential for long-term reliability and performance in harsh conditions.</p>				
40. Hand Controlled 2-Way Divider	<p>Aluminium Magnesium Alloy</p> <p>Valve body is ADC12</p> <p>Anodized surface Anti-Corrosion treatment process</p> <p>Plastic spray valve body</p> <p>25 bar Nominal pressure</p> <p>37 bar Test pressure</p> <p>Suitable for Water, water and foam mixture</p>	1			
41. 3 X way divider /collector breaching	<p>Aluminium Magnesium Alloy A6061</p> <p>Valve body is ADC12</p> <p>Anodized surface Anti-Corrosion treatment process</p> <p>Plastic spray valve body</p> <p>25 bar Nominal pressure</p> <p>37 bar Test pressure</p> <p>Suitable for Water, water and foam mixture</p>	1			
42. Hard suction hose	<p>High quality pvc with rigid pvc helix 6 inches (15.2 cm) in diameter. Large diameter hose are carried on full-size fire engines,</p>	1			
43. Hose washer	<p>Material: Typically made from rubber (like EPDM) or other durable, flexible materials. Shape: Often flat, circular, or slightly curved to fit snugly within the connection.</p> <p>Size: 16x13mm (for garden taps) and 19x11x2mm (for flexi hoses).Thickness: Standard thickness is crucial for proper sealing.</p>	1			

	Pressure Rating: May have a pressure rating, especially for hoses used with pressure washers or in industrial applications. Compatibility: Must be compatible with the fire hose and fitting size and types				
44. Hose spanner	Fits 1 1/2" and 2 1/2" storz couplings Length - 10 inches Material - Aluminium	1			
45. Double female adapter	Siamese Wye 3 X 2.5 X 2.5 All Female	1			
46. Double male adapter	Usage: To connect two pipe together Size: As per client's need Sturdiness Excellent strength Elevated durability	1			
47. Hose ramps / bridges	This open solid rubber hose bridge also called cable bridge, The maximum diameter of the cables that can be used in the bridge is 120 mm. The maximum carrying weight of the cable tray is 20 tons. Cables are easy to store in the cable bridge	1			
<b>VENTILATIONS</b>					
48. PPV (Positive Pressure ventilator )	Superior and stable airflow characteristics Compact design with fold-out towing handle and frame tilt mechanism Hard wearing 150 mm rubber wheels Smooth reliable operation Lightweight ergonomic design for fast deployment Carrier frame protects the equipment at the fire scene Oil alert protection system guards against damage from low oil production	1			
<b>LOSS CONTROL</b>					

49. 2m X 2m salvage sheet	The flame retardant process used will NOT be removed by washing and is effective for the life of the fabric. NFPA 701 certified Rip Stop base fabric High UV resistance These covers last! with The Reflective Edge	1			
50. 5m X 5m salvage	The flame retardant process used will NOT be removed by washing and is effective for the life of the fabric. NFPA 701 certified Rip Stop base fabric High UV resistance These covers last! with The Reflective Edge	1			
<b>FIRE STREAMS</b>					
51. Adjustable nozzle	Heavy-duty, aluminum metal adjustable spray patterns: ergonomic design with non-slip grip	1			
52. Solid stream nozzle	Model NW 500 & 700 with 3" BSP inlet Model NW 1000 with 4" BSP inlet Inlet connection size 3" BSP female for model NW 500 & NW 700 Inlet connection size 4" BSP female for MODEL NW 1000 Fixed gallonage heavy duty Nozzle for use with monitors Fix flow 1900, 2650, 3785 lpm (500, 700 & 1000 gpm) Excellent water stream	1			
53. Master stream device	Integrated ball valve to control flow of water to the monitor with MANUAL gear actuator  with Electric or Manual Stream Master II 90° discharge valve with 2 ½" NH threads for extension of hose	1			
54. Foam inductor	Material: Aluminium Allow Foams: AFFFF, AR-AFFF, Protein	1			

	Sizes: 225, 450, 950 l/min Expansion Ratio: 7:8 Inlet: BIC 65 mm Flow Rate: @7 bar Throw Range: 22, 25, 40 m @ 7 bar				
55. Gas detector	Small size and light-weight Simple operation with only 1 button Adjustable alarm levels and span calibration value. STEL & TWA alarm for toxic gases Self-protection for combustible gas sensor against high concentration. Battery low voltage alert. Confidence beep. Self-test after power on. Self-diagnostic and self-correction function	1			
<b>WATER SUPPLY</b>					
56. Stand pipe, key & bar	Hydrant Standpipe Key. Size: 1.3/4" AF Head with 980mm handle length.	1			
57. Portable foam pump	<b>Flow Rate:</b> Measured in litres per minute (L/min) or cubic meters per hour (m <sup>3</sup> /hr), indicating the volume of foam solution pumped per unit of time.  <b>Pressure:</b> Measured in bar or psi, indicating the force with which the foam solution is delivered.  <b>Materials:</b> Often constructed with corrosion-resistant materials like stainless steel and bronze to handle various foam concentrates.  <b>Connection Types:</b> Flanged, grooved, or threaded connections for water and foam concentrate lines.  <b>Speed:</b> Maximum pump speed in revolutions per	1			

	<p>minute (RPM) often specified.</p> <p><b>Viscosity:</b> Maximum viscosity of the foam concentrate that the pump can handle.</p> <p><b>Compatibility:</b> Specific foam concentrates that the pump is designed to work with, often adhering to industry standards like EN 13565-1 and NFPA 11.</p>				
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<b>SUB-TOTAL (All Items)</b>	
<b>PLUS 15% VALUE ADDED TAX</b>	
<b>TOTAL AMOUNT TO BE FORWARDED TO FORM C 1.1 (FORM OF OFFER)</b>	

Notes:

#### LOCATION OF WORKS

1. The final product must be delivered to Thembisile Hani Fire Station (Tweefontein E next to Miliva garage & Dr JS Moroka Fire station at Vaalbank & Nokaneng satellite fire station where each unit will be tested and inspected to ensure compliance.

2. The total amount should include delivery fee