

SPECIFICATION SCHEDULE – TRAFFIC SIGNALS MATERIAL TENDER

Item	Description	Unit	Net Unit Price Excluding Vat	Delivery - to be stated within days from date of purchase order/s	Manufacturer's Name
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**ACCESSIBLE PEDESTRIAN SYSTEMS:**

**Controllers; DUAT811 or equivalent**

Accessible Pedestrian Systems and components must previously have been submitted to the CoCT for field and compatibility trials or have previously been evaluated and approved by the CoCT, in order to be eligible for this quote.

Must be pole mounted type.

230 VAC supply requirement.

Must be compatible with Movac Traffic Signal controllers.

Must have the following audible outputs to push button.

- 1) 100Hz at 0.55Hz repetition rate
- 2) 3500 Hz decreasing exponentially to 700Hz
- 3) 500Hz at 8.5Hz repetition rate

Must have microphone and AGC.

**Push buttons;**

Must be compatible with DUAT811 or equivalent control unit

Must be stainless steel.

Must be vibro-tactile.

Transducer must be located within push button.

Must contain directionally adjustable vibro-tactile arrow.

Actuating button to be 50mm diameter

Mounting brackets must be galvanised and complete with Stainless Steel nuts, bolts and washers.

374	APS Control unit	Each			
375	APS Push button	Each			
376	Brackets for mounting APS Control unit to normal traffic signal pole	Set			
377	Brackets for mounting APS Control unit to Cantilever pole	Set			

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**GLASS FIBRE BACKGROUND SCREENS:**

Background Screens must have previously been submitted to the CoCT for field and compatibility trials or have previously been evaluated and approved by the CoCT, in order to be eligible for this quote.  
Refer to drawings; SANS 1459:2004  
Shall conform to SANS 1459:2004 or as amended in COCT Specification for Traffic Signals.  
All screens must be of the rounded type as used in the CoCT.  
Note that the raised (by minimum 7mm) 50mm white border to be **reflective and pigmented** as integral part of background screen.  
Samples must be produced for evaluation.  
The background of the screen to be pigmented.  
All material for screen to be glass fibre with at least 2 layers of 3000/M2 chopped strand saturated with SANS approved polyester resin with a ratio of 3:1 max and 2.5:1 min.  
The back of the backing board should be painted with black flow coat to cover all exposed fibres.  
The entire backboard shall be free of voids, blisters or cracks. Once the quote has been awarded any deviation from the original sample will not be accepted and may lead to exclusion from this quote.  
**No visible light is allowed to pass anywhere between the lantern and background screen interface.**

14	Glass fibre screen for lantern quoted above <b>5 Aspect Right turn</b> Nylon lantern	Each			
15	Glass fibre screen for lantern quoted above <b>5 Aspect Left Turn</b> Nylon lantern	Each			
16	Glass fibre screen for lantern quoted above <b>3 Aspect</b> Traffic lantern	Each			
17	Glass fibre screen for lanterns quoted above <b>2 Aspect</b> Nylon lantern	Each			
18	Glass fibre screen for <b>TSA rectangular</b> lantern <b>5 Aspect Right turn</b> Nylon lantern	Each			
19	Glass fibre screen for <b>TSA rectangular</b> lantern <b>5 Aspect Left turn</b> Nylon lantern	Each			
20	Glass fibre screen for <b>TSA rectangular</b> lantern <b>3 Aspect</b> Nylon lantern	Each			

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21	Glass fibre screen for <b>TSA rectangular</b> lantern <b>2 Aspect</b> Nylon lantern	Each			

<p style="text-align: center;"><b>CABLES AND ACCESSORIES:</b></p> <p>Cable to be marked each linear metre for length of cable.                      Cable must be marked each linear metre with identifying mark unique to the CoCT.                      Cable cores must be individually numbered.</p>					
345	37 Core 1,5 mm * PVC Insulated SWA Cable Stock Code: 200004562	Meter			
346	19 Core 1,5 mm * PVC Insulated SWA Cable Stock Code: 200005220	Meter			
347	2 Core 1,5 mm * PVC Insulated SWA Cable Stock Code: 61458000207349	Meter			
348	8 Pair 1 mm * I/O Screened APL Cable Stock Code: 20000005256	Meter			
349	3 Core 16 mm * PVC Insulated SWA Cable Stock Code 2857	Meter			
350	Cabtyre 7 Core 1,5 mm * Stock Code 2859	Meter			
351	Ripcord 1,5 mm Stock Code: 61458000210684	Meter			
342	10mm <sup>2</sup> Bare copper earth wire single core Stock Code 2860	Meter			

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	CABLE ACCESSORIES				
353	K-Clamps 32 mm Stock Code: 40308000482935	Each			
354	K-Clamps 26 mm Stock Code: 40308000482926	Each			
355	K-Clamps 20 mm Stock Code: 40308000482919	Each			
356	Cable Ties small – Black – Packets of 100 quantity T 18 R Stock Code 2870	Packet			
357	Cable Ties medium – Black – Packets of 100 quantity T 50 R	Packet			
358	Cable Ties large – Black – Packets of 50 quantity – T 120 R	Packet			
359	Cable Ties marker – White – Packets of 50 quantity – iT 50 R9C	Packet			

<b>TRAFFIC SIGNAL CONTROLLERS : MOVAC OR EQUIVALENT</b>					
<p>Traffic Signal Controllers must previously have been submitted to the CoCT for field and compatibility trials or have previously been evaluated and approved by the CoCT, in order to be eligible for this quote.                      Controllers shall conform to SANS 1547:2005                      Controllers to be supplied without manual/police panel.                      Price should include base for casting plinth.                      Controllers must be able to function with only LED aspects fitted as a load.</p>					
	SYNTELL TRAFFIC SIGNAL CONTROLLERS with Standard 3CR12 Cabinets				

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Item	Description	Unit	Net Unit Price Excluding Vat	Delivery - to be stated within days from date of purchase order/s	Manufacturer's Name
22	<b>Movac 3</b> or equivalent: Cape Town ATC Equipped – <b>4 Phase</b> Stock Code 2692	Each			
23	<b>Movac 3</b> or equivalent: Cape Town ATC Equipped – <b>6 Phase</b> Stock Code 2693	Each			
24	<b>Movac 3</b> or equivalent: Cape Town ATC Equipped – <b>8 Phase</b> Stock Code: 59758000385409	Each			
24	<b>Movac 4</b> or equivalent: <b>6 Phase</b> Cape Town ATC Compatible with modems listed below – Stock Code 2696	Each			
26	<b>Movac 4</b> or equivalent: <b>12 Phase</b> Cape Town ATC Compatible with modems listed below – Stock code 59755000403253	Each			
27	<b>Movac 4</b> or equivalent: <b>18 Phase</b> Cape Town ATC Compatible with modems listed below - Stock Code 2697	Each			
28	<b>Movac 4</b> or equivalent: <b>24 Phase</b> Cape Town ATC Compatible with modems listed below – Stock Code 2698	Each			
29	<b>TMPC</b> or equivalent Pedestrian Controller with 3CR12 cabinet Stock Code: 59758000294268	Each			
	SYNTELL Movac 4 Modems for above M4				
30	V23 Wired comms interface unit complete (cables etc) Stock Code 2702	Each			
31	GPRS comms interface unit Complete Stock Code 2852	Each			
32	Movac 4 CPU with Ethernet (For IP comms implementation) Stock Code 2704	Each			

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Item	Description	Unit	Net Unit Price Excluding Vat	Delivery - to be stated within days from date of purchase order/s	Manufacturer's Name
33	Hi Temperature spec Routing device for Establishing PPPoE over IP (connects CPU with ADSL / IBURST / WIMAX MODEMS) for use with IP comms only Stock Code 2707	Each			
34	Upgrading of existing M4 controllers with GPRS Modem Stock Code 2722	Each			
35	Upgrading of existing M4 controllers with Ethernet (for IP comms implementation). Stock Code 2854	Each			
	SYNTELL Movac MK3 Spares				
36	Controller Shroud Stock Code 2734	Each			
37	Cabinet 3CR12 Stock Code 2735	Each			
38	Mounting Pole –galvanised Stock Code 2736	Each			
39	Lock Stock Code: 200007453	Each			
40	Police Panel Door Stock Code 2737	Each			
41	CCIU / CMU Motherboard Stock Code 2738	Each			
42	Detector Motherboard (1-8) Stock Code 2739	Each			
43	Detector Motherboard (9-24) Stock Code 2740	Each			
44	Interface Motherboard Stock Code 2751	Each			
45	CPU Stock Code 2752	Each			

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Item	Description	Unit	Net Unit Price Excluding Vat	Delivery - to be stated within days from date of purchase order/s	Manufacturer's Name
46	LPSU Card 2753	Each			
47	CCIU Card Stock Code 2754	Each			
48	GCCIU Card Stock Code 2755	Each			
49	CMU Card Stock Code 2782	Each			
50	Interface Card Stock Code 2784	Each			
51	Output Card Stock Code 2786	Each			
52	Pedestrian interface cards (Quad) Stock Code: 200005287	Each			
53	Dual Detector Cards Stock Code: 200005399	Each			
54	Quad Detector Cards Stock Code: 63108000491152	Each			
55	Police Panel Stock Code 2737	Each			
56	Main Power supply unit Stock Code 2790	Each			
57	Lighting Protection PCB Stock Code 2803	Each			
58	Fail to flash PCB Stock Code 2805	Each			
59	Fail to flash relay Stock Code 2807	Each			

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Item	Description	Unit	Net Unit Price Excluding Vat	Delivery - to be stated within days from date of purchase order/s	Manufacturer's Name
60	Lamps off relay Stock Code 2809	Each			
61	Mains refs PCB Stock Code 2811	Each			
	SYNTELL Movac MK2C Spares				
62	Plinth Stock Code 2813	Each			
63	Cabinet 3CR12 Stock Code 2815	Each			
64	Lock Stock Code 2816	Each			
65	Police Panel Door Stock Code 2822	Each			
66	CCIU / CMU motherhood Stock Code 2817	Each			
67	Detector Motherboard (9-24) Stock Code 2719	Each			
68	Interface Motherboard Stock Code 2720	Each			
69	Conflict matrix card Stock Code 2741	Each			
70	Matrix CPU Stock Code 2743	Each			
71	LPSU Card Stock Code 2744	Each			
72	CCIU Card Stock Code 2743	Each			

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73	GCCIU Card Stock Code 2744	Each			
74	CMU Card Stock Code 2745	Each			
75	Interface card Stock Code 2746	Each			
76	Output card Stock Code 2747	Each			
77	Pedestrian Interface Cards (Q2748uad) Stock Code	Each			
78	Dual Detector Cards Stock Code 2749	Each			
79	Quad Detector Cards Stock Code 2763	Each			
80	Police Panel Stock Code 2766	Each			
81	Main power supply unit Stock 2658Code	Each			
82	Lighting protection PCB Stock Cod2659e	Each			
83	Fail to flash PCB Stock Code 2660	Each			
84	Fail to flash relay Stock Code 2781	Each			
85	Lamps refs PCB Stock Code 2783	Each			
	SYNTELL MOVAC MK 2 SPARES				

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86	Mains refs PCB Stock Code 2785	Each			
87	Plinth Stock Code 2787	Each			
88	Cabinet 3CR12 Stock Code 2788	Each			
89	Lock Stock Code 2789	Each			
90	Police Panel Door Stock Code 2801	Each			
91	CCIU / CMU Motherboard Stock Code 2802	Each			
92	Detector motherboard (9-24) Stock Code 2804	Each			
93	Interface motherboard Stock Code 2806	Each			
94	Conflict matrix card Stock Code 2808	Each			
95	CPU Stock Code 2810	Each			
96	LPSU Card Stock Code 2812	Each			
97	CCIU Card Stock Code 2814	Each			
98	CMU Card Stock Code 2818	Each			
99	Interface Card Stock Code 2820	Each			

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100	Output Card Stock Code 2821	Each			
101	Pedestrian Interface Cards (Quad) Stock Code 2823	Each			
102	Dual Detector Cards Stock Code 2827	Each			
103	Quad Detector Cards Stock Code 2829	Each			
104	Police Panel Stock Code 2832	Each			
105	Main Power Supply Unit Stock Code 2892	Each			
106	Lightning Protection PCB Stock Code 2893	Each			
107	Fail to flash PCB Stock Code 2894	Each			
108	Fail to flash relay Stock Code 2895	Each			
109	Lamps off relay Stock Code 2896	Each			
	SYNTELL MOVAC MK4 Spares				
110	Lamp Drive Card Stock Code 2712	Each			
111	GPIO Stock Code 2714	Each			
112	Motherboard Stock Code 2715e	Each			
113	DOT Module Stock Code 2742	Each			

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114	Diagnostic Display Assembly Stock Code 2761	Each			
115	CPU with Ethernet (For IP comms implementation) Stock Code 2764	Each			
116	GPRS Modem Stock Code 2765	Each			

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117	Power Distribution PCB Stock Code 2767	Each			
118	Police Panel Stock Code 2768	Each			
119	Lamp Drive CPLD Stock Code 2769	Each			
120	SVM Integrated Circuits Stock Code 2770	Each			
121	Detector Back Plane and Loom Stock Code 2771	Each			
122	Main Filter Stock Code 2772	Each			
123	Surge Arrestor Stock Code 2773	Each			
	SYNTELL TMPC Spares				
124	TMPC Lock Stock Code:: 59758000487147	Each			
125	Cabinet - Standard 3CR12 cabinet Stock Code 2825	Each			
126	Cabinet - Stainless steel cabinet Stock Code 2828	Each			

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127	Motherboard Stock Code 2830	Each			
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GENERAL:					
All items must previously have been submitted to the CoCT for field and compatibility trials or have previously been evaluated and approved by the CoCT, in order to be eligible for this quote.					
<b>Connection Pillars and Signal Lantern Clamp Mounting hardware;</b> <b>Connection pillars;</b> Locking bar must be Polycarbonate <b>Clamp mounting hardware;</b> All nuts, bolts and washers for clamp mounting hardware must be stainless steel					
378	Connection Pillar complete with locking bar (Greenbro or equivalent), Polycarbonate, Stock Code: 200005821 Refer to drawings CP1 and CP2	Each			
379	Connection Pillar Locking bar only (Polycarbonate)	Each			
380	Stainless steel 40x8mm bolt complete with 8mm Nylok nut	Each			
381	Brass lock 40mm, Key alike, protected keyway to work on existing keys: Stock Code: 200005772	Each			
382	Nylon lock 40mm, Key alike, protected keyway to work on existing keys	Each			

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383	Standard Pedestrian Button Assembly. Nylon Ref Drawing NPB1 All metal parts to be grade 4 stainless steel Stock Code: 200008668	Each			
384	Traffic Hood for TSA lanterns Stock Code 62408000256315	Each			
385	Pole cap (Nylon UV resistant) complete with cradle and terminals to fit standard 4m Traffic Signal pole – Refer drawing NPC1 200004293	Each			
386	Door Hinges (Movac 2, 2C, 2-Plus)	Each			
387	Police Panel Lock Stock	Each			
388	Police Panel Hinges	Set			
389	Earth Spike 1.8m Stock Code 59758000189154	Each			
390	Earth Clamp for earth spike Stock Code 200004268	Each			
391	Earth Spike Coupling	Each			
392	Earth Spike Drive Bolt	Each			
393	Electrical Insulation tape (Black)	Each			
394	Self Fusing 3M tape - 9m x 19mm	Each			
395	Terminal Strips – Black – 15 AMP – packets of ten	Packet			
396	Terminal Strips – Black 30 AMP – packets of ten	Packet			

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397	11 Pin 220 Volt Flasher Units – Eagle Electric or equivalent	Each			
398	Controller configuration and download device DELL INSPIRON MINI 1012 - 10.1 OR equivalent The following software must be pre-installed Simulator 2.9 Configurator ADX MAC4 Analyzer Traficon Software USB 2 Serial Driver MS WIN 7 Starter Edition (32bit) Must be; WSVGA with True-life Intel® Atom N450 (1.6GHz,667MHz), 1GB (1x1GB) 800MHz DDR2, 250GB (5400RPM), No Optical Drive 802.11 (b/g) & BLUETOOTH, No Fingerprint, 1.3MP Webcam Intel® Integrated GMA 950, 1 Year parts only, 3G/HSDPA included, No Modem, 3-cell 56Whr + MECER USB to Serial Adaptor and NULL modem SERIAL Cable	Each			
<b>LANTERN CLAMP MOUNTING BRACKETS AND “ST” SIGN BOARDS</b> Brackets must be mild, galvanised steel. Brackets must be complete, left and right sections, nuts bolts and washers.(Drawing LCB) Brackets must be laser cut with <b>no welding</b> . (Except “ST” type brackets) All nuts, bolts and washers must be stainless steel.					
399	Traffic Signal clamp mounting bracket plus stainless steel nuts, washers and bolts to fit <b>4m traffic Signal pole</b> (Refer drawing LCB1) Set must contain left and right brackets	Set			
400	Traffic Signal clamp mounting bracket plus stainless steel nuts, washers and bolts to fit <b>Cantilever overhead pole</b> (as per drawing LCB-OH1) Must fit pole in drawings	Set			

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	OHP-1 to OHP4 Set must contain left and right brackets.				
401	<b>Standard</b> Traffic Signal clamp mounting <b>Bar Bracket</b> including nuts, bolts and washers. (Refer to drawing LCB-BB1).	Each			
402	<b>Extended</b> Traffic Signal clamp mounting <b>Bar Bracket</b> including nuts, bolts and washers As per drawing LCB-BB1 but length extended to 300mm.	Each			
403	Traffic Signal clamp mounting <b>Locking Plate</b> as per drawing LCB-LP1	Each			
404	<b>ST1, ST2 and ST3</b> sign boards as specified in the South African Roads and Traffic Signs Manual, Volume 4, Chapter 10.11	Each			
405	<b>ST4</b> sign board as specified in the South African Roads and Traffic Signs Manual, Volume 4, Chapter 10.12	Each			
406	<b>ST5</b> sign board as specified in the South African Roads and Traffic Signs Manual, Volume 4, Chapter 10.12	Each			
407	<b>Single</b> Bracket for mounting “ <b>ST</b> ” <b>type</b> signs above traffic signal heads : Sample to be provided for evaluation	Each			
408	<b>Double</b> Bracket for mounting “ <b>ST</b> ” <b>type</b> signs above traffic signal heads : Sample to be provided for evaluation	Each			
<p><b>VINYL NUMBERS AND LOGO's</b>                      Vinyl must be heavy Duty, UV resistant and self adhesive.                      Numbers must be black on a REFLECTIVE white background.                      Logo must be in full colour on white background.                      Vehicle Logo must be in full colour on reflective white background.                      Vehicle Logo must be magnetic on the reverse side.                      Refer to drawing numbers NUM-1 and LOGO-1                      Approved electronic copy of the exact logo to be printed will be provided by the City.  <b>Pole numbers;</b>                      Background: Height = 103mm Width = 83mm</p>					

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	<p>Number: Height = 85mm Width = 55 mm</p> <p><b>Logo Numbers – Full Size;</b> Background: Height = 103mm Width = 83mm Number: Height = 85mm Width = 55mm</p> <p><b>Logo Numbers – TMPC Size;</b> Background: Height = 42mm Width = 34mm Number: Height = 34mm Width = 21mm</p> <p><b>LOGO – Full Size</b> Height = 300mm Width = 497mm</p> <p><b>LOGO TMPC Size</b> Height = 150mm Width = 200mm</p> <p><b>Magnetic Vehicle Logo Size</b> Height = 230mm Width = 320mm</p>				
409	Pole numbers - 0 to 9	Each			
410	Logo numbers - Full Size – 0 to 9	Each			
411	Logo numbers – TMPC size – 0 to 9	Each			
412	Logo stickers – Full size	Each			
413	Logo stickers – TMPC size	Each			
414	Magnetic Vehicle Logo	Each			

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**TRAFFIC SIGNAL LAMPS:**

372	Traffic Signal Lamp 55 Watt Halogen, 12 VAC Lamp Base: PKX 22s as per DIN 49 640 IEC 7004-37. Lamp Base: E27 as per DIN 49 620, IEC 7004-21. Minimum single life span is a maximum failure rate 2% during the first 4000 burning hours may not be exceeded. Lamps must be individually boxed Stock Code: 200005404	Each			
373	Traffic Signal High Voltage Krypton Traffic 75 Watt 230V (Mushroom Type) Luminous flux lumens: 550lm. Lamp base: E27 as per Din 4920, IEC 7004-21. Minimum single life span is a maximum failure rate 2% during the first 15 000 burning hours may not be exceeded. Stock Code: 624000217913	Each			

**TRAFFIC SIGNAL LANTERNS:**

Traffic signal lanterns must previously have been submitted to the CoCT for field and compatibility trials or have previously been evaluated and approved by the CoCT, in order to be eligible for this quote.

Must comply with SANS 1459:2004 Size 210mm+/- 10mm) Nylon lanterns.

**2 Way 6.3mm Dual REL.LOC FEMALE SOC Molex connector must be pre-installed for each aspect**

Must be corrosion resistant and **ALL** metal parts (Screws, nuts, bolts, connector blocks etc) must be stainless steel grade A4.

A sample must be submitted to COCT for testing before it can be accepted.

No visible light is allowed to pass anywhere between the lantern and background screen interface.

Refer to drawings; SANS 1459:2004.

All LED aspects must be or have;

**2 Way 6.3mm Dual REL.LOC MALE PLUG Molex connector**

CoCT approved

ITE compliant

220VAC

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Syntell/TSA OR equivalent With clear lenses Proven compatibility with Movac and equivalent Traffic Signal Controllers					
1	5 - Aspect 100mm Nylon <b>Right Turn</b> Traffic Signal Lantern - EMPTY  Equipped to install LED aspects. Must be supplied fully assembled with joining plate (excluding backing board). Stock code: 200005421	Each			
2	5 - Aspect 100mm Nylon <b>Right Turn</b> Traffic Signal Lantern – COMPLETE  Complete with Red LED aspect, Yellow LED aspect, Green LED aspect, Yellow Arrow LED aspect and Green Arrow LED arrow aspect. Must be supplied fully assembled with joining plate (excluding backing board) Stock Code: 200009007	Each			
3	5 - Aspect 100mm Nylon <b>Left Turn</b> Traffic Signal Lantern - EMPTY  Equipped to install LED aspects. Must be supplied fully assembled with joining plate (excluding backing board) Stock Code: 2664	Each			
4	5 - Aspect 100mm Nylon <b>Left Turn</b> Lantern - COMPLETE  Complete with Red LED aspect, Yellow LED aspect, Green LED aspect, Yellow Arrow LED aspect and Green Arrow LED arrow aspect. Must be supplied fully assembled with joining plate (excluding backing board) Stock Code: 2665	Each			

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5	3 - Aspect 100mm Nylon <b>Traffic</b> Lantern - EMPTY Equipped to install LED aspects. Stock code: 200005421	Each			
6	3 - Aspect 100mm Nylon <b>Traffic</b> Lantern - COMPLETE Complete with Red LED aspect, Yellow LED aspect and Green LED aspect. Backing board is excluded. Stock Code: 2666	Each			
7	3 – Aspect 100mm Nylon <b>Bus</b> Lantern – COMPLETE Complete with Red Bus LED aspect, Yellow Bus LED aspect and Green Bus LED aspect. Backing board is excluded.	Each			
8	2 - Aspect 100mm Nylon <b>Traffic/Arrow/Pedestrian</b> Lantern - EMPTY Equipped to install LED aspects. Backing board is excluded. Stock Code: 200004705	Each			
9	2 - Aspect 100mm Nylon <b>Arrow</b> Lantern - COMPLETE Complete with Yellow arrow LED aspect and Green arrow LED aspect. Backing board is excluded. Stock Code: 200009238	Each			
10	2 - Aspect 100mm Nylon <b>Pedestrian</b> Lantern - COMPLETE Complete with Red Pedestrian LED aspect and Green Pedestrian LED aspect. Backing board is excluded. Stock Code: 200009254	Each			
11	2 - Aspect 100mm Nylon <b>Bicycle</b> Lantern - COMPLETE Complete with Red bicycle LED aspect and Green bicycle LED aspect. Backing board is excluded. Stock Code: 2667	Each			
12	2 – Aspect 100mm Nylon <b>Bus</b> Lantern – COMPLETE	Each			

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	Complete with Red Bus LED aspect and Yellow Bus LED aspect. Backing board is excluded.				
13	1 – Aspect Nylon <b>Traffic</b> Signal lantern - EMPTY Equipped to Red, Yellow or green LED aspects. Backing board is excluded. Stock Code: 2668	Each			

**LED TRAFFIC SIGNAL MODULES:**

LED Modules must have previously been submitted to the CoCT for field and compatibility trials or have previously been evaluated and approved by the CoCT, in order to be eligible for this quote.

All units shall conform to the following performance specification: VTCSH: Light Emitting Diode (LED) Circular Signal Supplement dated June 27, 2005 where 120 Volt is specified it shall be 240 VAC and where 60Hz is specified it shall be 50Hz.

The specifications can be obtained at the Institute of Transportation Engineers: <http://www.ite.org>.

The units must also conform to SANS 1459:2004. Proof thereof to be submitted with this tender.

**High Intensity** units must conform to SANS 1459:2004 CLAUSE 3.4.2.

Intersections working with Syntell, Siemens and Tyco controllers must be able to function correctly with only LED's connected.

Units must be able to be fitted in TSA or Automotor nylon lantern housings without any modifications required.

**All units must have a 2 Way 6.3mm Dual REL.LOC MALE PLUG Molex connector.**

Units must have a minimum of a 5 year replacement/exchange guarantee.

All units must be date stamped on back of unit with date of manufacture.

All units must be marked with a unique serial number.

All units must have Clear Lenses.

318	Red Traffic - Stock Code 2843	Each			
319	Yellow Traffic - Code 2845	Each			
320	Green Traffic - Code 2847	Each			
321	Red Traffic – <b>High Intensity</b>	Each			

SPECIFICATION SCHEDULE – TRAFFIC SIGNALS MATERIAL TENDER

Item	Description	Unit	Net Unit Price Excluding Vat	Delivery - to be stated within days from date of purchase order/s	Manufacturer's Name
322	Yellow Traffic – <b>High Intensity</b>	Each			
323	Green Traffic – <b>High Intensity</b>	Each			

SPECIFICATION SCHEDULE – TRAFFIC SIGNALS MATERIAL TENDER

Item	Description	Unit	Net Unit Price Excluding Vat	Delivery - to be stated within days from date of purchase order/s	Manufacturer's Name
324	Red Pedestrian - Stock Code 2844	Each			
325	Green Pedestrian - Stock Code 2861	Each			
326	Red Arrow - Code 2848	Each			
327	Red Arrow – <b>High Intensity</b>	Each			
328	Yellow Arrow - Stock Code 2846	Each			
329	Yellow Arrow – <b>High Intensity</b>	Each			
330	Green Arrow - Stock Code 2862	Each			
331	Green Arrow – <b>High Intensity</b>	Each			
332	Red Bicycle - Stock Code 2849	Each			
333	Green Bicycle - Stock Code 2850	Each			
334	Green Bus	Each			
335	Green Bus – <b>High Intensity</b>	Each			
336	Yellow Bus	Each			
337	Yellow Bus – <b>High Intensity</b>	Each			

SPECIFICATION SCHEDULE – TRAFFIC SIGNALS MATERIAL TENDER

Item	Description	Unit	Net Unit Price Excluding Vat	Delivery - to be stated within days from date of purchase order/s	Manufacturer's Name
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338	Green Bus	Each			
339	Green Bus – <b>High Intensity</b>	Each			
340	Red Countdown Timer	Each			
341	Green Countdown Timer	Each			
342	Futurit or equivalent LED module mask	Each			
343	Lane Light Upper	Each			
344	Lane Light Lower	Each			

**TRAFFIC SIGNAL POLES:**

**Refer to drawings for specifications;  
Holes for pedestrian buttons must NOT be pre-drilled.  
All poles must be hot dip galvanized.**

**Cantilever poles;**

Drawing OHP-1

Drawing OHP-2

Drawing OHP-3

Drawing OHP-4

SPECIFICATION SCHEDULE – TRAFFIC SIGNALS MATERIAL TENDER

Item	Description	Unit	Net Unit Price Excluding Vat	Delivery - to be stated within days from date of purchase order/s	Manufacturer's Name
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Drawing OHP-5 <b>Standard Poles;</b> Drawing TSPH-1 Standard 4m pole WITH hatch) Drawing TSP-2 (Standard 4m pole without hatch) <b>Special Poles;</b> Totem Pole – As per drawing TSP-2 BUT LENGH OF POLE TO BE 6m Drawing TSPR-1 (Removable pole)					
CANTILEVER POLES					
360	Cantilever Pole <b>Upright</b> section only (Refer to Drawings OHP-1 to OHP-4)	Each			
361	Cantilever Pole <b>Boom</b> section only	Each			
362	Cantilever Pole <b>Swivel mechanism</b> (Complete with flanges)	Each			
363	Cantilever Pole <b>Bolt group</b> only	Each			
364	Cantilever Pole <b>Complete</b> including Horizontal section, Upright section, Swivel mechanism and Bolt group	Each			

SPECIFICATION SCHEDULE – TRAFFIC SIGNALS MATERIAL TENDER

Item	Description	Unit	Net Unit Price Excluding Vat	Delivery - to be stated within days from date of purchase order/s	Manufacturer's Name
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STANDARD POLES:					
365	Standard 4 m pole without Hatch (Refer Drawing: TSP-2) Stock Code: 200005146	Each			
366	Standard 4 m pole without Hatch - Supplied with Powder Coated finish – Golden Yellow = 3050mm of pole length and Gloss Black = 950mm of pole length. Sample of this pole Must be submitted to the CoCT for evaluation in order to be eligible for this tender.	Each			
367	Standard 4 m pole with Hatch (Refer Drawing TSPH-1) Stock Code: 56808000277479	Each			
368	Standard 4 m pole with Hatch – Supplied with Powder Coated finish – Golden Yellow = 3050mm of pole length and Gloss Black = 950mm of pole length. Sample of this pole MUST be submitted to the CoCT for evaluation in order to be eligible for this tender.	Each			
369	6m Totem pole without hatch	Each			
370	Removable Pole	Each			
371	Polycarbonate or similar 4 m pole without hatch – Colour impregnated – Golden Yellow = 3050mm of pole length and Gloss Black = 950mm of pole length. Sample of this pole MUST be submitted to the CoCT for evaluation to be eligible for this tender	Each			

SPECIFICATION SCHEDULE – TRAFFIC SIGNALS MATERIAL TENDER

Item	Description	Unit	Net Unit Price Excluding Vat	Delivery - to be stated within days from date of purchase order/s	Manufacturer's Name
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**INTELLIGENT RADAR DETECTOR (Version1.0) REQUIREMENTS, CONTROLLER ACCESSORIES, OPTIONS and INSTATION EQUIPMENT**

Equipment must previously have been submitted to the CoCT for field and compatibility trials or have previously been evaluated and approved by the CoCT, in order to be eligible for this quote.

**HEIMDAL RADAR DETECTORS**

262	Standard VA (with Bulgin connector & cable)	Each			
263	Standard VA	Each			
264	Single lane VA approach (with Bulgin connector & cable)	Each			
265	Single lane VA approach (with Siecom Bluetooth)	Each			
266	Single lane VA approach	Each			
267	Stop line (with Bulgin connector & cable)	Each			
268	Stop line	Each			
269	Stop line (with Siecom Bluetooth)	Each			
270	Selectable speed	Each			
271	Selectable speed (with Bulgin connector & cable)	Each			
272	SCOOT / MOVA (with Bulgin connector & cable)	Each			

SPECIFICATION SCHEDULE – TRAFFIC SIGNALS MATERIAL TENDER

Item	Description	Unit	Net Unit Price Excluding Vat	Delivery - to be stated within days from date of purchase order/s	Manufacturer's Name
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273	SCOOT / MOVA	Each			
274	SCOOT / MOVA (with Siecom Bluetooth)	Each			
275	ATC FEP for IP and GPRS comms (per Syntell ATC system) Stock Code 2796	Each			
276	WEISS INFRARED DETECTOR IRD 901/2 or equivalent Stock Code 2834	Each			
277	Radio Synchronisation System (Transmitter and Receiver) for TMPC & Mk2/3/4 Controller Stock Code 2833	Each			
278	WEISS INFRARED DETECTOR IRD 1001 or equivalent Stock Code 2835	Each			
279	TRAFICAM 37 degree (NARROW ANGLE) or equivalent Stock Code 2836	Each			
280	TRAFICAM 89 degree (WIDE ANGLE) or equivalent Stock Code 2837	Each			
281	TRAFICAM INTERFACE UNIT 1TI or equivalent Stock Code 2838	Each			
282	TRAFICAM INTERFACE UNIT 4TI or equivalent Stock Code 2839	Each			
283	WIRELESS TRAFICAM WIDE or equivalent Stock Code 2840	Each			
284	WIRELESS TRAFICAM NARROW or equivalent Stock Code 2851	Each			
284	Wireless TrafiCam base unit or equivalent	Each			
286	Traficon X-stream (live streaming, colour) or equivalent	Each			

SPECIFICATION SCHEDULE – TRAFFIC SIGNALS MATERIAL TENDER

Item	Description	Unit	Net Unit Price Excluding Vat	Delivery - to be stated within days from date of purchase order/s	Manufacturer's Name
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287	Traficon SafeWalk (pedestrian stereoscopic sensor) or equivalent	Each			
288	Controller Bluetooth interface	Each			
289	Controller hand held unit	Each			
290	Controller external GPRS antenna	Each			
291	Controller GPS module	Each			
292	Controller external GPS antenna	Each			
293	G4 RTMS unit with inbuilt GPRS and Bluetooth	Each			
294	RAKTEL 4010 loop counter (8 Lane)	Each			
295	iControl 400 Tracking radar sensor with maximum range of 240 meters. Support CAN2.OB interface	Each			
296	iControl 405 Integrated sensor 8GB on board storage, Ethernet Support for 7.2Mbps 3G communications and GPS receiver	Each			
297	iControl 402 Eurocard USB, Ethernet, Micro SD card, 4 optically isolated CAN channels and 12C expander. Support for 7.2Mbps 3G communications and GPS receiver 833MHz PXA320 processor with Linux pre-loaded.	Each			
298	iControl Modem and GPS 7.2Mbps 3G modem with integrated GPS receiver for iControl 402 and 405	Each			

SPECIFICATION SCHEDULE – TRAFFIC SIGNALS MATERIAL TENDER

Item	Description	Unit	Net Unit Price Excluding Vat	Delivery - to be stated within days from date of purchase order/s	Manufacturer's Name
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<b>UNINTERRUPTABLE POWER SUPPLYS</b>					
<p>UPS's must have previously been submitted to the CoCT for field and compatibility trials or have previously been evaluated and approved by the CoCT, in order to be eligible for this quote.                      Must be microprocessor controlled.                      Must have communication ports selectable between Smart RS232 and intelligent Slot for AS-400, and SNMP card.                      Must have external battery socket for extended battery backup time.                      Must have a cold start function.                      Must have an auto self testing system while turning on the UPS.                      Must have a maintenance bypass switch.                      Must deliver pure sine wave output. Input power factor must be more than 95%.</p>					
299	3CR12 <b>Stand Alone Cabinet</b> to house UPS and <b>16 batteries</b> equivalent to current cabinets used. Must be vandal proof. Stock Code 2780	Each			
300	3CR12 <b>Top Mount Cabinet</b> to house UPS and <b>16 batteries</b> equivalent to current cabinets used. Must be vandal proof. Stock Code 2780	Each			
301	3CR12 <b>Back to Back Cabinet</b> to house UPS and <b>16 batteries</b> equivalent to current cabinets used. Must be vandal proof. Stock Code 2780	Each			
302	3CR12 <b>Ultra Secure Cabinet</b> to house UPS and <b>16 batteries</b> equivalent to current cabinets used. Must be vandal proof. Stock Code 2780	Each			
303	3CR12 <b>Stand Alone Cabinet</b> to house UPS and <b>8 batteries</b> equivalent to current cabinets used. Must be vandal proof.	Each			
304	3CR12 <b>Top Mount Cabinet</b> to house UPS and <b>8 batteries</b> equivalent to current cabinets used. Must be vandal proof.	Each			
305	3CR12 <b>Back to Back Cabinet</b> to house UPS and <b>8 batteries</b> equivalent to current cabinets used. Must be vandal proof.	Each			
306	3CR12 <b>Ultra Secure Cabinet</b> to house UPS and <b>8 batteries</b> equivalent to current cabinets used. Must be vandal proof.	Each			

SPECIFICATION SCHEDULE – TRAFFIC SIGNALS MATERIAL TENDER

Item	Description	Unit	Net Unit Price Excluding Vat	Delivery - to be stated within days from date of purchase order/s	Manufacturer's Name
307	3CR12 <b>Stand Alone Cabinet</b> to house UPS and <b>4 batteries</b> equivalent to current cabinets used. Must be vandal proof.	Each			
308	3CR12 <b>Top Mount Cabinet</b> to house UPS and <b>4 batteries</b> equivalent to current cabinets used. Must be vandal proof.	Each			
309	3CR12 <b>Back to Back Cabinet</b> to house UPS and <b>4 batteries</b> equivalent to current cabinets used. Must be vandal proof.	Each			
310	3CR12 <b>Ultra Secure Cabinet</b> to house UPS and <b>4 batteries</b> equivalent to current cabinets used. Must be vandal proof.	Each			
311	1kVA UPS Electronic Module	Each			
312	2kVA UPS Electronic Module	Each			
313	3kVA UPS Electronic Module Stock Code 2791	Each			
314	6kVA UPS Electronic Module Stock Code 2792	Each			
315	Battery 104AH 12VDC Deep Cycle low maintenance - Stock Code 2793	Each			
316	Base for cabinet above Stock Code 2794	Each			
317	Wireless Modem for monitoring UPS's in items above Stock Code 2795	Each			