

**By RP**

**POLICE DEPARTMENT**

**From**

**To**

**The Joint Commissioner of Police,**  
Traffic (South) i/c (North)  
Vepery, Chennai -07.

All firms at Annexure

**RC.No.Tr.Imp. 2(2)/233/23541/Sig./2021**

**Dated: .05.2022**

Sir,

**Sub:-** Chennai Traffic Police – Procurement and installation of following 2 Nos. of LED Road Traffic Signal at following junction - Through Limited Tender – Sealed Quotation Called for – Reg.

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The Chennai Traffic Police has proposed to procure and installation of following 2 Nos. of LED Road Traffic Signal along with three years warranty and two year maintenance at following junction through “Limited Tender”:

S. No.	Signal No.	Name of the junction	Sanctioned Amount
1.	W-17	100 Feet Road X Koyambedu Exit Gate	Rs.12,01,125/-
2.	W-19	100 Feet Road X Nathella Kalyana Mandapam	Rs. 6,52,437/-

2. In this connection, companies willing to participate in the tender are requested to **furnish their quotations for above item separately in a sealed covers** on or before **23.05.2022 at 15.00 hrs.** The sealed cover should be addressed to the Joint Commissioner of Police, Traffic (South) i/c (North), Vepery, Chennai-07 **with the name of the equipment / product for which quotation is submitted super-scribed on the top of the cover.** The sealed cover will be opened in the presence of the tenderers on **23.05.2022 at 15.00 hrs.** If any test certificate is required as per the specification, the tender should submit the test certificate from authorized Government test lab or equivalent which is obtained within two years of date of tender and the expenditure for testing have to be borne by the tenderers. **The tenderer should show customs duty, GST and other taxes in their quotation of rates separately.**

3. The tenderers are requested to attend the meeting at chamber of the Joint Commissioner of Police, Traffic (South) i/c (North), 7<sup>th</sup> floor, New Commissioner of Police building, Vepery, Chennai-07.

Yours sincerely,

  
**For Joint Commissioner of Police,  
Traffic (South) i/c (North)**

**Copy to:** The Addl. Commissioner of Police, Traffic.

  
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### Specification of LED Road Traffic Signals


Sl. No.	Technical Specification of LED Signals	
1	<b>Traffic Control Signal System TRF - 1</b>	
a	The system should have multiple slave Microprocessor boards working in conjunction with a Master microprocessor giving the performance of 8/16/32 bit Micro processor.	
b	The slave and Master processors are 8/16/32 bit RISC processors operating at <b>16 MHZ or Better.</b>	
C	The system should be capable of intelligently deciding the course of action in the event of signal failure or crash, It can easily be connected to a Web server with suitable inter face to facilitate remote monitoring of the entire signal. It should also have processor for manual control of signal from any location when connected to a suitable interface.	
2	<b>Requirement</b>	
i	Plans	18 Per day (Configurable as per Requirement)
ii	Types of Plans	Weekday, Sunday, Saturday (Configurable as per Requirement)
iii	Total Number of heads	360 - 400
iv	Time setting Required	250 seconds for any head, Except RED (RED time is automatically configurable)
v	Manual override	Semi manual and full manual
vi	Types of road	6 ( Can be modified to suit any road type)
vii	Synchronising	Possible between signals
viii	Increase of the number of plans and any other modification should be possible as per requirements. Additional options for web based dedicated Ethernet or equivalent modes has to be provided	
3	<b>Specifications - Master Processor</b>	
i	No of Outputs on Board	16 or more
ii	Communication to Slave	R S 485/ R S 232
iii	No of slaves	30 Minimum
iv	Information exchanged	Head Plan, and CDT time, Amber or Red Flash, Signal OFF
v	Human interface Device	16x2 Dot Matrix LCD, Six setting buttons and Manual signal interface
vi	Supply requirement	220 volts converter to 12 v DC or solar interface
4	<b>Slave Processor</b>	
i	No of Out puts on Board	16 or more
ii	Communication to master	R S 485/ R S 232
iii	Information exchanged	Head Plan, and CDT time, Amber or Red Flash, Signal OFF
iv	Supply requirement	220 volts converter to 12 v DC or solar interface
5	<b>Specifications of Cables</b>	
i	16 Core Falls Cable of ISI Brand	
ii	12 Core Falls Cable of ISI Brand	
lii	6 & 4 Core Falls Cable ISI Brand	
iv	AC Cable 1 sq mm ISI Brand	

Sl. No.	Technical Specification of LED Signals	
6	<b>Specifications of Traffic Control Panel</b>	
	<b>SPECIFICATION</b>	<b>DATA</b>
I.	Supply AC Voltage	AC 230V _ + 10 %
II.	Supply voltage for control card	12/5 V dc
III.	Processor used	8/16/32 Bit Processor.
IV.	LCD interface	Required
V.	Keyboard interface	Required
VI.	Junctions Handling capacity	3 Way & 4 Way Junctions & 5 Way or more
VII.	Switching Type	Solid State
VIII.	On sight Programming	Required/ To be provided
IX.	Programming Remote System	Required/ To be provided
X.	Remote Programme Key pad	Required/ To be provided
XI.	Emergency Ambulance open key Remote	Required/ To be provided
XII.	Pedestrian Handling	Required/ To be provided
XIII.	Automatic ON / Flash options Remote system	Required/ To be provided
XIV.	UPS Backup option	Required/ To be provided for entire system.
XV.	Solar Backup option	Required/ To be provided
XVI.	Auto / Manual option Remote System	Required/ To be provided
XVII.	Manual Flash option Remote System	Required/ To be provided
	Total Power consumption	100 W – 200 W.
7	<b>Specifications of LED Dome</b>	
i.	Dome	Polycarbonate material Black (or) Transparent, I P 66 Standard
ii.	Dome light Colours	Red, Yellow & Green
iii.	Lamp Diameter	300 mm dia
iv.	Red	190 - 200
v.	Yellow	190 -200
vi.	Green	60 -75
vii.	Protection	IP – 66, complies with NEMA = 12
viii.	Illuminate	3 Types LED Array.
ix.	Chroma city	As per VICSH Standard
x.	Operating Voltages	12 v DC
8	<b>Specification of LED Details</b>	
I.	SPV Module	600 WP
II.	MCB Signal with 3 Digital count down timer	
III.	Bright LED, with 1,00,000 Hrs Life	Undertaking to be obtained from Vendor.
IV.	Luminous intensity	8300 mcd / 20 ma 250
V.	Visibility	850 meters or more
VI.	Colour	Red, Yellow, Green

Sl. No.	Technical Specification of LED Signals	
9	<b>Specifications of Countdown Timer</b>	
I.	LED	Super Bright, High Efficiency RED LED
II.	Count down Timer Colour	Red
III.	Having Following specification	i. Intensity 8000 to 10000 mcd or more
		j. Wave Length 625 Nm or more
		k. Viewing angle 23 degrees
		LED outer diameter 5 mm
1.	<b>Size</b>	1.5 x 2
a.	Input Voltage	230 vac +/- 10%, 50 Hz
b.	Outer Box Size	710 mm x 450 mm (+ or - 10 mm) thousand in M.S cabinet with hinged door & Powder coated With defused Red Acrylic
c.	Indication for signal	1 Led ball having Red, Yellow & Green LED the (120 mm dia) lights. The Ball will charges the colour as per signal condition
d.	Operating Temperature	0 to 55 Deg C.
10	<b>Specification of LED - Poles</b>	
I.	Cantilever	Type MS - Pole
II.	Bottom straight pole	6 " dia 4 mm thickness round ( or ) square poles = 20 Feet height
III.	Top crossing pole	6 " dia 4 mm thickness round ( or ) square Poles = 12 Feet Length
IV.	Bottom Plate	14mm thick 18" sq
V.	Top Plate :	2nos 12mm thick size 10' x 12' = 2 nos.
VI.	Signal straight MS - Pole	4' dia 3 mm thick 20 feet height
VII.	Pole colour	Yellow & Reflective sticker
VIII.	Foundation	3 Feet depth 2 feet height concrete Base Belt Bolt = 4 nos Bolt thickness = 1'
a	<b>Type Pole LED</b>	Red , Yellow, Green pixel LED's (Led sheet Size = 4')
I.	Red signal	Functioning Red Colour Pole
II.	Yellow Signal	Functioning Yellow Colour Pole
III.	Green Signal	Functioning Green colour Pole
11	<b>System Operation</b>	
i	Operation	14 Hours Operation and 10 Hours Blinking day
ii	Auto Manual	Fully automatic operation with facility for manual operation and manual Remote control Systems
lii	Remote	Fully Remote operation System (Way time Setting, Auto Manual, Emergency Ambulance opening)
12	<b>Technical Specification Fully Remote systems with Pole LED signals</b>	
I	8/16/32 Bit High Performance RISC Based Microcontroller.	

Sl. No.	Technical Specification of LED Signals
i.	Running Mode, Current Running Status & Current time Count Will be displayed using OLED Display.
ii.	Wireless Communication With Secured RF Communication.
iii.	Running Mode, Time setting, Emergency way, Flicker, Auto, Manual, Everything will be controlled using Wireless RF remote.
iv.	CPU 8/16/32 Bit Processor Operates at 16 MHZ or more
v.	256 K Byte Flash Memory 8 KB SRAM
vi.	Real Time Clock DS Available with Battery
vii.	Short circuit Protection Required
viii.	Everything will be controlled using Wireless Remote as well as option available in panel Board.
ix.	Provision for Remote control with power full lithium battery for long Backup for 4 hours
x.	Provision for Remote control with user friendly OLED Display will able to display Current running Details

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**For Joint Commissioner of Police,  
Traffic (South), Chennai-7.**

