THEMBISILE HANI LOCAL MUNICIPALITY

THLM/SCM19/2025-2026/CDS03

APPOINTMENT OF A SERVICE PROVIDER FOR THE SUPPLY, INSTALLATION, OPERATION AND MAINTENANCE OF TRAFFIC LAW ENFORCEMENT SYSTEMS (RED-LIGHT, SPEED AND ANPR) INCLUDING A FULLY INTEGRATED BACK-OFFICE CONTRAVENTION MANAGEMENT SYSTEM FOR A PERIOD OF 36 MONTHS.

SCOPE OF WORK

11. OVERVIEW OF THE WORKS

1. PURPOSE OF THE PROJECT

The purpose of this tender is to strengthen road traffic enforcement within Thembisile Hani Local Municipality through the implementation of automated traffic law enforcement systems in compliance with:

- Administrative Adjudication of Road Traffic Offences Act
- National Road Traffic Act
- Protection of Personal Information Act
- South African Bureau of Standards

The objective is to ensure lawful, transparent, and tamper-proof enforcement with full audit trail and financial accountability.

Contract Duration: 36 Months

4.3 DESCRIPTIONS OF WORKS
4.3.1 SCOPE OF WORKS AND SPECIAL CONDITIONS OF CONTRACT

1. ABBREVIATIONS AND DEFINITIONS

Abbreviation	Full Meaning
THLM	Thembisile Hani Local Municipality
SCM	Supply Chain Management
SANS	South African National Standards
ISO	International Organization for Standardization
ANPR	Automatic Number Plate Recognition
eNaTIS	Electronic National Traffic Information System
NCR	National Contraventions Register
AARTO	Administrative Adjudication of Road Traffic Offences Act
POPIA	Protection of Personal Information Act
NaTIS	National Traffic Information System
SAPS	South African Police Service

2. BACKGROUND AND PURPOSE OF THE TENDER

Thembisile Hani Local Municipality (THLM) is constitutionally and legislatively mandated to promote road safety, enforce traffic laws effectively, and reduce road traffic violations and fatalities within its jurisdiction. To achieve this, the Municipality seeks to appoint a qualified, experienced Service Provider to supply, install, operate, maintain, and support static red-light and speed violation camera systems, complemented by a fully integrated back-office contravention management system.

This tender aims to:

- Improve road safety and compliance with traffic regulations.
- Enhance traffic law enforcement through automated, evidence-based systems.
- Ensure secure, lawful, and tamper-proof processing of infringements.
- Provide a sustainable, transparent, and audit-ready environment.
- Facilitate readiness for the implementation of the Administrative Adjudication of Road Traffic Offences (AARTO) Act during the contract period.

3. SCOPE OF WORK

The scope includes, but is not limited to:

3.1 Supply, Installation, Operation and Maintenance of Camera Systems

- Supply, install, and commission static red-light and speed enforcement cameras.
- Ensure compliance with all relevant national (e.g., South African National Standards - SANS 1795) and international standards (ISO).
- Night-time enforcement with white LED flash technology.
- Vandalism-resistant enclosures and environmentally friendly installation.
- Regular calibration, testing, and certification NRCS approved
- Maintenance, repairs, and technical support.
- Integration with the Municipality's network infrastructure **(LAN/Wi-Fi/3G/LTE)** with redundancy.

3.2 Back-Office Contravention Management System

Back-Office Functionality in the Specification

1. End-to-End Contravention Processing

- Capture infringements from static cameras, mobile units, handheld devices, and enforcement vehicles.
- Validate evidence quality, calibration certificates, and compliance.
- Reject invalid or duplicate infringements.

2. Evidence Management

- Digital storage with watermarking, encryption, and chain-of-custody logs.
- Tamper-proof evidence with audit trails suitable for legal proceedings.
- Support for court-admissible evidence presentation.
- Supply expect witness at no cost.

3. Notices, Summonses, Warrants

- Automated generation of infringement notices, notices before summons, warrants, and court documentation.
- Delivery management via post, electronic communication, or roadside service.
- Delivery via post, electronic, or roadside service.
- Integration with courts for legal case management.
- Support for online viewing and payment

4. **Legal & Regulatory Compliance**

- Manage infringement lifecycle including nominations, representation, section 54 summons and court proceedings, including discount period and warrants.
- Integration with AARTO and NCR systems for legal processing and updates.
- Support for representation, appeal, and adjudication.

5. Revenue & Financial Management

- Interface with municipal financial systems and third-party payment gateways.
- Real-time validation of payments and reconciliation.
- Generate financial and audit reports.
- Supply web base payment portal.
- Generate financial reports, including revenue, payments, and outstanding fines.

6. Public and Community Engagement

- Online portals for infringement viewing, online payment, and appeals.
- SMS/email notifications to offenders.
- Educational community campaigns.

7. Integration & Interoperability

- Hosted on Microsoft-based infrastructure with RESTful APIs.
- Interfaces with NaTIS, NCR, SAPS, and other enforcement systems.
- Intergrade to municipal financial system

8. Reporting & Audit Trails

- Daily/Monthly reports, statistical analysis, and audit logs for compliance and transparency.

09. System architecture and functional requirements

- Establish a secure, web-based, scalable, and fully functional contravention management platform hosted within the Municipality's infrastructure.
- Integration with eNaTIS (Electronic National Traffic Information System), NCR (National Contraventions Register), SAPS (South African Police Service) databases, municipal payment systems, and existing systems from Thembisile Hani Local Municipality.
- Real-time interface with handheld enforcement units, ANPR (Automatic Number Plate Recognition) systems, and mobile enforcement vehicles.
- Evidence management with tamper-proof digital storage, watermarked images, chain-of-custody logs, and encryption.
- The service provider will replicate the web stored traffic notices information into the sever of the municipality.
- End-to-end processing: capture, verification, adjudication, legal processing, and finalisation.
- Generate notices, summons, warrants, court reports, and statistical/statutory reports.
- Public portals for view and payment of infringements, notifications, and community engagement.
- Support for AARTO compliance, including infringement uploads, notices, and payments.

10.1 Mobile and Field Enforcement Equipment

- Portable handheld devices with GPS, barcode/QR code scanners, cameras, and printers.
- Mobile ANPR units with real-time database connections.
- Fit Roadblock vehicles with fully flash ANPR system and the requisite furniture
- Immediate roadside warrant and summons printing.

- Supply two cell phones with ANPR system
- Calibrate and maintain municipal laser cameras

10.2 Speed Surveys and Traffic Data Collection

- Use of non-invasive radar or laser technology for traffic surveys.
- Data collection: speed, volume, flow, and 85th percentile speeds.
- Integration of traffic data into enforcement strategies and traffic management.

10.3 Community Engagement and Transparency

- Community signage, educational campaigns, and transparency portals.
- SMS/email notifications for offenders.
- Public view portals with infringement images, status, and payment options.

10.4 Training, Support, and System Upgrades

- Ongoing training workshops for enforcement officers, back-office staff, and community stakeholders.
- Local support teams for maintenance, repairs, and system upgrades.
- Regular calibration and hardware/software upgrades.

11. THE IMPORTANCE OF A FULLY FUNCTIONAL BACK-OFFICE

A robust back-office system is vital for:

- Legal enforceability of infringements and notices.
- Secure, tamper-proof evidence storage with chain-of-custody.
- Accurate, auditable financial reconciliation.
- Efficient offender communication and legal follow-up.
- Integration with SAPO (South African Post Office), and NCR.
- Transparency and public confidence in enforcement.
- Ensuring effective digital communication.

12. DETAILED FUNCTIONAL SPECIFICATIONS

12.1. Core System Functions

12.1.1 Contravention Intake & Validation

- Import infringements from static/movable cameras, handheld devices, mobile units.
- Validate image quality, evidence integrity, calibration certificates.
- Reject invalid, duplicate, or non-compliant infringements.
- Incorporate speed survey data (including 85th percentile) for enforcement targeting.

12.1.2 System Architecture & Integration

- Hosted on secure Microsoft-based infrastructure (Windows Server, SQL Server).
- Web-based for real-time data exchange.
- Interfaces with NaTIS, NCR and SAPS and THLM data base
- Support for speed surveys, traffic management data, and community portals.

12.1.3 ICT Integration in the Traffic Enforcement System

a. System Infrastructure & Hosting

- The back-office contravention management platform will be replicated on secure, reliable servers within the Municipality's data centres or cloud infrastructure, utilizing Microsoft-based technologies (Windows Server, SQL Server).

- ICT will ensure the infrastructure supports scalability, high availability, and security, including firewalls, encryption, and backup systems in compliance with municipal polies.

b. Network Connectivity & Data Transmission

- Service provider will establish and manage network connections (LAN, Wi-Fi, 3G/LTE) linking cameras, enforcement devices, and servers properly to the network connection.
- They will implement secure data transfer protocols to ensure real-time, tamper-proof communication between field devices and the central system.
- Service provider to supply own data even on held and devices

c. System Integration & APIs

- ICT will facilitate and coordinate a seamless exchange of data within the municipality, real-time data exchange with external systems such as:

1. NCR (National Contraventions Register)
2. Municipal payment gateways and portals

d. Data Security & POPIA Compliance

- ICT will implement security measures including encryption, role-based access controls, and audit logs to protect all data.
- They will ensure the system complies with POPIA, safeguarding personal data against unauthorized access or breaches.
- The system will support secure data storage, regular security updates, and monitoring for vulnerabilities.

e. Data Management & Evidence Integrity

- Digital evidence (images, videos, logs) will be stored securely with, encryption, and chain-of-custody logs to ensure evidence integrity for legal procedures.
- All activities involving personal data and evidence will be logged for audit purposes.

f. System Support & Maintenance

- Service provider to provide ongoing technical support, including hardware/software upgrades, calibration, troubleshooting, and system health monitoring.
- They will ensure continuous operation, especially during power outages, through UPS and backup systems.

g. Training & Capacity Building

- Service provider will train municipal staff on system operation, data security, POPIA compliance, and cybersecurity best practices.

h. Data Ownership & Return

- **Keynote:**
  - All data collected, processed, or used during the contract period will remain the property of the Municipality.
  - The appointed service provider will only have access to this data for the purpose of fulfilling the contract.
  - Upon contract expiry or termination, the service provider shall return all data to the Municipality in the readable format, ensuring the Municipality retains full ownership and control.

i. Disaster Recovery & Backup

- Service provider will establish backup solutions and disaster recovery plans to ensure data resilience and business continuity.

13. Minimum Equipment List for the Tender

a. Speed Enforcement Cameras

- At least 5 Sami - fixed enforcement cameras capable of daytime and night-time operation, with white LED flashlights, vandal-resistant enclosures, GPS synchronisation, and tamper alarms and additional cameras will be determine as and when required by both parties
- Calibration certificates for each camera system.

b. Mobile Enforcement Camera Units

- Minimum 5 portable mobile camera units equipped with radar or laser detection technology, Night-time illumination, GPS, and data storage.
- Easy to set up and operate by a single officer.

c. Handheld Enforcement Devices

- Minimum 10 handheld devices with integrated cameras, GPS, barcode/QR code scanners, and printers capable of issuing notices in the field.
- Devices must support wireless connectivity (Wi-Fi, LTE).
- The municipality will own the devices at the end of the contract period
- The service provider must provide insurance for the devises
- 10 printers linked to the handheld devices which must be owned by the municipality at the end of the contract
- The service provider to supply thermal papers for the printers

d. Mobile Enforcement Vehicles / Support Vehicles

- At least 2 dedicated enforcement support vehicles fitted with aircons system.
- The service provider to provide insurance, maintained and provide for petrol during contract term.

e. Data Transmission and Networking Equipment

- Secure servers or network infrastructure supporting:

1. Real-time data transfer.
2. Storage for images, videos, and logs.
3. Backup and disaster recovery systems.

f. Officer Stationery and Officer Books

- Officer books for issuing notices (Section 341 notices, summonses, warrants of arrest).
- Pre-printed forms compliant with legislation.
- Print paper for enquiries and other related functions

g. Signage and Warning Signs

- Service provider to provide for camera enforcement signage for compliance and community transparency.
- The camera signages to be replace as and when required

h. Calibration and Testing Equipment

- Radar/laser speed survey equipment for traffic data collection and system calibration.

j. Cell phones

- Supply five (5) cell phones with ANPR capability to be mounted on the vehicles.

k. ANPR bus for roadblock operation

- Service provider to install ANPR hardware (Laptops, printers, cameras)
- Necessary bus furniture
- The service provider to install solar panel at the ANPR bus for roadblock operation
- The service provider to install the backup power in the form of UPS

14. DELIVERABLES

- Fully installed and operational mobile camera systems.
- Fully functional back-office system, hosted within the Municipality's infrastructure.
- Personnel and system administrators.
- Monthly performance reports, statistical analyses, and audit logs.

- Operational support and maintenance.
- Community portals and notification systems.
- Integration with AARTO, NCR, NaTIS, SAPS.

15. PRICING SCHEDULE AND PAYMENT TERMS

15.1 Pricing Components

- **Fixed fee per paid fine:** Covering all administrative, legal, and adjudication processes inclusive of Vat.
- **AARTO-related fees:** For infringement uploads, NCR interface, and mailing services will be negotiated once the system is promulgated.

Note: Prices shall remain fixed for the contract period, with escalation clauses as per the Consumer Price Index.

15.2 Payment Terms

- Supporting system generated payment of infringement notices reports, invoices, and audit documents must be submitted by the 7th of each month.
- Any erroneous payments due to technical faults shall be refunded upon notification.
- Any payments due to court demanding a refund based on the technical era shall be refunded upon notification.