

**DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA**

**MINISTRY OF ENERGY**

**CEYLON PETROLEUM STORAGE TERMINALS LIMITED**

**DESIGN, SUPPLY, INSTALLATION, TESTING AND  
COMMISSIONING OF CCTV SURVEILLANCE SYSTEM FOR  
MUTHURAJAWELA TERMINAL AND 10 BULK DEPOTS**

**KPR/45/2025**

**BIDDING DOCUMENT  
(Volume 1A – 1B)**

**Employer:**

Chairman  
Ceylon petroleum storage terminals limited  
Oil installation  
Kolonnawa

**Engineer:**

Engineering Manager  
Ceylon petroleum storage terminals Limited  
Oil installation  
Kolonnawa

**July 2025**

## CONTENTS

	Page No
<b>VOLUME 1A</b>	
Section I-Instruction to Bidders	5 - 6
Section III-Condition of Contract	7 - 8
Section V-Standard Forms	9 - 17
<b>VOLUME 1B</b>	
Invitation for Bids	19 - 21
Section II-Bidding Data	22 - 27
Section IV-Contract Data	28 - 31
Section VI- Employer's Requirement	32 - 43
Section VII (a)- Form of Bid	44 - 45
Section VIII(a)-Schedules –related to General Information (Schedules A1-A6)	46 - 55
Annexure 01- Minimum Technical Specifications	56-79
Annexure 02 – Drawings	

**Volume 1 A**

**Volume 1 A****Content****Page**

Section I-Instruction to Bidders

5 - 6

Section III-Condition of Contract

7 - 8

Section V-Standard Forms

9 - 17

## **SECTION - I**

### **INSTRUCTIONS TO BIDDERS**

DUPLICATE

## **SECTION - I**

### **INSTRUCTIONS TO BIDDERS**

Instructions to Bidders applicable to this contract shall be those given in Section-1 of the Standard Bidding Document, Procurement of Works, Design and Build Contract, ICTAD Publication No. ICTAD/SBD/04, First Edition (Reprinted with amendments), May 2003, published by the Construction Industry Development Authority (CIDA), “Savsiripaya”, 123, Wijerama Mawatha, Colombo 07.

This publication will not be issued with the Bidding Document and the Bidder is advised to purchase it from CIDA.

Instructions to Bidders shall be read in conjunction with the Bidding Data provided under Section-V (Volume 1 B) of the Bidding Document.

Instructions to Bidders will not be part of the contract and will cease to have effect once the contract is signed.

## **SECTION - III**

### **CONDITIONS OF CONTRACT**

## **SECTION - III**

### **CONDITIONS OF CONTRACT**

Conditions of Contract applicable to this Contract shall be those given in Section-III of the Standard Bidding Document, Procurement of Works, Design and Build Contracts, ICTAD Publication No. ICTAD/SBD/04, First Edition (Reprinted with amendments), May 2003, published by the Construction Industry Development Authority (CIDA), “Savsiripaya”, 123, Wijerama Mawatha, Colombo 07.

This publication will not be issued with the Bidding Document and Bidder is advised to purchase it from CIDA.

Conditions of Contract shall be read in conjunction with Contract Data provided under Section-IV (Volume 1 B) of the Bidding Document, which shall take precedence over the conditions of contract.



**Section –V**  
**Standard Forms**

Duplicate

***Notes on Standard Forms:***

- *Bidders shall submit the completed form of Bid security in compliance with the requirement of the bidding documents.*
- *Bidders should not complete the Form of Agreement at the time of preparation of bids. The successful bidder will be required to sign the Form of Agreement, after the award of contract. Any corrections or modifications to the accepted bid resulting from arithmetic corrections, acceptable deviations, or quantity variations in accordance with the requirements of the bidding documents should be incorporated into the Agreement.*
- *The Form of Performance Security, Form of Advance Payment Security and form of Retention Money Guarantee should not be completed by the bidders at the time of preparation of bids. The successful bidder will be required to provide these securities in compliance with the requirements herein or as acceptable to the Employer.*

**FORM OF BID SECURITY**  
**(Unconditional)**

.....[Issuing Agency's Name and  
Address of Issuing branch or Office]

**Beneficiary: Ceylon Petroleum Storage Terminals Limited, Oil Installation, Kolonnawa,  
Wellampitiya**

**Date:**.....

**BID SECURITY No:**.....

Where as, .....[name of the bidder] (hereinafter called and referred to as “the Bidder”) has submitted its Bid dated ..... [date] for the **Design, Supply, Installation, Testing and commissioning of CCTV Surveillance System for Muthurajawela Terminal and 10 Bulk Depots**(hereinafter called and referred to as "the Bid").

KNOW ALL PEOPLE by these presents that WE .....[name of organization] having our registered office at .....(hereafter called and referred to as “the Guarantor”), are bound unto .....[name of the Employer] (hereinafter called and referred to as “the Employer”) in the sum of Sri Lankan Rupees/USD .....for which payment well and truly to be made to the said Employer. The Guarantor binds itself, its successor, and assignees by these presents.

SEALED with the Common Seal of the said Guarantor this ..... Day of ..... 20.....

THE CONDITIONS of this obligation are:

1. If the Bidder withdraws its Bid during the period of bid validity specified in the bidding documents; or
2. If the Bidder refuses to accept the correction of errors in its Bid; or
3. If the Bidder, having been notified of the acceptance of its Bid by the Employer, during the period of bid validity, fails or refuses to:
  - (a) execute the Form of Contract Agreement; or
  - (b) furnish the Performance Security, in accordance with the Instruction to Bidders

We undertake to pay the Employer up to the above amount upon receipt of its first written demand, without the Employer having to substantiate its demand, provide that in its demand the Employer will note that the amount claimed by it is due to it, owing to the occurrence of one or more of the above conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including twenty-eight (28) days after the period of bid validity, and any demand in respect thereof should be received by us no later than the above date.

.....  
DATE

.....  
SIGNATURE OF THE GUARANTOR  
SEAL

WITNESS

Signature: .....

Name: .....

Address: .....

***Notes on Form of Letter of Acceptance***

*The Letter of Acceptance will be the basis for formation of the Contract as described in Clause 31 of the Instructions to Bidders. This Form of Letter of Acceptance should be filled in and sent to the successful bidder only after evaluation of Bids and after obtaining approval from the relevant authority.*

DUPLICATE

**FORM OF LETTER OF ACCEPTANCE***[Letter head paper of the Employer]*

.....[date]

To: .....  
*[name of the Contractor]*

.....  
*[address of the Contractor]*

This is to notify you that your bid dated ..... for design, construction and remedying defects of the **Design, Supply, Installation, Testing and commissioning of CCTV Surveillance System for Muthurajawela Terminal and 10 Bulk Depots** (Contract No:....) for the Contract price of Rupees ..... *[amount in numbers and words]* as corrected in accordance with Instructions to Bidders and/or modified by a Memorandum of Understanding, is hereby accepted.

The adjudicator shall be .....  
You are hereby instructed to proceed with the execution of the said Works in accordance with the Contract documents.

The Start Date shall be: ..... *(fill the date as per Clause 8.1 of Conditions of Contract).*

The amount of Performance Security is: ..... *(fill the date as per Clause 4.2 of Conditions of Contract).*

The deadline for submission of Performance Security is ..... *(fill the date as per Clause 4.2 of Conditions of Contract).*

Authorized Signature: .....

Name and title of Signatory: .....

Name of Agency: .....

## FORM OF CONTRACT AGREEMENT

**This Agreement** made the ..... [day] of ..... [month] 20..... [year], between Ceylon Petroleum Storage Terminals Limited, Oil Installation, Kolonnawa, Wellampitiya. (hereinafter called and referred to as "the Employer") of the one part, and .....[name and address of Contractor] (hereinafter called and referred to as "the Contractor"), of the other part :

**Whereas** the Employer desires that the Contractor design and execute **Design, Supply, Installation, Testing and commissioning of CCTV Surveillance System for Muthurajawela Terminal and 10 Bulk Depots** (Contract No:.....) (hereinafter called and referred to as "the Works") and the Employer has accepted the Bid by the Contractor for the design, execution and completion of such Works and remedying of any defects therein.

**The Employer and the Contractor agree as follows:**

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract hereinafter referred to.
2. In consideration of the payments to be made by the Employer to the Contractor as indicated in this Agreement, the Contractor hereby covenants with the Employer to design, execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.
3. The Employer hereby covenants to pay the Contractor in consideration of the design, execution and completion of the Works and remedying any defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

**In Witness** whereof the parties hereto have caused this Agreement to be executed the day and year aforementioned in accordance with laws of Sri Lanka.

.....  
**Authorized signature of Contractor**  
 SEAL

.....  
**Authorized signature of Employer**  
 SEAL

In the presence of :  
 Witnesses :

1. Name and NIC/Passport No. ....  
 Signature.....  
 Address .....
2. Name and NIC/Passport No. ....  
 Signature.....  
 Address .....

## FORM OF PERFORMANCE GUARANTEE

(Unconditional)

NUMBER : ..... DATE : .....  
SUM GUARANTEED : .....

**Beneficiary: Ceylon Petroleum Storage Terminals Limited, Oil Installation, Kolonnawa, Wellampitiya**

Whereas ..... *[name and address of Contractor]* (hereinafter called and referred to as “the Contractor”) has undertaken, in pursuance of contract No. .... dated ..... to execute **Design, Supply, Installation, Testing and commissioning of CCTV Surveillance System for Muthurajawela Terminal and 10 Bulk Depots** *(hereinafter called and referred to as “the Contract”)*;

**And Whereas** it has been stipulated by the Employer in the said Contract that the Contractor shall furnish the Employer with a Guarantee issued by a recognized organization for the sum specified therein as security for compliance with its obligations in accordance with the Contract.

**And Whereas** we have agreed to give the Contractor such a Guarantee;

**Now Therefore** we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of Sri Lankan Rupees .....*[amount of guarantee]*..... *[amount in words]*, such sum being payable in the type and proportions of currencies in which the Contract Price is payable, and we undertake to pay the Employer, upon the Employer’s first written demand and without cavil or objection, any sum or sums within the said amount as aforesaid without the Employer’s needing to prove or to show grounds or reasons for the Employer’s demand for the sum specified therein.

We hereby waive the necessity of the Employer’s demanding the said debt from the contractor before presenting us with the demand.

We further agree that no change or addition to or modification of the terms of the Contract or of the Works to be performed thereunder or of the Contract documents which may be made between the Employer and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice or any such change, addition or modification.

This guarantee shall be valid until the date of issue of the Performance Certificate.

Signature and the Seal of the Guarantor: .....

Name of the Organization: .....

Address: .....

Date: .....

Witness: .....

## FORM OF GUARANTEE FOR MOBILISATION ADVANCE PAYMENT

NUMBER : ..... DATE : .....  
SUM GUARANTEED : .....

**Beneficiary: Ceylon Petroleum Storage Terminals Limited, Oil Installation, Kolonnawa,  
Wellampitiya**

### **Design, Supply, Installation, Testing and commissioning of CCTV Surveillance System for Muthurajawela Terminal and 10 Bulk Depots.**

In accordance with the provisions of the Conditions of Contract, Sub-Clause 14.2 (Advance Payment) of the above-mentioned contract ..... *[name and address of Contractor]* (hereinafter called and referred to as “the Contractor”) shall deposit with the Employer a guarantee acceptable to the Employer to guarantee his proper and faithful performance under the said Contract in and amount of ..... *[amount of guarantee]* ..... *[amount in words]*

We, the ..... *[name and the address of the organization]*, as instructed by the contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as surety merely, the payment to the Employer on his first demand without whatsoever right of cavil and objection on our part and without the Employer’s needing to prove or to show grounds or reasons for the Employer’s demand for the sums specified therein and without his first claim to the Contractor, in the amount not exceeding Rupees ..... *[amount of guarantee]* ..... *[amount in words]* such amount to be reduced periodically by the amounts recovered by the Employer from the proceeds of the contract.

We further agree that no change or addition to or modification of the terms of the Contract or of the Works to be performed thereunder or of the Contract document which may be made between the Employer and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice or any such change, addition or modification.

No drawings may be made by the Employer under this guarantee until we have received notice in writing from the Employer that an advance payment of the amount listed above has been paid to the Contractor pursuant to the Contract.

This guarantee shall remain valid and in full effect from the date of the advance payment received by the Contractor under the Contract until the Employer receives full repayment of the same amount from the Contractor.

Signature and the Seal of the Guarantor: .....  
Name of the Organization: .....  
Address: .....  
Date: .....  
Witness: .....



## FROM OF RETENTION MONEY GUARANTEE

NUMBER : ..... DATE : .....  
 SUM GUARANTEED : .....

**Beneficiary: Ceylon Petroleum Storage Terminals Limited, Oil Installation, Kolonnawa,  
 Wellampitiya**

Whereas, it has been stipulated by the Employer in clause 14.7 of the Contract that he would release to the contractor the full sum mentioned under the contract in pursuance of clause 14.7, on the contractor furnishing an unconditional guarantee acceptable to the Employer to the full value of the retention money, valid up to 28 days beyond the end of the Defect Notification Period.

We ..... *[name and address of Guarantor]* as instructed by the Contractor, unconditionally and irrevocably, guarantee to pay the Employer upon the Employer's first written demand and without cavil or objection, any sum of sums within the said amount as aforesaid without the Employer's needing to prove or to show grounds or reasons for the Employer's demand for the sums specified therein and the said amount of Rupees ..... *[amount of guarantee]* ..... *[amount in words]* in the event the contractor fails to carry out his obligations to rectify defects which he is responsible to rectify under the contract.

This guarantee shall be valid up to ..... *[date]*

Signature and the Seal of the Guarantor: .....  
 Name of the Organization: .....  
 Address: .....  
 Date: .....  
 Witness: .....

**Volume 1 B**

Duplicate

**CEYLON PETROLEUM STORAGE TERMINALS LIMITED****Invitation for Bids (IFB)****DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF CCTV SURVEILLANCE SYSTEM FOR MUTHURAJAWELA TERMINAL AND 10 BULK DEPOTS****Contract No: KPR/45/2025**

1. The Chairman, Departmental Procurement Committee (Major) (DPC) on behalf of the Ceylon Petroleum Storage Terminals Limited (CPSTL), Oil Installation, Kolonnawa, Wellampitiya, Sri Lanka invites sealed bids from eligible and qualified bidders for the “**Design, Supply, installation, Testing and Commissioning of CCTV Surveillance System for Muthurajawela Terminal and 10 Bulk Depots.** Bidding will be conducted through **National Competitive Bidding Procedure, Single Stage, Two Envelope.**
2. To be eligible for contract award, the successful bidder (individual, Firm or joint venture) shall not have been blacklisted and shall meet the following requirements.

- i. Registration for Bidders

**ICTAD (CIDA) registration as follows;**

<b>Specialty</b>	<b>Grade</b>
Extra Low Voltage Installations (ELV)	EM 1

- ii. Average annual volume of construction work performed in last five years shall be at least **LKR 149 million**
- iii. The minimum amount of liquid assets and/or credit facilities, net of other contractual commitments and exclusive of any advance payments which may be made under the Contract, until Project Completion Date, shall be not less than **LKR 75 Million.**
- iv. Experience as a contractor in the design & construction of a nature and complexity similar to the Works related experience in carrying out design, supplying, installation, testing commissioning and maintenance of CCTV camera systems with associated network, electrical and civil scope of work with at least 03 similar projects within last 5 years executed as ELV projects. At least one project out of these three shall not be less than LKR 70 million (The minimum value of CCTV part shall not be less than LKR 50 million and maintenance in a similar large-scale Sri Lankan organization), and 02 projects shall not be less than LKR 50 million (The minimum value of CCTV part shall not be less than LKR 25 million).
- v. Bidder shall have experience of maintaining a 24 hrs. x 07 days call center within last 05 years period. Bidder shall provide documentary proof.
- vi. Audited financial report for the financial years 2020,2021,2022, 2023 and 2024 to be submitted as follows:
  - a. The companies reporting their annual accounts for year ending on 31<sup>st</sup> of December shall provide the financial reports for the financial years ending on 31.12.2024, 31.12.2023, 31.12.2022,31.12.2021,31.12.2020.
  - b. The companies reporting their annual accounts for year ending on 31<sup>st</sup> of March shall provide the financial reports for the financial years ending on 31.03.2025,31.03.2024, 31.03.2023 and 31.03.2022,31.03.2021.
- vii. Schedule of Key Personnel
  - Project Engineer ( B.Sc.(Electronic/Electrical)) - 01 No (5 years of experience)
  - Network / Security Engineer (B.Sc. or higher) - 01 No (03 years of experience)
  - Technical Officer (N.D.T. or higher) -03 Nos (10 years of experience)
  - (Bidder shall have at least 01 (one) proposed CCTV vendor certified engineers in

permanent carder. Please provide the certification copies.)

3. Interested bidders may obtain further information from the Manager Procurement of the Ceylon Petroleum Storage Terminals Limited, (Tele Phone+94 112572156, 2572155 and Tele Fax: +94 11 2074299 and Email: procure@cpstl.lk) and inspect the bidding documents free of charge during any working days from 0900 hrs to 1500 hrs. at the address given below. However, the bidders can inspect the bidding document (excluding drawings) from CPSTL website; www.cpstl.lk.
4. A complete set of Bidding Documents in English language may be purchased by interested bidders may obtain the Bidding Documents through any of the following methods:

### 1.In-Person Collection

By submitting a written application to The Manager (Procurement), Procurement Function Ceylon Petroleum Storage Terminals Limited (CPSTL), 1st Floor, New Administration Building Oil Installation, Kolonnawa, between **01.08.2025** and **25.08.2025**, on working days from 0900 hrs to 1400 hrs, along with your request, you must provide proof of payment of a non-refundable fee of LKR **20,000.00**. Payment can be made:

In cash at the Cash Counter, CPSTL, Kolonnawa, or

By bank transfer to the CPSTL account (details given below), and submit a copy of the bank slip or transfer confirmation.

### 2.By Email Request

Making a cash payment of the non-refundable fee of LKR **20,000.00** to the CPSTL bank account (bank details provided below), and Sending proof of payment (a copy of the bank slip or transfer confirmation), along with a written request on company letterhead, via email to procure@cpstl.lk, between **01.08.2025** and **25.08.2025**, on working days from 0900 hrs to 1400 hrs. Upon receipt of the non-refundable fee in the CPSTL account, the full set of bidding documents will be issued via email by the Procurement Function.

[Your reference details (Applicant Name, Company Name, Tender Number [**KPR/45/2025**]) should be stated in your receipt.]

#### Account Details

Account Holder	:	Ceylon Petroleum Storage Terminals Limited, Oil Installation, Kolonnawa,, Wellampitiya,
Account No	:	004-1-001-9-0208672
Bank & Branch	:	People's Bank Corporate Branch No. 91, All Ceylon Hindu Congress (ACHC) Building, Sir Chittampalam A. Gardiner Mawatha. Colombo 02
Swift code	:	PSBKLKLX
Bank code	:	7135
Branch code	:	004

5. Bidding Document (excluding drawings) available on the web is only for viewing purposes, and Bids shall be submitted using a Hard Copy of the Bidding Document purchased from CPSTL
6. Bids shall be submitted on the bidding document obtainable from procurement function and duly filled bidding documents may be sent by post/courier under registered cover or sealed cover to reach the Chairman, Department Procurement Committee (Major), C/O Manager

- (Procurement), Ceylon Petroleum Storage Terminals Limited, Procurement Function, 1st floor, New Administration Building, Oil Installation, Kolonnawa Wellampitiya or could be deposited in the tender box kept at the main entrance of CPSTL, on or before 1400 hrs on **26.08.2025**.
7. Bid will be closed at 1400 hrs of **26.08.2025** and will be opened immediately thereafter at the office of Manager Procurement, in the presence of the authorized only one representative of the bidder who chose to attend
  8. Bids shall be submitted on the bidding document obtainable from procurement function and duly filled bidding documents may be sent by post/courier under registered cover or sealed cover to reach the Chairman, Department Procurement Committee (Major), C/O Manager (Procurement), Ceylon Petroleum Storage Terminals Limited, Procurement Function, 1st floor, New Administration Building, Oil Installation, Kolonnawa Wellampitiya or could be deposited in the tender box kept at the main entrance of CPSTL, on or before 1400 hrs on **26.08.2025**
  9. Bids shall be valid up to **25.11.2025**
  10. All bids must be accompanied by a bid security of LKR 1,490,000.00 (Sri Lanka Rupees One Million and Four Hundred Ninety Thousand Only). Bid Security shall be valid up to **23.12.2025**.
  11. The construction period is **180 Calendar Days**.
  12. A pre-bid meeting will be held at **1000 hrs** on **12.08.2025** at the office of Muthurajawela Petroleum Terminal, Kerawalapitiya. Site visit shall be arranged after the pre-bid meeting. The bidders are advised to limit the number of persons, for the pre-bid meeting and site visit, due to the security reasons Entry passes will be arranged by CPSTL.  
  
In case, the bidders are unable to participate the pre bid meeting, they can participate via teleconference method. Interested parties who wish to participate in the Pre bid meeting shall send their request to email [procure@cpstl.lk](mailto:procure@cpstl.lk) at or before 1400 hrs. on **11.08. 2025**.
  13. Any of the following party who wishes to submit a bid, shall register himself at the Department of Registrar of Companies [www.drc.gov.lk](http://www.drc.gov.lk) (e-ROC) as per the Public Contracts Act, No. 03 of 1987 for every public contract value exceeding Sri Lankan Rupees Five million (LKR 5,000,000).
    - i. An agent, sub-agent, representative or nominee must be registered prior to the closing of the Bid/Tender.
    - ii. If the tender applicant and the tenderer is the same party he must be registered prior to
 However, this registration will be verified by CPSTL at the preliminary evaluation of Bids. In case of failure to meet this legal requirement, the Bid shall be rejected.  
  
Contact details of the Registrar: Department of Registrar of Companies, "Samagam Medura", No. 400, D R Wijewardena Mawatha, Colombo 10 / Tel.: +94-11-2689208 / +94- 11-2689209 / Email: [registrar@drc.gov.lk](mailto:registrar@drc.gov.lk) (Contact details may vary from actuals & CPSTL does not take any responsibility in this regard)

The address(es) referred to above is (are):

**The Chairman,  
Department of Procurement Committee (Major) (DPC),  
C/O Manager Procurement,  
Ceylon Petroleum Storage Terminals Limited,  
Procurement Function, New Building,  
Oil Installation, Kolonnawa, Wellampitiya,  
Sri Lanka.  
Postal Code: 10600  
Telephone : +94 11 2572156, +94 11 2572155  
Facsimile: +94112074299 E-mail : [procure@cpstl.lk](mailto:procure@cpstl.lk)**

## **Section II**

### **Bidding Data**

## BIDDING DATA

Item	Sub-Clause	Entry				
Employer's Name and Address	1.1 & 9.1	<p>The Employer is</p> <p>Name:           <b>The Chairman</b></p> <p>Address:       <b>Ceylon Petroleum Storage Terminals Limited Oil Installation, Kolonnawa, Wellampitiya.</b></p>				
Scope of Works	1.1	<p>The work consists of design, supply, installation testing, commissioning and maintenance of a CCTV system including cameras, access switches, core switches, servers, video storage, monitoring stations mounting racks, camera poles, UPS units, Fiber optic and UTP cable, Earthing and Surge protection system, power distribution boards, and related electrical and civil works, and all other necessary details as directed by the engineer.</p> <p>Location: Muthurajawela Terminal and 10 Depots</p>				
Time for Completion	1.2	<p>The Time for Completion for the whole of Works shall be <b>180 days</b>.</p>				
Delay damages for the Works	1.2	<p>The delay damages for the whole of the Works shall be 0.05% of the initial Contract Price per Day.</p> <p>The maximum amount of delay damages for the whole of the Works shall be 10 % of the Initial Contract Price.</p>				
Defects Notification Period	1.2	<p>Defects Notification Period is <b>03 Years from the date of completion of commissioning.</b></p>				
Source of Funds	2.1	<p>The source of funds is Ceylon Petroleum Storage Terminals Limited.</p>				
CIDA (ICTAD) registration required	3.1	<table><tr><th>Specialty</th><th>Grade</th></tr><tr><td>Extra Low Voltage Installations (ELV)</td><td>EM 1</td></tr></table>	Specialty	Grade	Extra Low Voltage Installations (ELV)	EM 1
Specialty	Grade					
Extra Low Voltage Installations (ELV)	EM 1					
Qualification Information	3.1, 3.2, 4.1	<p>The following information shall be provided in Section VIII:</p> <ul style="list-style-type: none"><li>• CIDA registration (if any)<div>Registration number    </div></li></ul>				

		last five years,
		<ul style="list-style-type: none"> <li>• Construction equipment</li> <li>• Staffing</li> <li>• Attach Work plan and methods;</li> </ul>
<b>Average annual volume of construction work performed in last five years</b>	4.3(a)	Average annual volume of construction work performed in last five years shall be at least <b>Sri Lanka Rupees One Million and Four Hundred Ninety Thousand Only</b> .
<b>Experience as prime contractor</b>	4.3(b)	Should have experience as a contractor in the design, supply, installation, testing and commissioning of CCTV Surveillance system including cameras, access switches, core switches, servers, video storage, monitoring stations mounting racks, camera poles, UPS units, Fiber optic and UTP cable, Earthing and Surge protection system, power distribution boards, and related electrical and civil works etc.
<b>Qualification and experience of proposed design team members</b>	4.3(e), 4.3(f)	<p>Design team shall consist at least one in each of following engineering disciplines having participated in similar capacity project in full time for design within last two years.</p> <p><input type="checkbox"/> Design Engineer – B.Sc. (Electronic/Electrical) Engineer with 5 years of experience</p> <p><input type="checkbox"/> Network/ Security Engineer – B.Sc. Or higher with 3 years of experience</p> <p><input type="checkbox"/> Technical Officers – NDT (Electrical/Electronic) or higher with 10 years experience</p> <p>– NDT (Civil) or higher with 10 years of experience</p> <p><input type="checkbox"/> (Bidder shall have at least 01 (one) proposed CCTV vendor certified engineers in permanent carder. Please provide the certification copies)</p>
<b>Liquid assets and/or credit facilities required</b>	4.3(g)	The minimum amount of liquid assets and/or credit facilities, net of other contractual commitments and exclusive of any advance payments, which may be made under the Contract, until Project Completion Date, shall be not less than <b>Sri Lanka Rupees Seventy Five Million (LKR 75 Million)</b>
<b>Bid price</b>	13.3	VAT components shall not be included in the rates. The amount written in the Form of Bid shall be without VAT. However, VAT component shall be shown separately at the end of the price schedule summary.
<b>Contract is subjected to price adjustment for fluctuation of prices</b>	13.4	The Contract <b>is not subject to price adjustment</b> in accordance with Clause 13.7 of the Conditions of Contract.
<b>Currency of bid</b>	14.1	The Bid shall be quoted in Sri Lankan Rupees (LKR)



<b>Bid Validity period</b>	15.1	The Bids shall be valid up to <b>25.11.2025</b>
<b>Amount of Bid security</b>	16.1	The Amount of Bid Security LKR LKR 1,490,000.00 (Sri Lanka Rupees One Million and Four Hundred Ninety Thousand Only).
<b>Validity of Bid Security</b>	16.2	The Bid Security shall be valid up to <b>23.12.2025</b>
<b>Pre-Bid meeting</b>	17.1	<p>Pre-Bid meeting will be held</p> <p>At the Muthurajawela Petroleum Terminal, Kerawalapitiya, Wattala, Site visit shall be arranged after the pre-bid meeting.</p> <p>Date <b>12.08.2025</b> Time <b>1000 hrs.</b></p> <p>In case, the bidders are unable to participate the pre bid meeting, they can participate via teleconference method. Interested parties who wish to participate in the Pre bid meeting shall send their request to email <a href="mailto:procure@cpstl.lk">procure@cpstl.lk</a> at or before 1400 hrs. on <b>11.08. 2025</b>.</p>
<b>Sealing and marking of Bids</b>	19.2	<p>The following information also shall be included in the inner covers of envelope marked as "<b>Envelope 1-Preliminary Information</b>":</p> <ul style="list-style-type: none"> <li>(i) Schedule, "Annual turn-over Information";</li> <li>(ii) Schedule, "Adequacy of Working capital";</li> <li>(iii) Schedule, "Experiences in last five years.</li> <li>(iv) Schedule, "Current Contract Commitments"</li> </ul>
	19.3	<p>The following information also shall be included in the inner cover of envelope marked as "<b>Envelope 2-Design/Technical Proposal</b>":</p> <ul style="list-style-type: none"> <li>(i) Schedule, "Team composition and Task assignment",</li> <li>(ii) Curriculum Vitae of Key staff;</li> <li>(iii) Schedule, "Time Schedule for key staff";</li> <li>(iv) Work program (Design related activities);</li> <li>(v) Work program (Construction related activities);</li> </ul>
	19.4	<p>The following information also shall be included in the inner cover of envelope marked as "<b>Envelope 3-Financial Proposal</b>":</p> <ul style="list-style-type: none"> <li>(i) Daywork rates schedule</li> <li>(ii) Schedule, "Overhead and profit percentage for Provisional Sum activities";</li> </ul>
	19.5(a)	<p>The Employer's address for the purpose of Bid submission is</p> <p><b>The Chairman, Department of Procurement Committee— Major (DPC), C/O Manager Procurement, Ceylon Petroleum Storage Terminals Limited, Procurement Function, New Building, Oil Installation, Kolonnawa, Wellampitiya, Sri Lanka. Postal Code : 10600</b></p>

	19.5(b)	Contract name : Design, Supply, Installation, Testing and commissioning of CCTV Surveillance System for Muthurajawela Terminal and 10 Bulk Depots
		Contact No. <b>KPR/45/2025</b>
<b>Deadline for submission of Bids</b>	20.1	<p>Address for submission of Bids</p> <p><b>The Chairman, Department of Procurement Committee—major (DPC), C/O Manager Procurement, Ceylon Petroleum Storage Terminals Limited, Procurement Function, New Building, Oil Installation, Kolonnawa, Wellampitiya, Sri Lanka.</b></p> <p><b>Postal Code : 10600</b></p> <p>The deadline for submission of Bids shall be</p> <p>Date : <b>26.08.2025</b> Time : <b>1400 hrs.</b></p> <p>The Time, Date and Location for bid opening is :</p> <p>Date : <b>26.08.2025</b> Time : <b>1400 hrs.</b></p> <p>Location :</p> <p><b>Office of Manager Procurement, Ceylon Petroleum Storage Terminals Limited, Procurement Function, New Building, Oil Installation, Kolonnawa, Wellampitiya, Sri Lanka.</b></p>
<b>Evaluation and comparison of Bids</b>	27.0	<p>For evaluation and comparison of Bids <b>Option A</b> is selected.</p> <p>The Point System for the 6 criteria stipulated in Sub-Clause 27.4 of ITB will be used for evaluation of Technical Proposals. The Bids score more than Minimum Required Points will only be considered for the evaluation of the Price Proposals.</p>
<b>Correction of errors</b>	(28.1)c	Sub-Clause 28.1(c) not modified.
<b>Correction of errors</b>	(28.1)d	Sub-Clause 28.1(d) is applicable.
<b>Amount of Performance Security</b>	32.1	<p>The standard form of Performance Security acceptable to the Employer shall be a Bank Guarantee from a</p> <ul style="list-style-type: none"> <li>▪ a commercial bank operating in Sri Lanka approved by Central Bank of Sri Lanka,</li> <li>▪ a bank based in another country but the guarantee “confirmed” by a commercial bank operating in Sri Lanka approved by Central Bank of Sri Lanka</li> </ul> <p>The amount of Performance Security is 5% of the Initial Contract Price.</p>
<b>Percentage of retention</b>	34.1	<p>The retention from each payment shall be 10%.</p> <p>The limit of retention shall be 5% of the Initial Contract Price.</p>

<b>Minimum amount of Interim Payment Certificates</b>	34.2	LKR 13,000,000.00 (Sri Lanka Rupees Thirteen Million)
<b>Adjudicator proposed by Employer</b>	(35.1)	<p>The Adjudicator proposed by Employer is Construction Industry Development Authority (<b>CIDA</b>).</p> <p>Fees and types of reimbursable expenses to be paid to the Adjudicator shall be on a case-to-case basis and shall be shared equally by the Contractor and the Employer.</p>

**Section IV**  
**Contract Data**

DUPPLICATE

**CONTRACT DATA**

<b>Item</b>	<b>Sub-Clause</b>	<b>Entry</b>
<b>Employer's Name and Address</b>	<b>1.1.2.2</b>	<p><b>The Employer is</b></p> <p>Name :Ceylon Petroleum Storage Terminals Limited</p> <p>Address: Oil Installation, Kolonnawa, Wellampitiya, Sri Lanka.</p>
<b>Engineer's Name &amp; Address</b>	<b>1.1.2.4</b>	<p>Name: Engineering Manager</p> <p>Address: Ceylon Petroleum Storage Terminals Limited, Engineering Function, Oil Installation, Kolonnawa, Wellampitiya, Sri Lanka.</p>
<b>Engineer's Duties and Authority</b>	<b>3.1</b>	<p>The Engineer shall obtain the specific approval of the Employer before taking action under the following Sub-Clauses of these Conditions.</p> <p>(a) consenting to the subletting of any part of the Works under Sub-Clause 4.4 (b),</p> <p>(b) approving an extension of the Time for Completion, and/or any additional payment under Sub-Clause 19.1 (<i>Contractor's Claim</i>) issuing variation under Sub-Clause 13.1 (<i>Right to vary Employer's Requirement</i>), except in an emergency situation, as reasonably determined by the Engineer.</p> <p>(c) approving additional payment under Sub-Clause 13.3</p> <p>Notwithstanding the obligation, as set out above, to obtain approval, if, in the opinion of the Engineer, an emergency occurs affecting the safety of life or of the Works or of adjoining property, he may, without relieving the Contractor of any of his duties and responsibilities under the Contract, instruct the Contractor to execute all such work or to do all such things as may, in the opinion of the Engineer, be necessary to abate or reduce the risk. The Contractor shall forthwith comply, despite the absence of approval of the Employer, with any such instruction of the Engineer. The Engineer shall determine an addition to the Contract Price, in respect of such instruction, in accordance with Clause</p>

**Key Personnel****4.1****Schedule of Key Personnel:**

Names with qualifications and experience to be written :

(a) Design

.....

.....

(b) Contract Administration

.....

.....

(c) Accounting

.....

.....

**Performance Security****4.2**

The Performance Security shall be 5 % of the Initial Contract Price. The Standard Form of Performance Security acceptable to the Employer shall be a Bank Guarantee from a commercial bank operating in Sri Lanka approved by Central Bank of Sri Lanka, a bank based in another country but the guarantee “confirmed” by a commercial bank operating in Sri Lanka approved by Central Bank of Sri Lanka.

**Commencement of Work****8.1****Start Date:**

The Start Date shall be 14 days from the issue of the Letter of Acceptance

**Time for Completion****8.2**

The Time for Completion for the whole of Works shall be **180** Calendar days.

**Delay Damages****8.7**

The Delay Damages for the whole of the Works shall be 0.05% of the Initial Contract Price per Day.

The maximum amount of Delay Damages for the whole of the Works shall be 10% of the Initial Contract Price.

**Defects Notification Period****11.1**

Defects Notification Period is 03 Years from the date of completion of commissioning. Contractor shall maintain the system for 03 years period from the date of completion of commissioning, complying with “Section – VI- Employer’s requirement of this Bidding Document

**Adjustments for Changes in Cost****13.7**

Contract **is not subjected** to price adjustment for fluctuation of prices.

**Contract Price****14.1**

The Sub-Clause 14.1 shall be read incorporation with the following: The Works shall be paid according to work done as per the price proposal.

**Advance Payment****14.2**

20 % of the Initial Contract Price excluding Provisional Sums & Contingencies.

The advance payment securities issued by the following agencies are acceptable;  
a commercial bank operating in Sri Lanka approved by

		Central Bank of Sri Lanka, a bank based in another country but the guarantee “confirmed” by a bank in Sri Lanka approved by Central Bank of Sri Lanka,  Number and timing of installment for Advance Payment Two equal instalments. <b>Stage I</b> - the first ten percent (10%) of advance payment will be paid within 14 days from receipt of both Performance and Advance Payment Guarantee as required under clause 4.2 and 14.2 respectively. <b>Stage II</b> - balance ten percent (10%) will be paid after successfully mobilization at the site after receipt of mobilization Advance Payment Guarantee.
<b>Retention Money</b>	<b>14.3(c)</b>	The retention from each payment shall be 10% of the Interim Payment certificate. The limit of retention shall be 5% of the Initial Contract Price.
<b>Issue of Interim Payment Certificates</b>	<b>14.4</b>	Minimum amount of Interim Payment Certificates shall be LKR 13,000,000.00 (Sri Lanka Rupees Thirteen Million)
<b>Employer’s Property</b>	<b>18.2 (b)</b>	Insurance cover to the amount of LKR 50 Million for the entire period of construction work. The contractor shall take special measures to safeguard the adjacent storage tanks and allied facilities at the site.
<b>Professional Indemnity Insurance</b>	<b>18.4</b>	This Amount of professional indemnity insurance cover shall be for LKR 5,000,000.00 (Sri Lanka Rupees Five Million).
<b>Failure to Agree Dispute Adjudicator</b>	<b>19.2 &amp; 19.4</b>	The appointing entity for appointing the Adjudicator is the <b>Construction Industry Development Authority (CIDA)</b> .

**Section VI**  
**Employer's Requirement**



## **DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF CCTV SURVEILLANCE SYSTEM FOR MUTHURAJAWELA TERMINAL AND 10 BULK DEPOTS**

### **1. Introduction**

#### **1.1. Background**

Ceylon Petroleum Storage Terminals Limited (CPSTL) intends to enhance security and operational monitoring through the implementation of a state-of-the-art IP-based CCTV Surveillance System across the Muthurajawela Terminal and ten (10) regional bulk depots.

#### **1.2. Objective**

The key objective is to establish a high-resolution, integrated surveillance infrastructure to ensure 24/7 monitoring of all critical operational areas, perimeters, and access points. The system shall provide capabilities for future scalability, integration with other safety/security systems, and remote centralized monitoring.

### **2. Site Coverage and Camera Quantities**

The proposed number of cameras for each location is outlined in Table 01. The contractor shall design the system without exceeding the specified camera count for each location. (Refer to the attached drawings for each location for more details)

Table 01: Proposed Quantities of Cameras for Muthurajawela Terminal and Depots

<b>Item no.</b>	<b>Location</b>	<b>Maximum No of Cameras</b>
01	Muthurajawela Terminal	52
02	Anuradhapura Bulk Depot	12
03	Badulla Bulk Depot	13
04	Batticaloa Bulk Depot	15
05	Kotagala Bulk Depot	13
06	Haputale Bulk Depot	11
07	Peradeniya (including Sarasavi Uyana) Bulk Depot	24
08	Galle Bulk Depot	12
09	Mathara Bulk Depot	14
10	Kurunagala Bulk Depot	16
11	Kankasanthurai Bulk Depot	10

### 3. Scope of Work

The Contractor shall undertake a comprehensive turnkey implementation of the CCTV surveillance system, which includes but is not limited to the following:

- a. Detailed system design, including layout finalization, component selection, and infrastructure planning.
- b. Supply and installation of all required hardware, software, cabling, mounting poles, and other associated infrastructure.
- c. Testing, commissioning, and user training for relevant personnel.
- d. Comprehensive documentation, including design reports, operation manuals, warranty certificates, and as-built drawings.
- e. Post-implementation support, including warranty service, defect liability period support, and system updates.

#### 3.1 Design Responsibilities

- 3.1.1 The Contractor shall be responsible for the complete design, supply, installation, testing, and commissioning of the CCTV surveillance system at the Muthurajawela Terminal and 10 bulk depots, adhering to the minimum technical specifications provided.
- 3.1.2 The contractor shall conduct site surveys and risk/vulnerability assessments.
- 3.1.3 Determine optimal camera placements to ensure comprehensive coverage with minimal blind spots.
- 3.1.4 Design a scalable network infrastructure, including camera layouts, cable routes, and system schematics.
- 3.1.5 The contractor shall design the cable layout utilizing the existing cable trenches (Muthurajawela Terminal), as indicated in the attached drawings, wherever feasible. New trenches shall be used where the existing ones are not accessible. The use of overhead cabling shall not be permitted.
- 3.1.6 Submit all design documents including drawings, specifications, and design reports for Engineer's approval.
- 3.1.7 The supplier shall have a minimum of one vendor-certified engineer on staff; valid certification documents must be submitted

**3.1.8 The system shall include, but not be limited to:**

- a. IP cameras (fixed, PTZ, ANPR) with High-resolution infrared and low-light capabilities.
- b. Indoor, outdoor, and specialized ANPR cameras.
- c. Outdoor fiber-optic backbone and CAT6 structured cabling.
- d. Dedicated Local Area Network (LAN) for CCTV operations.
- e. Network Video Recorders (NVR), Video Management Servers (VMS), and related software with analytical modules.
- f. Video wall displays and monitoring workstations.
- g. Electrical power distribution, UPS, and surge protection systems.
- h. Civil works, including trenching, pole mounting, backfilling, and conduiting.
- i. AI-enabled analytics such as motion detection, intrusion alerts, flame/smoke detection, perimeter surveillance, real-time threat detection and event classification.
- j. Integration with existing and/or future systems (e.g., HRM, access control)
- k. Inter-site connectivity for centralized surveillance and monitoring from Kolonnawa Installation Command Center.
- l. Full camera coverage for areas as per the approved layout drawings.

**3.2 Supply and Installation****3.2.1 Supply and install all materials and equipment including:**

- Cameras, NVRs/VMS servers, monitors, PoE switches, UPS systems, furniture, mounting structures
- CAT6 and fiber-optic cables, IP66 or above -rated outdoor enclosures, and corrosion-resistant GI conduits

**3.2.2 All equipment must be brand new, original, and compliant with international standards such as ONVIF, CE, FCC, and RoHS.****3.2.3 Outdoor units shall meet IP66 or above and IK10 protection standards.****3.2.4 All cables must be laid within the existing or new cable trenches. The contractor is responsible for manually excavating the existing cable trenches, clearing cable sleeves across roads, and ensuring clear cable paths inside buildings.**

- 3.2.5 The contractor is responsible for safely storing sand, bricks, and tiles for backfilling after the installation of new cables. Once the cables are installed, the cable trenches must be properly backfilled and closed.
- 3.2.6 If the existing sleeves across the roads are insufficient, the contractor shall install new sleeves and restore the roads to their previous condition. Prior approval must be obtained from the Engineer if the cable route deviates from the existing route in any case.
- 3.2.7 Insulation and continuity testing of the cables shall be conducted in the presence of the Engineer or his representative, and the testing report shall be submitted to the Engineer.
- 3.2.8 The Contractor shall maintain good housekeeping in the site and vicinity of the site during construction and attend to cleaning of the site after completion of the work.
- 3.2.9 CPSTL shall not be responsible for theft damage or loss of any of the materials and equipment during the installation. Equipment shall be covered and protected against dirt, water, and moisture, sand and chemical or mechanical injury. Upon completion of all works, the materials and equipment shall be thoroughly cleaned, adjusted and tested to demonstrate its proper operation to the Engineer. The contractor shall properly and adequately protect all materials and equipment before, during, and after installation. Material or Equipment damaged due to inadequate attention of the Contractor shall not be accepted and Engineer reserves the right to request replacements for such equipment at the handing over. It is the responsibility of the Contractor to clean the installation at close of work every day and to hand over a clean and neat installation at completion.

### **3.3 Technical Requirements**

#### **3.3.1 Camera System**

- a. High-resolution IP cameras with night vision and IR capability for low-light environments.
- b. All cameras must ensure full coverage with IR capability for low-light functionality.
- c. All proposed cameras shall be of the same brand to ensure compatibility and uniform performance.
- d. ANPR cameras shall be installed at all entry and exit points. These cameras must record vehicle number plates, time of arrival, and departure. The system shall store these records in a searchable database and allow integration with third-party software such as HRM, Time Attendance Systems, and similar platforms.

- e. Cameras shall include an IR filter that automatically switches between color and monochrome modes based on illumination levels or alarm inputs.
- f. The system shall support automatic detection and alerting of defective components.
- g. All outdoor cameras shall be IP66 or above-rated and IK10 vandal-proof. Associated hardware (e.g., power supply units, media converters, passive patches) shall be included.
- h. Contractor shall propose camera focal lengths based on required Fields of View (FoV)

### **3.3.2 Video Management Software (VMS)**

- a. Features must include:
  - Multi-user access with customizable roles and privileges
  - Electronic maps with camera icons for quick access
  - Alarm logging and advanced search functions
  - PTZ control, live view, playback, export, and analytics integration
  - Scheduled, manual, and event-based recording modes
  - System configuration report generation
  - Support for schedule-based analytics
  - GUI-based control with multi-monitor display
  - Snapshot and alarm video creation
  - Client-server architecture with secure user authentication

### **3.3.3 Network Video Recorder (NVR)**

- a. Minimum of 45 days continuous recording at 25 fps with 4MP resolution
- b. RAID 5 configuration with a dedicated RAID controller (hardware-based)
- c. Failover servers for NVR/storage functions
- d. Redundant load balancing across backup NVRs to maintain system integrity
- e. Sufficient processing power and memory to manage all recording and streaming functions
- f. All required accessories must be provided: patch panels, PDUs, KVM switches, network enclosures with lockable doors, cooling fans-vents, server Enclosed rack, junction boxes etc.
- g. Support for event-based, motion-based, schedule-based, and continuous recording modes. Each mode must support customizable frame rates and resolutions.
- h. The system must allow for camera-wise configurable recording with independent bit rate, frame rate, and resolution

### 3.3.4 Structured Cabling and Network Infrastructure

- a. The network must be commissioned to meet required bandwidth, data transfer rates, and video frame rates
- b. Use of Single Mode armored fiber optic cables
- c. CAT6 cables (shielded/unshielded as applicable) for horizontal cabling
- d. Outdoor GI conduits with threaded connections and anti-corrosion treatment
- e. Access switches installed in IP66 or above-rated enclosures with internal fiber/UTP patch panels
- f. All cables and terminations shall be fully RoHS compliant and 100% tested per ANSI/TIA/EIA-568-C standards
- g. A 25-year system warranty must be provided for the entire backbone and horizontal cabling system (contractor to manage testing and documentation for warranty approval)
- h. LAN to include PoE switches, virtualized core switches, and secure tunneling for external access isolation.
- i. The network shall be designed to accommodate future expansions

### 3.3.5 Workstations and Monitoring

- a. The Central Monitoring Workstation Cluster shall support:
  - Simultaneous live viewing of all cameras
  - Display output on high-definition LED screens, arranged in a structured video wall layout
  - Real-time alerts, map-based camera navigation, and analytics dashboard integration
- b. Monitoring Capabilities
  - The system shall support multi-monitor configurations for enhanced situational awareness.
  - Each workstation shall be equipped with an intuitive Graphical User Interface (GUI) for camera selection, playback, and alert review.
  - PTZ joystick controllers shall be provided at key workstations to facilitate manual pan-tilt-zoom camera control.
  - The system shall support secure remote access for authorized personnel through web browsers, mobile applications, with user authentication and role-based access control.
- c. Client Workstations

- Muthurajawela Terminal: A total of 04 client workstations shall be provided and installed at strategically identified locations within the terminal premises.
  - All client workstations shall be networked to the central Video Management System (VMS) and configured to access designated camera groups, as per user-level restrictions.
- d. Cloud based viewing facility
- A secure, cloud-based viewing platform shall be provided to enable remote monitoring
- e. Renovation of Main Security Room (Muthurajawela Terminal)
- The contractor shall undertake necessary civil, electrical, and interior improvements to upgrade the existing Monitoring Workstation Room located at the Main Security Room, which shall include but not be limited to:
- Upgrading the air-conditioning system to maintain an optimal operating environment for both personnel and equipment
  - Provision of electrical systems, including main power connections, UPS systems, standby power, and required Distribution Boards (DBs)
  - Supply and installation of ergonomic furniture, including workstations, operator chairs, etc.
  - Lighting improvements to achieve illumination levels in compliance with relevant workplace standards (minimum 500 lux at desktop level)
  - Installation of CCTV display screens, supporting brackets, cable management trays, and all required accessories for secure and efficient mounting

### **3.3.6 Installation Standards and Safety**

- a. All works must strictly adhere to CPSTL safety protocols and relevant national/international safety regulations.
- b. The contractor shall assume full responsibility for the safety of personnel, equipment, and infrastructure during installation and commissioning.
- c. All outdoor surface conduit works must use GI with threaded joints and anti-corrosion coatings.
- d. Installation must include UPS backup systems and surge protection for all critical components.
- e. Products must be free of known cybersecurity threats or malicious firmware history.
- f. The complete system must comply with the following standards:
  - EIA/TIA 568A/B: Commercial Building Telecommunications Wiring

- EIA/TIA 569, 570A, 606, 607: Pathways, Residential Wiring, Administration, and Grounding
- EN IEC 60079-0: Explosive Atmospheres
- BS EN 7671: 18th Edition IET Wiring Regulations
- NFPA 70 (NEC): National Electrical Code
- RoHS: Restriction of Hazardous Substances
- ONVIF: Interoperability of IP-based physical security products

### **3.3.7 Testing, Commissioning, and Acceptance**

- a. The Contractor shall conduct comprehensive pre-commissioning tests and submit detailed results to CPSTL prior to the final Acceptance Test.
- b. The Acceptance Test shall be scheduled with a minimum of 14 days' notice to CPSTL.
- c. Any deficiencies identified during testing must be promptly rectified by the Contractor at no additional cost.
- d. The system shall undergo individual and integrated testing to verify:
  - Camera coverage and image quality
  - Recording performance and retrieval
  - Failover and redundancy functionality (RAID/ redundancy NVR)
- e. The Contractor shall submit comprehensive test reports and obtain written acceptance from CPSTL for each site.
- f. The final handover must include:
  - All test results and certifications
  - System manuals and operational documentation
  - Licenses and credentials
  - Configuration backups
- g. All system components must be properly labeled, and the entire installation shall be verified for operational readiness.

### **3.3.8 Documentation and Handover**

- a. The Contractor shall provide the following documentation in both printed and electronic formats:
  - Three (03) sets of A1-size as-built drawings and soft copies in PDF format



- All software, credentials, and configuration backups
- Operation & Maintenance manuals and technical catalogues
- Full transfer of ownership rights and licenses for all system software
- Final documentation must include:
  - User manuals
  - As-built drawings
  - IP plans and logical diagrams
  - Configuration and system backups
  - Maintenance and troubleshooting guides

### **3.3.9 Training and Technology Transfer**

#### **a. Training Objectives**

- To ensure CPSTL staff are fully trained in operation, maintenance, troubleshooting, and administration of the CCTV surveillance system.
- To provide site-specific, role-based training tailored to operators, maintenance personnel, and ICT support staff.

#### **b. Separate modules shall be provided for:**

- System Operators
- Maintenance Technicians
- ICT/Network Administrators

#### **c. Training shall be delivered in Sinhala and/or English, using OEM-certified instructors.**

#### **d. Training formats shall include:**

- Visual presentations
- Practical demonstrations
- Instructor-led sessions
- Printed reference materials and guides

#### **e. Training Location and Timing**

- Training shall be conducted on-site at Muthurajawela Terminal and depots, or off-site at an approved location.

- All training sessions must be completed prior to the Taking Over Certificate being issued.

### **3.3.10 Warranty and Maintenance**

- a. A comprehensive warranty of three (03) years shall be provided for all supplied hardware, software components, and workmanship, effective from the date of commissioning.
- b. The Contractor shall provide free preventive and corrective maintenance services for the first 3 years from the date of commissioning.
- c. The Contractor shall enter into a Comprehensive Annual Maintenance Contract (CAMC) after the three-year warranty period.
- d. The Contractor shall ensure a maximum response and resolution time of four (04) hours for any complaint or failure during both the warranty and CAMC periods. Support shall be available 24/7, with escalation procedures and remote diagnostic capabilities in place

### 3.4 Minimum Technical Specifications

**Refer Annexure 1 for detailed technical compliance checklist. Bidders must fill out and return the completed table with their technical proposal.**

DUPLICATE

**Section VII (a)**  
**Form of Bid**

DUPPLICATE

## FORM OF BID

### **NAME OF CONTRACT: DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF CCTV SURVEILLANCE SYSTEM FOR MUTHURAJAWELA TERMINAL AND 10 BULK DEPOTS.-KPR/45/2025**

**To:** Ceylon Petroleum Storage Terminals Limited, Oil Installation, Kolonnawa, Wellampitiya.

We have examined the Conditions of Contract, Employer's Requirements, Schedules and Addenda Nos..... for the execution of the above-named Works. We accordingly offer to design, execute and complete the said Works and remedy any defects fit for the purposes, in conformity with the Bidding Documents and the enclosed Proposal, at the lump sum stated in the Form of Price Proposal included in a separate envelope and submitted with this bid, or other such sums as may be determined in accordance with the terms and conditions of the Contract.

We confirm that our bid includes this Preliminary Information, Financial Proposal, and Design/Technical Proposal sealed in three separate envelopes.

We agree to abide by this Bid until **25.11.2025**, and it shall remain binding upon us and may be accepted at any time before that date.

We confirm that, we (including all members of a joint venture and subcontractors) are not associated, directly or indirectly, with the consultant or any other entity in preparation of the design, specifications, and other documents for the Contract.

If this offer is accepted, we will provide the specified Performance Security, commence the Works as soon as reasonably practicable after the Commencement Date, and complete the Works in accordance with the above-named documents within the Time for Completion. We will ensure that the Works will be executed in conformity with the Contract.

Unless and until a formal Agreement is prepared and executed this Bid, together with your written acceptance thereof, shall constitute a binding Contract between us.

We understand that you are not to bound at accept the lowest offer or any other bid you may receive.

.....  
Signature of the persons duly authorized to sign documents for and on behalf of

Address:.....

.....

Contact No:.....email .....

Date: .....

Company Seal:

**Section VIII (a)**  
**Schedules ( “A”-Schedules)**

## SCHEDULES

### Schedule A1 - Preliminary Information

(Enclose this Schedule in the envelope marked, "Envelope 1 - Preliminary Information")

- (i) For joint venture, each joint venture partner shall furnish information separately

ITB clause reference	Description	Information (to be filled by the Bidder)	Remarks
3.1	<b>CIDA Registration (if any)</b>		
	Registration number		
	<b>Specialty</b>	<b>Grade</b>	
	Electrical	EM1	
	Installation (EL-LV & ELV)	(Yes/No)	Provide certified copies and label them as attachment to Clause 3.1
4.1 (a)	Expiry Date <b>Legal Status</b>		
	If a Joint Venture, names and addresses of Joint venture partners	1. .... 2. .... 3. ....	Provide a certified copy of the Joint Venture Agreement.
	If a Joint Venture, name of the Lead Partner		
	For joint venture, each joint venture partner shall furnish Legal Status separately		
	<b>Name (Lead partner)</b>		Provide certified copies and label them as attachment to Clause 4.1 (a)
	Legal status		
	Place of registration		
	Principal place of business		

Written power of attorney of the signatory to the Bid	Provide original or certified copy of the power of attorney attested by a Notary and label them as attachment to Clause 4.1 (a)
VAT Registration Number	
<b>Name (Partner 2)</b>	
Legal status	Provide certified copies and label them as attachment of Clause 4.1 (a)
Place of registration	
Principal place of business	
Written power of attorney of the signatory to the Bid	Provide original or certified copy of the power of attorney attested by a Notary and label them as attachment to Clause 4.1 (a)
VAT Registration Number	
<b>Name (Partner 3)</b>	
Legal status	Provide certified copies and label them as attachment of Clause 4.1 (a)
Place of registration	
Principal place of business	
Written power of attorney of the signatory to the Bid	Provide original or certified copy of the power of attorney attested by a Notary and label them as attachment to Clause 4.1 (a)
VAT Registration Number	



<b>Schedule A2 - Annual Turn-over Information</b> (Similar nature only - Last five years) (Refer Clause 4.3 (a) of Bidding data and Clause 4.1 of Instructions to Bidders)  (Enclose this Schedule in envelope marked, "Envelope 1 - Preliminary Information")  i. For joint venture, each joint venture partner shall furnish information separately		
Year	Turn-over	Remarks
1		Attach audited reports and label them as attachment to Clause 4.1 (c) (i)
2		
3		
4		
5		

<b>Schedule A3 - Adequacy of Working Capital</b> (Refer Clause 4.3 (g) of Bidding data and Clause 4.1 of Instructions to Bidders) (Enclose this Schedule in envelope marked, "Envelope 1 - Preliminary Information")		
Source of credit line	Amount	Remarks
		Provide documentary evidence and label them as attachment to Clause 4.1 (c) (ii)
Total		

**Schedule A4 - Experience in last five years**

(To be attached certified copies of Letter of award, Purchase order and Certificate of Completion)

(Enclose this Schedule in envelope marked, "Envelope 1 - Preliminary Information")

- (i) If pre-qualification is done the bidders are required to include information subsequent to that submitted with the pre-qualification
- (ii) For joint ventures, each joint venture partner shall furnish information separately
- (iii) List similar works first

Year	Employer	Description of Works	Amount	Contractor's Responsibility (%)
		<b>Total</b>		

**Schedule A5 - Design Experience in last five years**

(To be attached certified copies of Letter of award , Purchase order and Certificate of Completion)

(Enclose this Schedule in envelope marked, "Envelope 1 - Preliminary Information")

- (i) For joint ventures, each joint venture partner shall furnish information separately  
(ii) List similar works first

Year	Employer	Description of Works	Amount*	Responsibility (%)
		<b>Total</b>		

\* Project Cost

### Schedule A6 - Major Items of Equipment Proposed

(Enclose this Schedule in envelope marked, "Envelope 1 - Preliminary Information")

<b>Type</b>	<b>Capacity</b>	<b>Ownership of the Equipment (Owned by Bidder/ Hired)</b>

<b>Schedule FIN 1 – Current Contract Commitment</b> (Refer Clause 4.3 (g) of Bidding data and Clause 4.1 of Instructions to Bidders)					
(Enclose this Schedule in envelope marked, "Envelope 1 - Preliminary Information")					
No:	Name of contract/ Employer	Awarded sum & date	Construction period (Months)	Value of work completed up to ..... Rs. Cts	Value of balance work Rs. Cts.

[Certified copies of Letter of award, Purchase order and last interim payment certificates should be attached]

**CHECK LIST FOR BIDDERS**

<b>Envelop</b>	<b>Item</b>	<b>Yes (tick)</b>	<b>Reference</b>
<b>Envelop 1</b>			
	<b>Preliminary Information (Original &amp; Copy)</b>		
	Volume 1A of the Bidding Document		
	Invitation to Bid		
	Section II - Bidding Data		
	Section IV - contract Data		
	Section VI - Employer's Requirement		
	Power of attorney for the signatory of the bid		
	Duly filled and signed Form of Bid		
	Bid Security		
	Duly filled "A" Schedules - "General Information"		
	Other information listed in Bidding Data		
	Any other information, bidder may wish to include		
<b>Envelop 2</b>			
	<b>Design / Technical Proposal (Original &amp; Copy)</b>		
	Duly filled and signed Form of Design / Technical Proposal		
	Duly filled "B" Schedules - "Comments and suggestions on employer's requirement" (if any)		
	Contractor's Proposal		
	Drawings including simulations for each site		
	Other information listed in Bidding Data		
	Any other information, bidder may wish to include		
<b>Envelop 3</b>			
	<b>Price Proposal (Original &amp; Copy)</b>		
	Duly filled and signed Form of Price Proposal		
	Duly filled "C" Schedules - "Price Schedules"		

## Annexure 01

### Bidder Response to Minimum Technical Specifications

Instructions to Bidder:

For each item below, indicate "Yes or No" in the Compliance column. If "Not Complied," explain clearly in the Remarks column and suggest any deviations with supporting documents. All fields must be completed.

#### 1- Outdoor Bullet Camera

	Item Description	Requirement	Compliance (yes/no)	Remarks/ deviation
	<b>Product Data</b>			
<b>1</b>	<b>Item Type</b>	<b>Outdoor Bullet Camera</b>		
1.1.1	Brand	(Specify)		
1.1.2	Model	(Specify)		
1.1.3	Country of origin	(Specify)		
1.1.4	Country of manufacture	(Specify)		
<b>1.2</b>	<b>Image sensor</b>			
1.2.1		1/3" progressive scan CMOS		
<b>1.3</b>	<b>Lens</b>			
1.3.1		Focal length should be selected according to the FOV requirement		
1.3.2	Vertical field of view	60° or greater		
1.3.3		Fixed iris, Fixed focus, IR corrected		
1.3.4	Day and night	Automatically removable infrared-cut filter		
<b>1.4</b>	<b>Minimum illumination</b>			
1.4.1	Color	0.2 lux at F/2.0		
1.4.2	B/W	0.04 lux at F/2.0		
1.4.3		0 lux with IR illumination on		
<b>1.5</b>	<b>Shutter speed</b>			
1.5.1		1 to 1/10000 S or better		
<b>1.6</b>	<b>Video compression</b>			
1.6.1		H.264 (MPEG-4 Part 10/AVC)		
1.6.2		H.265 (MPEG-H Part 2/HEVC)		
1.6.3		Motion JPEG (M-JPEG)		
<b>1.7</b>	<b>Resolution</b>			



1.7.1		4 Megapixels - 2560 x 1440 pixels (in accordance with SMPTE standard)		
<b>1.8</b>	<b>Frame rate</b>			
1.8.1		Up to 30 fps with power line frequency 50 Hz		
<b>1.9</b>	<b>Video streaming</b>			
1.9.1		4- Multiple, individually configurable streams in H.264, H.265 and Motion JPEG		
<b>1.10</b>	<b>Image settings</b>			
1.10.1		Compression, color, brightness, sharpness, contrast, local contrast, white balance, exposure control		
1.10.2		Wide Dynamic Range		
1.10.3		Privacy masks		
<b>1.11</b>	<b>Network Security</b>			
1.11.1		Password protection, IP address filtering		
1.11.2		HTTPS encryption, IEEE 802.1x		
1.11.3		Network Access Control		
1.11.4		User access log.		
<b>1.12</b>	<b>Supported protocols</b>			
1.12.1		IPV4 and IPV6 TCP/IP, HTTP, DHCP, DNS, DDNS, RTP, RTSP, SMTP, NTP, SNMP v1/ v2/ v3, HTTPS, FTP, IGMP., Layer 4 -TCP and UDP. SSH		
<b>1.13</b>	<b>Application Programming Interface</b>			
1.13.1		Open API for software integration (bidder to provide written evidence)		
<b>1.14</b>	<b>Included Analytics from day one</b>			
1.14.1		Video Motion Detection		
<b>1.15</b>	<b>Event triggers</b>			
1.15.1		Analytics, edge storage events		
<b>1.16</b>	<b>Event actions</b>			
		Record video: SD card and network share		

1.16.1		Upload of images or video clips: FTP, SFTP, HTTP, HTTPS, network share and email pre-and post-alarm video or image buffering for recording or upload Notification: email, HTTP, HTTPS, TCP and SNMP trap Overlay text		
<b>1.17</b>	<b>Casing</b>			
1.17.1		IP66 and IK 10		
<b>1.18</b>	<b>Power</b>			
1.18.1		PoE - IEEE 802.3af/802.3at Type 1 Class 2		
<b>1.19</b>	<b>Connector</b>			
1.19.1		RJ45 10BASE-T/100BASE-TX PoE		
<b>1.20</b>	<b>IR illumination</b>			
1.20.1		Power-efficient, long-life 850 nm IR LED. Range of reach up to 40m depending on scene		
1.20.2		The camera shall be equipped with built-in IR LEDs with automatic seamless adapting angle of illumination and intensity.		
<b>1.21</b>	<b>Storage</b>			
1.21.1		Support for microSD/ microSDHC /microSDXC card of 128GB		
1.21.2		Support for SD card encryption		
1.21.3		Support for recording to network-attached storage (NAS)		
<b>1.22</b>	<b>Operating conditions</b>			
1.22.1	Temperature	-30 °C to 50 °C		
1.22.2	Humidity	10–100% RH (condensing)		
1.22.3		Corrosion resistance standard		
<b>1.23</b>	<b>Approvals</b>			
1.23.1		EMC (Attached Vendor Certificate)		
1.23.2		Environment (Attached Vendor Certificate)		
1.23.3		Safety (Attached Vendor Certificate)		
1.23.4		Network (Attached Vendor Certificate)		

<b>1.24</b>	<b>Certificate/Compliance</b>			
1.24.1		Shall have FCC, CE and UL certificates		
1.24.2		Prevent any OEM manufacturer to incorporate in their firmware, a method for gaining access to any device globally.		
<b>1.25</b>	<b>MTBF</b>			
1.25.1		> 40,000 Hr (Attached Vendor Certificate)		
<b>1.26</b>	<b>Manufacturer Authorization Letter (MAL)</b>			
1.26.1		MAL shall be submitted		
<b>1.27</b>	<b>Warranty</b>			
1.27.1		shall have 3 years Comprehensive warranty and the same shall be submitted on manufacturers Letter head (Comprehensive Warranty)		

## 2 - Outdoor Vary focal Bullet Camera

	Item Description	Requirement	Compliance (yes/no)	Remarks / deviation
	<b>Product Data</b>			
<b>2</b>	<b>Item Type</b>	<b>Outdoor Vary focal Bullet Camera</b>		
2.1.1	Brand	(Specify)		
2.1.2	Model	(Specify)		
2.1.3	Country of origin	(Specify)		
2.1.4	Country of manufacture	(Specify)		
<b>2.2</b>	<b>Image sensor</b>			
2.2.1		1/3" progressive scan RGB CMOS		
<b>2.3</b>	<b>Lens</b>			
2.3.1	Varifocal	3–9 mm, F1.6		
2.3.2	Horizontal field of view	114°–37°		
2.3.3	Vertical field of view	58°–21°		
2.3.4		Varifocal, Remote focus and zoom, P-Iris control, IR corrected		
2.3.5	Day and night	Automatically removable infrared-cut filter		
<b>2.4</b>	<b>Minimum illumination</b>			
2.4.1	Color	0.07 lux at F2.0		
2.4.2	B/W	0.01 lux at F2.0		

2.4.3		0 lux with IR illumination on		
<b>2.5</b>	<b>Video compression</b>			
2.5.1		H.264 (MPEG-4 Part 10/AVC)		
2.5.2		H.265 (MPEG-H Part 2/HEVC)		
2.5.3		Motion JPEG (M-JPEG)		
<b>2.6</b>	<b>Bandwidth compensation and optimization</b>			
2.6.1		Must have In-house Processor for Bandwidth Compensation & Optimization		
<b>2.7</b>	<b>Resolution</b>			
2.7.1		4 Megapixels - 2560 x 1440 pixels (in accordance with SMPTE standard)		
<b>2.8</b>	<b>Frame rate</b>			
2.8.1		Up to 30 fps with power line frequency 50 Hz		
<b>2.9</b>	<b>Video streaming</b>			
2.9.1		Multiple, individually configurable streams in H.264, H.265 and Motion JPEG Controllable frame rate and bandwidth VBR/ABR/MBR H.264/H.265		
<b>2.10</b>	<b>Image settings</b>			
2.10.1		Compression, color, brightness, sharpness, contrast, local contrast, white balance, day/night threshold, exposure mode, exposure zones, defogging, compression		
2.10.2	WDR	Up to 120 dB depending on scene		
2.10.3		Privacy masks, motion-adaptive exposure Scene profiles: forensic, Traffic overview		
<b>2.11</b>	<b>Network Security</b>			
2.11.1		Password protection, IP address filtering		
2.11.2		HTTPS encryption, IEEE 802.1x(EAP-TLS)		
2.11.3		Network Access Control		
2.11.4		User access log.		
<b>2.12</b>	<b>Supported protocols</b>			
2.12.1		IPV4 and IPV6 TCP/IP, HTTP, DHCP, DNS, DDNS, RTP, RTSP, SMTP, NTP, SNMP v1/v2/ v3, HTTPS, FTP, IGMP., Layer 4 - TCP and UDP. SSH		

<b>2.13</b>	<b>Application Programming Interface</b>			
2.13.1		Open API for software integration (bidder to provide written evidence)		
<b>2.14</b>	<b>Onscreen controls</b>			
<b>2.14.1</b>		Day/nights shift Wide dynamic range Video streaming indicator IR illumination		
<b>2.15</b>	<b>Included Analytics from day one</b>			
2.15.1		Video Motion Detection		
2.15.2	Object classes	humans, vehicles		
2.15.3	Trigger conditions	line crossing, object in area Up to 10 scenarios		
2.15.4		Polygon include/exclude areas		
2.15.5		Perspective configuration		
2.15.6		ONVIF Motion Alarm event		
<b>2.16</b>	<b>Event triggers</b>			
2.16.1	Analytics Detectors:	live stream accessed, video motion detection, audio detection, day/night mode, shock detection, tampering		
2.16.2	Hardware:	network, temperature Input Signal: digital input port, manual trigger, virtual inputs Storage: disruption, recording System: system ready Time: recurrence, use schedule		
<b>2.17</b>	<b>Event actions</b>			
2.17.1		Record video: network share Upload of images or video clips: FTP, SFTP, HTTP, HTTPS, network share and email Pre- and post-alarm video or image buffering for recording or upload Notification: email, HTTP, HTTPS, TCP and SNMP trap		
<b>2.18</b>	<b>Casing</b>			
2.18.1		IP66/IP67 and IK10-rated casing Polycarbonate blend and aluminum		
<b>2.19</b>	<b>Power</b>			
2.19.1		PoE - IEEE 802.3af/802.3at Type 1 Class 3		
<b>2.20</b>	<b>Connector</b>			
2.20.1		Shielded RJ45 10BASE-T/100BASE-TX/1000BASE-T		

		3.5 mm mic/line in Terminal block for 1 supervised alarm input and 1 output (12 V DC output, max. load 25 mA)		
<b>2.21</b>	<b>IR illumination</b>			
2.21.1		Optimized IR with power-efficient, long-life 850 nm IR LEDs Range of reach 40 m or more depending on the scene		
2.21.2		The camera shall be equipped with built-in IR LEDs with automatic seamless adapting angle of illumination and intensity.		
<b>2.22</b>	<b>Storage</b>			
2.22.1		Support for microSD/ microSDHC /microSDXC card of 128GB		
2.22.2		Support for SD card encryption		
2.22.3		Support for recording to network-attached storage (NAS)		
<b>2.23</b>	<b>Operating conditions</b>			
2.23.1	Temperature	-40°C to 60°		
2.23.2	Humidity	10–100% RH (condensing)		
2.23.3		Corrosion resistance standard		
<b>2.24</b>	<b>Approvals</b>			
2.24.1		EMC (Attached Vendor Certificate)		
2.24.2		Environment (Attached Vendor Certificate)		
2.24.3		Safety (Attached Vendor Certificate)		
2.24.4		Network (Attached Vendor Certificate)		
<b>2.25</b>	<b>Certificate/Compliance s</b>			
2.25.1		Shall have FCC, CE and UL certificates		
2.25.2		Prevent any OEM manufacturer to incorporate in their firmware, a method for gaining access to any device globally.		
<b>2.26</b>	<b>MTBF</b>			
2.26.1		> 40,000 Hr (Attached Vendor Certificate)		
<b>2.27</b>	<b>Vendor Certification</b>			
2.27.1		Supplier shall have at least 1 vendor certified engineers in permanent carder. Please provide the certification copies		

<b>2.28</b>	<b>Manufacturer Authorization Letter (MAL)</b>			
2.28.1		MAL shall be submitted		
<b>2.29</b>	<b>Warranty</b>			
2.29.1		shall have 3 years Comprehensive warranty and the same shall be submitted on manufacturers Letter head (Comprehensive Warranty)		

### 3 - Indoor Dome Camera

	Item Description	Requirement	Compliance (yes/no)	Remarks / deviation
<b>3</b>	<b>Product Data</b>			
<b>3.1</b>	<b>Item Type</b>	<b>Indoor Dome Camera</b>		
3.1.1	Brand	(Specify)		
3.1.2	Model	(Specify)		
3.1.3	Country of origin	(Specify)		
3.1.4	Country of manufacture	(Specify)		
<b>3.2</b>	<b>Image sensor</b>			
3.2.1		1/3" progressive scan RGB CMOS		
<b>3.3</b>	<b>Lens</b>			
3.3.1		2.8/4/6 mm, F2.0 (Focal length should be selected according to the FOV requirement by SL Army)		
3.3.2	Horizontal field of view	100° or better		
3.3.3	Vertical field of view	50° or better		
3.3.4		Fixed iris, Fixed focus, IR corrected		
3.3.5	Day and night	Automatically removable infrared-cut filter		
<b>3.4</b>	<b>Minimum illumination</b>			
3.4.1	Color	0.2 lux at F/2.0		
3.4.2	B/W	0.05 lux at F/2.0		
3.4.3		0 lux with IR illumination on		
<b>3.5</b>	<b>Video compression</b>			
3.5.1		H.264 (MPEG-4 Part 10/AVC)		
3.5.2		H.265 (MPEG-H Part 2/HEVC)		
3.5.3		Motion JPEG (M-JPEG)		
<b>3.6</b>	<b>Resolution</b>			
3.6.1		4 Megapixels - 2560 x 1440 pixels (in accordance with SMPTE standard)		
<b>3.7</b>	<b>Frame rate</b>			

3.7.1		Up to 30 fps with power line frequency 50 Hz		
<b>3.8</b>	<b>Video streaming</b>			
3.8.1		Multiple, individually configurable streams in H.264, H.265 and Motion JPEG		
3.8.2		Controllable frame rate and bandwidth		
3.8.3		Technology to reduce bandwidth (Describe)		
3.8.4		VBR/ABR/MBRH.264/H.265		
<b>3.9</b>	<b>Image settings</b>			
3.9.1		Compression, color saturation, brightness, sharpness, contrast, local contrast, white balance, day/night threshold, tone mapping, exposure control (including automatic gain control), exposure zones		
3.9.2		WDR		
3.9.3		Defogging, dynamic text and image overlay, Privacy masks		
<b>3.10</b>	<b>Audio</b>			
3.10.1		One way audio connectivity		
<b>3.11</b>	<b>Network Security</b>			
3.11.1		Password protection, IP address filtering		
3.11.2		HTTPS encryption, IEEE 802.1x(EAP-TLS)		
3.11.3		Network Access Control		
3.11.4		User access log, Centralized Certificate Management		
<b>3.12</b>	<b>Supported protocols</b>			
3.12.1		IPV4 and IPV6 TCP/IP, HTTP, DHCP, DNS, DDNS, RTP, RTSP, SMTP, NTP, SNMP v1/v2/ v3, HTTPS, FTP, IGMP., Layer 4 - TCP and UDP. SSH		
<b>3.13</b>	<b>Application Programming Interface</b>			
3.13.1		Open API for software integration (bidder to provide written evidence)		
<b>3.14</b>	<b>Onscreen controls</b>			
<b>3.14.1</b>		Day/nights shift Wide dynamic range Video streaming indicator		



		IR illumination		
<b>3.15</b>	<b>Included Analytics from day one</b>			
3.15.1		Video Motion Detection		
3.15.2	Supported Analytics	Loitering		
<b>3.16</b>	<b>Event actions</b>			
3.16.1		Record video: network share Upload of images or video clips: FTP, SFTP, HTTP, HTTPS, network share, and email pre-and post-alarm video or image buffering for recording or upload Notification: email, HTTP, HTTPS, TCP, and SNMP trap Overlay text		
<b>3.17</b>	<b>Casing</b>			
3.17.1		IP66 and IK10 Encapsulated electronics and captive screws (Torx 10)		
<b>3.18</b>	<b>Power</b>			
3.18.1		PoE - IEEE 802.3af/802.3at Type 1 Class 3		
<b>3.19</b>	<b>Connector</b>			
3.19.1		RJ45 10BASE-T/100BASE-TX PoE Audio and I/O connectivity		
<b>3.20</b>	<b>IR illumination</b>			
3.20.1		Power-efficient, long-life 850 nm IR LED. Range of reach 20m or more depending on the scene		
3.20.2		The camera shall be equipped with built-in IR LEDs with automatic seamless adapting angle of illumination and intensity.		
<b>3.21</b>	<b>Storage</b>			
3.21.1		Recording to network-attached storage (NAS)		
<b>3.22</b>	<b>Operating conditions</b>			
3.22.1	Temperature	-30 °C to 50 °C		
3.22.2	Humidity	10–100% RH (condensing)		
3.22.3		Corrosion resistance standard		
<b>3.23</b>	<b>Approvals</b>			
3.23.1		EMC (Attached Vendor Certificate)		
3.23.2		Environment (Attached Vendor Certificate)		
3.23.3		Safety (Attached Vendor Certificate)		
3.23.4		Network (Attached Vendor Certificate)		

<b>3.24</b>	<b>Certificate/Compliance s</b>			
3.24.1		Shall have FCC, CE and UL certificates		
3.24.2		Prevent any OEM manufacturer from incorporating in their firmware a method for gaining access to any device globally.		
<b>3.25</b>	<b>MTBF</b>			
3.25.1		> 40,000 Hr (Attached Vendor Certificate)		
<b>3.26</b>	<b>Vendor Certification</b>			
3.26.1		Supplier shall have at least 1 vendor certified engineers in permanent carder. Please provide the certification copies		
<b>3.27</b>	<b>Manufacturer Authorization Letter (MAL)</b>			
3.27.1		MAL shall be submitted		
<b>3.28</b>	<b>Warranty</b>			
3.28.1		shall have 3 years Comprehensive warranty and the same shall be submitted on manufacturers Letter head (Comprehensive Warranty)		

#### 4 - Outdoor PTZ Camera

	<b>Item Description</b>	<b>Requirement</b>	<b>Compliance (yes/no)</b>	<b>Remarks / deviation</b>
<b>4</b>	<b>Product Data</b>			
<b>4.1</b>	<b>Item Type</b>	<b>Outdoor PTZ Camera</b>		
4.1.1	Brand	(Specify)		
4.1.2	Model	(Specify)		
4.1.3	Country of origin	(Specify)		
4.1.4	Country of manufacture	(Specify)		
<b>4.2</b>	<b>Image sensor</b>			
4.2.1		1/3" progressive scan RGB CMOS		
<b>4.3</b>	<b>Lens</b>			
4.3.1		Varifocal, 4.0-135 mm, F1.4 - 4.0		
4.3.2		Autofocus, auto-iris		
4.3.3	Day and night	Automatically removable infrared-cut filter		
<b>4.4</b>	<b>Minimum illumination</b>			

4.4.1	Color	0.09 lux at F/2.0		
4.4.2	B/W	0.008 lux at F/2.0		
4.4.3		0 lux with IR illumination on		
4.4.4	Shutter speed	1/60000 s to 2 s or better		
<b>4.5</b>	<b>Pan/Tilt/Zoom</b>			
4.5.1	Pan	360° 0.05°–700°/s		
4.5.2	Tilt	+20 to -90°, 0.05°–500°/s		
4.5.3	Zoom:	32x optical, 12x digital, total 384x zoom		
4.5.4		Nadir flip, 256 preset positions, tour recording, guard tour, control queue, on-screen directional indicator, orientation aid PTZ, set new pan 0°, adjustable zoom speed, speed dry		
<b>4.6</b>	<b>Video compression</b>			
4.6.1		H.264 (MPEG-4 Part 10/AVC)		
4.6.2		H.265 (MPEG-H Part 2/HEVC)		
4.6.3		Motion JPEG (M-JPEG)		
<b>4.7</b>	<b>Resolution</b>			
4.7.1		4 Megapixels - 2560 x 1440 pixels (in accordance with SMPTE standard)		
<b>4.8</b>	<b>Frame rate</b>			
4.8.1		Up to 50 fps with power line frequency 50 Hz		
<b>4.9</b>	<b>Video streaming</b>			
4.9.1		Multiple, individually configurable streams in H.264, H.265 and Motion JPEG		
4.9.2		Controllable frame rate and bandwidth		
4.9.3		Technology to reduce bandwidth (Describe)		
4.9.4		VBR/ABR/MBRH.264/H.265		
<b>4.10</b>	<b>Image settings</b>			
4.10.1		Compression, saturation, brightness, sharpness, contrast, local contrast, white balance, exposure control, exposure zones		
4.10.2		WDR		
4.10.3		Defogging, day/night shift level, tone mapping, fine tuning low-light behavior.		
4.10.4		Rotation: 0°, 180°		
4.10.5		Text and image overlay, image freeze on PTZ		

4.10.6		Electronic Image Stabilization (EIS)		
4.10.7		Scene profiles		
4.10.8		32 individual polygon privacy masks		
<b>4.11</b>	<b>Network Security</b>			
4.11.1		Password protection, IP address filtering		
4.11.2		HTTPS encryption, IEEE 802.1x		
4.11.3		Network Access Control		
4.11.4		User access log, Centralized Certificate Management		
4.11.5		Protection of cryptographic keys with FIPS 140-2 certified TPM 2.0 module		
<b>4.12</b>	<b>Supported protocols</b>			
4.12.1		IPV4 and IPV6 TCP/IP, HTTP, DHCP, DNS, DDNS, RTP, RTSP, SMTP, NTP, SNMP v1/v2/ v3, HTTPS, FTP, IGMP., Layer 4 - TCP and UDP. SSH		
<b>4.13</b>	<b>Application Programming Interface</b>			
4.13.1		Open API for software integration (bidder to provide written evidence)		
<b>4.14</b>	<b>Included Analytics from day one</b>			
4.14.1		Object classes: humans, vehicles Trigger conditions: line crossing, object in area Up to 10 scenarios Perspective configuration ONVIF Motion Alarm event		
4.14.2		Fence Protection, Motion Detection, Loitering, auto tracking		
<b>4.15</b>	<b>Event conditions</b>			
<b>4.15.1</b>		Analytics Device status: above operating temperature, above or below operating temperature, below operating temperature, fan failure, IP address removed, network lost, new IP address, shock detected, storage failure, system ready, within operating temperature Edge storage: recording ongoing, storage disruption I/O: manual trigger, virtual input PTZ: PTZ malfunctioning, PTZ movement, PTZ preset position reached, PTZ ready, PTZ autotracking		

		Scheduled and recurring: scheduled event Video: live stream open, day/night mode		
<b>4.16</b>	<b>Event actions</b>			
4.16.1		Record video: SD card and network share Pre- and post-alarm video or image buffering for recording or upload Upload of images or video clips: FTP, SFTP, HTTP, HTTPS, network share, and email Notification: email, HTTP, HTTPS, TCP, and SNMP trap PTZ: PTZ preset, guard tour Overlay text, day/night mode WDR mode IR illumination		
<b>4.17</b>	<b>Casing</b>			
4.17.1		IK10 housing and mounting, IP66		
<b>4.18</b>	<b>Sustainability</b>			
4.18.1		PVC free		
<b>4.19</b>	<b>Memory</b>			
4.19.1		1024 MB RAM, 512 MB Flash		
<b>4.20</b>	<b>Power</b>			
4.20.1	High PoE midspan 1-port:	100–240 V AC, max 74 W		
4.20.2	Camera consumption:	typical 13.5 W (no IR), max 51 W		
<b>4.21</b>	<b>Connector</b>			
4.21.1		RJ45 10BASE-T/100BASE-TX PoE RJ45 Push-pull Connector (IP66)		
<b>4.22</b>	<b>IR illumination</b>			
4.22.1		Range of reach 250 m or more depending on the scene		
4.22.2		The camera shall be equipped with built-in IR LEDs with automatic seamless adapting angle of illumination and intensity		
<b>4.23</b>	<b>Storage</b>			
4.23.1		Recording to network-attached storage (NAS)		
<b>4.24</b>	<b>Operating conditions</b>			
4.24.1	Temperature	-50 °C to 50 °C		
4.24.2	Humidity	10–100% RH (condensing)		
4.24.3		Corrosion resistance standard		
<b>4.25</b>	<b>Approvals</b>			
4.25.1		EMC (Attached Vendor Certificate)		
4.25.2		Environment (Attached Vendor Certificate)		
4.25.3		Safety (Attached Vendor Certificate)		

4.25.4		Network (Attached Vendor Certificate)		
<b>4.26</b>	<b>Certificate/Compliance</b>			
4.26.1		Shall have FCC, CE and UL certificates		
4.26.2		Prevent any OEM manufacturer to incorporate in their firmware, a method for gaining access to any device globally.		
<b>4.27</b>	<b>MTBF</b>			
4.27.1		> 40,000 Hr (Attached Vendor Certificate)		
<b>4.28</b>	<b>Manufacturer Authorization Letter (MAL)</b>			
4.28.1		MAL shall be submitted		
<b>4.29</b>	<b>Warranty</b>			
4.29.1		shall have 3 years Comprehensive warranty and the same shall be submitted on manufacturers Letter head (Comprehensive Warranty)		

## 5 - Outdoor ANPR Camera

	Item Description	Requirement	Compliance (yes/no)	Remarks/ deviation
<b>5</b>	<b>Product Data</b>			
<b>5.1</b>	<b>Item Type</b>	<b>Outdoor ANPR Camera</b>		
5.1.2	Brand	(Specify)		
5.1.3	Model	(Specify)		
5.1.4	Country of origin	(Specify)		
5.1.5	Country of manufacture	(Specify)		
<b>5.2</b>	<b>Image sensor</b>			
5.2.1		1/3" progressive scan RGB CMOS		
<b>5.3</b>	<b>Lens</b>			
5.3.1		Varifocal, 3–9 mm, F1.6		
5.3.2	Horizontal field of view	114°–37°		
5.3.3	Vertical field of view	58°–21°		
5.3.4		Varifocal, Remote focus and zoom, P-Iris control, IR corrected		
5.3.5	Day and night	Automatically removable infrared-cut filter		

<b>5.4</b>	<b>Minimum illumination</b>			
5.4.1	Color	0.07 lux at F/2.0		
5.4.2	B/W	0.01 lux at F/2.0		
5.4.3		0 lux with IR illumination on		
<b>5.5</b>	<b>Video compression</b>			
5.5.1		H.264 (MPEG-4 Part 10/AVC)		
5.5.2		H.265 (MPEG-H Part 2/HEVC)		
5.5.3		Motion JPEG (M-JPEG)		
<b>5.6</b>	<b>Bandwidth compensation and optimization</b>			
5.6.1		Must have In-house Processor for Bandwidth Compensation & Optimization		
<b>5.7</b>	<b>Resolution</b>			
5.7.1		4 Megapixels - 2560 x 1440 pixels (in accordance with SMPTE standard)		
<b>5.8</b>	<b>Frame rate</b>			
5.8.1		Up to 30 fps with power line frequency 50 Hz		
<b>5.9</b>	<b>Video streaming</b>			
5.9.1		Multiple, individually configurable streams in H.264, H.265 and Motion JPEG		
5.9.2		Controllable frame rate and bandwidth		
5.9.3		VBR/ABR/MBR H.264/H.265		
<b>5.10</b>	<b>Image settings</b>			
5.10.1		Saturation, contrast, brightness, sharpness		
5.10.2		WDR		
5.10.3		white balance, day/night threshold, exposure mode, exposure zones, defogging, compression		
5.10.4		Dynamic text and image overlay		
5.10.5		Privacy masks, motion-adaptive exposure Scene profiles: forensic, Traffic overview		
<b>5.11</b>	<b>Network Security</b>			
5.11.1		Password protection, IP address filtering		
5.11.2		HTTPS encryption IEEE 802.1x		
5.11.3		Network Access Control		

5.11.4		User access log, Centralized Certificate Management		
5.11.6		Brute force delay protection		
<b>5.12</b>	<b>Supported protocols</b>			
5.12.1		IPV4 and IPV6 TCP/IP, HTTP, DHCP, DNS, DDNS, RTP, RTSP, SMTP, NTP, SNMP v1/v2/ v3, HTTPS, FTP, IGMP., Layer 4 - TCP and UDP. SSH		
<b>5.13</b>	<b>Application Programming Interface</b>			
5.13.1		Open API for software integration (bidder to provide written evidence)		
<b>5.14</b>	<b>Onscreen controls</b>			
5.14.1		Day/night shift Defogging Wide dynamic range Video streaming indicator IR illumination		
<b>5.15</b>	<b>Included Analytics from day one</b>			
5.15.1		Video Motion Detection, tampering alarm, shock detection, Perimeter protection		
5.15.2		Object classes: humans, vehicles Trigger conditions: line crossing, object in area Up to 10 scenarios Metadata visualized with color-coded bounding boxes Polygon include/exclude areas Perspective configuration ONVIF Motion Alarm event		
<b>5.16</b>	<b>Event conditions</b>			
5.16.1	Analytics Detectors:	live stream accessed, video motion detection, audio detection, day/night mode, shock detection, tampering		
5.16.2	Hardware:	network, temperature		
5.16.3	Input Signal:	digital input port, manual trigger, virtual inputs		
5.16.4	Storage:	disruption, recording		
<b>5.17</b>	<b>Event actions</b>			
5.17.1		Record video: SD card and network share Pre- and post-alarm video or image buffering for recording or upload Upload of images or video clips: FTP, SFTP, HTTP, HTTPS, network share, and email Notification:		



		email, HTTP, HTTPS, TCP, and SNMP trap PTZ: PTZ preset, guard tour Overlay text, day/night mode WDR mode IR illumination		
<b>5.18</b>	<b>Casing</b>			
5.18.1		IP66/IP67 or NEMA 4X-, and IK10-rated casing		
<b>5.19</b>	<b>Sustainability</b>			
5.19.1		PVC free		
<b>5.20</b>	<b>Memory</b>			
5.20.1		1024 MB RAM, 512 MB Flash		
<b>5.21</b>	<b>Power</b>			
5.21.1		PoE IEEE 802.3af/802.3at Type 1 Class 3 Typical: 7.7 W, max 12.95 W		
<b>5.22</b>	<b>Connector</b>			
5.22.1		Shielded RJ45 10BASE-T/100BASE-TX/1000BASE-T 3.5 mm mic/line in Terminal block for 1 supervised alarm input and 1 output (12 V DC output, max. load 25 mA)		
<b>5.23</b>	<b>IR illumination</b>			
5.23.1		Optimized IR with power-efficient, long-life 850 nm IR LEDs Range of reach 40 m or more depending on the scene		
5.23.2		The camera shall be equipped with built-in IR LEDs with automatic seamless adapting angle of illumination and intensity.		
<b>5.24</b>	<b>Storage</b>			
5.24.1		Recording to network-attached storage (NAS)		
<b>5.25</b>	<b>Operating conditions</b>			
5.25.1	Temperature	-40 °C to 60 °C		
5.25.2	Humidity	10–100% RH (condensing)		
5.25.3		Corrosion resistance standard		
<b>5.26</b>	<b>Approvals</b>			
5.26.1		EMC (Attached Vendor Certificate)		
5.26.2		Environment (Attached Vendor Certificate)		
5.26.3		Safety (Attached Vendor Certificate)		
5.26.4		Network (Attached Vendor Certificate)		
<b>5.27</b>	<b>Certificate/Compliance s</b>			

5.27.1		Shall have FCC, CE and UL certificates		
5.27.2		Prevent any OEM manufacturer to incorporate in their firmware, a method for gaining access to any device globally.		
<b>5.28</b>	<b>MTBF</b>			
5.28.1		> 40,000 Hr (Attached Vendor Certificate)		
<b>5.29</b>	<b>Manufacturer Authorization Letter (MAL)</b>			
5.29.1		MAL shall be submitted		
<b>5.30</b>	<b>Warranty</b>			
5.30.1		shall have 3 years Comprehensive warranty and the same shall be submitted on manufacturers Letter head (Comprehensive Warranty)		

## 6 - Industrial Network Switches & Accessories

	Item Description	Requirement	Compliance (yes/no)	Remarks/ deviation
<b>6</b>	<b>Product Data</b>			
6.1	Item Type	Industrial Network Switches & Accessories		
6.1.1	Brand			
6.1.2	Model			
6.1.3	Country of origin			
6.1.4	Country of manufacture			
<b>6.2</b>	<b>Port Density &amp; Redundancy</b>			
6.2.1	Gigabit Port	Minimum 4 × 10/100/1000 Mbps RJ45 ports		
6.2.2	SFP Ports (with transceivers)	Minimum 4 × 1G SFP ports. Bidder must supply SFP transceivers for single-mode and multi-mode fiber as required.		
	<b>Note: Some camera locations are beyond the PoE limit of UTP cables. Fiber uplinks are required for these long-distance connections.</b>			
<b>6.3</b>	<b>PoE Standard</b>			
6.3.1	HPoE Port	At least 2 ports must support IEEE 802.3bt (High Power PoE)		
6.3.2	IEEE 802.3af/at Support	All ports must support simultaneous PoE under IEEE 802.3af/at or better		
<b>6.4</b>	<b>Stacking Option</b>			

6.4.1		Minimum 2 units in a stack/Virtual stack or better		
<b>6.5</b>	<b>RAM</b>			
6.5.1		Minimum 1GB		
<b>6.6</b>	<b>Switching Capacity</b>			
6.6.1		24 Gb or better		
<b>6.7</b>	<b>Quality of Service</b>			
6.7.1		Support for Egress rate limiting, eight egress queues per port, Voice VLAN, DSCP for IP-based QoS, Differentiated services architecture, IEEE 802.1p Class of Service with strict and weighted round Robin scheduling.		
<b>6.8</b>	<b>Protocol Support</b>			
6.8.1		IGMP Snooping V1, V2, V3, ITU-T G.8032, IEEE 802.1s, IEEE 802.3ad/802.1AX Link Aggregation Control Protocol (LACP), Ipv4/Ipv6, DHCP Option 82, BPDU, STP Root Guard		
<b>6.9</b>	<b>Management</b>			
6.9.1		SNMP V1, V2, V3, Web GUI, CLI, USB or equivalent memory card, IP v6 management feature on open standards, IEEE802.1ag, TDM or equivalent standards		
<b>6.10</b>	<b>Security</b>			
6.10.1		IEEE802.1x based port authentication,		
<b>6.11</b>	<b>Resiliency</b>			
6.11.1		IEEE802.1q, IEEE802.1d, IEEE802.1s, IEEE802.1w, ring resilience/ring protection		
<b>6.12</b>	<b>Enclosure Rating</b>			
6.12.1		IP 30 or equivalent Industrial Grade Rating		
<b>6.13</b>	<b>Operating Temperature</b>			
6.13.1		-40°C to 75°C		
<b>6.14</b>	<b>Safety Certifications</b>			
6.14.1		UL 508, UL 61010 EN 50021, EN 55032 ISA12.12.01, CSA22.2/213 IEC 60255-21-2, IEC 60255-21-1 RoHS standards NEMA –TS2		
<b>6.15</b>	<b>Warranty</b>			
6.15.1		3 years Comprehensive warranty		
<b>6.16</b>	<b>Manufacturer Authorization Letters (MAL)</b>			
6.16.1		Manufacturer Authorization Letters shall be submitted		
<b>6.17</b>	<b>General Conditions</b>			

6.17.1	Uniform Brand Requirement	Entire switching infrastructure must be of the same brand		
6.17.2	Gartner Recognition	Switch OEM must be listed in the <i>Leaders quadrant</i> of the <b>Gartner Magic Quadrant for Enterprise Wired and Wireless LAN Infrastructure</b> for the past 3 consecutive years		

## 7 - Storage Server/ Network Video Recorder

	Item Description	Requirement	Compliance (yes/no)	Remarks/ deviation
<b>7</b>	<b>Product Data</b>			
7.1	Item Type	Storage Server/ Network Video Recorder		
7.1.1	Brand			
7.1.2	Model			
7.1.3	Country of origin			
7.1.4	Country of manufacture			
<b>7.2</b>	<b>Network Interface</b>			
7.2.1		Dual Gigabit Ethernet		
<b>7.3</b>	<b>Data throughput</b>			
7.3.1	Recording Throughput	Up to 920 Mbit/sec (or higher)		
7.3.2	Scalability	Unlimited scalability with additional storage array units		
<b>7.4</b>	<b>System</b>			
7.4.1	Operating System	Embedded Linux/Windows on solid state memory		
7.4.2	System integration	SDK & open network protocol support for 3rd-party VMS		
7.4.3	Configuration	Over LAN via client application		
7.4.4	Management	Over LAN via VMS client or 3rd-party VMS client		
<b>7.5</b>	<b>Capacity</b>			
7.5.1	Required capacity	30-day full recording of 4MP @ 25fps (vendor must submit bandwidth and storage calculation)		
7.5.2	Redundancy	RAID 5 or RAID 6 (hardware-based preferred)		
7.5.3	Hot-swappable Drives	Minimum 8×3.5" bays, field replaceable		
7.5.4	RAID Controller	Hardware RAID with cache preferred		
<b>7.6</b>	<b>Number of Channels</b>			
7.6.1		64 (min), ONVIF S/T compliant		
<b>7.7</b>	<b>Supported Codecs</b>			

7.7.1		H.264, H.265, MJPEG		
7.8	Recording Modes			
7.8.1		Continuous, Event, Scheduled		
7.9	ONVIF Support			
7.9.1		Yes, Profile S/T for VMS/NVR integration		
7.10	VMS Client			
7.10.1	Client Type	Windows/Linux-based software GUI or browser client		
7.10.2	Installation	To be installed on operator workstations at local site and HQ		
7.10.3	User Access	Must support multi-user login with role-based access and permission control		
7.10.4	Live View & Playback	Must support live viewing and playback of multiple cameras from multiple sites, including timeline scrubbing, search, and video export features		
7.10.5	Analytics Access	Must support real-time and recorded event viewing including loitering, intrusion, motion detection, and ANPR		
7.10.6	Storage Access	Must allow full access to live and recorded footage from each site's NVR/storage server through the VMS		
7.10.7	Capacity Support	Must support managing video streams from all site cameras with 30-day recording retention at 4MP, 25fps. The client must handle multiple concurrent streams with minimal latency		
7.11	Mobile & Remote Access			
7.11.1	Mobile Client Support	Official mobile client application must be available for iOS and Android. It should allow live view, playback, PTZ control, alert viewing, and multi-site switching via secure login.		
7.11.2	Secure Remote Access Technology	Entry-Level Firewall or cloud-assisted secure remote access (encrypted channel)		
		System must support cloud-assisted secure remote access for live viewing and playback without requiring public IPs or manual port forwarding. Remote access must work via outbound connection from the device to a secure cloud relay, allowing clients to connect remotely using authenticated and encrypted channels. Configuration must support remote access via unique device identifiers, login credentials, or QR code pairing for site registration.		
7.12	Failover NVR	(Failover NVR must be provided only at the Mutturajawela Terminal)		

7.12.1		Automatic switch-over within 30 seconds		
7.12.2		Full restoration of recording schedule and camera mappings		
7.12.3		Storage of video for the downtime duration		
7.12.4		Event logging and alert notification upon failover		
Note: Failover NVR is not required for the remaining branches. Bidder shall design and quote accordingly.				
7.13	Warranty			
7.13.1		Minimum 3 years comprehensive warranty for all hardware (NVRs, clients, accessories). The warranty must be backed by OEM.		

**8 - Joystick Controller**

	Item Description	Requirement	Compliance (yes/no)	Remarks/ deviation
<b>8</b>	<b>Product Data</b>			
8.1	Item Type	Joystick Controller		
8.1.1	Brand			
8.1.2	Model			
8.1.3	Country of origin			
8.1.4	Country of manufacture			
<b>8.2</b>	<b>Power</b>			
8.2.1		Via USB interface		
<b>8.3</b>	<b>Casing</b>			
8.3.1		Polycarbonate ABS		
<b>8.4</b>	<b>Operating Conditions</b>			
8.4.1		0 °C to +60 °C (32 °F to 140 °F); Humidity: 10–85% RH (non-condensing)		
<b>8.5</b>	<b>Approvals</b>			
8.5.1		EN 55032 Class B, EN 55024, EN 61000-6-2, FCC Part 15 Subpart B Class B, RCM AS/NZS CISPR 32 Class B, ICES-003 Class B, VCCI Class B, EN/IEC/UL 62368–1, KC KN-32 Class B KN 35, EN 60529 IP20		
<b>8.6</b>	<b>Functionality – Joystick</b>			
8.6.1		Hall-effect joystick with three axis: X/Y for pan/tilt, Z for zoom. Deflection by square		

		delimiter ( $\pm 15^\circ$ for XY, $\pm 25^\circ$ for Z)		
<b>8.7</b>	<b>Functionality – Hotkeys</b>			
8.7.1		6 hotkeys with customizable functions		
<b>8.8</b>	<b>Functionality – Keypad</b>			
8.8.1		Keys with customizable function		
<b>8.9</b>	<b>Functionality – Jog Dial</b>			
8.9.1		Shuttle operating angle $160^\circ$ ; 6 hotkeys with customizable function		
<b>8.10</b>	<b>Manufacturer Authorization Letter (MAL)</b>			
8.10.1		MAL shall be submitted		
<b>8.11</b>	<b>Warranty</b>			
8.11.1		Shall have 3 years. comprehensive warranty. The same shall be submitted on manufacturer's letterhead.		

**DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA**

**MINISTRY OF ENERGY**

**CEYLON PETROLEUM STORAGE TERMINALS LIMITED**

**DESIGN, SUPPLY, INSTALLATION, TESTING AND  
COMMISSIONING OF CCTV SURVEILLANCE SYSTEM FOR  
MUTHURAJAWELA TERMINAL AND 10 BULK DEPOTS  
KPR/45/2025**

**BIDDING DOCUMENT  
(Volume 2)**

**Employer:**  
Chairman  
Ceylon petroleum storage terminals limited  
Oil installation  
Kolonnawa

**Engineer:**  
Engineering Manager  
Ceylon petroleum storage terminals Limited  
Oil installation  
Kolonnawa

**May 2025**



## CONTENTS

	Page No
<b>VOLUME- 02</b>	
Section VII (b),-Form of Design/Technical proposal	3- 4
Section VIII (b),-Schedules related to Design & Technical (Schedule B1to B7)	5 - 12
Section IX,-Drawing	13 - 14

**Section VII (b)**  
**Form of Design and Technical Proposal**

## FORM OF DESIGN / TECHNICAL PROPOSAL

**NAME OF CONTRACT: DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF CCTV SURVEILLANCE SYSTEM FOR MUTHURAJAWELA TERMINAL AND 10 BULK DEPOTS. -KPR/45/2025**

**To:** Ceylon Petroleum Storage Terminals Limited, Oil Installation, Kolonnawa, Wellampitiya.

We have examined the Conditions of Contract, Employer's Requirements, Schedules, and Addenda Nos. .... for the execution of the above-named Works.

We accordingly offer to design, execute and complete the said Works and remedy any defects, fit for purpose in conformity with these Bidding Documents and the enclosed proposal. We are hereby submitting our Bid, which includes this Design/Technical Proposal, Preliminary Information and a Financial Proposal sealed in separate envelopes.

We understand that you are not bound to accept the lowest offer or any other bid you may receive.

.....  
Signature of the persons duly authorized to sign documents for and on behalf of

Address: .....

.....

Contact No: ..... email .....

Date: .....

Company Seal:

**Section VIII (b)**  
**Schedules-related to Design and Technical Proposal (“B” Schedules)**

**Schedule B1 - Comments and Suggestions on Employer's Requirements**

(Enclose this schedule in envelope marked, "Envelope 2-Design and Technical Proposal")

*Bidders may include observations  
made on Employer's Requirements  
and any suggestions for  
consideration*

**Schedule B2 - Contractor’s Proposal**

(Enclose this schedule in envelope marked, "Envelope 2-Design and Technical Proposal")

Sheet 1 of .....

*This schedule should be complete considering all the requirements given in the Employer's requirements, including design criteria, specifications and technical data (use additional pages if necessary)*

<b>Schedule B3 - Team Composition and Task Assignment</b>		
(Enclose this schedule in envelope marked "Envelope 2 - Design and Technical Proposal)		
<b>A. Design Staff</b>		
<b>Name</b>	<b>Position</b>	<b>Task</b>
<b>B. Construction Management</b>		
<b>Name</b>	<b>Position</b>	<b>Task</b>

<p align="center"><b>Schedule B4 - Curriculum Vitae of Key Staff</b>                      (To be submitted for each of key staff)                      (Enclose Curriculum Vitae in envelope marked, "Envelope 2 - Design and Technical Proposal")</p>	
<b>Proposed Position :</b>	
<b>Name of Staff :</b>	
<b>Profession :</b>	
<b>Date of Birth</b>	
<b>Membership in Professional Societies :</b>	
<b>Key Qualifications :</b>	<p>Give an outline of staff member's experience most pertinent to tasks or assignment. Describe degree of responsibility held by staff member on relevant previous assignments and give dates and locations. Use about half a page.</p>
<b>Education :</b>	
<b>Employment Record :</b>	
<b>Certification :</b>	<p>I, the undersigned, certify that to the best of my knowledge and belief, the information is correct.</p>
<b>Signature of staff Member</b>	<b>Date</b>



Volume 2 Section VIII (b),- Schedules-related to Design and Technical Proposal (“B” Schedules)

<b>Schedule B5 - Time Schedule for Key Staff</b> (Enclose this schedule in envelope marked, "Envelope 2 - Design and Technical Proposal")																		
			Months (in the Form of a Bar Chart)															
Name	Position	Activities	1	2	3	4	5	6										Number of Months

Volume 2 Section VIII (b),- Schedules-related to Design and Technical Proposal (“B” Schedules)

Full-time : .....

Part-time : .....

<b>Schedule B6 - Work Programme (Design Related Activities)</b> (Enclose in envelope marked, "Envelope 2 - Design and Technical Proposal")														
	(1st, 2nd etc. are months from the Start Date)													
Design Activity	1st	2nd	3rd	4th	5th	6th								

Volume 2 Section VIII (b),- Schedules-related to Design and Technical Proposal (“B” Schedules)

[illegible]

**Section IX  
Drawings**

DUPPLICATE

Drawing List

Drawing Title	Drawing Number

**DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA**  
**MINISTRY OF PETROLEUM RESOURCES DEVELOPMENT**  
**CEYLON PETROLEUM STORAGE TERMINALS LIMITED**

**DESIGN, SUPPLY, INSTALLATION, TESTING AND  
COMMISSIONING OF CCTV SURVEILLANCE SYSTEM FOR  
MUTHURAJAWELA TERMINAL AND 10 BULK DEPOTS**

**KPR/25/2025**

**BIDDING DOCUMENT  
(Volume 3)**

**Employer:**  
Chairman  
Ceylon petroleum storage terminals limited  
Oil installation  
Kolonnawa

**Engineer:**  
Engineering Manager  
Ceylon petroleum storage terminals Limited  
Oil installation  
Kolonnawa

**May 2025**

## CONTENTS

### **VOLUME- 03**

Section VII(C)-Form of price Proposal

3 - 5

Section VIII (.c)-Schedule Related to Price Proposal  
(Schedule C1to C5)

6 - 10

**Section VII ( c )**  
**Form of Price Proposal**

DUPPLICATE



## FORM OF PRICE PROPOSAL

**NAME OF CONTRACT: DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF CCTV SURVEILLANCE SYSTEM FOR MUTHURAJAWELA TERMINAL AND 10 BULK DEPOTS.- KPR/45/2025**

**To:** Ceylon Petroleum Storage Terminals Limited, Oil Installation, Kolonnawa, Wellampitiya.

We have examined the Conditions of Contract, Employer's Requirements, Schedules and Addenda Nos..... for the execution of the above-named Works. We accordingly offer to design, execute and complete the said Works and remedy any defects fit for the purposes, in conformity with the Bidding Documents and the enclosed Proposal, for the fixed lump sum of Sri Lankan Rupees..... or other such sums as may be determined in accordance with the terms and conditions of the Contract. The above amounts are in accordance with the Price Schedules herewith and are made part of this bid. We conform that our bid includes this Price Proposal, Design/Technical Proposal, and General Information sealed in separate envelopes.

We accept your suggestions for the appointment of the Adjudicator, \* as set out in Bidding Data.

We agree to abide by this Bid until **25.11.2025**, and it shall remain binding upon us and may be accepted at any time before that date.

We confirm that, we (including all members of a joint venture and subcontractors) are not associated, directly or indirectly, with the consultant or any other entity in preparation of the design, specifications, and other documents for the Contract.

If this offer is accepted, we will provide the specified Performance Security, commence the Works as soon as reasonably practicable after the Commencement Date, and complete the Works in accordance with the above-named documents within the Time for Completion. We will ensure that Works will be executed in conformity with the Contract.

Unless and until a formal Agreement is prepared and executed this Bid, together with your written acceptance thereof, shall constitute a binding Contract between us.

We understand that you are not bound to accept the lowest offer or any other bid you may receive.

.....  
Signature of the persons duly authorized to sign documents for and on behalf of

Address : .....  
.....

Contact No : ..... email: .....

Date : ..... Seal : : .....

**\* If the Bidder does not accept, this paragraph may be deleted and replaced with:**

We do not accept your suggestion for the appointment of the Adjudicator. We have included our suggestion in the Bid, but this suggestion is not a condition of this offer. If this suggestion is not acceptable to you, we propose that the Adjudicator be jointly appointed in accordance with sub-clause 35 of the Instructions of Bidders.

**Section VIII ( c)**  
**Schedule-related to the Price Proposal (“C” Schedules)**

<b>Schedule C1 – Price Schedule</b> <i>(enclose all price schedules in envelope marked, “ Envelope 3 – Financial Proposal”)</i> <div style="text-align: right;">Sheet 1 of .....</div>		
<b>Activity 1: Preliminaries</b>		
<b>Item No:</b>	<b>Sub-activity description</b>	<b>Amount</b> ..... <i>(Specify Currency)</i>
1.1	Guarantees, Securities and Insurances	
1.2	Contractor's facilities	
	<b>Any other Sub-activity (bidder to include)</b>	
1.A1		
1.A2		
1.A3		
1.A4		
<b>Total for Activity 1 carried to summary</b>		

<b>Schedule C1 – Price Schedule</b> <i>(enclose all price schedules in envelope marked, “Envelope 3 – Financial Proposal”)</i> <div style="text-align: right;">Sheet 2 of .....</div>		
<b>Activity 2: Design</b>		
<b>Item No:</b>	<b>Sub-activity description</b>	<b>Amount</b> ..... <i>(Specify Currency)</i>
2.1	Surveying and Sub Surface Investigation	
2.2	Design of CCTV Surveillance System for Muthurajawela Terminal and 10 Bulk Depots.	
	<b>Any other Sub-activity (bidder to include)</b>	
2.A1		
2.A2		
2.A3		
2.A4		
<b>Total for Activity 2 carried to summary</b>		

[illegible][illegible][illegible][illegible][illegible]

<b>Total for Activity 3 carried to summary</b>		
<p align="center"><b>Schedule C4 – Price Schedule</b>  <i>(enclose this schedule in envelope marked, “ Envelope 3 – Financial Proposal”)</i>  Sheet ... of .....</p>		
<b>Summary</b>		
<b>Activity No:</b>	<b>Activity description</b>	<b>Amount</b> ..... <i>(Specify Currency)</i>
1	Preliminaries	
2	Design	
3	Construction, Supplying & Installation	
4		
5		
6		
7		
8		
9		
	Any other activity (bidder to include)	
A		
B		
C		
	<b>Sub Total</b>	
	<b>Discounts</b>	
	<b>Total</b>	
	<b>Amount carried to Form of Bid in Sri Lankan Rupees</b> <i>(Total amount in above row to be converted to Sri Lankan Rupees using the middle exchange rate of Central Bank of Sri Lanka as at 28 days before bid closing date)</i>	
	<b>Add VAT</b>	
	<b>Total inclusive of VAT</b>	