

**DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA**  
**MINISTRY OF HEALTH & MASS MEDIA**  
**GENERAL HOSPITAL (TEACHING) – PERADENIYA**  
**AUDIO VISUAL SYSTEM FOR**  
**CONFERENCE ROOM**  
**CONTRACT NO: THP/AD/30/2025**  
**BIDDING DOCUMENT**

**Volume I**

**Invitation for Bids**

- |                   |          |  |
|-------------------|----------|--|
| <b>Section 01</b> | <b>-</b> | <b>Instructions to Bidders</b>                   |
| <b>Section 02</b> | <b>-</b> | <b>Standard Forms (Contract)</b>                 |
| <b>Section 03</b> | <b>-</b> | <b>Conditions of Contract</b>                    |
| <b>Section 04</b> | <b>-</b> | <b>Form of Bid and Qualification Information</b> |
| <b>Section 05</b> | <b>-</b> | <b>Schedules</b>                                 |
| <b>Section 06</b> | <b>-</b> | <b>Specifications</b>                            |
| <b>Section 07</b> | <b>-</b> | <b>Bill of Quantities</b>                        |
| <b>Section 09</b> | <b>-</b> | <b>Standard Forms (Bid)</b>                      |

**Contractor .....**

**CONSULTANT**

CENTRAL ENGINEERING CONSULTANCY BUREAU  
415, BAUDDHALOKA MAWATHA,  
COLOMBO 07.

**CLIENT**

MINISTRY OF HEALTH & MASS MEDIA  
“ SUWASIRIPAYA “,  
385, REV BADDEGAMA WIMLAWANSI THERO  
MAWATHA,  
COLOMBO 10.

## **C O N T E N T S**

	<b>Page</b>
Invitation for Bids	2
Section 1 - Instructions to Bidders	5
Section 2 - Standard Forms(Contract)	7
Standard Form: Letter of Acceptance	9
Standard Form: Agreement	10
Standard Form: Performance security	12
Standard Form: Advance payment security	13
Standard Form: Retention Money Guarantee	15
Section 3 - Conditions of Contract	16
Section 4 - Form of Bid and Qualification Information	18
Form of Bid	19
Qualification Information	20
Section 5 - Schedule	21
Section 6 - Specifications	27
Section 7 - Bill of Quantities Technical and Other Schedules	29
Preambles to Bill of Quantities	30
Bill of Quantities	
Technical and Other Schedules	
Section 9 - Standard Forms (Bid)	32
Check List for Bidders	35

## **INVITATION FOR BIDS**

**1. INVITATION FOR BIDS (IFB)**  
**MINISTRY OF HEALTH**  
**GENERAL HOSPITAL (TEACHING) - PERADENIYA**  
**AUDIO VISUAL SYSTEM FOR CONFERENCE ROOM**  
**(Contract No: THP/AD/30/2025)**

1. The Chairman, Regional Procurement committee, Teaching Hospital Peradeniya on behalf of the Teaching Hospital, Peradeniya now invites sealed bids for **Audio Visual System for Conference Room** as described below and estimated to cost Rupees 4.03M. (excluding VAT & Contingencies).

The Site is Located at the premises of Teaching Hospital, Peradeniya. Work to be carried out are mainly comprise of Audio-Visual System for Conference Room ...etc. (For more detail refer BOQ).

The contract period will be 90 Days.

2. Bidding will be conducted through National Competitive Bidding Procedure.
3. To be eligible for contract award, the successful bidder shall not have been blacklisted and shall meet the following requirements.

CIDA (ICTAD) Registration Required:  
Speciality: **Electrical & Mechanical Services**  
Grade : **EM4 or above**

4. Qualification requirements to qualify for contract award include:
- (a) Technical staff at site to be
    - 1. One Technical Assistant (Electrical, full time on site) – NCT or equivalent with 3 year experience.
  - (b) Contractor has successfully completed at least two projects similar to this by value and complexity during last five years
5. You may obtain further information from Director, Teaching Hospital, Peradeniya, Tel. No. 081 - 3990312 and inspect the bidding documents at the address given below from 09.00 hrs to 14.00 hrs.
6. A complete set of Bidding Documents in English language may be purchased by you on the submission of a written application to the address given below, from 2025.07.18 until 2025.08.06 from 09.00 hrs to 14.00 hrs or download the bidding document browsing [www.peradeniya-hospital.health.gov.lk](http://www.peradeniya-hospital.health.gov.lk) upon payment of a non-refundable fee of Rs. 2,500.00
7. Bids shall be delivered to the address below on or before 10.30 hrs on 2025.08.07. Late bids will be rejected. Bids will be opened soon after closing in the presence of the bidders' representatives who choose to attend.

8. All bids shall be accompanied by a Bid Security of Rupees **forty-five thousand (Rs 45,000.00) only**. The Bid Security shall be valid up to **77 Days** from the closing date of the bid (including closing date of bid).
9. Bids shall be valid up to 49 Days.
10. The addressed referred to above is,  
Chairman,  
Regional Procurement committee,  
Teaching Hospital  
Peradeniya,  
Tel 081 - 3990312

## **SECTION – 1**

# **INSTRUCTIONS TO BIDDERS**

Notes:

Instructions to Bidders shall be read in conjunction with Section 5 – Schedule given in Volume 2.

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

## **INSTRUCTIONS TO BIDDERS**

Instruction to Bidders applicable to this contract is those given in Section 1 of the Standard Bidding Document for procurement of works Minor Contracts. ICTAD publication No.ICTAD/SBD/03, Second Edition ,January 2007, published by the Construction Industry Development Authority (CIDA).

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 schedule provided under Section 5 of the Bidding Document.

Instruction to Bidders will not be a part of the contract.

SECTION – 2

**STANDARD FORMS (CONTRACT)**

*Letter of Acceptance, Form of Agreement,  
Forms of Performance Security, Form of Advance Payment Security  
And*

*Form of Retention Money Guarantee*



***Notes on Standard Forms:***

- *Bidders shall submit the completed Form of Bid Security in compliance with the requirements of the bidding documents.*
- *Bidders should not complete the Form of Agreement at the time of preparing 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.*

***Notes on From of Letter of Acceptance***

The Letter of Acceptance will be the basis for formation of the Contract as described in Clause 30 of the Instructions to Bidders. This From 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.

**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 .....to execute, complete, remedy any defects therein and maintain the **Audio Visual System for Conference Room** Contract No..... for the Contract price of Rupees

..... (Amount in figures and words) as corrected in accordance with Instructions to Bidders and / or modified by a Memorandum of Understanding (if any), is hereby accepted.

The adjudicator shall be ...../ shall be appointed by the Construction Industry Development Authority (CIDA).

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 as per Clause 6.1 of Conditions of Contract).

The amount of Performance Security is: ..... (Fill as per Clause 4.4 of Conditions of Contract).

The deadline for submission of Performance Security is ..... (Fill as per Clause 4.4 of Conditions of Contract).

Authorized Signature: .....

Name and title of Signatory: .....

.....  
Name of Agency: .....

## **FORM OF AGREEMENT**

This Agreement made the ..... (Day) of ..... (Month) 2025, between Director, Teaching Hospital, Peradeniya. (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 execute **Audio Visual System for Conference Room** (hereinafter called and referred to as “the Works”) and the Employer has accepted the Bid by the Contractor for the 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 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 execute and complete the Works and remedy 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** where of the parties hereto have caused this Agreement to be executed the day and year first before written in accordance with laws of Sri Lanka.

.....

Authorized signature of Contractor

.....

Authorized signature of Employer

COMMON SEAL

COMMON SEAL

In the presence of:  
Witnesses:

1. Name and NIC No. ....

Signature .....

Address .....

2. Name and NIC No. ....

Signature .....

Address .....

## **FORM OF PERFORMANCE SECURITY**

**(Unconditional)**

.....  
*[Name and Address of Issuing Branch or office]*

**Beneficiary:** Director,  
Teaching Hospital  
Peradeniya.

**Date:** .....

**PERFORMANCE GUARANTEE No:**.....

We have been informed that ..... *[Name of Contractor]*  
(Hereinafter called to “**the Contractor**”) has entered into Contract No. ...., dated  
..... with you, for the **Audio Visual System for Conference  
Room** Teaching Hospital- Peradeniya (Contract No: ..... ) (hereinafter called to  
“**the Contract**”).

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Contractor, we

..... *[Name of  
the Agency]* hereby irrevocably undertake to pay you any sum or sums not exceeding in total an  
amount of ..... *[amount in  
figures]* (.....) *[ amount in words]*, upon receipt by us of your  
first demand in writing accompanied by a written statement stating that the Contractor is in breach of  
its obligation(s) under the Contract, without your needing to prove or to show grounds for your  
demand or the sum specified therein.

This guarantee shall expire, no later than the .....day of ....., 20..... *[date, 28 days beyond the  
Intended Completion Date]* and any demand for payment under it must be received by us at this office  
on or before that date.

\_\_\_\_\_  
*[Signature (s)]*

## **FORM OF GUARANTEE FOR MOBILIZATION ADVANCE PAYMENT**

BOND

NUMBER:

DATE.....

SUM GUARANTEED:

Beneficiary: Director,  
Teaching Hospital,  
Peradeniya.

Name of the Contract: **Audio Visual System for Conference Room**

In accordance with the provisions of the Conditions of Contract, of the above-mentioned contract.....

(Name and address of Contractor) [hereafter called “the contractor”] shall deposit with the Director, Teaching Hospital, Peradeniya a bank guarantee to guarantee his proper and faithful performance under the said Contract in an amount of .....(amount of guarantee) .....(amount in words).

We, the..... (Bank, operating in Sri Lanka), as instructed by the contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as surety merely, the payment to the Director, Teaching Hospital, Peradeniya on his first demand without whatsoever right of objection on our part and without his first claim to the Contractor, in the amount not exceeding.....(amount of guarantee), .....(amounts in words ) such amount to be reduced periodically by the amounts recovered by you from the proceeds of the contract.

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

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

This guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until the Director, Teaching Hospital, Peradeniya received full payment of the same amount from the Contractor.

Signature and the Seal of the Guarantor:

Name of the Bank: .....

Address: .....

Date:

Witness:

## FORM OF RETENTION MONEY GUARANTEE

NUMBER: .....

DATE: .....

SUM GUARANTEED: .....

To:  
Director,  
Teaching Hospital,  
Peradeniya.

(Hereinafter called and referred to as “the Employer”)

Name of the Contract **Audio Visual System for Conference Room.** Whereas, it has been stipulated by the Employer in clause 10.5 of the Conditions of Contract that he would release to the contractor the full sum mentioned under the contract in pursuance of clause 10.5, 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 Defects Notification Period.

We ..... (name and address of the 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 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 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 Seal of the Guarantor .....

Name of Bank .....

Address .....

Date .....

Witness .....



**SECTION - 3**

**CONDITIONS OF CONTRACT**

*Conditions of Contract shall be read in conjunction with Schedule*

*Note - Conditions of Contract shall be read in conjunction with Schedule*

## **CONDITIONS OF CONTRACT**

Conditions of Contract that will be applicable for this Contract shall be that given in Section 3 of the Standard Bidding Document for Procurement of Works - Minor Contracts, ICTAD Publication No. ICTAD/SBD/03, Second Edition, January 2007, published by the Construction Industry Development Authority (CIDA).

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

This Conditions of Contract shall be read in conjunction with “**Schedule for Conditions of Contract**” attached herewith.

**SECTION – 4**

**FORM OF BID AND QUALIFICATION  
INFORMATION**

## FORM OF BID

Name of Contract: **Audio Visual System for Conference Room**

To: Director,  
Teaching Hospital,  
Peradeniya.

Gentlemen,

1. Having examined the Conditions of Contract given in the Standard Bidding Document – Procurement of Works – Minor Contracts (ICTAD/SBD/03- Second Edition, January 2007 & Addendum 01 issued in January 2009), Schedule, Specifications, Bill of Quantities, Drawings and Addenda for the execution of the above named Works, we the undersigned, offer to execute and complete such Works and remedy any defect therein in conformity with the aforesaid Conditions of Contract, Schedule, Specifications, Bill of Quantities, Drawings and Addenda for the sum of Sri Lankan Rupees (without VAT)..... (SL Rs. ....), or such other sums as may be ascertained in accordance with the said Conditions.
2. We acknowledge that the “Schedule” forms part of our Bid.
3. We undertake, if our Bid is accepted, to commence the Works as stipulated in the Schedule, and to complete the whole of the Works comprised in the Contract within the time stated in the Schedule.
4. We agree to abide by this Bid for a period of 49 days from the date fixed for receiving, or any extended period, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
5. 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.
6. We understand that you are not bound to accept the lowest or any Bid you may receive.

Dated this ..... day of ..... 2025 in the capacity of .....  
....., duly authorized to sign Bids for and on behalf of .....  
..... (*IN BLOCK CAPITALS*)

Signature:

Address:

.....  
.....

Witness:

## **QUALIFICATION INFORMATION**

(To be completed by the Bidder and submitted with the bid)

	<b>Eligibility Requirement</b>		<b>Bidder's Qualification</b>
<b>ICTAD(CIDA) Registration</b>	<i>(attach copies of relevant pages from the registration book)</i>		
Registration Number			
Grade	<b>EM4 or above</b>		
Specialty	<b>Electrical &amp; Mechanical Services</b>		
Expiry Date			
<b>Blacklisted Contractors</b>			
Have you been declared as a defaulted contractor by NPA or any Agency?			Yes / No
<b>If yes provide details</b>			
<b>VAT Registration Number *</b>			
<b>Construction program</b>	<i>(attach as annex)</i>		
<b>Legal Status</b>	<i>(Public company / Private company / Partnership / Sole proprietor ) - attach relevant copies as annex</i>		
	<b>Eligibility Requirement</b>		<b>Bidder's Qualification</b>
<b>Qualification an experience of key staff (attach relevant certificates)</b>	Category, Experiences and Qualifications	Required Nos.	Proposed by bidder (Name. Experience and Qualifications)
	Technical Assistant (Electrical – full time in site) – NCT or equivalent with 03 year experience.	01	
<b>Value of similar works completed in last 5 years (Indicate only three largest projects)</b>	1. Value Rs..... Year ..... 2. Value Rs..... Year ..... 3. Value Rs..... Year ..... <i>(Attach certified copies of certificate of completion)</i>		

Signature of the Bidder: .....

## **SECTION - 5**

### **SCHEDULE**

**Note:**

This section shall be read in conjunction with section I – Instruction to Bidders and Section 3 – Conditions of Contract, and is intended to provide specific information in relation to corresponding Clauses in Section I & 3. Whenever there is an ambiguity, the provisions in Section 5 – Schedule shall supersede these provided in the Section I – Instructions to Bidders and Section 3 - Conditions of Contract.

## SCHEDULE

ITB Clause	Conditions of Contract Clause	Item	Data
1.	1.1.8	Employer is:	Secretary, Ministry of Health & Mass Media 385, Rev. Baddegama Wimalawansa Thero Mawatha,. Colombo 10.
		Employer's Representative:	Director, Teaching Hospital, Peradeniya.
	1.1.10	Engineer is:	General Manager Central Engineering Consultancy Bureau, No.415, Bauddhaloka Mawatha, Colombo 07.
		Engineer's Representative:	Project Manager (HCW), Central Engineering Consultancy Bureau, Rajawella, Digana.
1. & 13.		<b>Summary of Work:</b>	Work to be carried out are mainly comprise of Audio Visual System for Conference Room ...etc (For more detail refer BOQ)
	1.1.21	Located at:	Teaching Hospital, Peradeniya
		Contract Name:	<b>Audio Visual System for Conference Room</b>
		Bid Validity	: Bid Validity Period is 49 days from closing date of the Bid.
1.	1.1.14	<b>Intended Completion Date</b>	Intended Completion Date is: 90 Days from starting date
2.		<b>Source Of Funds</b>	The Source of Funds is GOSL
3.		<b>Eligibility</b>	The requirement is; registered with the Construction Industry Development

Authority (CIDA/ICTAD), under the

Grade :- **EM4 or above**

Specialty :- Electrical & Mechanical  
Services

8.

The set of bidding document shall be comprised with the documents listed below;

Volume I – One bound document consists of one copy each of following sections,

Invitation for Bids

Section 01 – Instructions to Bidders

Section 02 – Standard Forms (Contract)

Section 03 – Conditions of Contract

Section 04 – Form of Bid and Qualification  
Information

Section 05 – Schedules

Section 06 – Specifications

Section 07 – Bill of Quantities

Section 09 – Standard Forms (Bid)

Volume II – Two separate bound documents, each consist of one Copy of following sections,

Invitation for Bids

Section 04 – Form of Bid and Qualification  
Information

Section 07 – Bill of Quantities

12

(A) Enclosed in the envelope marked as “ORIGINAL”;

(a) Fully bound Volume 1

(b) Bid Security

Bidder shall complete the schedules attached in the section 07

And

(B) Enclosed in the envelope marked as “COPY”

(a) One copy of fully bound Volume II

The Bidders may retain the Balance copy of Volume II, which consist of Section 4, Section 5 and Section 7.

13.

10.10

**Price**

The Contract is not subjected to

**Adjustment**

price adjustment

16.

**Bid Security**

The amount of Bid Security shall be Sri Lanka Rupees **forty-five thousand (Rs 45,000.00)** only.



**Bid Security****Validity Period**

The Bid Security shall be valid up to 77 Days from the closing date of the Bid.

Securities and Guarantees issued by the following institutions are acceptable:

1. A Bank operating in Sri Lanka, approved by the Central Bank of Sri Lanka.
2. Construction Guarantee fund.

Alternatively, the Tenderer can pay cash to Shroff of the Teaching Hospital, Peradeniya.

*No interests will be paid on cash deposits*

17. **Pre Bid meeting** will be held at **Conference Room , Teaching Hospital – Peradeniya** at **10.30 hrs** on **2025.07.29**

31.

4.4

**Performance Security**

Amount of performance security required is 5% of Initial Contract Price.

Securities and Guarantees issued by the following institutions are acceptable:

1. A Bank operating in Sri Lanka, approved by the Central Bank of Sri Lanka.
2. Construction Guarantee Fund

Also, the Tenderer can paid cash to Shroff of the Teaching Hospital, Peradeniya.

No interests will be paid on cash deposits.

6.4

**Late Completion**

the amount to be paid is **0.05%** of initial contract price per Day, subjected to Maximum of 10% of Initial Contract Price.

8.1

**Notification Of Defects**

The period for Defects Notification is **365 Days** from Taking Over.

10.3

**Retention**

The retention from each payment Shall be 10% of the work done, as per The Interim Certificate.

The Limit of maximum amount of retention is 5% of Initial Contract Price.

13.1(c)	<b>Insurance, Third Party</b>	Minimum amount for third party insurance is <b>Rs. 50,000.00</b> per Occurrence with the number of Occurrences unlimited
13 (d)	<b>Insurance for Employer and Contractor's Personnel</b>	Minimum amount for Insurance for Employer and Contractor's Personnel is <b>Rupees Fifty thousand (Rs.50, 000.00)</b>
33.	1.1.11	<b>Adjudicator</b> Fees and types of reimbursable expenses to be paid to the Adjudicator Shall be on a case to case basis
	14.0	<b>Resolution of Disputes</b> and shall be shared by the Contractor and the Employer

## **15 ADDITIONAL CLAUSES**

### **15.1**

#### **Value Added**

**Taxes (VAT)** VAT component shall not be included in the rates. The amount written in the Form of Tender shall be without VAT.

If Bidder is registered for VAT, the Bidder shall indicate the amount of VAT claimed separately at the end of the Bill of Quantities, in addition to the net value of the Bid, along with VAT registration number. The amount written on the Form of Bid shall be without VAT. Any Bidder who does not declare his VAT registration number will be liable for rejection of his Bid.

If any Bidder is not registered for VAT, he shall indicate the net value of the Bid. Under this category Bidder shall obtain a letter from the Commissioner of Inland Revenue Department, certifying the Company has not been registered for VAT, shall be attached to the Bid. Any Bidder who does not comply with this requirement will be liable for rejection of his Bid

The same VAT percentage will be applicable to any Extra works and variation.

- **No advance payment will be made.**

SECTION - 6

**SPECIFICATIONS**

## SPECIFICATIONS

The Works under this Contract shall be executed in accordance with the Specifications given in the following documents issued by the Institute for Construction Training and Development (ICTAD), “Savsiripaya”, 123, Wijerama Mawatha, Colombo 07.

<u>Publication No.:</u>	<u>Description:</u>
SCA/4(Vol. I)	Specifications for Building Works, Vol. (I), Sri Lanka. 3 <sup>rd</sup> Edition (Revised), July 2004.
SCA/4(Vol. II)	Specifications for Building Works Vol. (II), Sri Lanka. 2 <sup>nd</sup> Edition (Revised) October 2001.
SCA/3/2	Specifications for Water Supply Sewerage and Storm Water Drainage Works, Sri Lanka. Second Edition (Revised), April 2002.
SCA/8	Specifications for Electrical and Mechanical works associated With Building and Civil Engineering, Sri Lanka. Second Edition (Revised), August 2000.

It is implied that the eligible Tenderers are fully acquainted with the above documents and therefore, those will not be issued to the Tenderers in this Tender.

However, the Tenderers may purchase the same if necessary from CIDA. “Savsiripaya”, 123, Wijerama Mawatha, Colombo 07.

SECTION - 7

**BILL OF QUANTITIES**

## **PREAMBLE TO THE BILL OF QUANTITIES**

1. The Conditions of Contract, the Specifications are to be read in conjunction with the Bill of Quantities.
2. The cost of complying with all conditions, obligations and liabilities described in the Conditions of Contract and the Specifications and the Bill of Quantities **including all overhead charges (excluding VAT), profit and Preliminaries** and carrying out the work as described shall be deemed to be spread over and included in the prices or sums stated by the Bidder in the Bill of Quantities. VAT should be separately added.
3. If the Bidder failed to price any Items in the Bill of Quantities then the cost of the work under such Item shall be held to be spread over and included in the prices given against other Items of work.
4. When trade names, brand and/or catalogue numbers are referred to, sole preference to any material or equipment is not intended. Any other material or equipment may be used, provided that the characteristics of type, quality, appearance, finish, method of construction and/or performance is equal to or superior to specify.
5. Whenever the method of measurement is not clear from documents available, the principles as given in the Sri Lanka Standard 573, 1999, Method of Measurement of Building Work shall be applicable.
6. All items of work shall comply exactly with the Contract unless otherwise approved by the Engineer and the rates and sums inserted in the Bill of Quantities shall be deemed to apply to the work as specified. If, for his convenience or reasons of availability, the Contractor proposes and the Engineer approves the use or provision of alternative items, materials or method of working, or equivalent or superior quality to those specified in the Contract, the rates and sums inserted in the Bill of Quantities shall not in any case be increased as a result.
7. The quantities set out in the Bill of Quantities are provisional and cover the approximate scope of the work which is anticipated to be performed by the Contractor. The actual quantities used for final measurement purposes will be determined by the Engineer by measurement of the work completed by the Contractor.
8. Where, for his own purposes or due to his own default, the Contractor carries out the Works in such a manner that the quantity of any Item of work in particular component to be measured for payment purposes differs from that directed by the Engineer, then payment shall be made according to the lesser of the actual quantity and that directed. An excess quantity in one part of the component shall not, however, be allowed to offset a deficit elsewhere in the same component for measurement purposes.
9. Where the determination for payment purposes of the quantity of any Item of work depends upon the measurement of existing features or ground levels and the like, then prior to carrying out any operations which might affect such measurement, the Contractor shall first take such levels and measurements as the Engineer may direct and, after the Engineer has had the opportunity to check the same, they shall be certified as agreed by both the Engineer and the Contractor.

10. In the event that the Contractor fails to observe the above procedure, the Engineer shall determine the quantity to be assumed for payment purposes using the best information available to him, and his decision in the matter shall be final.
11. Selected Bidder shall comply with the arrangement of work in the buildings and be ready to work part by part as required by the Authorities of Teaching Hospital, Peradeniya
12. Rates in the Bill of Quantities shall include all necessary materials such as cables, PVC conduits, PVC sunk boxes etc and labour required to complete the electrical installation to good working order.
13. Except where specifically stated, all costs associated with provision of all holes, openings, chases and ducts in other builders' work required for installation and make them good , shall be included in the rates.
14. Bidder should pay special attention to the work to be carried out, causing minimum disturbance or hindrance to the normal functions and activities of the users of the Teaching Hospital, Peradeniya
15. The Bills of Quantities should therefore, be priced to reflect all factors that would affect the bid and the progress of the works.
16. All electrical accessories should comply with relevant BS/IEC standards. For electrical accessories, manufacturer's guarantee should be produced if necessary.
17. The wiring installation shall comply with the requirements of IEE Wiring Regulations, latest edition.
18. Screens should be provided to prevent dust escaping from working areas.
19. Metric units are used throughout the Bill of Quantities for measurement purposes unless otherwise indicated. Abbreviations used in the Contract are as follows:-

mm	-	Millimeter
m	-	Linear meter
kg	-	Kilogram
m <sup>2</sup>	-	Square meter
m <sup>3</sup>	-	Cubic meter
nr	-	Number
Rs.	-	Sri Lankan Rupees
Cts.	-	Cents
P. S.	-	Provisional sum
L. S.	-	Lump Sum



**AUDIO VISUAL SYSTEM FOR CONFERENCE ROOM AT TEACHING HOSPITAL- PERADENIYA**

Item	Description	Unit	Qty.	Rate	Amount
	The BOQ shall be read in conjunction with the specifications, technical schedules and the tender drawings.	Note			
	Rates in Bills of Quantities shall include all necessary materials (Cables, conduits, PVC sunk box.... etc.) and labour required to complete the electrical installation to good working order.	Note			
	Except where specifically stated, all costs associated with provision of all holes, openings, chases, ducts and other builders' work required for installation and make them good, shall be included in the rates.	Note			
	All the quantities given here are approximated values and the actual quantities may change with the actual installation at the site.	Note			
	All types of materials shall be approved by the Engineer prior to installation. Contractor shall submit the necessary shop drawings, samples and method statements etc. for the prior approval.	Note			
	Where reference is made to certain manufactures' products and items identified by registered trade marks, has been done for the sole purpose of defining and establishing standards of quality and performance and not with the intention of restricting the procurement of material or fitting to a particular manufacturer. However all equipment and material should meet the relevant BS, IEC or the equivalent local standard.	Note			
	All the electrical items/materials/accessories shall be comply with the relevant British(BS)/IEC standards or equivalent local standard. Items without an accredited local agent in Sri Lanka shall not be accepted. Guarantee cards or warrantee certificates shall be provided through the accredited local agent.	Note			
	Testing and commissioning of the electrical installation is to be carried out by the contractor and inspection test report certified by a Chartered Electrical Engineer shall be submitted according to the requirements of the power supply Authority.	Note			
	The contractor shall rectify the defects observed during the construction and immediately in discovery afterwards at no extra cost to the Employer.	Note			

Item	Description	Unit	Qty.	Rate	Amount
	<b><u>Audio Visual System for Conference room</u></b>				
<b>1.00</b>	<b><u>Audio System</u></b>				
1.01	<b><u>Conference Microphone Unit</u></b> Supply and Installation of 25 Ch Conference Microphone MCU system with USB recording .	No.	1		
1.02	<b><u>Mixer Amplifier</u></b> Supply and installation of Mixer Amplifier of 300W.	No.	1		
1.03	<b><u>Equipment Cabinet with Power Supply Unit</u></b> Supply and installation of Equipment Cabinet with Power Supply Unit.(including 3kVA line interactive ups)	No.	1		
1.04	<b><u>Speakers</u></b> Supply and installation of 20W Wall mounted speaker including fixing brackets and all required accessories	Nos.	4		
1.05	<b><u>Microphones</u></b> Supply and Installation of <b>Wireless Handheled Microphone</b> with all required accessories.	No.	1		
1.06	Supply and Installation of <b>Goosneck Microphone</b> with all required accessories.	Nos.	20		
1.07	Supply and installation of Speaker cables, Microphone cables and all equipmetns required for proper function of the system	Item			
<b>2.00</b>	<b><u>Visual System</u></b>				
2.01	Supply and Installation of Short throw Projector with all required accessories. ( <b>Lamp Lumen output &gt; 3200ANSI Lumen, Projector Technology-DPL</b> )	No.	1		
2.02	Supply and Installation of Ceiling mounted <b>Universal Projector Bracket</b> and all required accessories.	No.	1		
2.03	Supply and Installation of HDMI,VGA and Audio input Panel with all required accessories.	No.	1		
2.04	Supply and Installation of 6'X8' wall mounted Electric Screen with all required accessories.	No.	1		

Item	Description	Unit	Qty.	Rate	Amount
3.00	<u>Laptop</u> Supply and Installation of Intel® Core i5 Laptop with HDMI out, Separate VGA card and all required accessories.	No.	1		
4.00	<u>Testing and Commissioning</u> Testing the Audio Visual System & providing as built drawing of Audio Visual System.	Item			
(a)	Sub Total I				
(b)	Ddt: Provisional Sum				
(c)	Sub Total II				
(d)	Ddt : .....% Discount				
(e)	Sub Total III				
(f)	Add: Provisional Sum				
(g)	Total amount for Bid				
(h)	Add : 18% VAT				
(j)	Total Amount with VAT				

Total Sum carried to Form of bid in words Rupees (without VAT) .....

.....

Signature of the Contractor

Witness :-

Address

Address :-

Date

Date :-

## SECTION - 9

### **STANDARD FORMS (BID)**

- *Bidders shall submit the completed Form of Bid Security/Bid Securing Declaration as appropriate in compliance with the requirements of the bidding documents.*

## FORM OF BID SECURITY

.....  
*[Insert issuing agency's name and address of issuing branch or office]*

**Beneficiary:** Director,  
Teaching Hospital,  
Peradeniya.

**Date:** ..... [Insert (by issuing agency) date]

We have been informed that ..... *[Insert (by issuing agency) name of the bidder]* (Hereinafter called “**the Bidder**”) has submitted to you its bid dated ..... [Insert (by issuing agency) date] (Hereinafter called “**the Bid**”) for execution of **Audio Visual System for Conference Room** (hereinafter called and referred to as “the Bid”).

Furthermore, we understand that, according to your conditions, Bids must be supported by a Bid Guarantee.

At the request of the Bidder, we ..... *[Insert name of issuing agency]* hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of ..... *[Insert amount on figures]* ..... *[insert amount in words]* upon receipt by us of your first demand in writing accompanied by a written statement stating that the bidder is in breach of its obligation(s) under the bid conditions, because the Bidder:

- (a) has withdrawn its Bid during the period of bid validity specified; or
- (b) does not accept the correction of errors in accordance with the Instructions to Bidders (hereinafter “the ITB”); or
- (c) having been notified of the acceptance of its Bid by the Employer during the period of bid validity, (i) fails to refuses to execute the Contract Form, if required, or (ii) fails to refuses to furnish a Performance Security, in accordance with the ITB.

This Guarantee shall expire:

- (a) if the Bidder is the successful bidder, upon our receipt of copies of the Contract signed by the bidder and the Performance Security issued to you by the Bidder; or
- (b) If the Bidder is not the successful bidder, upon the earlier of the successful bidder furnishing the performance security, otherwise it will remain in force up to 28 days beyond the validity of the bid. (.....)

Consequently, any demand for payment under this guarantee must be received by us at the office on or before that date.

.....  
*[Signature of authorized representative(s)]*

.....  
Common Seal  
(Signature, Name, and Address)

### **Non-collusion Affidavit**

The undersigned bidder or agent, hereby solemnly, sincerely, and truly declares and affirms/makes an oath and states as follows;

- a) That he/she has not, nor has any other member, representative, or agent of the firm, company, corporation, or partnership representing him/her, entered into any combination, collusion, or similar agreement with any person in connection with the price to be bid;
- b) That he/she or anyone representing him/her has not taken any step whatsoever to prevent any person from bidding, nor to induce anyone to refrain from bidding; and
- c) That this bid is made without reference to any other bid and without any agreement, understanding, or combination with any other person in reference to this bid.

He/she further states that no person, firm, or corporation has received or will receive, directly or indirectly, any rebate, fee, gift, commission, or thing of value in connection with the submission of this bid.

The bidder accepts full responsibility for ensuring the absence of collusion and hereby pledges to abide by fair and ethical competition practices throughout the procurement process and fully comply with the applicable Procurement Guidelines.

I hereby affirm, under the penalties for perjury, that all statements made by me in this affidavit are true and correct.

The foregoing Affidavit having been  
duly read over and explained by me to  
the Affirmant above named and he/she  
having understood the contents therein  
and admitted to be correct, affirmed and  
set his/her signature hereto before me)  
on this .... day of ... at ...

BEFORE ME,

JUSTICE OF THE PEACE/COMMISSIONER OF OATHS

# Check List for Bidders

Bidders are advised to fill the following table:

ITEM	ITB Clause	Yes (tick)	REFERENCE
<b>Form of Bid</b>			
Addressed to the Employer?	18		
Completed?	18		
Signed?	18		
<b>Bid securing Declaration form (if required)</b>			
Properly filled and signed	16		
<b>Bid Security (if required)</b>			
Addressed to the Employer?	16		
Format as required?	16		
Issuing Agency as specified?	16		
Amount and currency as requested?	16		
Validity 28 days beyond the validity of Bid ?	16		
<b>Qualification Information</b>			
All relevant information completed?	4		
Signed?	4		
<b>Addendum</b>			
Contents of the addendum (if any) taken in to account?	10		
<b>BID package</b>			
All the documents given in ITB Clause 12 enclosed in the original and copy?	12		
ITB Clause 19 followed before Sealing the Bid Package?	19		



**AUDIO VISUAL SYSTEM FOR CONFERENCE ROOM AT TEACHING HOSPITAL- PERADENIYA**  
**TECHNICAL SCHEDULE FOR AUDIO VISUAL SYSTEM**

NO	DESCRIPTION	UNITS	AS SPECIFIED	AS OFFERED
<b>A</b>	<b><u>AUDIO SYSTEM</u></b>			
<b>A.1</b>	<b><u>MIXER AMPLIFIER</u></b>			
	Make		Please specify	
	Model No.		Please specify	
	Manufacturer's Name		Please specify	
	Country of Origin		Please specify	
	Year of manufacture		Please specify	
	Output Power	W	660	
	Output Impedence	$\Omega$	Please specify	
	Gain	dB	Please specify	
	Frequency response	Hz	Please specify	
	Rated Voltage	V	230	
	Bluetooth Connectivity		Yes	
	Design Standard		BS / IEC	
	Warrenty	Yrs	1	
<b>A.2</b>	<b><u>WALL MOUNTED SPEAKER</u></b>			
	Make		Please specify	
	Model No.		Please specify	
	Manufacturer's Name		Please specify	
	Country of Origin		Please specify	
	Year of manufacture		Please specify	
	Impedence	$\Omega$	Please specify	
	Output Power/ No. of tappings	W	20	
	Frequency response	Hz	110 - 16000	
	Sensitivity (1W, 1m)	dB	Please specify	
	Size (diameter)	mm	Please specify	
	Weight	kg	Please specify	
	Design Standard		BS / IEC	
	Warrenty	Yrs	1	
<b>A.3</b>	<b><u>WIRELESS HAND HELD MICROPHONE</u></b>			
	Make/Trade Name		Please Specify	
	Manufacturer		Please Specify	
	Country / Place of Manufacture		Please Specify	
	Wattage	W	Please Specify	
	Rated Voltage	V	Please Specify	
	Frequency range	Hz	Please Specify	
	Range of operation	m	Please Specify	
	Design Standard		BS / IEC	
	Warrenty	Yrs	1	
<b>A.4</b>	<b><u>GOOSENECK MICROPHONE</u></b>			
	Make/Trade Name		Please Specify	
	Manufacturer		Please Specify	
	Country / Place of Manufacture		Please Specify	
	Wattage	W	Please Specify	
	Rated Voltage	V	Please Specify	
	Frequency range	Hz	80~18,000	
	Impedance	$\Omega$	Please Specify	
	Sensitivity (at 1,000Hz)	db	Please Specify	
	Range of operation	m	Please Specify	
	Design Standard		BS / IEC	
	Warrenty	Yrs	1	
<b>A.5</b>	<b><u>SPEAKER CABLES</u></b>			

NO	DESCRIPTION	UNITS	AS SPECIFIED	AS OFFERED
	Make		Please specify	
	Manufacturer's Name		Please specify	
	Country of Origin		Please specify	
	Type	PVC / PVC	Twisted pair	
	No. of Strands		Please specify	
	Conductor size	mm <sup>2</sup>	0.5	
	Design Standard		BS / IEC	
<b>B</b>	<b><u>VISUAL SYSTEM</u></b>			
<b>B.1</b>	<b><u>SHORT THROW PROJECTOR</u></b>			
	Make/Trade Name		Please Specify	
	Manufacturer		Please Specify	
	Country / Place of Manufacture		Please Specify	
	Lamp lumen output	ANSI Lux	3200	
	Minimum focusing distance	m	Please Specify	
	Rated Voltage	V	230	
	Rated Frequency	Hz	Please Specify	
	Wattage	W	Please Specify	
	Design Standard		BS / IEC	
	Warrenty	Yrs	1	
<b>B.2</b>	<b><u>ELECTRIC SCREEN</u></b>			
	Make/Trade Name		Please Specify	
	Manufacturer		Please Specify	
	Country / Place of Manufacture		Please Specify	
	Size	W x H	6' x 8'	
	Colour		White	
	Availability of Stand for the screen		YES/NO	
	Warrenty	Yrs	1	
<b>B.3</b>	<b><u>CABLES</u></b>			
	Make/Trade Name		Please Specify	
	Manufacturer		Please Specify	
	Country / Place of Manufacture		Please Specify	
	Type		<b>Schielded PVC</b>	
	Design Standard		BS / IEC	
<b>B.4</b>	<b><u>LAPTOP</u></b>			
	Make/Trade Name		Please Specify	
	Manufacturer		Please Specify	
	Country / Place of Manufacture		Please Specify	
	Operating system		Windows 10 Home(1)	
	Processor		8th Generation Intel® Core™ i5-8250U Processor	
	Memory		8 GB DDR4-2400 SDRAM (1 x 8 GB)	
	Internal storage		256GB SSD hard drive	
	Graphics		Intel® UHD Graphics 620	
	Size	W x H	W x H	
	Warrenty	Yrs	1	

# **AUDIO VISUAL SYSTEM FOR CONFERENCE ROOM AT TEACHING HOSPITAL- PERADENIYA**

## **SECTION 1 – SUPPLYING AND INSTALLATION OF AUDIO & VISUAL SYSTEMS FOR CONFERENCE ROOM**

### Contents

### Contents

1.1 GENERAL AND SCOPE .....	2
1.2 APPLICABLE STANDARDS.....	2
1.3 PRODUCTS OF AUDIO SYSTEM .....	2
<b>1.3.1 Wall mounted Speakers. ....</b>	<b>2</b>
<b>1.3.2 Mixer Amplifier.....</b>	<b>2</b>
<b>1.3.9 Gooseneck Mic.....</b>	<b>2</b>
<b>1.3.10 Handheld Wireless Mic System .....</b>	<b>3</b>
1.4 PRODUCTS OF VISUAL SYSTEM.....	3
1.5 TESTING AND COMMISSIONING OF AUDIO, VISUAL & STAGE LIGHTING      SYSTEMS .....	5
1.6 WARRANTY .....	5

## **TECHNICAL SPECIFICATION**

### **SECTION 1 – SUPPLYING AND INSTALLATION OF AUDIO & VISUAL SYSTEMS FOR CONFERENCE ROOM**

#### **1.1 GENERAL AND SCOPE**

Audio Visual systems should be able to cover the entire area of the Conference room. As well as necessary patch panels must be fixed near the conference room to connect microphones, speakers and multimedia projector.... etc. All control cables should be securely installed using PVC rankings.

#### **1.2 APPLICABLE STANDARDS**

All equipment should be complied with BS & IEC standards.

#### **1.3 PRODUCTS OF AUDIO SYSTEM**

##### **1.3.1 Wall mounted Speakers.**

Compact two-way loudspeaker system for high quality sound reinforcement is required in an ultra-compact lightweight enclosure.

##### **1.3.2 Mixer Amplifier.**

- Rated 300W Power (at THD 10% 240 VAC,1kHz,4Ω)
- Including Bluetooth Connectivity
- 240V 50/60 Hz Power Supply (AC)
- $\pm 10$  dB at 100 Hz Tone Controls (Bass)

##### **1.3.9 Gooseneck Mic**

- Generation Element: Condenser, back electret
- Frequency Response: 100 Hz to 15,000 Hz
- Polar Pattern: Cardioid
- Sensitivity, Open Circuit Voltage, 1 kHz: 4.5mV/Pascal
- Dynamic Range: 102 dB SPL
- Equivalent Output Noise: <28 dB SPL “A” weighted (0 dB=20 micropascals)
- Output Impedance, 1 kHz: 200 ohms
- Power Requirements: 9 to 52 Volt Phantom Supply
- Current Consumption: <5 mA with P48v supply

### 1.3.10 Handheld Wireless Mic System

UHF Cordless Handheld Microphone System with specification as below.

#### Audio Specification

- Frequency Response: 80 Hz – 18 kHz  $\pm$  2 dB
- Distortion : < 1.0%, 0.4% typical (ref 1 kHz, 40 kHz deviation)
- Signal-to-Noise Ratio: > 100 dB A-Weighted
- Dynamic Range: > 95 dB

#### Receiver Specification

- Receiver Type : Synthesized PLL
- Frequency Range (RF): 618 – 865 Mhz
- Number of Channels: 32
- Modulation:  $\pm$  40 kHz
- Diversity: True Antenna
- RF Sensitivity : <1.0  $\mu$ V for 12 dB SINAD
- Image Rejection: > 55 dB
- Power Requirements: 12 – 16 VDC, 500mA max

#### Transmitter Specification

- Radiated Output: 8 mW typical
- Back Lit LCD Display: Channel, Frequency, Mute, and Battery Level
- Microphone Head: Cardioid Dynamic
- Power Requirement: Two AA batteries
- Battery Life (Typical): > 14 hours with AA alkaline typical

## 1.4 PRODUCTS OF VISUAL SYSTEM

### 1.4.1 Short-throw Projector

- |                                |   |
|--------------------------------|---|
| • Native Resolution            | W X GA (1280 X 800)   |
| • Brightness (ANSI Lumens)     | 3200 ANSI Lumens  |
| • Contrast Ratio               | 13000:1   |
| • Display Color                | 1.07 Billion Colors   |
| • Lens                         | F= 2.8, f = 7.51mm  |
| • Aspect Ratio                 | Native 16:10 (5 aspect ratio selectable)                          |
| • Throw Ratio                  | 0.52 (95" @ 1m)   |
| • Image Size (Diagonal)        | Optimization 72"-152", Maximum 300"                               |
| • Zoom Ratio                   | Fixed   |
| • Lamp Type                    | 210W  |
| • Lamp Mode (Normal/Economic)* | 4000/5000/6500/10000/4000(with 2100 of constant brightness) hours |
| • Keystone Adjustment          | 1D, Vertical $\pm$ 30 degrees                                     |
| • Projection Offset**          | 110% $\pm$ 5%   |

• Resolution Support	VGA (640 x 480) to UXGA (1600 x 1200)
• Horizontal Frequency	15-102KHz
• Vertical Scan Rate	23-120Hz
• HDTV Compatibility	480i, 480p, 576i, 576p, 720p, 1080i, 1080p
• Video Compatibility	NTSC, PAL, SECAM
• Weight (Without Packing / With Packing)	2.6kg (5.73bs)
• Dimensions (W x H x D mm)	287.3 x 114.4 x 232.6mm
• Interface	Computer in (D-sub 15pin) x 2 (Share with component) Monitor out (D-sub 15pin) x 1 Composite Video in (RCA) x 1 S-Video in (Mini DIN 4pin) x 1 HDMI x 1 (Share with MHL 1.2) Audio in (Mini Jack) x 2 Audio out (Mini Jack) x 1 Audio L/R in (RCA) x 1 Speaker x 1 (10W) USB (Type Mini B) x 1 RS232 (DB-9pin) x 1 LAN (RJ45) x 1
• Power Consumption	Normal 290W, Eco 240W Standby < 0.5W
• Audible Noise (Normal/Economic Mode)	33/28 dBA
• 3D Support and Compatibility	Frame Sequential: Up to 720p Frame Packing: Up to 1080p Side by Side: Up to 1080i/p Top Bottom: Up to 1080p
• Picture Modes	Dynamic/Presentation/sRGB/Cinema/(3D)/User 1/User 2
• On-Screen Display Languages	Arabic/Bulgarian/ Croatian/ Czech/ Danish/ Dutch/ English/ Finnish/ French/ German/ Greek/ Hindi/ Hungarian/ Italian/ Indonesian/ Japanese/ Korean/ Norwegian/ Polish/ Portuguese/ Romanian/ Russian/ Simplified Chinese/Spanish/ Swedish/ Turkish/ Thai/ Traditional Chinese (28 Languages)
• Accessories (Standard)	Lens Cover Remote Control w/ Battery Power Cord (by region) User Manual CD Quick Start Guide Warranty Card (by region) VGA(D-sub 15pin) Cable VGA(D-sub 15pin) Cable
• Accessories (Optional)	Point Write Spare Lamp Kit Ceilling Mount Wall Mount Carry bag

- Power Supply
- 3D Glasses  
AC100 to 240 V, 50 to 60 Hz

## **1.5 TESTING AND COMMISSIONING OF AUDIO, VISUAL & STAGE LIGHTING SYSTEMS**

The “As-Built” and Schematic Diagrams of the system in the form of a system operation and maintenance manual must be hand over to the client when commissioning the system.

## **1.6 WARRANTY**

Audio & Visual Contractor should provide a written ONE-YEAR warranty and Stage Lights should provide a written TWO-YEAR warranty commencing from the completion of the installation and covering the building against all systems defects.