

## **CLUSTER**

## uShaka Marine World

## UNIT

## **OPERATIONS**

#### DEPARTMENT

## **REPAIRS AND MAINTENANCE**

## PROCUREMENT DOCUMENT **GOODS / SERVICES**

Documents are to be obtained, free of charge, in electronic format, from the National Treasury's eTenders website or the eThekwini Municipality's website.

Tender No: 26320 (5U)

Title: Replacement and Maintenance of outdoor LED Screen

## **CLARIFICATION MEETING AND QUERIES**

A Compulsory Clarification Meeting will be held at uShaka Marine **Clarification Meeting:** 

World, Welcome Centre on 05 September 2023 at 11h00am.

Bidders are requested to submit email gueries related to the bid.

Queries can be addressed to: Questions and answers from the diameter. Questions and posted on eTenders/Municipal website for the Questions and answers from the clarification meeting will be

benefit of all tenderers by 2023-09-21.

Londeka Didi; Tel: 031 328 8000; eMail: **General / Contractual:** 

Ididi@ushakamarineworld.co.za

Yastin Ramsunder; Tel: 031-328-8101; eMail: Technical: yramsunder@ushakamarineworld.co.za

## **DELIVERY OF TENDERS**

Sealed Tenders, addressed to the City Manager and marked with the Tender Number, are to be placed in the Tender Box located in the ground floor foyer of the Municipal Buildings, 166 KE Masinga Road (Old Fort Rd), Durban (and not any other municipal department), no later than:

Closing Date: Friday, 29 September 2023

Time: 11:00am

## FACSIMILE, eMAIL or POSTED TENDERS WILL NOT BE ACCEPTED

## Issued by:

**ETHEKWINI MUNICIPALITY** 

Deputy Head: uShaka Marine World

Issued: August 2023 Document Version: 24/02/2023

NAME OF TENDERER:	
	VAT Registered: YES / NO
Tender Price: R	(circle applicable)

## PROCUREMENT DOCUMENT (Goods / Services)

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## **SECTION 1: GENERAL INFORMATION**

## YOU ARE HEREBY INVITED TO TENDER FOR REQUIREMENTS OF THE ETHEKWINI MUNICIPALITY

TENDER No.: 26320 (5U)

DESCRIPTION: Replacement of Click or tap here to enter text.

Outdoor LED Screen

CLOSING DATE / TIME: Friday, 29 September 2023 at 11:00am

All tenders must be submitted on official tender documentation issued (in electronic format) by the eThekwini Municipality from:

- the National Treasury's eTenders website ( https://www.etenders.gov.za/ ), or
- the eThekwini Municipality's website ( https://www.durban.gov.za/pages/business/procurement ).

Electronically downloaded documentation should be printed by the tenderer.

Tenderers are required to be registered on the **National Treasury Central Supplier Database** (CSD) as a service provider. In the case of a Joint Venture, this requirement will apply individually to each party in the Joint Venture.

Registration on the **eThekwini Municipality's Database** can be done via website: https://ethekwinivendor.durban.gov.za/

Tenderers should ensure that tenders are delivered timeously to the correct address as stated in the Conditions of Tender. If a tender is late, it will not be accepted for consideration.

The Municipality will consider a tender submitted in response to this request for tender to be an offer from your company to perform the supply on the basis of that tender. Accordingly, please review the attached General and Special Terms and Conditions which will form the basis for any supply arrangement entered into between the Municipality and your company.

The Municipality is seeking tenders from potential suppliers only and makes no representation or promise in relation to procuring work from a supplier or suppliers. The Municipality will not be responsible for any costs associated with preparing and submitting a tender.

The Municipality does not bind itself to accept the lowest or any tender. It reserves the right to accept the whole or any part of a tender to place orders. Bidders shall not bind the Municipality to any minimum quantity per order. The successful Tenderer (s) shall be bound to provide any quantities stipulated in the specification.

The <u>successful</u> tenderer will be required to fill in and sign a written Contract Form (MBD 7).

NB: NO TENDER WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE (as defined in Regulation 44 of the Local Government: Municipal Supply Chain Management Regulations).

# THE FOLLOWING PARTICULARS MUST BE FURNISHED (Failure to do so may result in your tender being disqualified)

Name of Tenderer:											
Postal Address:											
Street Address:											
E-Mail Address:			<u></u>	<u></u>							
Telephone Number:			-				-				
Cell phone Number:			-				-				
Facsimile Number:			-				] -				
								<u>c</u>	Circle A	pplica	<u>ble</u>
Is your entity registered of	on the <b>eThe</b>	kwini Mu	ınicipal	ity's s	upplie	r datab	ase?		YES	S / NO	
• If YES insert your P	R Number:							PI	R		
Is your entity registered of (CSD)?	on the <b>Natio</b>	onal Trea	sury Co	entral (	Supplie	er Data	base		YES	S / NO	
• If YES, insert your N	MAAA Num	ber:						. M <i>A</i>	AAA		
Insert a SARS Tax Comp	oliance Stat	us PIN									
Is your entity VAT registe	ered?									S / NO	
If YES insert Vat Reg	gistration Nu	ımber:									
Has a <b>Declaration of M</b> u	unicipal Fe	<b>es</b> been s	submitte	ed?					YES	S / NO	
Has a <b>Declaration of Int</b>	erest (MBI	) 4) been	submitt	ed?					YES	S / NO	
Has a <b>Declaration for P</b> submitted?	rocuremen	t Above l	R10 Mi	llion (N	/IBD 5)	been			YES	S / NO	
Has a <b>Preference Point</b>	s Claim (M	BD 6.1) b	een sub	mitted	?				YES / NO		
Has a <b>Declaration of Bi</b>	dder's Pas	t SCM Pr	actices	(MBD	8) bee	n subm	itted?		YES	S / NO	
Has a <b>Certificate of Ind</b> e	ependent E	Bid Deteri	minatio	n (MBI	D 9) be	en sub	mitted?		YES	S / NO	
Are you the accredited works offered? If YES,								,	YES	S / NO	
Signature of Tenderer:						Da	ate:				
Name / Surname:									(in blocl	k capita	als)
Capacity under which this tender is signed:											

## SECTION 2 : CONDITIONS OF TENDER - (Goods / Services : June 2019)

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#### SPECIAL / ADDITIONAL CONDITIONS OF TENDER

## STANDARD CONDITIONS OF TENDER (Goods / Services)

#### 1. <u>DEFINITIONS</u>

#### General:

- (1) Defined words / phrases are printed in Italic font.
- (2) Definitions apply to the singular as well as the plural.
- (3) Any reference to the masculine gender shall be taken to include the feminine and any reference to the feminine gender shall be taken to include the masculine.
- (4) The words "bid" and "tender", and "bidder" and "tenderer" can be used interchangeably.
- (5) All definitions as defined in the General Conditions of Contract are applicable to these Standard Conditions of Tender. These definitions include:
  - (a) "Closing time"
  - (b) "Contract"
  - (c) "Contract Price"
  - (d) "Corrupt practice"
  - (e) "Countervailing duties"
  - (f) "Country of origin"
  - (g) "Day"
  - (h) "Delivery"
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  - (n) "GCC"
  - (o) "Goods"
  - (p) "Imported content"
  - (q) "Local content"
  - (r) "Manufacture"
  - (s) "Order"
  - (t) "Project site"
  - (u) "Purchaser"
  - (v) "Republic"
  - (w) "SCC"
  - (x) "Services"
  - (y) "Supplier"
  - (z) "Tort"
  - (aa) "Turnkey"
  - (bb) "Written" or "in writing"
- (6) Bid or Tender: The offer submitted in respect of an invitation to submit such an offer.
- (7) Bidder or Tenderer: An entity (company, close corporation, partnership, joint venture, sole proprietor) which submits a bid/tender.
- (8) Municipality: The eThekwini Municipality, as represented by the duly authorised delegate, official or committee.
- (9) SCT: Special Conditions of Tender (found in Section 3).
- (10) Week: A period of seven (7) consecutive days.
- (11) Material Deviation: A material deviation or qualification is one which, in the Municipality's opinion, would:
  - (a) Detrimentally affect the scope, quality, or performance of the services or supply identified in the Scope;
  - (b) Significantly change the Municipality's or the Tenderer's risks and responsibilities under the contract; or
  - (c) Affect the competitive position of other Tenderers presenting responsive tenders, if it were to be rectified.

#### 2. CONDITIONS OF TENDER & CONTRACT

The specification will be governed by the Standard Conditions of Tender (Goods and Services), Special Conditions of Tender (SCT), General Conditions of Contract (GCC) (Government Procurement General Conditions (July 2010), as amended by National Treasury Circular 52 dated 30 July 2010), the Special Conditions of Contract (SCC), the Occupational Health and Safety Act (Act No. 85 of 1993), and the eThekwini Code of Conduct.

#### **Complete Acceptance of Conditions**

Unless otherwise expressly stipulated in a letter covering the *tender*, every *Tenderer* shall be deemed to have waived, renounced, and abandoned any conditions printed or written upon any stationery used for the purpose of, or in connection with, the submission of their *tender*, which are in conflict with the *General Conditions of Contract* and *Special Conditions of Contract*. *Tenderers* are advised that any *material divergences* / *qualifications* from the official Conditions or Specification will render their *tenders* liable to disqualification.

#### 3. TENDER INFORMATION

#### (1) General

- (a) *Tenders* will be liable for rejection unless made out on the official tendering documentation.
- (b) Any alterations effected upon any of the tendering documents must be clearly shown by means of a hand written (black, non-erasable ink), or typed, entry and must be signed in full by the *Tenderer*. The use of correction fluid is not permitted.
- (c) Tenderers may submit alternative solutions that, in the Tenderer's opinion, are to the Municipality's advantage economically and technically. Full technical details of the alternative tender(s) shall be submitted with the tender documents. Alternative tender(s) shall be submitted separately.

#### (2) Obtaining Tender Documentation

All tenders must be submitted on official tender documentation issued, in electronic format, by the eThekwini Municipality. Electronically downloaded documentation (obtainable free of charge) should be printed and suitably bound by tenderer.

#### (3) Queries Relating to this Tender

Queries can be directed to the person / Department as stated in the **SCT**.

## (4) Briefing Session (Clarification Meeting)

Details of the briefing session are stated in the SCT.

Failure to attend a <u>compulsory</u> briefing session will invalidate the *tender*. *Tenderers* must sign the attendance list in the name of the tendering entity. Tenders will only be evaluated from those tendering entities appearing on the attendance list.

#### (5) Closing Date and Delivery of Tender Submissions

Sealed *tenders* made out on the enclosed Official Tender Form, which shall be signed by or on behalf of the *Tenderer*, and addressed to the City Manager, marked with the appropriate Tender number, must be placed in the **Tender Box** as stated in the *SCT* not later than the **date and time** as stated in the *SCT*, where after they will be opened publicly.

All tender documents <u>must</u> be placed directly into the Tender Box and should not be delivered to any other Municipal Department. *Bidders* are advised that *tenders* submitted by post, fax or email <u>will not</u> be considered. All couriered documents must be placed directly into the Tender Box and should not be delivered to any other Municipal Department.

Any *tender* received after the closing date and time stated for the receipt thereof <u>shall not</u> be accepted for consideration and shall be returned to the *Tenderer*.

#### (6) Tender Validity and Withdrawal of Tenders

Tenders must hold good until 16:00 of the 5th week following the date on which tenders are opened, or during such other period as may be specified in the SCT. The Municipality may, during the period for which tenders are to remain open for acceptance, authorize a Tenderer to withdraw their tender in whole or in part on condition that the Tenderer pays to the Municipality on demand, a sum of one thousand Rand (R1,000.00). The Municipality may, if it thinks fit, waive payment of such sum in whole or in part.

#### 4. RETURNABLE SCHEDULES, FORMS, CERTIFICATES

Each *Tenderer* shall complete fully and accurately the following documents and submit these documents with the *tender*:

- Authority of Signatory: In terms of Clause 4(5)(c) of the Conditions of Tender.
- (2) Tax Compliance Status PIN / Tax Clearance Certificate: SARS has introduced a new Tax Compliance Status System. Tenderers can submit a Tax Compliance Status PIN (TCS PIN) instead of an original Tax Clearance Certificate. This TCS PIN can be used by third parties to certify the taxpayer's real-time compliance status.
- (3) Declaration of Municipal Fees: Only those Bidders whose municipal fees are fully paid, or those that have concluded acknowledgement of debt agreements with the Municipality, are eligible to tender.

All Bidders must sign the Declaration of Municipal Fees returnable form, declaring that their municipal fees are in order or that acknowledgement of debt agreements have been concluded, and include the relevant account numbers in the declaration. Failure to include account numbers or sign will invalidate the *tender*. The completion of the declaration is also applicable to *Bidders* outside of the eThekwini Municipal Area.

(4) Declaration with respect to the Occupational Health and Safety Act: Acceptance of undertaking in terms of the Occupational Health and Safety Act (Act 85 of 1993) and the relevant Regulations.

#### (5) Municipal Biding Documents (which includes):

 MBD 4: Declaration of Interest: All Bidders are to sign the Declaration of Interest wherein they declare any relationship that may exist with an official of the Municipality involved in the evaluation process.

Regulation 44 of the Supply Chain Management Regulations states that a Municipality or Municipal Entity may not make any award to a person:

- (i) Who is in the service of the state;
- (ii) If that person is not a natural person, of which any Director, Manager, Principal, Shareholder or Stakeholder is a person in the service of the state; or
- (iii) Who is an advisor or consultant contracted with the Municipality or municipal entity.

Should a contract be awarded, and it is subsequently established that Regulation 44 has been breached, the Municipality shall have the right to terminate the contract with immediate effect.

- MBD 5: Declaration for Procurement Above R10 Million (if applicable): For all procurement expected to exceed R10 million (all applicable taxes included), tenderers must complete this questionnaire.
- 3. MBD 6.1: Preference Points Claim Form: For the awarding of Preference Points, Bidders are required to complete the attached MBD 6.1 form and return it with their tender submission. Failure on the part of a tenderer to complete and submit this form will be interpreted to mean that preference points for Specific Goals are not claimed.

The Municipality reserves the right to require of a tenderer, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the Municipality.

- 4. MBD 8: Declaration of Bidders Past Supply Chain Management Practices Form: This form serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- 5. MBD 9: Certificate of Independent Bid Determination: Section 4(1)(b)(iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms if it involves collusive tendering or tender rigging. In order to give effect to this, the Certificate of Bid Determination must be completed and submitted with the tender.

#### (5) Official Tender Form (see Section 9)

#### • Legal Status of Tenderer

It is essential for the purpose of entering into a legal contract that *Bidders* state on the Official Tender Form, under "Name and Address of Tenderer", their full legal status:

- (i) the full registered name of the company making a tender: or
- (ii) if the *Tenderer* is a person conducting business under a recognised trading name then:
  - State the name of the person(s);
  - · State recognised trading name; and
  - State whether an owner, co-owner, proprietor, etc.

#### (b) Signing of Official Tender Form

Failure of a *Tenderer* to complete, in its entirety, and sign the Official Tender Form will invalidate the *tender*.

#### (c) Authority of Signatory

*Bidders* are to complete and sign the Authority of Signatory returnable document, and attach the required additional documents

#### (d) Differences or Discrepancies

Should there be any difference or discrepancy between the prices or price contained in the Official Tender Form and those contained in any covering letter from the Tenderer, the prices or price contained in the Official Tender Form shall prevail.

#### (6) Any additional Schedules, Forms, or Certificates as stated in the SCT.

## 5. <u>INFORMATION TO BE SUPPLIED REGARDING</u> <u>SUB-CONTRACTORS</u>

Bidders are to state in their tenders, or covering letters, whether, if the contract were to be awarded to them, the whole of the work would be executed by them in their own workshop / factory. If the answer is in the negative, they are required to state which part(s) would be handed to sub-contractors and the name and address of such sub-contractors.

#### 6. SAMPLES

*Bidders* may be required to state where samples of the full range of products can be inspected or be required to submit samples for inspection prior to the closing date of the *tender*.

## 7. MANUFACTURERS

The names of the manufacturers of the goods or equipment offered must be stated in the *tender*.

Bidders who are not manufacturers, accredited distributors, or agents must provide a valid agreement / Joint Venture Agreement, entered into with the manufacturer, accredited distributors, or agents, with their submission. This agreement must meet all the requirements as laid down in the *tender* document, and must cover the contract period.

#### 3. CLARIFICATION

The Head: Supply Chain Management Unit, or an authorized representative, may request clarification or further information on any aspect of the *tender*. The *Tenderer* <u>must</u> supply the requested information within the time specified. Failure to comply will render the *tender* non-responsive.

#### 9. PRICING

*Bidders* would be precluded from this *tender* if their pricing structure deviates from the Official Tender Form.

#### (1) Nett Prices

All prices shall be quoted in South African currency (Rand) after deduction of any brokerage or discount allowed to the Municipality.

#### (2) Unit Prices

Bidders shall quote only one price in respect of each item. Such price is to hold good for the full duration of the contract period, being subject to variation only in accordance with specified criteria, as stated in the *Conditions of Contract*.

#### (3) Firm Tenders

*Bidders* may submit firm prices for each 12 month period. These prices shall be free from all fluctuations, including any statutory increases.

#### (4) Value Added Tax (V.A.T)

Prices exclusive and inclusive of VAT must be stated separately on the Official Tender Form.

## 10. ESTIMATED QUANTITIES

The estimated quantities are set out in Section 8: Bill of Quantities / Schedule of Rates/Activities which forms part of the official tender documents. The quantities are stated purely for the information of the *Bidders* and are in order to ascertain an estimated total contract price. The *Supplier* will, however, be bound to supply whatever quantity or quantities the *Municipality* may actually require, and may exceed, or be less than, the estimated quantities stated.

#### 11. DELIVERY, RISK, PACKAGES, ETC

- Unless otherwise provided, all goods are to be supplied only against the form of order issued by the Municipality.
- (2) Bidders shall quote a unit price which shall include delivery to the specified delivery point, as stated in the SCT.
- (3) The risk in all goods purchased by the Municipality under the contract shall remain with the Supplier until such goods shall have been duly delivered.
- (4) Bidders shall clearly state the period within which delivery will be made after receipt of the official order, as this may be material in the adjudication of the tender.

#### 12. RATES OF EXCHANGE

(1) Where the goods are imported the Supplier shall, within seven days of date of official Purchase Order, arrange through their bankers for the foreign commitment to be covered forward down to the Rand in order to fix the rate of exchange. The Supplier shall notify the Municipality as soon as possible thereafter regarding the rate which has been fixed on such forward exchange.

Any increase or decrease between the basic rate of exchange as at a date seven days prior to the date of closing of *tenders* and that existing at the date of establishment of the forward exchange cover within the period stipulated above shall be paid or deducted by the Municipality. Upon the failure of the *Supplier* to arrange forward exchange cover, the *Supplier* shall be liable should there be any increase in the basic rate of exchange occurring after the last mentioned date.

The bank charges incurred in obtaining the forward exchange cover shall be for the *Municipality's* account.

- (2) The Supplier shall on request:
  - (a) Submit documentary proof of the rate of exchange; and
  - (b) When an adjustment is claimed in terms of this sub-clause, whether by the Supplier or the Municipality, submit documentary proof to the satisfaction of the Deputy City Manager: Treasury in respect of such claim.

#### 13. IMPORT PERMITS

- In order to minimise special importation, Bidders should, where possible, have recourse to local suppliers and / or manufacturers.
- Bidders must state whether their tender is dependent upon the issue of a special import permit or whether they are able to supply the goods by making use of the import facilities available to them.
- 3) In the event of a tender being dependent upon the issue of a special import permit, application for such special import permit shall be made by the Tenderer, unless otherwise provided for in the SCT.

### 14. EVALUATION PROCESS

The procedure for evaluation of responsive Tender Offers will be in accordance with the eThekwini Municipality's current SCM Policy and the Preferential Procurement Policy Framework Act (5 of 2000), and the Preferential Procurement Policy Framework Act Regulations (November 2022).

Details of additional evaluation criteria, if applicable, are stated in the *SCT*.

Evaluation points for price and preference will only be calculated for *Bidders* who comply with the contractual and technical specification, and if applicable, have attained the minimum Functionality Score as stated in the *SCT*.

The evaluation process of responsive tenders will be as follows:

- Score each tender in respect of the financial offer made and preferences claimed (if any);
- Calculate the total number of evaluation points (T<sub>EV</sub>) in accordance with the following formula:
  - $T_{\text{EV}} = N_{\text{FO}} + N_{\text{P}}$  where:  $N_{\text{FO}}$ : is the number of evaluation points awarded for the financial offer; and  $N_{\text{P}}$ : is the number of evaluation points awarded for preferences claimed.
- Rank tenders from the highest number of evaluation points to the lowest.
- Recommend the Tenderer with the highest number of evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- Rescore and re-rank all Bidders should there be compelling
  and justifiable reasons not to recommend the Tenderer
  with the highest number of evaluation points, and
  recommend the Tenderer with the highest number of
  evaluation points, unless there are compelling and
  justifiable reasons not to do so, and the process set out in
  this sub-clause is repeated.

#### (1) Evaluation points awarded for the financial offer:

Reference is to be made to the Special Conditions of Tender (*SCT*), and returnable form 5(c) in Section 4.

#### **INCOME-GENERATING CONTRACTS**

The financial offer will be scored using the formula:

$$N_{FO} = W \left( 1 + \frac{Pt - Pmax}{Pmax} \right)$$

### **GOODS and SERVICES**

The financial offer will be scored using the formula:

$$N_{FO=}W(1-\frac{Pt-Pmin}{Pmin})$$

Where the value of W is:

- (a) 90 where the financial value inclusive of VAT of all responsive tenders received have a value in excess of R 50,000,000; OR
  - **80** where the financial value inclusive of VAT of one or more responsive *tenders* offers have a value that equals or is less than R 50,000,000.
  - It is unclear (at the time of advertising) which of the two preference point systems applies. Either the 80/20 or 90/10 preference point system will apply, determined by the price offered by the lowest acceptable tender.
- (b) **Pmax** is the comparative offer of the most favourable comparative offer (highest acceptable tender).
- (c) **Pmin** is the comparative offer of the most favourable comparative offer (lowest acceptable tender).
- (d) **Pt** is the comparative offer of the *tender* offer under consideration.

#### (2) Evaluation points awarded for preference:

The **Specific Goals** for Preference Points are specified in the *SCT*.

## 15. BRIBERY AND COMMUNICATION WITH COUNCILLORS / OFFICIALS

#### (1) Bribery

No *Tenderer* shall offer, promise or give to any person or person connected with a *tender* or the awarding of a contract, any gratuity, bonus or discount etc, in connection with the obtaining of a contract.

#### (2) Communication, Councillors and Officials

A *Tenderer* shall not in any way communicate with a member of the *Municipality* or with any official of the *Municipality* on a question affecting any contract for the supply of goods or for any work, undertaking or services which is the subject of a *tender* during the period between the closing date for receipt of *tenders* and the dispatch of the written notification of the *Municipality's* decision on the award of the contract; provided that a *Tenderer* shall not hereby be precluded:

- (a) At the request of the Head: SCM Unit, or an authorized representative, from furnishing him with additional information or with a sample or specimen for testing purposes or otherwise from giving a demonstration so as to enable the recommendation to the Bid Committee on the award of the contract to be formulated;
- (b) From obtaining from the Head: SCM Unit, or an authorised representative, information as to the date upon which the award of the contract is likely to be made, or, after the decision upon the award has been made by the Municipality or any Committee to which the Municipality has delegated its powers, information as to the nature of the decision or such information as was publicly disclosed at the opening of tenders or from submitting to the Accounting Officer in writing any communication relating to their tender or the award of the contract or a request for leave to withdraw their tender; and
- (c) Provided further that nothing contained herein shall be construed so as to prevent information being sought and obtained from an Official in regard to any decision taken at an open Municipal meeting, or any Committee to which the Municipality has delegated its powers.

A contravention of subsection (1) and / or (2), or an attempt to contravene such subsection, shall be reported to the Accounting Officer, who may on receipt of such report disqualify the *tender* of the *Tenderer* concerned.

#### 16. <u>NEGOTIATIONS WITH PREFERRED BIDDERS</u>

The *Municipality* reserves the right to invoke Regulation 24 of Municipal Finance Management Act if required.

- (1) The Accounting Officer may negotiate the final terms of a contract with *Bidders* identified through a competitive tendering process as preferred *Bidders*, provided that such negotiation:
  - Does not allow any preferred *Tenderer* a second or unfair opportunity:
  - Is not to the detriment of any other *Tenderer*; and
  - Does not lead to a higher price than the tender as submitted.
- (2) Minutes of such negotiations must be kept for record purposes.
- (3) Such negotiation may be delegated by the Accounting Officer.

#### 17. CANCELLATION OF TENDER PROCESS

The municipality is entitled to cancel the tender at any time before the award of a tender and the decision to cancel the tender shall be published in the same manner in which the original tender invitation was advertised. The Municipality shall, in no way, be liable for any damages whatsoever, including, without limitation, damages for loss of profit, in any way connected with the cancellation of this bid.

#### 18. ACCEPTANCE OF BID

- The Municipality does not bind itself to accept the lowest or any tender, and reserves the right to accept the whole or any part of a tender to place orders.
- (2) The Municipality reserves the right to accept more than one technically and contractually compliant tender for part or the whole of the contract and to place orders on the price and availability.
- Bidders shall not bind the Municipality to any minimum quantity per order.
- (4) The successful Tenderer (s) shall be bound to provide any quantities stipulated in the specification.
- (5) Tenders will only be accepted on condition that:
  - (a) The *tender* is signed by a person authorised to sign on behalf of the *Tenderer*.
  - (b) A valid (at time of close of tenders), original, Tax Clearance Certificate OR Tax Compliance Status PIN is included with the *tender* submission. Both should have sufficient validity to ensure the process is adequately covered;
  - (c) A Tenderer who submitted their tender as a Joint Venture has included an acceptable Joint Venture Agreement and a B-BBEE Certificate pertaining to the Joint Venture with their tender.
- (6) Financial Standing: The Head: Supply Chain Management reserves the right to require *Bidders* to submit evidence that their financial standing is adequate to meet their obligations under the contract should they be successful.
- (7) Change of Ownership or Major Policy: Where it is known to a Tenderer that a change in ownership or major policy (of the tendering entity) will occur, or is likely to occur, during a specified contract period, the scope and effect thereof must be fully defined in a covering letter to be submitted with the tender.
- (8) Purchase of Goods From Other Sources: Nothing contained in this contract shall be held to restrain the *Municipality* from purchasing from persons other than the *Supplier*, any of the goods described or referred to in this contract, if it shall in its discretion think fit to do so.
- (9) Capability and Breach of Contract: Tenderers that do not have the capability of undertaking this enquiry in terms of the requirements of the contract or have been in breach of contract previously will not be considered.

#### 19. PAYMENT and FACTORING

Payment conditions will be as per the *Conditions of Contract*.

Payment will be made only to the *Supplier(s)*. Factoring arrangements will not be accepted.

## 20 APPEALS

In terms of Regulation 49 of the Municipal Supply Chain Management Regulations persons aggrieved by decisions or actions taken by the *Municipality*, may lodge an appeal within 14 days of the decision or action, in writing to the *Municipality*. The appeal (clearly setting out the reasons for the appeal) and queries with regard to decision of award are to be directed to the office of the City Manager, attention:

Ms. S. Pillay, P.O. Box 1394, Durban, 4000; eMail: Simone.Pillay@durban.gov.za.

## **SECTION 3: SPECIAL / ADDITIONAL CONDITIONS OF TENDER**

#### 3.1 SPECIAL CONDITIONS OF TENDER (SCT)

The **Standard Conditions of Tender** (Goods / Services) make several references to the **Special Conditions of Tender** (SCT) for details that apply specifically to this tender. The **Special Conditions of Tender** shall have precedence in the interpretation of any ambiguity or inconsistency between it and the **Standard Conditions of Tender**.

Each item below is cross-referenced to the clause in the **Standard Conditions of Tender** to which it mainly applies.

## SCT 3(1) TENDER INFORMATION: General

The tender document comprises of a cover page and 82 pages.

## SCT 3(2) TENDER INFORMATION: Obtaining Tender Documentation

Documents are issued by the eThekwini Municipality electronic format.

Electronically downloaded documentation is obtainable from:

- the National Treasury's eTenders website
  - o (https://www.etenders.gov.za/), or
- the eThekwini Municipality's website
  - (https://www.durban.gov.za/pages/business/procurement).

The entire document should be printed on A4 paper (one sided), and suitably bound by the tenderer.

#### SCT 3(3) TENDER INFORMATION: Queries Relating to this Tender

General and Contractual Queries are to be directed to:

Londeka Didi; Tel: 031 328 8000; eMail: Ididi@ushakamarineworld.co.za

Technical Queries are to be directed to:

Yastin Ramsunder; Tel: 031-328-8101; eMail: yramsunder@ushakamarineworld.co.za

## SCT 3(4) TENDER INFORMATION: Briefing Session

A Compulsory Clarification Meeting will be held at uShaka Marine World, Welcome Centre on 05 September 2023 at 11h00am.

## SCT 3(5) TENDER INFORMATION: Closing Date and Delivery of Tender Submissions

Sealed Tenders, addressed to the City Manager and marked with the Tender Number, are to be placed in the Tender Box located in the ground floor foyer of the Municipal Buildings, 166 KE Masinga Road (Old Fort Rd), Durban (and not any other municipal department), no later than: Friday, 29 September 2023 at 11:00am.

Bidders are to include, with their "hard copy" submission, a memory-stick containing an electronically scanned (300 dpi resolution) Public Document Format (PDF) copy of their complete bid submission. This PDF file should be named using the contract number and the bidder's name, eg. "XX-xxxx – Tenderers Name.PDF". The memory-stick must be securely fixed to the paper submission.

## SCT 3(6) TENDER INFORMATION: Tender Validity and Withdrawal of Tenders

Tenders must hold good for 12 weeks following the date on which tenders are opened.

## SCT 4(6) RETURNABLE SCHEDULES, FORMS, CERTIFICATES

- 4(6).1. The following documents must be included with the returnable document set.
- 4(6).1.1. All proposed equipment product brochures & specification documents.
- 4(6).1.2 .Declaration from LED Screen manufacturer confirming component integration into screen product & warranty period.
- 4(6).1.3. Letter of incorporation of screen manufacturer confirming they have been operating for a minimum 10 Years.
- 4(6).1.4. Declaration from manufacturer that bidder authorised to sell & support main equipment components
- 4(6).1.6. CE / ETL / FCC / RoHS certification of main equipment components
- 4(6).1.7. Filled in screen specification spreadsheet on page 70 listed as Item 25 (electronic copy available on request after briefing session)
- 4(6).1.8. Front, Rear, Side, Top drawing of the proposed screen panel/s detailing fixing points.
- 4(6).1.9. Proposed detailed system schematic as detailed on Page 46 under section listed as Drawings Specification Item 4.2.1
- 4(6).1.10. Preliminary drawing of the screen support structure with access platforms & cat ladders.
- 4(6).1.11. Power distribution drawing showing all components including remote relay on & off switching in-rush current management & surge suppression at the equipment room at the rear of the screen as well as screen panel distribution. (returnable document are more like mandatory requirements)

## SCT 11(2) DELIVERY, RISK, PACKAGES, ETC

The specified delivery point is 1 King Shaka Avenue, Durban Point, 4001.

## SCT 13 <u>IMPORT PERMITS</u>

In the event of a tender being dependent upon the issue of a special import permit, application for such special import permit shall be made by:

List name of applicant.

## SCT 14 **EVALUATION PROCESS**

The procedure for the evaluation of responsive tenders is **MANDATORY REQUIREMENT**, **FUNCTIONALITY AND PRICE AND PREFERENCE** in accordance with the Employer's current SCM Policy, the Preferential Procurement Policy Framework Act (5 of 2000), and the Preferential Procurement Policy Framework Act Regulations (2022).

The **80/20** preference points system will be applied. The Formula used to calculate the **Price Points (max. 80)** will be according to that specified Regulation 4.1

## **Mandatory Requirements**

- All proposed equipment product brochures & specification documents.
- Declaration from LED Screen manufacturer confirming component integration into screen product & warranty period.
- Letter of incorporation of screen manufacturer confirming they have been operating for a minimum 10 Years.
- Declaration from manufacturer that bidder authorised to sell & support main equipment components
- CE / ETL / FCC / RoHS certification of main equipment components
- Filled in screen specification spreadsheet on page 71 listed as Item 25 (electronic copy available on request after briefing session)
- Front, Rear, Side, Top drawing of the proposed screen panel/s detailing fixing points.
- Proposed detailed system schematic as detailed on Page 46 under section listed as Drawings
   Specification Item 4.2.1
- Preliminary drawing of the screen support structure with access platforms & cat ladders.
- Power distribution drawing showing all components including remote relay on & off switching in-rush current management & surge suppression at the equipment room at the rear of the screen as well as screen panel distribution. (returnable document are more like mandatory requirements)

## **FUNCTIONALITY APPROACH**

Functionality criteria / Sub criteria	Returnable Schedules	Weight
Tenderer's Experience	Experience of Tenderer	50
Experience of Key Staff	Contracts/Site/Project Manager	20
	LED Screen Technician/Engineer	10
	Broadcast Technician or AV Technician / Engineer	10
	Show Control Programmer	10
Total		100

The minimum number of evaluation points for Functionality is **60**. Only those tenderers who achieve the minimum number of Functionality evaluation points (or greater) will be eligible to have their tenders further evaluated.

Functionality shall be scored by not less than three evaluators and the scores of each of the evaluators will be averaged, weighted and then totalled to obtain the final score for Functionality. Each evaluation criteria will be assessed in terms of six indicators and scores allocated according to the following table:

Level 0	Level 1	Level 2	Level 3	Level 4	Level 5
0	20	40	60	80	100

The prompts for judgement for each of the evaluation criteria are listed below

# A) Projects of a similar nature relates to the Tenderer's Experience in the Installation, Maintenance, Setup and/or Repair of Modular LED Screens and associated AV Equipment

	Criterion: Tenderer's Experience					
Level 0	No information provided; OR submission of no substance / irrelevant information provided					
Level 1	To have successfully completed 1 project of a similar nature within the past 10 years.					
Level 2	To have successfully completed 2 projects of a similar nature within the past 10 years.					
Level 3	To have successfully completed 3 projects of a similar nature within the past 10 years.					
Level 4	To have successfully completed 4 projects of a similar nature within the past 10 years.					
Level 5	To have successfully completed 5+ projects of a similar nature within the past 10 years.					

## B) Experience of Key Personnel

The experience of assigned staff member in relation to the scope of work will be evaluated from three different points of view:

- 1) General experience, level of education and training and positions held of each of the key staff evaluated positions.
- 2) The skills and experience of the assigned staff in the specific operational areas. Linked to the scope of work.

CVs of the key staff being evaluated of **not more than 2 pages each** should be attached to this schedule: (define which CV's are required).

A table of CVs should be attached to this schedule. Each CV should be structured under the following headings:

Name & Surname	Role in this project	Recent skills / experience and certification relevant to the scope of this project	Total Number of Years' Relevant Experience

The scoring of the experience of key staff will be as follows for each of the indicated (required) key staff:

	Criterion: Project Organogram and Experience of Key Staff						
	Note: "similar nature" implies projects of a similar nature with respect to the Scope						
	Contracts/Site/Project Manager	LED Screen Technician/Engineer					
Level 0	No information provided OR submission of no substance / irrelevant information OR less than 1 year's relevant experience on projects of a similar nature.	No information provided OR submission of no substance / irrelevant information OR less than 1 year's relevant experience on projects of a similar nature.					
Level 1	Minimum 1 year relevant experience including experience on projects of a similar nature.	Minimum 1 year relevant experience including experience on projects of a similar nature.					
Level 2	Minimum 2 years relevant experience including experience on projects of a similar nature.	Minimum 2 years relevant experience including experience on projects of a similar nature.					
Level 3	Minimum 3 years relevant experience including experience on projects of a similar nature.	Minimum 3 years relevant experience including experience on projects of a similar nature.					
Level 4	Minimum 5 years or more relevant experience including experience on projects of a similar nature.	Minimum 5 years or more relevant experience including experience on projects of a similar nature.					
Level 5	Minimum 10 years relevant experience including experience on projects of a similar nature.	Minimum 10 years relevant experience including experience on projects of a similar nature.					

	Criterion: Project Organogram and Experience of Key Staff						
	Note: "similar nature" implies projects of a similar nature with respect to the Scope						
	Broadcast Technician or AV Technician / Engineer	Show Control Programmer					
Level 0	No information provided OR submission of no substance / irrelevant information OR less than 1 year's relevant experience on projects of a similar nature.	No information provided OR submission of no substance / irrelevant information OR less than 1 year's relevant experience on projects of a similar nature.					
Level 1	Minimum 1 year relevant experience including experience on projects of a similar nature.	Minimum 1 year relevant experience including experience on projects of a similar nature.					
Level 2	Minimum 2 years relevant experience including experience on projects of a similar nature.	Minimum 2 years relevant experience including experience on projects of a similar nature.					
Level 3	Minimum 3 years relevant experience including experience on projects of a similar nature.	Minimum 3 years relevant experience including experience on projects of a similar nature.					
Level 4	Minimum 5 years or more relevant experience including experience on projects of a similar nature.	Minimum 5 years or more relevant experience including experience on projects of a similar nature.					
Level 5	Minimum 10 years relevant experience including experience on projects of a similar nature.	Minimum 10 years relevant experience including experience on projects of a similar nature.					

## 14.2 Preference Point System and Specific Goals

The definitions as per the SCM Policy are applicable.

Preference Points (either 20 or 10) will be derived from <u>points claimed</u> on Returnable Document MBD 6.1: "Preference Points Claim Form" (in Section 4 of this procurement document) for the Specific Goal(s) as indicated on the table(s) below, and according to the specified Goal Weightings.

## **Ownership Goal**

The tendering entity's **Percentage Ownership**, in terms of the **Ownership Category(s)** listed below, is to be used in the determination of the <u>tenderer's claim</u> for **Preference Points**.

Goal Weighting Total is 50%						
Ownership Categories	80/20					
Race: Black	0%	0				
	>0% and <51%	3.5				
	≥51% and <100%	7.5				
	100%	10				

**Proof of claim as declared on MBD 6.1** (1 or more of the following will be used in verifying the tenderer's status)

- Companies and Intellectual Property Commission registration document (CIPC)
- CSD report.
- B-BBEE Certificate of the tendering entity.
- Consolidated B-BBEE Certificate if the tendering entity is a Consortium, Joint Venture, or Trust (Issued by verification agency accredited by the South African Accreditation System).
- Agreement for a Consortium, Joint Venture, or Trust.

The category weightings of the ownership categories will be: W1=50%, w2=50% (where w1 +w2= 100%)

## RDP Goal: The promotion of South African owned enterprises

The tendering entity's **Address** (as stated on the National Treasury Central Supplier Database (CSD) or on the eThekwini Municipality Vendor Portal) is to be used in the determination of the <u>tenderer's claim</u> for **Preference Points** for this Specific Goal.

Goal Weighting 50%					
Location	80/20				
Not in South Africa	0				
South Africa	3.5				
KZN	7.5				
ETM	10				

Proof of claim as declared on MBD 6.1 (1 or more of the following will be used in verifying the tenderer's status)
CSD report

## 3.2 ADDITIONAL CONDITIONS OF TENDER (ACT)

## ACT 1 **ELIGIBILITY – CSD REGISTRATION**

Tenderers are required to be registered on the National Treasury Central Supplier Database (CSD) as a service provider. In the case of a Joint Venture, this requirement will apply individually to each party in the Joint Venture. Tenderers not so registered, <u>at time of closing of tenders</u>, will not be eligible to submit tenders.

The Tenderer's CSD Supplier Number (starting with "MAAA") is to be provided on the information table in Section 1.

Tenderers who wish to register on the CSD may do so via web address https://secure.csd.gov.za.

## **SECTION 4: RETURNABLE TENDER DOCUMENTS**

The required returnable documents are as detailed in Section 2 (Clause 4): "Returnable Schedules, Forms, Certificates" of the Conditions of Tender / Special Conditions of Tender.

- 1) Authority of Signatory
- 2) Tax Compliance Status PIN / Tax Clearance Certificate
- 3) Declaration of Municipal Fees
- 4) Declaration with respect to The Occupational Health and Safety Act
- 5(a) MBD 4: Declaration of Interest
- 5(b) MBD 5: Declaration for Procurement Above R10 Million
- 5(c) MBD 6.1: Preference Points Claim
- 5(d) MBD 8: Declaration of Bidder's Past Supply Chain Management Practices
- 5(e) MBD 9: Certificate of Independent Bid Determination

The Tender Form can be found in Section 9: "Official Tender Form", and any <u>additional</u> schedules, forms, certificates can be found in Section 10: "Annexures".

#### 1) **AUTHORITY OF SIGNATORY**

Reference is made to the Conditions of Tender: Clause 4(5)(c).

Indicate the status of the tenderer by ticking the appropriate box hereunder.

COMPANY		CLOSE CORPORATION		PARTNERSHIP		JOINT VENTUR		SOLE PROPRIET	OR	
	Refer to Notes at the bottom of the page									
I / We, the undersigned, being the Chairperson (Company), Member(s) (Close Corporation), Partners (Partnership), Sole Owner (Sole Proprietor), Lead Partner (JV), in the company / business trading as:										
hereby authori	se Mr	/Mrs/Ms								
acting in the ca	apacity	y of								
to sign all docu from it on our b		s in connection	with th	e tender for Co	ontract	No. <b>26320</b>	( <b>5U</b> ) and	d any contra	act resulting	
NAME				ADDRESS			SIGNAT	URE	DATE	
						Į.				
		-								

## **Notes**

Tenderers are to include, at the back of their tender submission document, a printout of the following documents:

If a Company

: a "Resolution of the Board" in this regard.

If a Joint Venture : a "Power of Attorney" signed by the legally authorised signatories of all the partners to

the Joint venture.

#### 2) TAX COMPLIANCE STATUS PIN / TAX CLEARANCE CERTIFICATE

SARS has introduced a new Tax Compliance Status System. Tenderers can submit a Tax Compliance Status PIN (TCS PIN) instead of an original Tax Clearance Certificate. This TCS PIN can be used by third parties to certify the taxpayer's real-time compliance status.

Separate Tax Clearance Certificates / TCS PINs are required for each entity in a Joint Venture.

The TCS PIN(s) are to be entered on the information table in **SECTION 1: GENERAL INFORMATION.** 

Tenderers are to include, at the back of their tender submission document, a printout of their Tax Compliance Status PIN (TCS PIN) OR an original Tax Clearance Certificate.

Failure to include the required document will make the tender submission non-responsive.

confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, and that the requested documentation has been included in the tender submission.			
NAME (Block Capitals):	:	Date	
SIGNATURE:			

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer,

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# **DECLARATION OF MUNICIPAL FEES** 3) I, the undersigned, do hereby declare that the Municipal fees of (full name of Company / Close Corporation / partnership / sole proprietary/Joint Venture) (hereinafter referred to as the TENDERER) are, as at the date hereunder, fully paid or an Acknowledgement of Debt has been concluded with the Municipality to pay the said charges in instalments. The following account details relate to property of the said TENDERER: **Account** Account Number: to be completed by tenderer. Consolidated Account No. Electricity Water Rates Other I acknowledge that should the aforesaid Municipal charges fall into arrears, the Municipality may take such remedial action as is required, including termination of any contract, and any payments due to the Contractor by the Municipality shall be first set off against such arrears.

 Where the TENDERER'S place of business or business interests are outside the jurisdiction of eThekwini Municipality, a copy of the accounts/agreements from the relevant municipality must be

• Where the tenderer's Municipal Accounts are part of their lease agreement, then a copy of the agreement, or official letter to that effect is to be attached (to the back inside cover of this document).

Tenderers are to be include, at the back of their tender submission document, a printout of the above account's and or agreements signed with the municipality.

Failure to include the required document will make the tender submission non-responsive.

attached (to the back inside cover of this document).

NAME (Block Capitals):	Date
SIGNATURE:	

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#### 4) DECLARATION WITH RESPECT TO THE OCCUPATIONAL HEALTH AND SAFETY ACT

#### **Definitions**

The Act: The Occupational Health and Safety Act No 85 of 1993 (as amended by the Occupational Health and Safety Amendment Act No 181 of 1993), and any associated / applicable Regulations.

## **Declaration by Tenderer**

- 1. I, the undersigned, hereby declare and confirm that I am fully conversant with the Act.
- 2. I hereby declare that my company has the competence and the necessary resources to safely carry out the work / supply / services under this contract in compliance with the Act, and the Employer's / Purchaser's / Client's Health and Safety Specifications.
- 3. I hereby undertake, if my tender is accepted, to provide on request a suitable and sufficiently documented Health and Safety Plan which plan shall be subject to approval by the Employer / Purchaser / Client.
- 4. I hereby confirm that adequate provision has been made in my tendered rates to cover the cost of all resources, actions, training and all health and safety measures envisaged in the Act, and that I will be liable for any penalties that may be applied by the Employer / Purchaser / Client for failure to comply with the provisions of the Act.
- 5. I agree that my failure to complete and execute this declaration to the satisfaction of the Employer / Purchaser / Client will mean that I am unable to comply with the requirements of the Act and accept that my tender will be prejudiced and may be rejected at the discretion of the Employer / Purchaser / Client.

NAME (Block Capitals):	Date
SIGNATURE:	

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#### 5(a) MBD 4: DECLARATION OF INTEREST

## NOTES

MSCM Regulations: "in the service of the state" means to be:

- (a) a member of:
  - (i) any municipal council.
  - (ii) any provincial legislature.
  - (iii) the national Assembly or the national Council of provinces.
- (b) a member of the board of directors of any municipal enterprise.
- (c) an official of any municipality or municipal enterprise.
- an employee of any national or provincial department, national or provincial public enterprise or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999).
- (e) a member of the accounting authority of any national or provincial public enterprise.
- (f) an employee of Parliament or a provincial legislature.

"Shareholder" means a person who owns shares in the company and is actively involved in the management of the company or business and exercises control over the company.

- 1 No bid will be accepted from persons in the service of the state.
- Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority and/or take an oath declaring his/her interest.
- In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

3.1	Name of enterprise			
	Name of enterprise's representative			
3.2	ID Number of enterprise's representative			
3.3	Position enterprise's representative occupies in the enterprise			
3.4	Company Registration number			
3.5	Tax Reference number			
3.6	VAT registration number			
3.7	The names of all directors / trustees / shareholders / me partnerships, their individual identity numbers and state en paragraph 4 below. In the case of a joint venture, information must be completed and submitted.	mployee numbers mus	t be indi	cated in
			Circle Ap	plicable
3.8	Are you presently in the service of the state?		YES	NO
	If yes, furnish particulars:			
3.9	Have you been in the service of the state for the past twelve me	onths?	YES	NO
	If yes, furnish particulars:			

	3.10 Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid?				ES	NO
	If yes, furnish particulars:					
	3.11 Are you, aware of any relating and any persons in the serving and or adjudication of this between the serving and the ser	ce of the state who may b			ES .	NO
	If yes, furnish particulars:					
	3.12 Are any of the company's di stakeholders in service of th		rs, principle shareholders or	YE	ES	NO
	If yes, furnish particulars:					
	3.13 Are any spouse, child or parent of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state?				ES	NO
	If yes, furnish particulars:					
	3.14 Do you or any of the directo stakeholders of this compan business whether or not the	y have any interest in any	other related companies or	YE	ES	NO
	If yes, furnish particulars:					
4	The names of all directors / trus their individual identity numbers venture, information in respect of	and state employee num	bers must be indicated belo	w. In the	-	-
	Full Name	Identity No.	State Employee No.	Personal I	inco No.	me tax
		Use additional pages	if necessary			
	I, the undersigned, who warrants the					
	mation contained in this form is with	iin my personal knowledge	and is to the best of my bei		ate	i correct.
	iature:					

4

# 5(b) MBD 5: DECLARATION FOR PROCUREMENT ABOVE R10 MILLION (ALL APPLICABLE TAXES INCLUDED)

For all procurement expected to exceed R10 million (all applicable taxes included), bidders must complete the following questionnaire.

			Circle Ap	plicable
1.0	Are y	ou by law required to prepare annual financial statements for auditing?	YES	NO
	1.1	If YES, submit audited annual financial statements for the past three years or establishment if established during the past three years.	since the	date of
2.0	mun	ou have any outstanding undisputed commitments for municipal services towards any cipality for more than three months or any other service provider in respect of which nent is overdue for more than 30 days?	YES	NO
	2.1	If NO, this serves to certify that the bidder has no undisputed commitments for towards any municipality for more than three months or other service provider in payment is overdue for more than 30 days.	•	
	2.2	If YES, provide particulars.		
3.0	inclu	any contract been awarded to you by an organ of state during the past five years, ding particulars of any material non-compliance or dispute concerning the execution ch contract?	YES	NO
	3.1	If YES, provide particulars.		
4.0	porti	any portion of goods or services be sourced from outside the Republic, and, if so, what on and whether any portion of payment from the municipality / municipal entity is cted to be transferred out of the Republic?	YES	NO
	4.1	If YES, provide particulars.		
		I by 1.1 above, tenderers are to include, at the back of their tender submis f their audited annual financial statements.	ssion doc	:ument, a
infor	matior	undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, concentration of this form is within my personal knowledge and is to the best of my belief bed, if required, that the requested documentation has been included in the tender s	oth true and	d correct,
NAN	IE (Blo	ock Capitals):	Date	
SIGN	IATUF	RE:		

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# 5(c) MBD 6.1: PREFERENCE POINTS CLAIM In terms of THE PREFERENTIAL PROCUREMENT REGULATIONS (2022)

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022

#### 1.0 GENERAL CONDITIONS

- 1.1 The following preference point systems are applicable to invitations to tender:
  - the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included).
  - the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).
- 1.2 The applicable preference point system for this tender is the 80/20 preference point system.
- 1.3 Preference Points for this tender shall be awarded for:
  - **Price** and **Specific Goals**: Either 80 or 90 (price) and 20 or 10 (specific goals), in terms of 1.2 above.
  - The total Preference Points, for Price and Specific Goals, is 100.
- 1.4 Failure on the part of the tenderer to submit the required proof or documentation, in terms of the requirements in the (Special) Conditions of Tender for claiming **Specific Goal** preference points, will be interpreted that preference points for **Specific Goals** are not claimed.
- 1.5 The Municipality reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard of preferences, in any manner required by the Municipality.

## 2.0 DEFINITIONS

- 2.1 "tender" means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation.
- 2.2 "**price**" means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts.
- 2.3 "**rand value**" means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes.
- 2.4 "tender for income-generating contracts" means a written offer in the form determined by Municipality in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the Municipality and a third party that produces revenue for the Municipality, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions.
- 2.5 "the Act" means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

#### 3.0 FORMULA FOR CALCULATION OF PREFERENCE PRICE POINTS

#### 3.1 PROCUREMENT OF GOODS AND SERVICES

PRICE POINTS: A maximum of 80 points is allocated for price on the following basis:

## 80 / 20 Points System

$$Ps = 80 \left( 1 - \frac{Pt - Pmin}{Pmin} \right)$$

## 4.0 POINTS AWARDED FOR SPECIFIC GOALS

- 4.1 In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the **points claimed** for the goal(s) stated in **Table 1** below, as supported by proof/ documentation stated in the **Conditions of Tender**:
- 4.2 In cases where the municipality intends to use Regulation 3(2) of the Regulations, which states that if it is unclear whether the 80/20 or 90/10 preference point system applies, the municipality must, in the tender documents, stipulate in the case of:
  - (cc) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system, or
  - (dd) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,

then the municipality must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

TABLE 1: Specific Goals for the tender and points claimed are indicated per the table below.

### Tenderers are to indicate their points claim for each of the Specific Goals.

The Specific Goals to be allocated points in terms of this tender	Number of points ALLOCATED (80/20 system)	Number of points CLAIMED (80/20 system
Ownership Goal: Black	10	
<b>RDP Goal</b> : The promotion of South African owned enterprises.	10	

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, certify that the points claimed, based on the specific goals as specified in the tender, qualifies the tendering entity for the preference(s) shown.

### I acknowledge that:

- 4) The information furnished is true and correct.
- 5) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form.
- 6) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct.
- 7) If the specific goals have been claimed or obtained on a fraudulent basis, or any of the conditions of

contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have:

- (a) disqualify the person from the tendering process.
- (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct.
- (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation.
- (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
- (e) forward the matter for criminal prosecution, if deemed necessary.

NAME (Block Capitals):	Date
SIGNATURE:	

## 5(d) MBD 8: DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

- 1.0 This Municipal Bidding Document must form part of all bids invited.
- 2.0 It serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- 3.0 The bid of any bidder may be rejected if that bidder, or any of its directors have:
  - a) abused the municipal entity's supply chain management system or committed any improper conduct in relation to such system.
  - b) been convicted for fraud or corruption during the past five years.
  - c) wilfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years.
  - d) been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).
- 4.0 In order to give effect to the above, the following questions must be completed and submitted with the bid.

	bid.		
		Circle Ap	plicable
4.1	Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector?  (Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer / Authority of the institution that imposed the restriction after the audi alteram partem rule was applied.)  The Database of Restricted Suppliers now resides on the National Treasury's website	YES	NO
	(www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.		
	4.1.1 If YES, provide particulars.		
			 T
4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)?	YES	NO
	The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.		
	4.2.1 If YES, provide particulars.		
			 T
4.3	Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	YES	NO
	4.3.1 If YES, provide particulars.		

4.4	charge	the bidder or any of its directors owe any municipal rates and taxes or municipal es to the municipality / municipal entity, or to any other municipality / municipal, that is in arrears for more than three months?	YES	NO
	4.4.1	If YES, provide particulars.		
4.5	organ	ny contract between the bidder and the municipality / municipal entity or any other of state terminated during the past five years on account of failure to perform on or y with the contract?	YES	NO
	4.5.1	If YES, provide particulars.		
		igned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms this form is within my personal knowledge and is to the best of my belief both true and		nformation
l acce be fal		t, in addition to cancellation of a contract, action may be taken against me should this	declaration	n prove to
NAMI	E (Bloc	ck Capitals):	Date	
SIGN	ATURI	=====================================		

#### 5(e) MBD 9: CERTIFICATE OF INDEPENDENT BID DETERMINATION

## **NOTES**

- <sup>1</sup> Includes price quotations, advertised competitive bids, limited bids and proposals.
- <sup>2</sup> Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.
- <sup>3</sup> Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.
- 1.0 This Municipal Bidding Document (MBD) must form part of all **bids**<sup>1</sup> invited.
- 2.0 Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or **bid rigging**).<sup>2</sup> Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 3.0 Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
  - a. take all reasonable steps to prevent such abuse;
  - reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
  - c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
- 4.0 This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of **bid rigging**.
- In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid.

## **CERTIFICATE OF INDEPENDENT BID DETERMINATION**

I, the undersigned, in submitting the accompanying bid:
(Pid Number and Description)
(Bid Number and Description)
in response to the invitation for the bid made by:
(Name of Municipality / Municipal Entity)
do hereby make the following statements that I certify to be true and complete in every respect.
I certify, on behalf of:
(Name of Bidder)

that:

- 1. I have read and I understand the contents of this Certificate.
- 2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect.
- 3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder:
- 4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;
- 5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
  - (a) has been requested to submit a bid in response to this bid invitation.
  - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience.
  - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder.
- 6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement, or arrangement with any competitor. However, communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.

- 7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
  - (a) prices.
  - (b) geographical area where product or service will be rendered (market allocation).
  - (c) methods, factors or formulas used to calculate prices.
  - (d) the intention or decision to submit or not to submit, a bid.
  - (e) the submission of a bid which does not meet the specifications and conditions of the bid.
  - (f) bidding with the intention not to win the bid.
- 8. In addition, there have been no consultations, communications, agreements, or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
- The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

NAME (Block Capitals):	Date
SIGNATURE:	
_	

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## **SECTION 5: CONDITIONS OF CONTRACT**

## **GOVERNMENT PROCUREMENT: CONDITIONS OF CONTRACT (July 2010)**

The *Conditions of Contract* are the *General Conditions of Contract* as published by the National Treasury titled "Government Procurement: General Conditions of Contract (July 2010), as amended by National Treasury Circular 52 dated 30 July 2010, hereinafter referred to as *GCC*.

## THE NATIONAL TREASURY

Republic of South Africa



GOVERNMENT PROCUREMENT:
GENERAL CONDITIONS OF CONTRACT

July 2010

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#### Definitions

The following terms shall be interpreted as indicated:

- 1.1 "Closing time" means the date and hour specified in the bidding documents for the receipt of bids.
- 1.2 "Contract" means the written agreement entered into between the purchaser and the supplier, as recorded in the contract form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
- 1.3 "Contract price" means the price payable to the supplier under the contract for the full and proper performance of his contractual obligations.
- "Corrupt practice" means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution
- 1.5 "Countervailing duties" are imposed in cases where an enterprise abroad is subsidized by its government and encouraged to market its products internationally.
- "Country of origin" means the place where the goods were mined, grown or produced or from which the services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.
- 1.7 "Day" means calendar day.
- 1.8 "Delivery" means delivery in compliance of the conditions of the contract or order.
- 1.9 "Delivery ex stock" means immediate delivery directly from stock actually on hand.
- 1.10 "Delivery into consignees store or to his site" means delivered and unloaded in the specified store or depot or on the specified site in compliance with the conditions of the contract or order, the supplier bearing all risks and charges involved until the goods are so delivered and a valid receipt is obtained.
- 1.11 "Dumping" occurs when a private enterprise abroad market its goods on own initiative in the RSA at lower prices than that of the country of origin and which have the potential to harm the local industries in the RSA.
- "Force majeure" means an event beyond the control of the supplier and not involving the supplier's fault or negligence and not foreseeable. Such events may include, but is not restricted to, acts of the purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
- 1.13 "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any bidder, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial noncompetitive levels and to deprive the bidder of the benefits of free and open competition.
- 1.14 "GCC" means the General Conditions of Contract.
- "Goods" means all of the equipment, machinery, and/or other materials that the supplier is required to supply to the purchaser under the contract.

- "Imported content" means that portion of the bidding price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or his subcontractors) and which costs are inclusive of the costs abroad, plus freight and other direct importation costs such as landing costs, dock dues, import duty, sales duty or other similar tax or duty at the South African place of entry as well as transportation and handling charges to the factory in the Republic where the goods covered by the bid will be manufactured.
- 1.17 "Local content" means that portion of the bidding price, which is not included in the imported content provided that local manufacture does take place.
- 1.18 "Manufacture" means the production of products in a factory using labour, materials, components and machinery and includes other related value-adding activities.
- 1.19 "Order" means an official written order issued for the supply of goods or works or the rendering of a service.
- 1.20 "Project site," where applicable, means the place indicated in bidding documents.
- 1.21 "Purchaser" means the organization purchasing the goods.
- 1.22 "Republic" means the Republic of South Africa.
- 1.23 "SCC" means the Special Conditions of Contract.
- "Services" means those functional services ancillary to the supply of the goods, such as transportation and any other incidental services, such as installation, commissioning, provision of technical assistance, training, catering, gardening, security, maintenance and other such obligations of the supplier covered under the contract.
- 1.25 "Supplier" means the successful bidder who is awarded the contract to maintain and administer the required and specified service(s) to the State.
- 1.26 "Tort" means in breach of contract.
- "Turnkey" means a procurement process where one service provider assumes total responsibility for all aspects of the project and delivers the full end product / service required by the contract.
- 1.28 "Written" or "in writing" means hand-written in ink or any form of electronic or mechanical writing.

#### Application

- 2.1 These general conditions are applicable to all bids, contracts and orders including bids for functional and professional services (excluding professional services related to the building and construction industry), sales, hiring, letting and the granting or acquiring of rights, but excluding immovable property, unless otherwise indicated in the bidding documents.
- 2.2 Where applicable, special conditions of contract are also laid down to cover specific goods, services or works.
- 2.3 Where such special conditions of contract are in conflict with these general conditions, the special conditions shall apply.

#### 3. Genera

- 3.1 Unless otherwise indicated in the bidding documents, the purchaser shall not be liable for any expense incurred in the preparation and submission of a bid. Where applicable a nonrefundable fee for documents may be charged.
- 3.2 Invitations to bid are usually published in locally distributed news media and on the municipality/municipal entity website.

#### 4. Standards

4.1 The goods supplied shall conform to the standards mentioned in the bidding documents and specifications.

#### 5. Use of contract documents and information inspection

- 5.1 The supplier shall not, without the purchaser's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the supplier in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.
- 5.2 The supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC clause 5.1 except for purposes of performing the contract.
- 5.3 Any document, other than the contract itself mentioned in GCC clause 5.1 shall remain the property of the purchaser and shall be returned (all copies) to the purchaser on completion of the supplier's performance under the contract if so required by the purchaser.
- 5.4 The supplier shall permit the purchaser to inspect the supplier's records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser, if so required by the purchaser.

#### 6. Patent Rights

- 6.1 The supplier shall indemnify the purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the goods or any part thereof by the purchaser.
- 6.2 When a supplier developed documentation / projects for the municipality / municipal entity, the intellectual, copy and patent rights or ownership of such documents or projects will vest in the municipality / municipal entity.

#### 7. Performance security

- 7.1 Within thirty (30) days of receipt of the notification of contract award, the successful bidder shall furnish to the purchaser the performance security of the amount specified in SCC.
- 7.2 The proceeds of the performance security shall be payable to the purchaser as compensation for any loss resulting from the supplier's failure to complete his obligations under the contract.
- 7.3 The performance security shall be denominated in the currency of the contract or in a freely convertible currency acceptable to the purchaser and shall be in one of the following forms:
  - a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the purchaser's country or abroad, acceptable to the purchaser, in the form provided in the bidding documents or another form acceptable to the purchaser; or
  - (b) a cashier's or certified cheque.
- 7.4 The performance security will be discharged by the purchaser and returned to the supplier not later than thirty (30) days following the date of completion of the supplier's performance obligations under the contract, including any warranty obligations, unless otherwise specified.

#### 8. Inspections, tests and analyses

- 8.1 All pre-bidding testing will be for the account of the bidder.
- If it is a bid condition that goods to be produced or services to be rendered should at any stage be subject to inspections, tests and analyses, the bidder or contractor's premises shall be open, at all reasonable hours, for inspection by a representative of the purchaser or organization acting on behalf of the purchaser.

- 8.3 If there are no inspection requirements indicated in the bidding documents and no mention is made in the contract, but during the contract period it is decided that inspections shall be carried out, the purchaser shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned.
- 8.4 If the inspections, tests and analyses referred to in clauses 8.2 and 8.3 show the goods to be in accordance with the contract requirements, the cost of the inspections, tests and analyses shall be defrayed by the purchaser.
- 8.5 Where the goods or services referred to in clauses 8.2 and 8.3 do not comply with the contract requirements, irrespective of whether such goods or services are accepted or not, the cost in connection with these inspections, tests or analyses shall be defrayed by the supplier.
- 8.6 Goods and services which are referred to in clauses 8.2 and 8.3 and which do not comply with the contract requirements may be rejected.
- 8.7 Any contract goods may on or after delivery be inspected, tested or analysed and may be rejected if found not to comply with the requirements of the contract. Such rejected goods shall be held at the cost and risk of the supplier who shall, when called upon, remove them immediately at his own cost and forthwith substitute them with goods, which do comply with the requirements of the contract. Failing such removal the rejected goods shall be returned at the suppliers cost and risk. Should the supplier fail to provide the substitute goods forthwith, the purchaser may, without giving the supplier further opportunity to substitute the rejected goods, purchase such goods as may be necessary at the expense of the supplier.
- 8.8 The provisions of clauses 8.4 to 8.7 shall not prejudice the right of the purchaser to cancel the contract on account of a breach of the conditions thereof, or to act in terms of Clause 22 of GCC.

#### Packing

- 9.1 The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing, case size weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.
- 9.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the contract, including additional requirements, if any, and in any subsequent instructions ordered by the purchaser.

#### 10. Delivery and documents

10.1 Delivery of the goods and arrangements for shipping and clearance obligations, shall be made by the supplier in accordance with the terms specified in the contract.

#### 11. Insurance

11.1 The goods supplied under the contract shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified.

#### 12. Transportation

12.1 Should a price other than an all-inclusive delivered price be required, this shall be specified.

#### 13. Incidental Services

- 13.1 The supplier may be required to provide any or all of the following services, including additional services, if any:
  - performance or supervision of on-site assembly and/or commissioning of the supplied goods;
  - (b) furnishing of tools required for assembly and/or maintenance of the supplied goods;
  - furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods;
  - (d) performance or supervision or maintenance and/or repair of the supplied goods, for a period of time agreed by the parties, provided that this service shall not relieve the supplier of any warranty obligations under this contract; and
  - (e) training of the purchaser's personnel, at the supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied goods.
- 13.2 Prices charged by the supplier for incidental services, if not included in the contract price for the goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the supplier for similar services.

#### 14. Spare parts

- 14.1 As specified, the supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the supplier:
  - such spare parts as the purchaser may elect to purchase from the supplier, provided that this election shall not relieve the supplier of any warranty obligations under the contract; and;
  - (b) in the event of termination of production of the spare parts:
    - advance notification to the purchaser of the pending termination, in sufficient time to permit the purchaser to procure needed requirements; and
    - (ii) following such termination, furnishing at no cost to the purchaser, the blueprints, drawings, and specifications of the spare parts, if requested.

## 15. Warranty

- 15.1 The supplier warrants that the goods supplied under the contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the contract. The supplier further warrants that all goods supplied under this contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the purchaser's specifications) or from any act or omission of the supplier, that may develop under normal use of the supplied goods in the conditions prevailing in the country of final destination.
- 15.2 This warranty shall remain valid for sixty (60) months after the goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the contract. This is made up of a 24 month manufacturer's warranty immediately followed by a 36 month extended warranty which is accounted for on Line 45 of the Table 1 in the pricing schedule. This is detailed in SCC 15.2
- 15.3 The purchaser shall promptly notify the supplier in writing of any claims arising under this warranty.
- 15.4 Upon receipt of such notice, the supplier shall, within the period specified and with all reasonable speed, repair or replace the defective goods or parts thereof, without costs to the purchaser.

15.5 If the supplier, having been notified, fails to remedy the defect(s) within the period specified, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expense and without prejudice to any other rights which the purchaser may have against the supplier under the contract.

#### 16. Payment

- 16.1 The method and conditions of payment to be made to the supplier under this contract shall be specified.
- 16.2 The supplier shall furnish the purchaser with an invoice accompanied by a copy of the delivery note and upon fulfilment of other obligations stipulated in the contract.
- 16.3 Payments shall be made promptly by the purchaser, but in no case later than thirty (30) days after submission of an invoice or claim by the supplier.
- 16.4 Payment will be made in Rand unless otherwise stipulated.

#### 17. Prices

17.1 Prices charged by the supplier for goods delivered and services performed under the contract shall not vary from the prices quoted by the supplier in his bid, with the exception of any price adjustments authorized or in the purchaser's request for bid validity extension, as the case may be.

#### 18. Variation orders

18.1 In cases where the estimated value of the envisaged changes in purchase does not vary more than 15% of the total value of the original contract, the contractor may be instructed to deliver the goods or render the services as such. In cases of measurable quantities, the contractor may be approached to reduce the unit price, and such offers may be accepted provided that there is no escalation in price.

#### 19. Assignment

19.1 The supplier shall not assign, in whole or in part, its obligations to perform under the contract, except with the purchaser's prior written consent.

#### 20. Subcontracts

20.1 The supplier shall notify the purchaser in writing of all subcontracts awarded under this contracts if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the supplier from any liability or obligation under the contract.

#### 21. Delays in the supplier's performance

- 21.1 Delivery of the goods and performance of services shall be made by the supplier in accordance with the time schedule prescribed by the purchaser in the contract.
- 21.2 If at any time during performance of the contract, the supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may at his discretion extend the supplier's time for performance, with or without the imposition of penalties, in which case the extension shall be ratified by the parties by amendment of contract.
- 21.3 The right is reserved to procure outside of the contract small quantities or to have minor essential services executed if an emergency arises, the supplier's point of supply is not situated at or near the place where the goods are required, or the supplier's services are not readily available.

- 21.4 Except as provided under GCC Clause 25, a delay by the supplier in the performance of its delivery obligations shall render the supplier liable to the imposition of penalties, pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause 22.2 without the application of penalties.
- 21.5 Upon any delay beyond the delivery period in the case of a goods contract, the purchaser shall, without cancelling the contract, be entitled to purchase goods of a similar quality and up to the same quantity in substitution of the goods not supplied in conformity with the contract and to return any goods delivered later at the supplier's expense and risk, or to cancel the contract and buy such goods as may be required to complete the contract and without prejudice to his other rights, be entitled to claim damages from the supplier.

#### 22. Penalties

22.1 Subject to GCC Clause 25, if the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services using the current prime interest rate calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract pursuant to GCC Clause 23.

#### 23. Termination for default

- 23.1 The purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part:
  - if the supplier fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the purchaser pursuant to GCC Clause 21.2;
  - (b) if the supplier fails to perform any other obligation(s) under the contract: or
  - (c) if the supplier, in the judgement of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.
- 23.2 In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms and in such manner, as it deems appropriate, goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar goods, works or services. However, the supplier shall continue performance of the contract to the extent not terminated.
- 23.3 Where the purchaser terminates the contract in whole or in part, the purchaser may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years.
- 23.4 If a purchaser intends imposing a restriction on a supplier or any person associated with the supplier, the supplier will be allowed a time period of not more than fourteen (14) days to provide reasons why the envisaged restriction should not be imposed. Should the supplier fail to respond within the stipulated fourteen (14) days the purchaser may regard the supplier as having no objection and proceed with the
- 23.5 Any restriction imposed on any person by the purchaser will, at the discretion of the purchaser, also be applicable to any other enterprise or any partner, manager, director or other person who wholly or partly exercises or exercised or may exercise control over the enterprise of the first-mentioned person, and with which enterprise or person the first-mentioned person, is or was in the opinion of the purchaser actively associated.

- 23.6 If a restriction is imposed, the purchaser must, within five (5) working days of such imposition, furnish the National Treasury, with the following information:
  - the name and address of the supplier and / or person restricted by the purchaser;
  - (ii) the date of commencement of the restriction
  - (iii) the period of restriction; and
  - (iv) the reasons for the restriction.

These details will be loaded in the National Treasury's central database of suppliers or persons prohibited from doing business with the public sector.

23.7 If a court of law convicts a person of an offence as contemplated in sections 12 or 13 of the Prevention and Combating of Corrupt Activities Act, No. 12 of 2004, the court may also rule that such person's name be endorsed on the Register for Tender Defaulters. When a person's name has been endorsed on the Register, the person will be prohibited from doing business with the public sector for a period not less than five years and not more than 10 years. The National Treasury is empowered to determine the period of restriction and each case will be dealt with on its own merits. According to section 32 of the Act the Register must be open to the public. The Register can be perused on the National Treasury website.

#### 24. Antidumping and countervailing duties and rights

24.1 When, after the date of bid, provisional payments are required, or anti-dumping or countervailing duties are imposed, or the amount of a provisional payment or antidumping or countervailing right is increased in respect of any dumped or subsidized import, the State is not liable for any amount so required or imposed, or for the amount of any such increase. When, after the said date, such a provisional payment is no longer required or any such anti-dumping or countervailing right is abolished, or where the amount of such provisional payment or any such right is reduced, any such favourable difference shall on demand be paid forthwith by the supplier to the purchaser or the purchaser may deduct such amounts from moneys (if any) which may otherwise be due to the supplier in regard to goods or services which he delivered or rendered, or is to deliver or render in terms of the contract or any other contract or any other amount which may be due to him.

#### 25. Force Majeure

- 25.1 Notwithstanding the provisions of GCC Clauses 22 and 23, the supplier shall not be liable for forfeiture of its performance security, damages, or termination for default if and to the extent that his delay in performance or other failure to perform his obligations under the contract is the result of an event of force majeure.
- 25.2 If a force majeure situation arises, the supplier shall promptly notify the purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the force majeure event.

#### 26. Termination for insolvency

26.1 The purchaser may at any time terminate the contract by giving written notice to the supplier if the supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the supplier, provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to the purchaser.

#### 27. Settlement of Disputes

- 27.1 If any dispute or difference of any kind whatsoever arises between the purchaser and the supplier in connection with or arising out of the contract, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.
- 27.2 If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the purchaser or the supplier may give notice to the other party of his intention to commence with mediation. No mediation in respect of this matter may be commenced unless such notice is given to the other party.
- 27.3 Should it not be possible to settle a dispute by means of mediation, it may be settled in a South African court of law.
- 27.4 Notwithstanding any reference to mediation and/or court proceedings herein,
  - the parties shall continue to perform their respective obligations under the contract unless they otherwise agree; and
  - (b) the purchaser shall pay the supplier any monies due the supplier for goods delivered and / or services rendered according to the prescripts of the contract.

#### 28. Limitation of Liability

- 28.1 Except in cases of criminal negligence or wilful misconduct, and in the case of infringement pursuant to Clause 6;
  - (a) the supplier shall not be liable to the purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the supplier to pay penalties and/or damages to the purchaser; and
  - (b) the aggregate liability of the supplier to the purchaser, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

#### 29. Governing language

29.1 The contract shall be written in English. All correspondence and other documents pertaining to the contract that is exchanged by the parties shall also be written in English.

#### 30. Applicable law

30.1 The contract shall be interpreted in accordance with South African laws, unless otherwise specified.

#### 31. Notices

- 31.1 Every written acceptance of a bid shall be posted to the supplier concerned by registered or certified mail and any other notice to him shall be posted by ordinary mail to the address furnished in his bid or to the address notified later by him in writing and such posting shall be deemed to be proper service of such notice.
- 31.2 The time mentioned in the contract documents for performing any act after such aforesaid notice has been given, shall be reckoned from the date of posting of such notice.

#### 32. Taxes and duties

- 32.1 A foreign supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the purchaser's country.
- 32.2 A local supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted goods to the purchaser.
- 32.3 No contract shall be concluded with any bidder whose tax matters are not in order. Prior to the award of a bid SARS must have certified that the tax matters of the preferred bidder are in order.
- 32.4 No contract shall be concluded with any bidder whose municipal rates and taxes and municipal services charges are in arrears.

#### 33. Transfer of Contracts

33.1 The contractor shall not abandon, transfer, cede assign or sublet a contract or part thereof without the written permission of the purchaser.

#### 34. Amendment of contracts

34.1 No agreement to amend or vary a contract or order or the conditions, stipulations or provisions thereof shall be valid and of any force unless such agreement to amend or vary is entered into in writing and signed by the contracting parties. Any waiver of the requirement that the agreement to amend or vary shall be in writing, shall also be in writing.

#### 35. Prohibition of restrictive practices

- 35.1 In terms of section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, an agreement between, or concerted practice by, firms, or a decision by an association of firms, is prohibited if it is between parties in a horizontal relationship and if a bidder(s) is / are or a contractor(s) was / were involved in collusive bidding.
- 35.2 If a bidder(s) or contractor(s) based on reasonable grounds or evidence obtained by the purchaser has / have engaged in the restrictive practice referred to above, the purchaser may refer the matter to the Competition Commission for investigation and possible imposition of administrative penalties as contemplated in section 59 of the Competition Act No 89 0f 1998.
- 35.3 If a bidder(s) or contractor(s) has / have been found guilty by the Competition Commission of the restrictive practice referred to above, the purchaser may, in addition and without prejudice to any other remedy provided for, invalidate the bid(s) for such item(s) offered, and / or terminate the contract in whole or part, and / or restrict the bidder(s) or contractor(s) from conducting business with the public sector for a period not exceeding ten (10) years and / or claim damages from the bidder(s) or contractor(s) concerned.

## **SECTION 6: SPECIAL / ADDITIONAL CONDITIONS OF CONTRACT**

The **Conditions of Contract** make reference to the **Special Conditions of Contract** (SSC) for details that apply specifically to this bid. The **Special Conditions of Contract** shall have precedence in the interpretation of any ambiguity or inconsistency between it and the **Conditions of Contract**.

Each item below is cross-referenced to the clause in the **Conditions of Contract** to which it mainly applies.

## SCC 1.2 CONTRACT

This contract will be for a period of 36 months.

## SCC 7.1 PERFORMANCE SECURITY

The liability of the Performance Security shall be Nil.

## SCC 10.1 <u>DELIVERY AND DOCUMENTS</u>

All items are to be delivered and installed at uShaka Marine World.

## SCC 11.1 INSURANCE

The supplier will be liable for all Goods in Transit insurance costs and only once the system has been commissioned and handed over, will the warranty period commence.

#### SCC 14.1 SPARE PARTS

To be supplied as listed in the bill of materials specific to the screen being supplied by the successful elected bidder

## SCC 15.2 WARRANTY

- The warranty is deemed to cover all items of equipment and materials.
- The period of Warranty shall be for 36 (Thirty-Six) months.
- The Service Provider is required to extend the warranty period for an additional 24 (Twenty-Four) months, in addition to the 36 (Thirty-Six) from handover, meaning a total of 60 (Sixty) months. The warranty period shall commence from the date of handover of the project and the signing of the user acceptance documents.

## SCC 16.1 PAYMENT

The Contractor shall submit to the Department concerned a detailed account which shall reflect the identifying number of each item / service. Payment will be made on this account when checked and substantiated by the authorised official.

Payment for goods received and accepted by the Municipality shall be made no later than 30 days after submission of invoice or claim, provided however that all the terms of the contract are duly complied with.

Payment for the Replacement of the LED screen will be made upon commissioning and handover of the new LED screen to uShaka Marine World.

Payment for the monthly maintenance services will be paid monthly upon completion, sign off and receipt of delivery of services as required in the maintenance schedule.

Payment will be made only to the supplier. Factoring arrangements will not be accepted

## SCC 17 PRICES

Table 1 is for once off prices for delivery, dismantling, installation, commissioning and handover prices are fixed for the duration of the contract.

Monthly service prices will be fixed for the 12 month intervals as listed on the Table 2 for Year 1, Year 2 and Year 3 Maintenance Service Schedule pricing.

#### SCC 21.1 DELAYS IN THE SUPPLIER'S PERFORMANCE

The time schedule for the delivery of goods and performance of services in relation to the replacement of the LED Screen and maintenance thereof is 36 months from the start date indicated on the Service Level Agreement. The installation will take 2 months and the maintenance contract will continue for the remainder of the contract period

## SCC 22.1 **PENALTIES**

"If the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price (as a penalty):

A penalty of R2500 per day for each day delivery is delayed.

#### ADDITIONAL CONDITIONS OF CONTRACT

## ACC 1 PERFORMANCE MONITORING & ASSESSMENT OF SERVICE PROVIDERS

For contract awards that are greater than R10m, the Contractor shall be subjected to "Performance Monitoring" assessments in terms of the applicable Section of the Council's current Supply Chain Management Policy.

## ACC 2 **QUALITY OF PRODUCTS**

No inferior products will be accepted under this enquiry.

Should there be any cause for complaint against the standard of service or quality of products offered which is not resolved within a period of 10 working days, the Municipality reserves the right to cancel the contract after serving one month's notice, in writing, to the supplier involved. Should such notice be given, the supplier shall nevertheless be obliged to perform the duties covered by the contract up to the date of expiration of the period of notice.

# ACC 3 **SATISFACTORY PERFORMANCE**

The supplier shall employ for the purpose of this contract only such personnel as are careful and competent and the Municipality shall be at liberty to object to and require the supplier to remove from the job forthwith any person, including supervisory staff, employed by the supplier who, in the opinion of the Municipality, misconducts himself/herself or is incompetent or negligent in the proper performance of his/her duties and such person shall not again be employed upon this contract without the permission of the Municipality.

## ACC 4 OCCUPATIONAL INJURIES AND DISEASES ACT

This act replaces the Workmen's Compensation Act:

The supplier shall, before commencement of work, produce documentary proof to the Deputy Municipal Manager, Treasury: Finance that he has complied in all respects with the provisions of the Occupational Injuries and Diseases Act. The supplier undertakes that he/she will perform and comply with all provisions of the Occupational Injuries and Diseases Act and more particularly that he/she will render all returns and pay all assessments for which he/she is liable in terms of such Act.

# ACC 5 DAMAGE TO PERSONS AND PROPERTY

- (1) The supplier <u>shall</u> indemnify and keep indemnified the Council against any claim for death, injury, damage or loss to any person or property whatsoever in respect thereof or in relation thereto.
- (2) The supplier enters into this contract as an independent contractor and shall be solely liable in respect of any claim for death, injury, damage or loss to any person or property whatsoever in respect thereof or in relation thereto.

## ACC 6 RATE OF EXCHANGE VARIATION

Where the goods are imported the Contractor shall within seven days of date of Official Purchase Order, arrange through his bankers for the foreign commitment to be covered forward down to the Rand in order to fix the rate of exchange. The Contractor shall notify the Municipality as soon as possible thereafter regarding the rate which has been fixed on such forward exchange. The

forward cover shall be from a reputable South African bank. The Contractor is to confirm with the employer prior to placing forward cover if the service provider is acceptable.

Any increase or decrease between the basic rate of exchange as at 12:00 on the date of close of the bid and that existing at the date of establishment of the forward exchange cover within the period stipulated above shall be paid or deducted by the Municipality. Upon the failure of the Contractor to arrange forward exchange cover, the Contractor shall be liable should there be an increase in the basic rate of exchange occurring after the last-mentioned date.

The bank charges incurred in obtaining the forward exchange cover must be included in the Tenderer's bid.

## ACC 7 MONTHLY MAINTENANCE SERVICE CONTRACT

A monthly maintenance schedule will also be included in this contract as per the schedule listed in Table 2 on page 80, under the section 8: Bill of Quantities, Schedule of Rates/Activities. This service schedule will commence on the month following complete commissioning and handover of the new installation including training and snagging. Complete commissioning means the installation has been signed off by the relevant UMW Maintenance Manager.

The Maintenance Schedule should account for the following:

Equipment to be serviced	Schedule Of Works	Frequency		
		Every Month	Every 3 Months	Every 6 Months
VIDEO PRODUCTION AND DISPLAY EQUIPMENT	Check LED screen for correct operation	✓		
	Check LED screen module operation for faulty diodes - replace & repair if necessary	~		
	Check LED screen colour uniformity & image reproduction - recalibrate If necessary	~		
	Check LED screen brightness & automatic brightness control	~		
	Check LED screen image scaling, processing, reproduction & monitoring sensors	~		
	Check Cameras & AV & Show Control System for correct operation	~		
	Sign and submit Maintenance report	~		
	Check Screen housing structure integrity for leaks & ingress		~	
	Check Screen housing HVAC system for correct operation		~	
	Check Control Room HVAC system for correct operation		<b>✓</b>	
	Check Rack Room HVAC system for correct operation		~	
	Check Image scaling, processing, reproduction & monitoring sensors		~	
	Check signal processing transport & routing system redundancy		~	
	Check NDI Audio & Video control system for correct operation		~	
	Check NDI PTZ Cameras & Controllers for correct operation		~	
	Check Audio & Video content servers for correct operation		~	
	Check show control system for correct operation		~	
	Sign and submit Maintenance report		~	
	Wash front of screen			~
	Clean control room & rack equipment			~
	Sign and submit Maintenance report			<b>✓</b>

# SECTION 7: SCOPE AND SPECIFICATION OF REQUIRED SUPPLY / SERVICES Scope of Supply / Services

# 1.1.The existing high refresh rate full colour LED display screen & support infrastructure, currently installed at the Dolphin Stadium,

uShaka Marine World, Durban and has been operational now for nearly 8 Years. The client wishes to upgrade the abovementioned

Display Screen & supporting infrastructure with the latest technology for the below environment utilising the highest grade components.

#### 1.2. Environmental Conditions

- 1.2.1. Location: 29° 86' South 31° 04' East
- 1.2.2. Maximum ambient temp: +26°C
- 1.2.3. Minimum ambient temp.: +18°C
- 1.2.4. Maximum Relative Humidity: 80%,
- 1.2.5. Minimum Relative Humidity: 70%
- 1.2.6. Average Annual Rainfall: 103mm
- 1.2.7. Elevation: 8m above mean sea level
- 1.2.8. Atmosphere: Highly Corrosive due to wind-blown salt spray

#### 1.3. Standards

- 1.3.1. The latest editions and/or amendments of The South African National Standard (S.A.N.S.) Specifications and Codes of
  - Practices are applicable to this contract:
- 1.3.2. The latest editions and/or amendments of The British Standard Specifications (B.S.S.) and Codes of Practice, where the S.A.N.S. equivalent is not available.
- 1.3.3. The latest editions and/or amendments of I.E.C. Standard Specifications and Codes of Practice, where the S.A.N.S. and B.S.S. equivalent are not available.
- 1.4. This Tender is for the upgrade of the large full colour LED video display screen and support infrastructure located in the Dolphin stadium at uShaka Marine World hereinafter referred to as UMW. The scope of work includes the design, supply, testing, commissioning, programming, training & handover of the complete system as detailed in this document. This document should be read in conjunction, with the detailed specification document, as well as all relevant drawings and bill of quantities (BOQ).

## 2. Division of the works

- 2.1. The successful contractor shall undertake to design, supply, deliver, install, commission and handover a complete system in compliance with this specification and all applicable codes. This shall include but not be limited to the following:
- 2.1.1. The large High Refresh Rate Full Colour Large Format Video Display Screen

- 2.1.2. The Dual Redundant Low Latency High Refresh Rate Full Colour Video Display Screen Processing System with Dual Redundant fibre optic extender equipment & interfaces from control room to screen.
- 2.1.3. High-Performance Image Processing & Scaling Equipment
- 2.1.4. HDMI Distribution Amplifier
- 2.1.5. Professional High Bandwidth All-Weather NDI Outdoor PTZ Camera
- 2.1.6. POE++ Power over Ethernet Injector
- 2.1.7. NDI POE+ FHD HDMI Video Encoder/Decoder with Tally
- 2.1.8. Portable High Quality Professional 4K/FHD NDI Video Camera with Memory Card Recorder
- 2.1.9. Professional 2-Stage Video Tripod with Leg Spreader, Fluid Head & Pan & Tilt Bar
- 2.1.10. Full NDI Rackmount Multi-Layer Video Production System
- 2.1.11.14 Button Control Surface For Above Production System
- 2.1.12. Touch Panel Control System
- 2.1.13. Digital Media Content Server & Show Control System
- 2.1.14. Control & Multiview Video Display Monitors
- 2.1.15. Managed Network Switch
- 2.1.16. Mobile 4G/TCIP Network Router
- 2.1.17. Input / Output patch panels & equipment cabinets if required.
- 2.1.18. Wire and cable as required to install all equipment as well as miscellaneous wireways for final equipment connections if required.
- 2.1.19. Any alterations, adaptations, renovations to the screen support structure
- 2.1.20. Provide training to UMW staff in the set-up and 1st line maintenance & support of the system.
- 2.1.21. Inspect conditions at the site prior to installation and co-ordinate a work program so as to not interfere with the daily operation of the dolphin stadium, it's staff & the marine mammals.
- 2.1.22. Examine carefully related drawings to coordinate final equipment locations and cable routes with the UMW facility manager & client representative
- 2.1.23. Confirm exact mounting locations and heights of components with the UMW facility manager & client representative prior to installation and notify the UMW facility manager & client representative prior to installation, if certain mounting conditions are incompatible.
- 2.1.24. Connection to existing services & equipment in the control room & screen racks
- 2.1.25. Power distribution with remote relay on & off switching including automated sequential start up, in-rush current management & surge suppression at the equipment room at the rear of the screen.
- 2.1.26. Remote control & online monitoring of above power distribution system is required
- 2.1.27. The abovementioned sealed Display Screen structure should have an inverter type cooling system which will ramp up or down depending on the heat load and have at least 20% BTU headroom with screen running at peak white. Bidders are to provide calculations relating to their screen offering & airspace volume with their submissions illustrating this Please Note: The successful contractor may need to share wireways with other services & service providers & is to treat existing installations & other services with respect & care so as not to disrupt these services. Any damages cause by the service provider & the resulting repairs to these services will be for their account.

## 3. Mains Power Supply

- 3.1. The client's electrical contractor will provide isolated mains power supplies as required at 400/230 Volt AC to the control room & equipment room at the rear of the screen. The Contractor is responsible for all other power supply & distribution to the screen components.
- 3.2. The contractor must supply a power distribution with remote relay on & off switching including automated sequential start up, in-rush current management & surge suppression at the equipment room at the rear of the screen.
- 3.3. The abovementioned power distribution system must have remote control capabilities & online monitoring of power supply status via a web portal. System data must be made available via an API for 3rd party monitoring dashboards.
- 3.4. Automatic notifications to be generated & sent to relevant parties if temperature & voltage are out of range.

### 4. Drawings

- 4.1. The existing drawings of the screen structure have been included with these bid documents as a guide. (electronic copies are available on request after briefing session).
- 4.2. The prospective bidders will be required to provide detailed drawings with their submission to indicate that they have understood the specification & have the relevant knowledge & system design skills to execute the works. Bidders are to provide the following drawings with their submission:
- 4.2.1. Detailed system schematics from signal ingestion to final delivery at the large format display screen with all equipment as required by the scope of works showing signal path & proposed redundancy loops as well as all system monitoring & signal type. Bidders are to show consistency with the BOQ proposed models.
- 4.2.2. Structural drawing of the large screen support structure with access platforms & cat ladders for any alterations to the existing structure that may be required.
- 4.2.3. Electrical distribution schematic with remote relay on & off switch including sequential start up, in-rush current management & surge suppression. Single line diagrams of the DB Board
- 4.2.4. Rack & control room layout & drawings
- 4.2.5. Proposed cable routes from patch points to control room & equipment room at the rear of the screen will be discussed during the site briefing
- 4.3. These drawings will become the contract drawings and will be revised and extended as necessary and in accordance with the development of the design and finalised and handed over to the client as "As Builts".

## 5. Cost Variations

- 5.1. Once off prices for delivery, dismantling, installation, commissioning and handover prices are fixed for the duration of the contract.
- 5.2 Monthly service prices will be fixed for the 12 month intervals as listed on the Table 2 for Year 1, Year 2 and Year 3 Maintenance Service Schedule pricing.

## 6. Testing and Commissioning

- 6.1. Except where otherwise provided in the contract documents, the Contractor shall provide:
- 6.1.1. A test schedule for each section of the works or item of equipment/system to be tested, at an agreed time, date and place of the test, with the UMW facility manager & client representative detailing the test procedure, the type and number of tests to be carried out, and the type, make and serial numbers of all test instruments that will be used.
- 6.1.2. All labour, materials, power, fuel, accessories and properly calibrated instruments necessary for carrying out the tests.
- 6.1.3. The Contractor shall give 14 (fourteen) days' notice, in writing, when any portion of the installation or plant is ready for testing.
- 6.2. In the event of the plant or installation not passing the tests, the UMW facility manager & client representative shall be at liberty to
- deduct from the contract price, any reasonable expenses incurred in repeating the tests.
- 6.3. The Contractor shall carry out preliminary tests necessary to satisfy himself that the plant, materials and equipment comply with the provisions of the contract and are in a suitable state to satisfy the requirements of the Specification. The Contractor is required to record these preliminary test results (in a manner to be agreed with by the UMW facility manager & client representative and to
- submit one typed copy to the Engineer for comment, prior to the Engineer attending the acceptance tests.
- 6.4. If the Contractor fails to undertake the acceptance tests within a reasonable period of time, the UMW facility manager & client representative may arrange to have the tests performed by another party. All tests so made shall be at the risk and expense of the Contractor
- 6.5. It is a requirement of this contract that the Contractor undertake all the above tests and submit the results in typed format to the UMW facility manager & client representative.
- 6.6. The UMW facility manager & client representative will subsequently request the Contractor to repeat all, or part, of these tests, during the final inspection prior to handover.
- 6.7. The Contractor shall set all equipment and program all devices and these settings are to be included in the as built drawings and manuals.

## 7. Approvals

- 7.1. The drawings, documents and specification indicate the type, size and quantity of equipment, materials and components required.
- 7.2. The contractor will be required to supply, strictly in accordance with these requirements, unless otherwise approved by the UMW

facility manager & client representative

7.3. Approval, in all instances, shall be taken as formal approval, in writing, by the UMW facility manager & client representative. Verbal approval will not be recognized and the Contractor will be held responsible for any subsequent costs or fruitless expenditure involved.

- 8.1. The period of Warranty shall terminate 24 (Twenty Four) months after the date of handover.
- 8.2. The tender documents include the requirement to extend the warranty period a further 36 (Thirty Six) months, in addition to the 24 (Twenty Four) from handover, meaning a total of 60 (Sixty) months.
- 8.3. The warranty period shall commence from the date of handover of the project and the signing of the user acceptance documents.
- 8.4. During the warranty period, the contractor will maintain, without charge, all equipment supplied under this contract and, notwithstanding anything to the contrary, shall replace all components that fail, at no cost to the client.
- 8.5. The warranty is deemed to cover all items of equipment and materials.
- 8.6. When purchasing materials and equipment from suppliers, the contractor shall obtain formal cessions of all warranties covering the materials and equipment, from the supplier, in favour of the client. The Contractor should, therefore qualify all orders accordingly.
- 8.7. The contractor will also be responsible for the warranty of all components and equipment specified by name in the documents or as otherwise approved by the UMW maintenance manager & client representative.
- 8.8. During the warranty period, the contractor will be contacted directly in regard to complaints or failures and shall in turn contact and direct the relevant supplier/manufacturer or his own staff, irrespective of whose ultimate responsibility it shall be to correct the situation.

## 9. Materials and Equipment

- 9.1. With the exception of the specialised electronic equipment in this scope of works, wherever possible, material and equipment shall be of South African manufacture and of the same make and type throughout the installation.
- 9.2. Where materials and equipment are specified by name, make or type number, alternatives will not be considered, unless it is to the client's advantage.

## 10. Equipment Delivery

- 10.1. The Contractor shall place orders timeously for all materials and equipment. The responsibility for verifying delivery times of items specified rests solely with the Contractor
- 10.2. In this regard, the Contractor's attention is directed to long lead items.

## 11. Cable Schedules

- 11.1. Cable schedules must be supplied which must, amongst other, include the following:
- 11.1.1.The number of cables mutually connected between screen panels as well as between the screen and the main control room
- 11.1.2.Cable types & sizes
- 11.1.3. Number of conductors in each cable
- 11.1.4. Number of spare cables to be installed
- 11.1.5.Cable types
- 11.1.6.Technical references of the cables
- 11.1.7. Schedules containing full details with respect to interconnecting cable schedules, their size, rating, connecting terminal details and connecting references must be included in the maintenance manuals.

#### 12. Quality Assurance

- 12.1. The contractor shall be an authorised system distributor / integrator with approved service technicians, as recognised by the manufacturer / vendor to carry out the scope of works & to have local service facilities to maintain & service the equipment being supplied.
- 12.2. Current dated letters from the manufacturer/system distributor to this effect shall be submitted as part of the bid documents
- 12.3. The Contractor shall have worked satisfactorily for a minimum of 10 (Ten) years on systems of this type and size and shall provide contactable references as part of this bid.
- 12.4. Equipment and materials of the type for which there are independent standard testing requirements, listings, and labels, shall be listed and labelled by the independent testing laboratory.
- 12.5. All equipment and materials shall have industry standard certifications, CE / ETL / FCC RoHS certification of main equipment components shall be included with the bid submission.
- 12.6. Material and equipment shall be new, and conform to grade, quality, and standards specified. Equipment and materials of the same type shall be a product of the same manufacturer throughout.
- 12.7. Sub-contractors shall assume all rights and obligations toward the Contractor that the Contractor assumes toward the UMW facility manager & client representative.
- 12.8. The contractor must have staffed local offices in the eThekwini Metro area with sufficient maintenance & repair workshop facilities. Visits may be made to the facility of bidder's, that have been shortlisted during the adjudication process, to assess their capabilities to deliver the project and provide the necessary ongoing support.
- 12.9. The contractor will need to provide evidence that they have the necessary skill set locally to deliver the project and provide the necessary ongoing support
- 12.10. The contractor will need to provide reference sites in the eThekwini Metropolitan area & surrounds of similar size projects that may be inspected during adjudication along with current contact details.

## 13. Service Level Agreement (SLA)

- 13.1. Preventative maintenance work schedule to be detailed and documented within.
- 13.2. Call out procedures with response time to be detailed and documented within.
- 13.3. Reporting procedures:
- 13.3.1. The contractor shall provide full detailed list of all failures and repair/replacement implementation details.
- 13.4. Local repair facility essential including repair of modules at board level. A site visit to inspect the contractors local repair facility may be required during the adjudication process.

#### 14. Operation & Maintenance Manuals

- 14.1. The Contractor shall supply three (3) hard and one (1) soft copies of the operation & maintenance manuals to the UMW facility manager/consultant/client representative for approval.
- 14.2. Each copy of the operation & maintenance manuals must contain one (1) set of paper prints of final "As Built" drawings as mentioned above.
- 14.3. Information of all subsystems, components, etc. of each part of the installation must be supplied, also indicating the position of each component, the manufacturer, the type, the series number, performance data, i.e. full details to enable any outside party to perform comprehensive maintenance of the total installation.

- 14.4. Routine control tests that must be performed on individual components or parts of the installation must be indicated along with instructions on how to perform the necessary test. The various intervals and periods at which these tests and inspections must be performed, must also be mentioned.
- 14.5. Service level agreement work schedule
- 14.6. Equipment warranty docs

#### 15. Technical Returnable Documents

15.1. A list of Returnable documents to be submitted with this bid can be found on page 11 listed under item SCT 4(6) RETURNABLE SCHEDULES, FORMS, CERTIFICATES

## **Specifications**

- Bid Execution Committal SLA to be drafted and signed upon issuing of the letter of award.
- 2. Contractual Requirements Includes any costs which may arise outside of items listed in this document that may be required to fulfil the objectives of the requirements of the scope of work of this project
- 3. Public Liability, Contract works insurance, performance guarantees, sureties, overheads etc need to be accounted for and covered by the successful bidder.
- 4. Site Establishment For the Tenderer to advise when letter of award is issued
- 5. Site Meetings Attendance & Progress Reports To be scheduled when Letter of Award is issued
- 6. Scaffolding & Access Equipment necessary to complete the works Tenderer to advise on plan and timelines when SLA is signed of.
- 7. Removal & repacking of Existing Screen For Client Storage uShaka Representative to point out the area this will be stored in.

## 8. High Refresh Rate Full Colour Large Format Video Display Screen

- 8.1. As mentioned above, the client wishes to upgrade the existing High Refresh Rate Full Colour Large Format Video Display Screen with a current technology product utilising the highest grade components only. Bidders are to provide products of international standard and quality grade and pay particular attention to maintaining consistent colour uniformity over the lifespan of the screen. High Bit depth colour and grey scale as well as high refresh rate processing IC in line with fast motion sport & graphic content will be required. Only manufacturers with a minimum 10 Year history will be considered under this scope and bidders will be required to provide proof of this.
- 8.2. The existing High Refresh Rate Full Colour Video Display Screen is 6912mm wide by 4608mm high in size. The replacement High Refresh Rate Full Colour Large Format Video Display Screen (hereafter referred to as the New LED Display Screen) shall be no smaller than these dimensions. Bidders are encouraged to source products that meet this requirement in order to make use of the existing support infrastructure. Products offerings larger than the above dimension would be acceptable & bidders may choose to adapt the existing support structure or provide an entirely new structure more compatible with their product offering.

The display screen structure, either new or modified, shall be clad & sealed to an IP65 standard. Open structures will not be considered under this specification. Bidders are to provide scaled engineering design

drawings of the proposed structure with their bid submission, showing how the new LED Display Screen will be mounted to the structure, highlighting service access platforms, cat ladders and lockable sealed access door and worker lights on all levels.

- 8.3. The abovementioned sealed Display Screen structure should have an inverter type cooling system which will ramp up or down depending on the heat load and have at least 20% BTU headroom with screen running at peak white. Bidders are to provide calculations relating to their screen offering & airspace volume with their submissions illustrating this
- 8.4. The new High Refresh Rate Full Colour Large Format Video Display Screen shall be utilised for the daily live shows at the dolphin stadium with marine mammals, as well as other special events, live music performances, light entertainment shows, praise & worship celebrations, corporate events, etc and thus is required to display high speed motion content from the digital video mixing & processing equipment with sources from multiple live camera inputs & playback servers.
- 8.5. The new High Refresh Rate Full Colour Large Format Video Display Screen shall be IP 65 rated front & rear
- 8.6. CE / ETL / FCC / RoHS certification for the new screen will be required and must be provided with the bid returnables.
- 8.7. The new LED Display Screen modules shall be made of 3-in-1 RGB DIP LED and have a minimum 8.0mm pixel pitch. 3-in-1
- DIP LED have been chosen for this specification over SMD due to the encapsulation process and the highly corrosive environment of the screen location as well as lower power consumption & lower operating temperature. Only premium grade3-in-1 DIP LED manufactured by Cree, Nichia, Osram or similar will be considered under this specification & declaration from the module manufacturer confirming this will be required to be submitted with the returnables.
- 8.8. The new High Refresh Rate Full Colour Video Display Screen modules shall have a minimum 4 layer, PCB with Copper Tracks  $\geq$  35 $\mu$  and a minimum FR-4 rating. All modules back planes, tracks & components to be sealed with conformal coating.
- 8.9. The abovementioned modules shall be populated with the highest quality MBI 5153 LED Driver IC to render detailed images with smooth and linear gradient greyscale at low brightness levels, a high contrast ratio & a higher bit depth colour space. The MBI LED Driver IC must provide scan line, colour shift & greyscale compensation, eliminate any ghosting effects, LED failure detection, 16-bit grayscale output with Pulse Width Compensation Technology to smooth out any High Contrast interference. The MBI LED Driver IC shall have a minimum 1:4 scan rate and a 3840Hz or higher refresh rate
- 8.10.Intentionally left blank
- 8.11. The new High Refresh Rate Full Colour Video Display Screen Panels shall utilise highest quality Meanwell switch mode power supplies with surge protection, under & over voltage protection, current limiting and a Power Factor Correction of greater than 0.95 and deliver peak load to the screen components at no more than 70% of the power supply output capacity.
- 8.12. The new High Refresh Rate Full Colour Video Display Screen modules & components shall be housed in slim Carbon Fibre, Stainless Steel 316 graded cabinets with filtered vents and a thermally controlled forced air cooling system. The cabinets should have removeable doors or back panels to gain access to the components with PVC, Carbon Fibre, Stainless Steel 316 graded catches & fasteners. Drawings of the abovementioned, panels with fixing points will be required with the bid returnables.

- 8.13. In addition to above, the new High Refresh Rate Full Colour Video Display screen cabinets shall conform to the following minimum specifications:
- 8.13.1. Calibrated Brightness (Nits/CDM) 8,000
- 8.13.2. Colour Temperature deg. K 6,500
- 8.13.3. Horizontal Viewing Angle (50% brightness) 140°(+70°/-70°)
- 8.13.4. Vertical Viewing Angle Vertical (50% brightness) deg. 90° (+35°/-55°)
- 8.13.5. Panel material: Carbon Fibre, Stainless Steel 316 Powder Coating Black
- 8.13.6. Ingress Protection (front/rear) IP65/IP65
- 8.13.7. Operating temperature range degrees C -10° to +50°
- 8.13.8. Pixel type and configuration R/G/B DIP 3 in1
- 8.13.9. Pixel pitch 8.0mm
- 8.13.10. Processing Bit depth -16 Bit
- 8.13.11. 2.8 Trillion Colours
- 8.13.12. Grey Scale (linear) Levels 65,536 levels per colour
- 8.13.13. Brightness control Levels 100
- 8.13.14. Contrast Ratio 8,000:1
- 8.13.15. Processing Bit depth -16 Bit
- 8.13.16. Video frame rate Hertz 50/60
- 8.13.17. Display refresh rate 3840 Hertz or better
- 8.13.18. Input voltage (nominal) VAC 100 to 240
- 8.13.19. Input power frequency Hertz 50 to 60
- 8.13.20. Lifetime (50% brightness) Hours 100 000
- 8.13.21. Panel input format Ethernet / Fibre Optic / NDI
- 8.13.22. Data interconnection CAT6a
- 8.13.23. Panel Maintenance: Rear Access Only

# 9. Dual Redundant Low Latency High Refresh Rate Full Colour Video Display Screen Processing System. (Hereafter referred to as the LED Screen Processing System).

- 9.1. The LED Screen Processing System shall consist of the dual redundant LED screen processor unit with sender cards, fibre optic transceiver units receiver cards, panel monitoring cards & temperature & automatic brightness control cards.
- 9.2. The LED Screen Processing System must be able to support a minimum resolution of 2048 x1024 pixels and support custom resolutions up to 3840 pixels wide & 2560 pixels high.
- 9.3. The dual redundant LED Screen processor units must be linked & configured for dual bidirectional traffic and automatic switchover if necessary.
- 9.4. The LED Screen Processing System must be a fully calibrated system with both colour and brightness correction at pixel level.
- 9.5. The LED Screen Processing System must feature auto-addressing, brightness, gamma, and colour temperature control, environmental system monitoring, panel address offset, panel reboot, sync loss colour as well as module calibration & backup and recovery.
- 9.6. The LED Screen Processing System must be capable of up to 12-bit RGB 4:4:4 / YCbCr 4:4:4, Chroma sampling at 1920×1080 60Hz input resolution.

9.7. The LED Screen Processing System shall include a minimum 1 x 3G-SDI, 1 x HDMI 1.4a, 1 x Single-Link DVI input chassis mounted connectors with unprocessed loop-through output chassis connectors for each input type. Each input shall support

receptible frame rate of 50Hz+/-Hz & 60Hz+/-Hz

- 9.8. The LED Screen Processing System shall have 6 x Gigabit RJ45 processed Ethernet output chassis mount ports with maximum loads capacity of 650,000 pixels for 8 bit input sources & 320,000 pixels for 10-bit/12-bit input sources per single Ethernet port
- 9.9. The LED Screen Processing System shall utilise a dual redundant Single mode fibre optic loop between the processor & sender cards located in the technical equipment room and the receiver cards, monitoring cards, temperature sensors and automatic brightness sensors at the High Refresh Rate Full Colour Video Display Screen. The Fibre optic transceiver units shall have 1x Gigabit Ethernet port & 1x Single-mode twincore LC optical fibre port with optical module: 1.25 Gb/s rate, 1310 nm wavelength, up to 15 km transmission distance.
- 9.10. The LED Screen Processing System shall provide monitoring feedback for LED open circuit detection, flat cable fault detection, cabinet temperature & humidity detection, power supply voltage detection, cabinet door open/close status detection & fan speed detection.
- 9.11. In addition to the abovementioned cabinet temperature & humidity detection the LED Screen Processing System shall also monitor the internal ambient temperature of the screen enclosure utilising a waterproof IP65 rated temperature sensor with a measuring range of -20°C~+75°C.
- 9.12. The LED Screen Processing System shall have multi-channel power switch control & Automatic Brightness Control ports with multiple light sensors and manual override control.
- 9.13. The light sensors for the automatic adjustment of brightness levels shall be waterproof, IP65 rated, UV, mildew, moisture & salt mist resistant units installed on the front & rear of the screen enclosure

## 10. High-Performance Image Processing & Scaling Unit

- 10.1. The High-Performance Image Processing unit shall be a low-latency all-in-one, fully synchronized, video scaler, scan converter, transcoder and true seamless switcher with test pattern generator, and EDID management.
- 10.2. The High-Performance Image Processing Unit shall have up to 12bit onboard processing and shall support a variety of SD & HD digital and analogue video input signals including but not limited to Composite Video, Component Video, VGA, DVI, HDMI, DisplayPort & 3G-SDI with resolutions up to and including 3840x2160@60Hz.
- 10.3. The High-Performance Image Processing Unit shall have a single or multiple independent output channels with DVI/HDMI/DisplayPort/3G-SDI ports and support resolutions up to and including 3840x2160@60Hz.
- 10.4. The High-Performance Image Processing Unit shall convert any input signal format to any output signal format with true updown cross conversion.
- 10.5. The High-Performance Image Processing Unit shall scale output to any size within the selected resolution range.
- 10.6. The High-Performance Image Processing Unit shall zoom, crop & position X and Y offsets with width and height adjustment to any part of the image.
- 10.7. The High-Performance Image Processing Unit shall set output masks for top, bottom, left and right 10.8. The High-Performance Image Processing Unit shall rotate, flip & invert any input signal.

- 10.9. The High-Performance Image Processing Unit shall switch seamlessly between input signals with a variety of transition effects.
- 10.10. The High-Performance Image Processing Unit shall apply a range of visual effects and enhancements.
- 10.11. The High-Performance Image Processing Unit shall make adjustments to chroma, gamma, hue, saturation, luminance, contrast and colour temperature as well as sharpen & invert images.
- 10.12. The High-Performance Image Processing Unit shall provide Noise Reduction, with image enhancement and fine image controls.
- 10.13. The High-Performance Image Processing Unit shall support zoom mosaic, and pixel-to-pixel sync mosaic.

## 11. HDMI Distribution Amplifier (Hereafter referred to as the HDMI DA)

- 11.1. The HDMI DA shall be a distribution amplifier for HDMI video and embedded digital audio signals
- 11.2. The HDMI DA shall support local device connection
- 11.3. The HDMI DA shall support computer and video resolutions with 4:4:4 chroma sampling up to 4096x2160 at 60 Hz and 1920x1200 at 60 Hz
- 11.4. The HDMI DA shall support HDMI 2.0b specifications, including data rates up to 18 Gbps, Deep Colour up to 12-bit, 3D, HDR, HD lossless audio formats, and CEC.
- 11.5. The HDMI DA shall provide one (1) female HDMI Type A connector for digital video input signals with embedded audio & shall provide automatic input cable equalisation.
- 11.6. The HDMI DA shall provide four (4) female HDMI Type A connectors for digital video output signals with embedded audio
- 11.7. The HDMI DA shall include automatic management of EDID communication between connected devices including:
- 11.7.1. User-selection of EDID from the connected display
- 11.7.2. User-selection of EDID from pre-stored data files
- 11.7.3. User upload of custom-generated EDID files
- 11.7.4. Assignment of pre-stored, captured, or uploaded files
- 11.7.5. Maintain continuous EDID communication with the connected sources
- 11.7.6. Shall provide automatic management of colour bit depth based on the capabilities of the connected displays, as reported by display EDID
- 11.8. The HDMI DA shall be HDCP 2.3 compliant to authenticate and maintain continuous verification of HDCP key exchange between the connected source and sink devices
- 11.8.1. The HDMI DA shall provide the option to disable HDCP processing at the HDMI input connection when passing unencrypted content
- 11.8.2. The HDMI DA shall provide a full green screen signal for visual confirmation when encrypted content is routed to a nonHDCP compliant display
- 11.8.3. The HDMI DA shall provide real-time verification of HDCP status for each HDMI input and output electronically accessible over RS-232 or USB connection
- 11.9. The HDMI DA shall have one (1) 3.5 mm, three-pole captive screw RS-232 connector on rear panel for control
- 11.9.1. The HDMI DA shall have one (1) USB mini-B connector on front panel for setup, configuration, and firmware update loading

- 11.9.2. The HDMI DA shall have selectable output muting via RS-232 or USB port to allow content to be viewed on a local monitor prior to appearance on a main presentation display
- 11.9.3. The HDMI DA shall support device setup and commissioning
- 11.10. The HDMI DA shall include a high-demonstrated, reliable, internal, universal AC power supply supporting 100-240 VAC, 50/60 Hz power for international power compatibility and shall provide +5 VDC, 250 mA power on each output for an external peripheral device
- 11.11. The HDMI DA shall conform to the following general requirements:
- 11.11.1. The HDMI DA shall be convection cooled with vents on top panel
- 11.11.2. The HDMI DA shall be housed in a 1U high, half rack-width metal enclosure
- 11.11.3. The HDMI DA shall be rack mountable with rack shelf or rack shelf kit
- 11.11.4. The HDMI DA shall be furniture mountable with optional mounting kits
- 11.11.5. The HDMI DA shall provide visual signal on LED indicators located on front panel for signal presence and HDCP authentication
- 11.11.6. The HDMI DA shall provide automatic reformatting of HDMI source signals when routed to a DVI display
- 11.11.7. The HDMI DA shall include HDMI cable lacing brackets
- 11.11.8. The HDMI DA shall meet the following regulatory compliance:
- 11.11.8.1. CE, c-UL, UL
- 11.11.8.2. CD, C-tick, FCC Class A, ICES, VCCI
- 11.11.8.3. Product-appropriate RoHS and WEEE
- 11.11.9. The HDMI DA shall provide a minimum three years parts and labour warranty

## 12. Professional High Bandwidth All-Weather NDI Outdoor PTZ Camera

(with 30x Zoom, Colour Matrix control and high-power IR Illumination) – Hereinafter referred to as the camera.

- 12.1. The integrated system shall operate either as a stand-alone high-quality production PTZ camera or as part of an integrated network for live video switching and streaming.
- 12.2. The camera shall include a mechanism that ensures full 360 degree panning with precise positioning and pre-set location.
- 12.3. The camera shall support one High Bandwidth (Full) NDI video compression stream along with one Low Bandwidth (Proxy) NDI video stream accessible by a digital network of multiple Full NDI receivers.
- 12.4. Camera video resolution shall be scalable between 720p (1280 x 720) and 1080p (1920 x 1080),
- 12.5. The camera bandwidth shall be scalable & shall be managed by the NDI protocol ~120mbps.
- 12.6. The camera shall incorporate a fully digital HD CMOS imaging system with IR illumination up to 80 meters and day/night mode for infrared sensitivity.
- 12.7. The camera may be powered by 24 VAC or Optional PoE++ adapter (97W).
- 12.8. The camera shall be IEEE-compliant supporting unicast & multicast networking protocols such that a single camera may be transmitted to multiple receivers on the network simultaneously, further reducing bandwidth and providing greater flexibility in network monitoring & recording configurations.
- 12.9. The camera system shall be field software upgradeable distributed across the network.
- 12.10. The camera shall provide NDI IP video output using an Ethernet connection.
- 12.11. The camera shall include a web interface for remote control, set up & configuration.

- 12.12. The camera shall be compatible with third party NDI Software, High Bandwidth (Full) NDI video decoders or recording devices.
- 12.13. The camera shall support overlaying on-screen display information onto the encoded video.
- 12.14. The camera shall include a lens wiper. The camera's web interface shall include settings and controls for the wiper.
- 12.15. It shall be possible to Single-handedly install and set up one or more cameras without requiring another person's assistance.
- 12.16. The camera shall support VISCA-IP control protocol
- 12.17. The camera shall support NDI Group configuration support for NDI Failover nomination
- 12.18. The camera shall support NDI Failover nomination
- 12.19. Intentionally left blank
- 12.20. The camera shall conform to the following specifications or better:
- 12.20.1. Image Sensor:
- 12.20.1.1. 1/2.8" CMOS
- 12.20.1.2. Day/Night with IR sensitivity
- 12.20.1.3. 1920 x 1080 Full HD Resolution
- 12.20.1.4. Progressive Scan Mode
- 12.20.1.5. Normal Sensitive Mode: 0.1 Lux (@ (F1.6 AGC On, 30 FPS)
- 12.20.1.6. High Sensitive mode: 0.01 Lux (@ (F1.6 AGC On, 30 FPS)
- 12.20.2. Lens
- 12.20.2.1. F/#: F1.6 (wide); F4.7 (tele)
- 12.20.2.2. Field of View: H=63.7° (wide), 2.3° (tele)
- 12.20.2.3. Focal Length: 10~1200 mm
- 12.20.2.4. Optical Zoom: 30x
- 12.20.3. IR Illuminator:
- 12.20.3.1. Effective IR range: 80 m
- 12.20.3.2. LED Type: High-power/high-efficiency
- 12.20.4. White Balance:
- 12.20.4.1. Auto, ATW, Indoor, Outdoor, Outdoor Auto, Sodium Vapor Lamp (Fix/Auto/Outdoor Auto), One-push, Manual
- 12.20.5. Noise Reduction:
- 12.20.5.1. 2D NR: 6 Steps
- 12.20.6. Night Mode:
- 12.20.6.1. Colour (day)
- 12.20.6.2. B/W (night)
- 12.20.6.3. Auto, with separate night-to-day and day-to-night thresholds
- 12.20.7. Wide Dynamic Range Settings
- 12.20.7.1. Digital Wide Dynamic Range (dWDR): On/Off (120dB)
- 12.20.8. Optical Zoom: 30x
- 12.20.9. Digital Zoom: up to 12x
- 12.20.10. Auto focus:
- 12.20.10.1. Auto / One-push / Manual

- 12.20.11. Exposure modes:
- 12.20.11.1. Full Auto/Manual (1/1 1/10,000s)
- 12.20.12. Highlight Compensation (HLC)
- 12.20.13. Backlight compensation (BLC)
- 12.20.14. Zero-deviation motion control system for accurate positioning and pre-set location
- 12.20.15. Video:
- 12.20.15.1. 2 x NDI digital video streams on one Ethernet connection.
- 12.20.15.2. High Bandwidth (Full) NDI Compression
- 12.20.15.3. NDI Unicast/Multicast
- 12.20.15.4. Up to 60/50 FPS @ 1080p (NTSC/PAL)
- 12.20.15.5. 720p, 1080i, 1080p selectable resolutions
- 12.20.16. Bandwidth:
- 12.20.16.1. Managed by NDI encoder protocol ~120mbps
- 12.20.16.2. Rate Control: VBR
- 12.20.17. Network:
- 12.20.17.1. Ethernet: RJ45 1000 Mbps
- 12.20.18. Services and protocols:
- 12.20.18.1. IPV4, HTTP, UPnP (IPv6), DNS, TCP, UDP, IGMP, DHCP, ARP, RUDP
- 12.20.19. Alarms and commands:
- 12.20.19.1. TCP/IP, HTTP
- 12.20.20. Management:
- 12.20.20.1. Remote Configuration
- 12.20.20.2. Firmware Updates
- 12.20.21. Power:
- 12.20.21.1. 24 VAC Input Power
- 12.20.21.2. Optional Power over Ethernet (PoE) 97W
- 12.20.22. Physical:
- 12.20.22.1. Dimensions: 333 mm x 210 mm (H x D)
- 12.20.22.2. Mass: 5.0kg
- 12.20.23. Mechanical:
- 12.20.23.1. Pan Manual Speed: 0.1° to 80° / second
- 12.20.23.2. Tilt Manual Speed: 0.1° to 90° / second
- 12.20.23.3. Pan Travel: 360° continuous
- 12.20.23.4. Tilt Travel: +90° to -15°
- 12.20.23.5. Pre-set Speed: Pre-set (5 speeds)
- 12.20.24. Software:
- 12.20.24.1. Integrated web server
- 12.20.24.2. Windows-based Cam Control for remote integration
- 12.20.24.3. Motion Tracking included with Cam Control
- 12.20.25. Environmental:
- 12.20.25.1. IP 67 Rating (Dust & Water Ingress)
- 12.20.25.2. Operating Temperature: -40° C to 60° C cold start

- 12.20.25.3. Relative Humidity: 100%
- 12.20.25.4. Internal Heater: Automatic
- 12.20.25.5. Wiper / Washer: Built-in
- 12.20.26. Certifications:
- 12.20.26.1. USA: FCC Part 15 (subpart B, class A)
- 12.20.26.2. International: CE Marked, EN 50130-4, EN61000-6-4 (Class A), RoHS

## 13. In line Power over Ethernet Injector (Hereafter referred to simply as the PoE Injector)

- 13.1. The PoE Injector shall be a Plug-and-Play device with Auto-Sensing Algorithm
- 13.2. The PoE Injector shall deliver power and data over single cable up to 100 meters
- 13.3. The PoE Injector shall Auto-determine the necessary power requirements of the downstream connected device
- 13.4. The PoE Injector shall support 100/1000BASE-T: UTP CAT5e (Max 70m), CAT6 (Max 100m)Network Media
- 13.5. The PoE Injector shall support the following PoE Standards:
- 13.5.1. IEEE802.3at Type1(af),
- 13.5.2. IEEE802.3at Type 2,
- 13.5.3. IEEE802.3bt Type 3,
- 13.5.4. IEEE802.3bt Type 4,
- 13.6. The PoE Injector shall support POH (Power Over HDBaseT)
- 13.7. The PoE Injector shall have the following Interface Ports:
- 13.7.1. 1 x RJ45 LAN port(LAN IN) 100/1000Mbps Auto-Negotiation
- 13.7.2. 1 x RJ45 PoE port(Power+Data Out) 100/1000Mbps Auto-Negotiation
- 13.7.3. 1 x Power socket(DC IN)
- 13.8. The PoE Injector shall support an external 54VDC Input power adapter
- 13.9. The PoE Injector shall Auto-determine the necessary power requirements up to 97W (80% efficiency may apply).
- 13.10. The PoE Injector shall have a Power On (Red) LED Indicator
- 13.11. The PoE Injector shall have an Overload & Short Circuit Protection Function
- 13.12. The PoE Injector shall have a Power Efficiency of 90% with 1500V DC Isolation
- 13.13. The PoE Injector shall have an Operating Temperature range of -40°C ~ +60°C
- 13.14. The PoE Injector shall have an Operating Humidity levels of 10% ~ 90% non-condensing

# 14. Multi-function NDI PTZ controller keyboard for remote control of NDI, VISCA-IP and SERIAL PTZ cameras with programmable pre-sets, API functions, NDI router and Audio Intercom endpoint

- 14.1. The integrated system shall operate part of a high-quality production PTZ camera system on an integrated network for live control of multiple cameras.
- 14.2. The keyboard offers the ability to interactively control individual cameras
- 14.3. Location pre-sets can be set and recalled for multiple cameras.
- 14.4. Programmable API function keys allow for control of external third party software and hardware devices
- 14.5. When operating in NDI control the keyboard outputs an NDI stream which switches to the currently selected camera for monitoring.

- 14.6. Integration with audio intercom system
- 14.7. The keyboard may be powered by 12vDC or PoE.
- 14.8. The keyboard shall be IEEE-compliant utilizing the multicast networking protocol such that a single keyboard can control multiple cameras providing greater flexibility in network monitoring, and positioning cameras.
- 14.9. Field software upgrades shall be distributable across the network.
- 14.10. The keyboard shall provide NDI IP video output when operating in NDI mode using an Ethernet connection.
- 14.11. The keyboard shall include a web interface for remote control/configuration. It shall be possible to configure the network and API functions of the keyboard via its web interface
- 14.12. The keyboard shall be compatible with third party NDI Software, High Bandwidth (Full) NDI PTZ Cameras, Low Bandwidth (NDI HX) PTZ cameras, and High Bandwidth (Full) NDI video decoders or recording devices.
- 14.13. The keyboard shall support for VISCA-IP control protocol
- 14.14. The keyboard shall allow interactive, fine adjustment of a connected PTZ cameras' Pan/Tilt/Zoom location control.
- 14.15. The keyboard shall operate within the NDI protocol for white-balance, exposure and shading control of cameras
- 14.16. Bandwidth shall be managed by the NDI protocol ~120mbps.
- 14.17. The keyboard shall include the following features, functionality & specification:
- 14.17.1. PT Joystick:
- 14.17.1.1. Constant calibration interactive P/T control
- 14.17.1.2. Up to 1024 levels X/Y sensitivity (software limited to 18 steps, variable based on speed & sensitivity selection)
- 14.17.2. Zoom twist knob:
- 14.17.2.1. Variable speed W/T control
- 14.17.3. Zoom rocker switch:
- 14.17.3.1. Variable speed W/T control
- 14.17.4. Camera selection up to 254 cameras
- 14.17.4.1. Save/Recall pre-sets up to maximum supported by camera (up to 255 pre-set locations/camera)
- 14.17.5. White balance control:
- 14.17.5.1. Selectable: Auto/Manual R/B levels
- 14.17.5.2. One push WB mode
- 14.17.6. Focus control:
- 14.17.6.1. Selectable: Auto/Manual
- 14.17.6.2. One push Focus mode
- 14.17.7. Programmable function keys (6)
- 14.17.7.1. Pre-set selection of camera functions
- 14.17.7.2. API function allowing HTTP/JSON control of third party devices
- 14.17.7.3. NDI Router output
- 14.17.7.4. Active switching of NDI output based on currently selected NDI camera
- 14.17.7.5. Comms Audio Intercom system integration

- 14.17.8. Video:
- 14.17.8.1. NDI Router output
- 14.17.8.2. Compression: High Bandwidth (Full) NDI compression/Routed from originating NDI source
- 14.17.9. Bandwidth:
- 14.17.9.1. Managed by NDI encoder protocol ~120mbps
- 14.17.9.2. Rate Control: VBR
- 14.17.10. Network:
- 14.17.10.1. Ethernet: RJ45 100 Mbps
- 14.17.10.2. Services and protocols: IPV4, HTTP, UPnP (IPv6), DNS, TCP, UDP, IGMP, DHCP, ARP,
- 14.17.10.3. NDI Unicast/Multicast
- 14.17.10.4. Alarms and commands: TCP/IP, HTTP
- 14.17.11. Management:
- 14.17.11.1. Configuration: Remote (via web interface or supported remote management system)
- 14.17.11.2. Firmware Updates: Flash memory for upgrade of camera firmware over the network
- 14.17.12. Power Input:
- 14.17.12.1. 12vDC (Adapter included)
- 14.17.12.2. PoE Maximum Power Consumption 5W
- 14.17.13. Physical Dimensions: 278mm x 132mm x 99.5mm
- 14.17.14. Unit Mass: 1.0kg
- 14.17.15. Operating Temperature: 0° C to 40° C
- 14.17.16. Relative Humidity: 80%
- 14.17.17. Certifications:
- 14.17.17.1. USA: FCC Part 15 (subpart B, class A)
- 14.17.17.2. International: CE Marked, EN 50130-4, EN61000-6-4 (Class A), RoHS
- 14.17.18. Optional Accessories:
- 14.17.18.1. RJ45 Adapter for RS232 + RJ45 Coupler

# 15. High-bandwidth NDI POE+ FHD HDMI Video Encoder/Decoder with Tally, Audio Comms & PTZ control (Hereafter referred to as the NDI Converter)

- 15.1. The NDI Converter shall allow for real-time (low latency) conversion between HDMI and High-bandwidth (Full) NDI video (120Mbps) with scalable resolution between 720p (1280 x 720) and 1080p (1920 x 1080).
- 15.2. The NDI Converter shall support unicast or multicast operation modes.
- 15.3. The NDI Converter shall encode (ingest) and decode (egress) modes to allow interconnection between HDMI video sources, NDI, and HDMI output destinations or displays.
- 15.4. The NDI Converter shall shave an integrated bi-colour NDI Tally monitor indicating if the device, when running in encode mode is being used 'live' by any NDI receiver on the digital network. Integrated Bi-colour Tally monitor
- 15.5. The NDI Converter shall allow integration with 3.5mm audio headsets for bi-directional audio communication.
- 15.6. The NDI Converter shall support API control for automation control and integration with 3rd party software control systems.
- 15.7. The NDI Converter shall support field software upgrades shall be distributable across the network.
- 15.8. The NDI Converter shall provide NDI IP video output using an Ethernet connection.

- 15.9. The NDI Converter shall provide HDMI video output from a High-bandwidth (Full) NDI source
- 15.10. The NDI Converter shall include a web interface for remote control & configuration.
- 15.11. The NDI Converter shall be compatible with 3rd party NDI Hardware & Software, High Bandwidth (Full) NDI video encoder & decoders or recording & live streaming devices.
- 15.12. The NDI Converter shall provide support for NDI Group configuration as well as NDI Failover nomination.
- 15.13. The NDI Converter shall provide two NDI digital streams over one Ethernet RJ45 1000 Mbps connection.
- 15.14. The NDI Converter shall support IPV4, HTTP, UPnP (IPv6), DNS, TCP, UDP, IGMP, DHCP, ARP, RUDP services and

protocols

- 15.15. The NDI Converter shall support an external 5-18vDC power supply as well as PoE+ with maximum 7W power consumption.
- 15.16. The NDI Converter shall maintain trouble free operation at 0° C to 40° C and up to 80% relative humidity.
- 15.17. The NDI Converter shall have Camera & mount & VESA mount kits as optional accessories
- 16. Portable High Quality Professional 4K/FHD NDI Video Camera with Memory Card Recorder (hereafter referred to as the portable video camera)
- 16.1. The portable video camera shall be a current generation professional handheld camcorder
- 16.2. The portable video camera shall have a High-Definition, High-Sensitivity 1.0-type 15M MOS Sensor with up to 2000TV-lines, superior depth of field and F12 (60 Hz) /F13 (50 Hz) (in both UHD and FHD in High Sensitivity mode).
- 16.3. The portable video camera shall provide 10-bit depth processing, HDR-compatible image quality 4K/UHD (3840 x 2160), FHD, HD and SD resolutions and provides images without cropping in all modes
- 16.4. The portable video camera shall have a 20x wide-angle 24.5 mm optical Zoom Lens covering up to 490 mm telephoto in all modes,
- 16.5. The portable video camera shall have 32x Intelligent Zoom in HD or up to 24x in UHD with no degradation in resolution.
- 16.6. The portable video camera shall have an intelligent auto focus and face detection/tracking feature with a high speed micro drive focus unit and detect up to 9 faces simultaneously and automatically adjusts exposure and focus. The portable video camera shall have an additional auto-tracking AE & AF function that follows the subject touched on the LCD monitor.
- 16.7. The portable video camera shall have a hybrid built-in 5-axis image stabilizer that combines optical and electronic camera shake compensation functions in low-angle shooting, high-angle shooting and all other unstable conditions.
- 16.8. The portable video camera shall have manual three ring zoom, focus and iris control with multi-step variable zoom function, manual focus assist, LCD touch focus (switchable to auto iris or brightness display), area focus and one-push AF focus assist.
- 16.9. The portable video camera shall support HLG (Hybrid Log-Gamma) for HDR (High Dynamic Range) monitoring in addition to V-Log gamma, with 13.5 stops of wide dynamic range and 9 selectable gamma modes: (HD, SD, FILMLIKE 1, FILMLIKE 2, FILMLIKE 3, FILM-REC, VIDEO-REC, HLG, V-Log).
- 16.10. The portable video camera shall have broadcast-grade picture quality adjustment functions with 16-Axis

independent colour correction, independent effects to each of the 16 phases of video images facilitating colour matching of multiple cameras under the same lighting conditions as well as creative image rendering. Matrix tables, V detail, detail coring, chroma level, chroma phase, colour temperature, master pedestal and knee.

- 16.11. The portable video camera shall Support simultaneous output display on high-brightness, high-definition LCD display monitor and high-resolution colour OLED electronic viewfinder (EVF)
- 16.11.1. The LCD monitor shall be a 3:2 aspect ratio, high-definition display with the RGBW (red, green, blue, white) pixel structure and separate timecode and camera status information display area and not as overlay on the video image. The LCD monitor shall have touch focus and menu navigation.
- 16.11.2. The electronic viewfinder (EVF) shall have a high-resolution colour OLED display (approximately 2,360,000 dots with an image display area of approximately 1,770,000 dots) that offers superb colour reproduction.
- 16.12. The portable video camera shall support multi-format, multi-coding recording at different compression rates using highefficiency HEVC Codec for high-image-quality 10-bit 4K/60p recording at low bit rate (H.265, LongGOP, 10-bit, 4:2:0, MOV), AVCHD recording, including the AVCHD 8 Mb/s mode, The portable video camera shall also support the MXF P2 file format for broadcast recording with AVC-Intra or AVC-LongG codec and sub (proxy) recording with AVC-Proxy G6 codec recorded simultaneously. Despite the low bit rate of 12 Mbps or 6 Mbps, the proxy data shall have the same angle of view and resolution as the
- main recording, The sub-recording gamma setting can be set to V-709 if the main recording is set to V-log, and to SDR when the main recording is set to SDR, allowing recording with and without grading in parallel. The shot mark function, enables thumbnail display, playback, and upload of only the marked clips
- 16.13. The portable video camera shall support clip metadata functions (camera operator, location, date, time, text memory, etc.) which can be displayed on the camcorder's LCD monitor and be transferred from an SD card.
- 16.14. The portable video camera shall support 10-bit variable frame rate (VFR) recording up to 60 fps for UHD, 120fps for FHD and 120fps for super-slow modes providing high-quality full-frame images with no area cropping.
- 16.15. The portable video camera shall support 16-24-bit PCM Audio 4-channel recording using the built-in microphone (2-channels) and XLR input (2-channels) in MOV or P2 MXF mode with OSD level meter, 1 kHz test tone output and headphone output (3.5 mm-diameter stereo mini jack).
- 16.16. The portable video camera shall support freeze frame still image capture during playback of video clips: frame advance (+/-) via touch panel operation. Frames can be captured & saved as a still image (JPEG) and recorded onto an SD memory card.
- 16.17. The portable video camera shall have two hot swappable SD memory card slots to enable continuous relay recording and support simultaneous recording and background recording with Pre Rec, Interval Rec and Time Stamp recording functions.
- 16.18. The portable video camera shall also support dual recording mode, whereby identical data is recorded onto cards in both slots.
- 16.19. The portable video camera shall have live streaming network capabilities up to 4K(60p) quality and support for RTMP/RTMPS/RTSP/SRT protocols. H.264/H.265 codec and 8/12 for /25/50/75Mpb bitrates.
- 16.20. The portable video camera shall support NDI | HX mode (licence required) allowing video transmission and camera control via IP connection, without the use of an external converter.
- 16.21. The portable video camera shall support USB tethering

- 16.22. The portable video camera shall The portable video camera shall support 3rd party wired remote control via the 2.5 mm super mini jack remote terminal enabling zoom & focus control.
- 16.23. The portable video camera shall support multi camera wireless remote control from a Tablet or Smartphone app allowing zoom & focus control, camera settings/adjustments, REC S/S, and menu settings.
- 16.24. The portable video camera shall support timecode synchro multi-camera recording via the TC IN/OUT (BNC) terminal and allows synchronization of the time code in multi-camera shooting.
- 16.25. The portable video camera shall have parallel SDI and HDMI output. UHD video via HDMI and output of HD video in high-image-quality 10-bit, 4:2:2 via SDI
- 16.26. The portable video camera shall have a low power consumption of 11.5 W (in factory setting, with no devices connected to the terminals).
- 16.27. The portable video camera shall have a large-capacity (5900 mAh) quick charge LiOn battery.
- 16.28. The portable video camera shall have an external quick charge battery charger

# 17. Professional 2-Stage Video Tripod with Leg Spreader, Fluid Head & Pan & Tilt Bar (Hereafter referred to as the video camera tripod)

- 17.1. The video camera tripod shall have a double extension system with speed locking system with off ground and ground spreader & 75mm bowl size.
- 17.2. The video camera tripod shall have a 75mm ball fluid head with pan & tilt bar, 7-step counterbalance system, 110mm sliding plate

range, -75°/+90° Tilt range & 0-3 grades of pan & tilt drag.

- 17.3. The video camera tripod shall have a quick release camera mount mechanism
- 17.4. The video camera tripod & fluid head shall have a height range of 55cm -162cm with ground spreader
- 17.5. The video camera tripod shall have an 6.9kg maximum payload, compatible with the above portable video camera & accessories.

#### 18. Full NDI Rackmount Multi-Layer Video Production System (Here after referred to as the MLVPS)

- 18.1. The MLVPS is a multi-tiered hardware and software fail-safe device
- 18.2. The primary function of the MLVPS is to manage the signal path and content layers from the respective source inputs to output destinations.
- 18.3. The MLVPS must be able to send and receive commands from the main control system.
- 18.4. The MLVPS must be capable of manual human interface for override control operation.
- 18.5. The MLVPS shall accept commands from compatible control surfaces via USB, RS232 or TCIP, must respond to commands from the

master control system & provide real-time feedback.

- 18.6. The MLVPS shall support multi-user control via hardware & software interfaces
- 18.7. The MLVPS shall support 8 simultaneous external video inputs, with any combination of compatible sources with chroma and luma

keying technology on all source channels.

- 18.8. The MLVPS shall support 8 resolution-independent, Full NDI, IP Network Video inputs with support for key & fill.
- 18.9. The MLVPS shall have a minimum 4 x HD/SD-SDI video inputs, supporting any video input combination of standard formats, resolutions, and frame rates.(NTSC or PAL)

18.9.1.1080p: 59.94, 50, 29.97, 25, 24, 23.976

18.9.2.720p: 59.94, 50, 29.97, 25

- 18.9.3.480p: 59.94, 50, 29.97, 25
- 18.9.4.SD: 59.94, 50, 25
- 18.10. The MLVPS shall have a minimum 2 x HD/SD-SDI video outputs with support for up to 4 simultaneous external outputs with 2 x independent DSK channels with custom transitions
- 18.11. The MLVPS shall have 4 x independent NDI IP video mix/effect (M/E) output buses supporting video re-entry, 1 x mix/effect channel per bus with support for up to 2 sources, 2 x Key layers per bus & 1 x Previz configuration & preview bus.
- 18.12. The MLVPS shall have 2 x resolution-independent, streaming video output independently configurable, with simultaneous stream archive
- 18.13. The MLVPS shall have an additional 3 x independently configurable Multi-viewer monitor outputs with configurable workspaces and viewports.
- 18.14. The MLVPS shall support integrated waveform and vectorscope full field rate signal monitoring with digital calibration, colour preview and support for ITU-R Rec. 709
- 18.15. The MLVPS shall have 2 x DDR, 2 x GFX & 1 x Audio integrated media players
- 18.16. The MLVPS shall have 10 x GFX & 5 x Animation integrated media buffers.
- 18.17. The MLVPS shall have6 x configurable video recording channels:
- 18.17.1. 4 x QuickTime® archival video recorders (SHQ2 QuickTime codec, 4:2:2 encoding, 24-bit audio, with timecode),
- 18.17.2. 2 x H.264 local video recorders with multiple profiles & the ability to trigger up to 6 additional recordings on select NDIenabled devices
- 18.17.3. 1 x MP3 audio recorder
- 18.17.4. 2 x QuickTime players not required for playback in common NLE applications
- 18.18. The MLVPS shall have a minimum 3TB internal drive capacity
- 18.19. The MLVPS shall support recording to external storage via USB 3.0.
- 18.20. The MLVPS shall support shared storage integration and third-party partner solutions
- 18.21. The MLVPS shall support full-resolution, deinterlaced still image frame grab from external video sources and outputs
- 18.22. The MLVPS shall have an integrated multi-channel audio mixer with onboard Digital Signal processing.
- 18.23. The MLVPS shall support, 4 x 4 x 4 audio input channel routing with 4 x embedded SDI, 1 x Balanced XLR stereo pair, 3 x Balanced 1/4" stereo pairs as local audio inputs.
- 18.24. The MLVPS shall support USB audio input via compatible WDM drivers
- 18.25. The MLVPS shall have 4 x SDI embedded, 1 x Balanced XLR stereo pair, 1 x Balanced 1/4" stereo pair & 1 x Stereo 1/4" (headphones) local audio outputs
- 18.26. The MLVPS shall have native support for network audio input and output via NDI with embedded audio for all NDI input and output video signals
- 18.27. The MLVPS shall have integrated support for Dante® networking protocol. (Requires Dante Virtual Soundcard license).
- 18.28. The MLVPS shall support AES67 protocol via compatible WDM audio drivers (Requires third-party virtual sound card license).
- 18.29. All MLVPS outputs must be capable of displaying independently scaled content using standard & nonstandard video aspect

ratios such as 9:16 and square video, together with standard & non-standard video frame rates and resolutions

for delivery to custom

digital display screens.

18.30. The MLVPS shall mix any input anywhere on any output and create a variety of motion effects and controls using key frames to plot the movement and create any kind of window border to drop shadow with adjustable colour, width, softness, shadow

offset and transparency.

- 18.31. The MLVPS must have the ability to mix sources or scenes with 2D and 3D transformations, including page turns, ripples, swirls, etc
- 18.32. The MLVPS shall have pre-programmable video layouts with linear/luminance and chroma keyers for PIP and other visual effects.
- 18.33. The MLVPS shall allow for the seamless switching of all live video & audio sources, video & audio content servers, as well as live scoring, titling, character generation & graphic DSK servers as well as other 3rd party presentation equipment that may be required.
- 18.34. The MLVPS shall have integrated control of digital audio & video recorders, video, graphics & audio content servers, crosspoint matrix switchers and other devices that may be required.
- 18.35. The MLVPS shall support real-time, automated data input from internal and external sources, including webpages, spreadsheets, scoreboards, databases, RSS feeds, watch files, XML, CSV, ASCII, etc. The MLVPS shall record, store, edit and automate commands and user-configured operation sequences, attach to control panel buttons, keyboard shortcuts, hotspots, MIDI, and X-keys® buttons or GPI triggers
- 18.36. The MLVPS shall attach to internal events and state changes, including audio, media playback, tally and specific switcher actions
- 18.37. The MLVPS shall have integrated video composition engine on the switcher and each output bus to create, store, and apply layer configurations and DVE-style motion sequences with 16 x configurable pre-sets per bus.
- 18.38. The MLVPS shall support Floating Point YCbCr +A 4:4:4:4 Sub sampling
- 18.39. The MLVPS shall have a throughput latency of no more than 1.0-1.5 frames.
- 18.40. The MLVPS as a minimum shall support the following video media file formats: AVI, DV, DVCPro, DVCProHD, FLV, F4V, H.263, H.264, MOV, MKV, MJPEG, MPEG, MP4, WMV, WebM, etc
- 18.41. The MLVPS as a minimum shall support the following still image media file formats: PSD, PNG, TGA, BMP, JPEG, JPEGXR, JPEG2000, EXR, RAW, TIF, WebP, etc
- 18.42. The MLVPS as a minimum shall support the following audio media file formats: AIFF, MP3, WAV, etc
- 18.43. The MLVPS shall be able to export video and image files to social media, FTP, local or external volumes, and network servers, with optional transcoding
- 18.44. The MLVPS shall support control via web-based interface.
- 18.45. The MLVPS shall provide support for Pan-Tilt-Zoom (PTZ) robotic cameras via serial and network protocols, including RS232, RS422, and IP, with integrated controls and pre-set system.
- 18.46. The MLVPS shall provide support for Skype TX Native support for Skype® video call input via Skype TX software integration.
- 18.47. The MLVPS shall have integrated Virtual Sets technology with 30+ live virtual sets and box effects included

## 19. 14 Button Control Surface For Above Production System

- 19.1. User-assignable instant selection buttons with customizable labels
- 19.2. 4 buses assignable as pre-sets, cues, sources, backgrounds, or user keys
- 19.3. High-resolution T-Bar for manual transitions
- 19.4. Purpose built onboard processing
- 19.5. Simultaneous connection of multiple controllers
- 19.6. 2 x touchscreens with multi touch interface
- 19.7. Dedicated background layer button and 8 dedicated Layer selection buttons with multi-page selection.
- 19.8. Dedicated layer transition and function buttons. (Trans, Cut, Freeze, etc.)
- 19.9. User-definable Destination buttons with multiple pages of assignments.
- 19.10. Dedicated buttons for transitioning all selected destinations, live switching, modifying program, etc.
- 19.11. Support for up to 8 simultaneous Pan-Tilt-Zoom (PTZ) robotic cameras via serial and network protocols, including RS232, RS422, and IP, with integrated controls and pre-set store & recall.

## 20. Touch Panel Control System For Above Production System & Cameras

(Hereafter referred to as the TPCS)

- 20.1. The TPCS shall be an "industry standard" software and hardware based system using standard Ethernet TCPIP network, compatible with digital media streaming and control.
- 20.2. The TPCS shall comprise standard, non-proprietary, hardware, using standard communication protocols based on an open architectural system.
- 20.3. The TPCS shall be able to support multiple control interfaces simultaneously which may be configured for specific or limited requirements.
- 20.4. The TPCS shall be able to send and receive commands to all system components via Serial (up to 256 internal or external serial ports) synchronisation and generation, Ethernet (TCP/IP) Midi MSC, OSC.
- 20.5. The TPCS shall have an operator interface which has an easy to use simple graphic user interface (GUI). The user must be able to set up and alter cue list and time line based tasks and not have to rely on specialist programmers in order to do this.
- 20.6. The TPCS shall be able to program and play back event based tasks and time-line and cue based tasks. To ensure dynamic device position tracking for live adjustment of effects.
- 20.7. The TPCS shall have frame based synchronisation. Task programming through time-line task with one hundredth of a second accuracy.
- 20.8. The TPCS shall be able to send and receive variable commands, verify them and take action as required.
- 20.9. The TPCS shall be capable of hourly, daily, weekly monthly, yearly event triggers and have complete up to the second scheduling capabilities.
- 20.10. The TPCS shall be able to multi task and send multiple commands to devices and systems simultaneously. Must be able to receive commands from user interfaces and shall be able to suspend all tasks for emergency procedures.
- 20.11. The TPCS shall be able to output SMPTE time code for frame synchronisation with audio, video and lighting equipment. The master control system must accept multi user profiles, registrations and corresponding access rights, by use of database to ease modifications and unnecessary reprogramming of the master control system.
- 20.12. The TPCS shall conform to the following specifications as a minimum:
- 20.12.1. 19" Rackmount ATX case with sufficient cooling & front peripherals to support the below hardware
- 20.12.2. Asus Z690-PLUS D4 LGA 1700 ATX Motherboard or better

- 20.12.3. Antec VP 700p Plus ATX power supply or better
- 20.12.4. Intel® Core™ i9-12900X CPU or better
- 20.12.5. Corsair iCUE H60i PRO XT CPU liquid cooler or better
- 20.12.6. Corsair 16 GB DDR4-2666 ECC SDRAM
- 20.12.7. Nvidia RTX 3070 GPU or better
- 20.12.8. Antec VP 700p Plus ATX power supply or better
- 20.12.9. 970 Evo Plus NVMe PCIe, M.2 256GB SSD or better for OS & applications
- 20.12.10. 970 Evo Plus NVMe PCIe, M.2 1TB SSD or better for internal file storage
- 20.12.11. Dante balanced audio output interface with Dante Virtual Soundcard (DVS) licence or better.
- 20.12.11.1. Dante Audio over IP, AES67 RTP USB3/USBC/PCIe transport protocols
- 20.12.11.2. 16, 24 & 32 bit depth
- 20.12.11.3. 44.1, 48, 96 kHz Sample Rates
- 20.12.11.4. 0dBV /-10dBV output level
- 20.12.11.5. 20Hz to 20kHz (-/+0.5dB) Frequency Response
- 20.12.11.6. 750hm unbalanced /150 Ohm balanced output impedance
- 20.12.11.7. > 100dB Dynamic Range
- 20.12.11.8. > 100dB Signal to Noise Ratio
- 20.12.11.9. < 0.01% at +4dBu Total Harmonic Distortion
- 20.12.11.10. 2 XLR-M output connectors
- 20.13. The TPCS Control Interface shall be a Multi Touch, LCD display screen panel with LED backlight and shall conform to the following specifications:
- 20.13.1. 60.47cm / 23.8 Inches diagonal viewing size
- 20.13.2. 1920 x 1080 @ 50, 60Hz resolution,
- 20.13.3. 16:9 aspect ratio,
- 20.13.4. 1000:1 contrast ratio.
- 20.13.5. 250 cd/m<sup>2</sup> brightness,
- 20.13.6. ±178° vertical & horizontal viewing angles,
- 20.13.7. 16.7 million colours, 84% (CIE 1976), 72% (CIE 1931) colour gamut,
- 20.13.8. 10 point USB projected capacitive multi touch interface with a 6 millisecond touch response time.
- 20.13.9. 1 x DP (ver 1.2), 1 x HDMI (ver 1.4), 1 x VGA, input ports as well as 1 x upstream USB 3.0 port, 2 x  $^{\circ}$
- USB 3.0 ports (including 1 x USB3.0 BC1.2 charging port), 2 x USB 2.0 ports
- 20.13.10. Height adjustable articulated stand with extended tilt (-5° to 60°) and swivel (-30° to 30°) capabilities

#### 21. Digital Media Content Server & Show Control System

Hereafter referred to as the media server & show control system

- 21.1. The media server & show control system shall be rack mounted and must be capable of playing back all the most common digital video, audio & image formats
- 21.2. The media server & show control system shall accept commands from the above TPCS control system via RS232, MSC or TCIP
- 21.3. The media server & show control system shall accept & execute the following commands:
- 21.3.1.Play
- 21.3.2.Pause
- 21.3.3.Stop

- 21.3.4.Go to position
- 21.3.5.Go to cross fade
- 21.3.6.Jump to
- 21.4. The media server & show control system shall playback video in the following formats:
- 21.4.1.Uncompressed video formats
- 21.4.2.MPEG-2
- 21.4.3.MPEG-4 (H.264 / H.265)
- 21.4.4.JPEG 2000
- 21.4.5. Videos with alpha channel support
- 21.5. The digital media server shall playback still images in the following formats:
- 21.5.1.JPEG
- 21.5.2.PNG
- 21.5.3.BMP
- 21.5.4.TIFF
- 21.6. The digital media server shall playback audio in the following formats
- 21.6.1.AIFF,
- 21.6.2.WAV,
- 21.6.3.CAF.
- 21.6.4.AAC,
- 21.6.5.MP4,
- 21.6.6.M4A
- 21.6.7.MP3
- 21.7. The digital media server shall have 2 or more DisplayPort 1.2 / HDMI 2.0 / 12G-SDI output interfaces
- 21.8. The digital media server shall have balanced stereo audio outputs and reproduce all common compressed & uncompressed digital audio file formats
- 21.9. The digital media server shall conform to the following specifications as a minimum:
- 21.9.1.19" Rackmount ATX case with sufficient cooling & front peripherals to support the below hardware
- 21.9.2. Asus Z690-PLUS D4 LGA 1700 ATX Motherboard or better
- 21.9.3.Antec VP 700p Plus ATX power supply or better
- 21.9.4.Intel® Core™ i9-12900X CPU or better
- 21.9.5. Corsair iCUE H60i PRO XT CPU liquid cooler or better
- 21.9.6. Corsair 16 GB DDR4-2666 ECC SDRAM or better
- 21.9.7. Nvidia RTX 3070 GPU or better
- 21.9.8.Antec VP 700p Plus ATX power supply or better
- 21.9.9.970 Evo Plus NVMe PCIe, M.2 256GB SSD or better for OS & applications
- 21.9.10. 970 Evo Plus NVMe PCle, M.2 1TB SSD or better for internal file storage
- 21.9.11. Dante balanced audio output interface with Dante Virtual Soundcard (DVS) licence or better.
- 21.9.11.1. Dante Audio over IP, AES67 RTP USB3/USBC/PCle transport protocols
- 21.9.11.2. 16, 24 & 32 bit depth
- 21.9.11.3. 44.1, 48, 96 kHz Sample Rates
- 21.9.11.4. 0dBV /-10dBV output level
- 21.9.11.5. 20Hz to 20kHz (-/+0.5dB) Frequency Response

- 21.9.11.6. 750hm unbalanced /150 Ohm balanced output impedance
- 21.9.11.7. > 100dB Dynamic Range
- 21.9.11.8. > 100dB Signal to Noise Ratio
- 21.9.11.9. < 0.01% at +4dBu Total Harmonic Distortion
- 21.9.11.10. 2 XLR-M output connectors
- 21.10. The digital media server Control Interface shall be a Multi Touch, LCD display screen panel with LED backlight and shall conform to the following specifications:
- 21.10.1. 60.47cm / 23.8 Inches diagonal viewing size
- 21.10.2. 1920 x 1080 @ 50, 60Hz resolution,
- 21.10.3. 16:9 aspect ratio,
- 21.10.4. 1000:1 contrast ratio,
- 21.10.5. 250 cd/m<sup>2</sup> brightness,
- 21.10.6. ±178° vertical & horizontal viewing angles,
- 21.10.7. 16.7 million colours, 84% (CIE 1976), 72% (CIE 1931) colour gamut,
- 21.10.8. 10 point USB projected capacitive multi touch interface with a 6 millisecond touch response time.
- 21.10.9. 1 x DP (ver 1.2), 1 x HDMI (ver 1.4), 1 x VGA, input ports as well as 1 x upstream USB 3.0 port, 2 x USB 3.0 ports (including 1 x USB3.0 BC1.2 charging port), 2 x USB 2.0 ports
- 21.10.10. Height adjustable articulated stand with extended tilt (-5° to 60°) and swivel (-30° to 30°) capabilities

## 22. SDI - HDMI Bi-Directional Cross Converters (Hereafter referred to as the BDCC)

- 22.1. The BDCC shall auto select active input to all outputs. If both inputs are active SDI to HDMI and HDMI to SDI.
- 22.1.1.HDMI in to SDI out and SDI in to HDMI out
- 22.1.2.SDI in to HDMI and SDI out
- 22.1.3.HDMI in to HDMI and SDI out
- 22.2. The BDCC shall support 3G Level A and B and allowing for conversion between both
- 22.3. The BDCC shall have HDMI Type A input & output connectors with support up to 1080p60Hz
- 22.4. The BDCC shall have 75 Ohm 3G/HD/SD-SDI BNC Bayonet input & output connectors with support up to1080p60Hz
- 22.5. The BDCC shall have a micro USB connector for power, control and firmware updates

## 23. Control & Multiview Video Display Monitors (Hereafter referred to as the CMVD Monitors)

- 23.1. The CMVD Monitors shall be colour critical, In-Plane Switching (IPS) LED-backlit LCD monitor / TFT active matrix display screen panel with Anti-glare, 3H Hard Coating and built-in calibration sensor. The CMVD monitor shall conform to the following specifications or better:
- 23.1.1.60.47cm / 23.8 Inches diagonal viewing size
- 23.1.2.1920 x 1080 @ 50, 60Hz resolution,
- 23.1.3.16:9 aspect ratio,
- 23.1.4.1300:1 contrast ratio,
- 23.1.5.250 cd/m<sup>2</sup> brightness,

- 23.1.6.±178° vertical & horizontal viewing angles,
- 23.1.7.16.7 million/1.07 billion colours,
- 23.1.7.1.100% Adobe RGB colour gamut,
- 23.1.7.2.98% DCI-P3 colour gamut,
- 23.1.7.3.80% BT.2020 colour gamut
- 23.1.7.4.84% (CIE 1976) colour gamut,
- 23.1.7.5.72% (CIE 1931) colour gamut,
- 23.1.8.8ms (grey-to-grey normal); 6ms (grey-to-grey fast) response time
- 23.1.9.1 x DP (ver 1.2), 1 x HDMI (ver 1.4), 1 x VGA, input ports as well as 2 x USB 3.0 ports (including 1 x USB3.0 BC1.2 charging port), 2 x USB 2.0 ports
- 23.1.10. Height adjustable stand with tilt (-5° to 21°) and swivel (-40° to 40°) capabilities

# 24. 10 Port Managed Network Switch with 8 POE++ Ports (720W) (Hereafter referred to as the POE++ Switch)

- 24.1. The POE++ Switch shall be a managed network switch that has been engineered specifically for Audio & AV over IP use.
- 24.2. The POE++ Switch shall be rack mounted with black status display panel and rear-facing ports & additional status ensure a clean integration in AV racks.
- 24.3. The POE++ Switch shall come pre-configured with standard profiles for AVB, Dante, AES67, NVX, AMX, Q-SYS, SVSI, KDS,
- SDVoE & NDI as well as audio/video/control mixed profiles. Some protocols may require a license. It will be the responsibility of the successful bidder to provide this and must be included in the bid price if required.
- 24.4. The POE++ Switch shall have a dedicated AV web-based GUI interface for detailed management.
- 24.5. The POE++ Switch shall have Colour-based AV profiles that can be applied to individual ports.
- 24.6. The POE++ Switch shall have automatic switch interconnect with Auto-Trunk, Auto-LAG and IGMP Plus.
- 24.7. The POE++ Switch shall have a common Layer 2 and Layer 3 switching engine.
- 24.8. The POE++ Switch shall have built-in IT web GUI console, telnet & SSH
- 24.9. The POE++ Switch shall support Static, PIM-SM, DM and SSM multicast routing, DHCP Server and PTPv2 Transparent Clock
- 24.10. The POE++ Switch shall support Industry standard command line interface (CLI), SNMP, sFlow and RSPAN, Single-pane-of-glass management platform with centralized firmware updates and mass-configuration support.
- 24.11. The POE++ Switch shall have software-controlled fan adjustments to enable the fans to be turned off when ambient temperature and PoE loads are appropriate for a totally fanless operation.
- 24.12. The POE++ Switch shall have advanced classifier-based, time-based hardware implementation for L2 (MAC), L3 (IP) and L4 (UDP/TCP transport ports) security and prioritization.
- 24.13. The POE++ Switch shall have selectable Port-Channel / LAG (802.3ad 802.1AX) L2/L3/L4 hashing for fault tolerance and load sharing with any type of Ethernet channeling
- 24.14. The POE++ Switch shall have Voice VLAN with SIP, H323 and SCCP protocols detection and LLDP-MED IP phones automatic QoS and VLAN configuration.
- 24.15. The POE++ Switch shall have efficient authentication tiering with successive DOT1X, MAB and Captive Portal methods for streamlined BYOD

- 24.16. The POE++ Switch shall support comprehensive IPv4/IPv6 static and dynamic routing including policy-based routing and 6-to-4 tunneling
- 24.17. The POE++ Switch shall have advanced IPv4/IPv6 security implementation including malicious code detection, DHCP Snooping, IP Source Guard protection and DoS attacks mitigation
- 24.18. The POE++ Switch shall have 8 x Auto-sensing RJ45 PoE++ (90W) 10/100/1000BASE-T ports compatible with 802.3af (15.4W), 802.3at (30W), 802.3bt (60, 75 and 90W) with 720W PoE budget
- 24.19. The POE++ Switch shall have 2 x Auto-sensing RJ45 10/100/1000BASE-T ports
- 24.20. The POE++ Switch shall have 2 x Auto-sensing SPF+ 1000/10GBASE-X ports.
- 24.21. The POE++ Switch shall support 60 Gbps non-blocking fabric across 12 ports
- 24.22. The POE++ Switch shall have out-of-band 1G Ethernet management port
- 24.23. The POE++ Switch shall have USB-C and RJ45 RS232 console ports and USB-A storage port
- 25. Suppliers Equipment Specification Sheet (To be filled in by supplier to detail their equipment specification)

PARAMETER	UNIT	VALUE	MEETS OR EXCEEDS SPECIFICATION
Screen Make & Model			
Screen Width	M		
Screen Height	М		
Screen Surface Area	M <sup>2</sup>		
Screen Total Pixels Width			
Screen Total Pixels Height			
Screen Total Pixel Count			
Panel Width	М		
Panel Height	M		
Panel Depth	М		
Panel Surface Area	M <sup>2</sup>		
Panel Aspect Ratio	:		
Panel Mass	Kg		
Panel Material			

Panel Ingress Protection (Front/Rear)	IP		
Module Width	М		
Module Height	M		
Module Surface Area	M²		
Pixel Type & Configuration	R/G/B		
Pixel Pitch mm	mm		
Pixel Matrix Per Panel			
Pixels Per Panel			
Pixels Per M <sup>2</sup>	M²		
Lines Per Metre			
Recommended Minimum Viewing Distance	M		
Visual Viewing angle . Horizontal •	Deg °		
Visual Viewing angle - Vertical •	Deg °		
Calibrated Brightness Nits / CDM	Nits /		
	CDM		
Lifespan (50% Brightness)	Hours	2	2
Colour Temperature Deg. K	Deg. K		
Operating Temperature Range • ‹C •	°C		
Panel Power Supply Type With PFC			
Input Voltage (Nominal)	AC		
Input Power Frequency	Hz		
Input Power (Max - Peak White) Per M²	VA		
Input Power (Average) Per M²	VA		
Processing System Sender Make & Model			
Input / Output Format			
	-t	1	1

Processing System Reveiver Make & Model			
Panel Data Interconnection			
Driver IC Make & Model			
Processing Depth	Bit		
Colours	Bit		
Grey Scale (Linear - Per Coulour)	Bit		
Brightness Control	Levels		
Automatic Bightness Control Y/N	Y/N		
Voltage Monitoring	Y/N		
Fan Monitoring Y/N	Y/N		
Temperature Monitoring Y/N	Y/N		
Video Processor Brand Name & Model			
Contrast Ratio : :	:		
Display Refresh Rate Hertz	Hz	2	2
Video Frame Rate Hertz	Hz		
Panel Monitoring Feedback Y/N	Y/N		
Mounting System	≥		
Screen housing Temperature Monitoring			
Power System Monitoring			

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# **SECTION 8: SCHEDULE OF RATES / ACTIVITIES**

## TABLE 1

Item	Description / Item Code	Unit of Measure	Estimated Quantity	Price excluding VA	т	VAT		Price including VAT	
			Required	R	С	R	С	R	С
1	SCAFFOLDING & ACCESS EQUPMENT NECESSARY TO COMPLETE THE WORKS	ITEM	1						
2	REMOVAL & REPACKAGING OF EXISTING SCREEN FOR CLIENT STORAGE	ITEM	1						
3	6.912M x 4.608M P8 OUTDOOR 3-IN-1 DIP LED DISPLAY SCREEN AS PER SPECIFICATION	ITEM	1						
4	RACKMOUNT LED SCREEN PROCESSOR SYSTEM (2 x UNITS LINKED FOR DUAL REDUNDANCY) PRICE PER UNIT		2						
5	AUTOMATIC BRIGHTNESS SENSOR FOR ABOVE SCREEN & PROCESSING SYSTEM	ITEM	2						
6	TEMPERATURE SENSOR FOR ABOVE SCREEN & PROCESSING SYSTEM	ITEM	2						

Item	Description / Item Code	Unit of Measure	Estimated Quantity	Price excluding VA	т	VAT		Price including VAT	
			Required	R	С	R	С	R	С
7	FIBRE OPTIC TRANCEIVERS FOR DUAL REDUNDANT SCREEN PROCESSORS & AUTO BRIGHTNESS CONTROLLERS	ITEM	8						
8	RACKMOUNT UNIVERSAL VIDEO SWITCHER SCALER FOR ABOVE SCREEN & SCREEN PROCESSORS	ITEM	1						
9	1:4 HDMI DISTRIBUTION AMPLIFIER	ITEM	1						
10	ADAPTATION OF SCREEN PANEL SUPPORT STRUCTURE & HOUSING FRAME		1						
11	CLADDING & SEALING OF ABOVE SCREEN PANEL SUPPORT STRUCTURE & HOUSING FRAME TO IP65 RATING	ITEM	1						
12	INVERTER COOLING SYSTEM FOR ABOVE SCREEN HOUSING	PC SUM	1						
13	PROFESSIONAL FULL NDI ALL- WEATHER IP67 OUTDOOR FHD PTZ CAMERA	ITEM	6						
14	ALL WEATER WALL/POLE/PENDANT MOUNTING BRACKET FOR ABOVE PTZ CAMERA	ITEM	6						

Item	Description / Item Code	Unit of Measure	Estimated Quantity	Price excluding VA	Т	VAT		Price including VAT	
			Required	R	С	R	С	R	С
15	MOUNTING POLE FOR ABOVE PTZ CAMERA & BRACKET	ITEM	6						
16	NDI PTZ CONTROLLER FOR ABOVE CAMERA EQUIPMENT	ITEM	1						
17	FULL NDI POE+ FHD HDMI ENCODER WITH TALLY, COMMS & PTZ CONTROL	ITEM	2						
18	FULL NDI POE+ FHD HDMI DECODER WITH, COMMS & PTZ CONTROL	ITEM	2						
19	PORTABLE HIGH QUALITY PROFESSIONAL 4K/FHD NDI VIDEO CAMERA WITH MEMORY CARD RECORDER	ITEM	1						
20	PROFESSIONAL 2-STAGE CARBON FIBRE VIDEO TRIPOD WITH LEG SPREADER, FLUID HEAD & PAN BAR	ITEM	1						
21	FULL NDI RACKMOUNT MULTI-LAYER VIDEO PRODUCTION SYSTEM	ITEM	1						
22	14 BUTTON CONTROL SURFACE FOR ABOVE PRODUCTION SYSTEM	ITEM	1						
23	TOUCH PANEL CONTROL SYSTEM FOR ABOVE PRODUCTION SYSTEM & CAMERAS	ITEM	1						

Item	Description / Item Code	Unit of Measure	Estimated Quantity	Price excluding VA	Т	VAT		Price including VAT	
			Required	R	С	R	С	R	С
24	DIGITAL MEDIA CONTENT SERVER & SHOWCONTROL SYSTEM	ITEM	1						
25	SDI - HDMI BI DIRECTIONAL CROSS CONVERTERS	ITEM	4						
26	CONTROL & MUTIVIEW VIDEO DISPLAY MONITORS	ITEM	4						
27	10 PORT MANGED NETWORK SWITCH WITH 8 POE++ PORTS (720W)	ITEM	2						
28	MOBILE 4G/TCIP NETWORK ROUTER	ITEM	1						
29	CONTROL ROOM FURNITURE FOR 2 USERS WHICH WILL BE ABLE TO ACCOMMODATE EQUIPMENT COMFORTABLY. THIS WILL INCLUDE 2 X OFFICE CHAIRS WITH WHEELS 120KG LOAD RATED. DESKTOP TABLE TO BE OF BLACK MELAPLY, MINIMUM 16MM THICK. EDGES ON ALL SIDES TO BE ABS EDGED TO THE MATCHED COLOUR.		1						
30	ANY OTHER EQUIPMENT NECESSARY TO PROVIDE A COMPLETE WORKING SYSTEM	ITEM	1						

Item	Description / Item Code	Unit of Measure	Estimated Quantity	Price excluding VA	Т	VAT		Price including VAT	
			Required	R	С	R	С	R	С
31	NETWORK, SIGNAL, CONTROL & POWER CABLING, (INCLUDE ALL CABLE CONTAINMENT & RETICULATION)	ITEM	1						
32	INSTALLATION MATERIALS, CONSUMABLES & LABOUR,	ITEM	1						
33	SYSTEM SET UP & PROGRAMMING OF PROCESSING EQUIPMENT PRODUCTION SYSTEM & USER INTERFACES		1						
34	SYSTEM TESTING & INTEGRATION WITH OTHER EQUIPMENT & SYSTEMS	ITEM	1						
35	SYSTEM PERFORMANCE VERIFICATION & COMMISIONING	ITEM	1						
36	LABELLING OF ALL EQUIPMENT & CABLING	ITEM	1						
37	USER SYSTEM TRAINING, OPERATOR MANUALS & SERVICE MANUALS	ITEM	1						
38	AS BUILT DRAWINGS & SYSTEM SCHEMATICS	ITEM	1						
39	CLIENT USER ACCEPTANCE TEST TRAINING & HANDOVER	ITEM	1						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VA	Г	VAT		Price including VAT	
			Required	R	С	R	С	R	С
40	EXTEND WARRANTY ON ABOVE PRODUCTS FOR ADDITIONAL 36 MONTHS (SIXTY MONTHS WARRANTY TOTAL)		1						
41	ADDITIONAL SPARE PARTS – EQUATING TO 2.5% OF THE SURFACE AREA OF THE SCREEN	PC SUM	1						
			Total of P	rices for TABLE 1 (ca	arried 1	forward to the Tender F	orm):		

#### TABLE 2

Item	Description / Item Code	Unit of	Estimated	* Price Year 1 (ex	xcl)	* Price Year 2 (ex	cl)	* Price Year 3 (ex	cl)
		Measure	Quantity Required	R	С	R	С	R	С
1	MONTHLY MAINTENANCE SCHEDULE AS PER SCHEDULE SPECIFIED BELOW	MONTH	8						
2	3 MONTHLY MAINTENANCE SCHEDULE AS PER SCHEDULE SPECIFIED BELOW	MONTH	2						
3	6 MONTHLY MAINTENANCE SCHEDULE AS PER SCHEDULE SPECIFIED BELOW	MONTH	2						
4	MONTHLY MAINTENANCE SCHEDULE AS PER SCHEDULE SPECIFIED BELOW	MONTH	8						

Item	Description / Item Code	Unit of	Estimated	* Price Year 1 (e	excl)	* Price Y	ear 2 (excl)	* Price `	Year 3 (exc	cl)
		Measure	Quantity Required	R	С	R	С	R		С
5	3 MONTHLY MAINTENANCE SCHEDULE AS PER SCHEDULE SPECIFIED BELOW	MONTH	2							
6	6 MONTHLY MAINTENANCE SCHEDULE AS PER SCHEDULE SPECIFIED BELOW	MONTH	2							
7	MONTHLY MAINTENANCE SCHEDULE AS PER SCHEDULE SPECIFIED BELOW	MONTH	7							
8	3 MONTHLY MAINTENANCE SCHEDULE AS PER SCHEDULE SPECIFIED BELOW	MONTH	2							
9	6 MONTHLY MAINTENANCE SCHEDULE AS PER SCHEDULE SPECIFIED BELOW	MONTH	1							
				Year 1		Ye	ear 2	Y	ear 3	
			Sub-Totals :							
				Sub-To	tal (exc	el) = Year1 + Y	ear 2 + Year 3	:		
							VAT@15%	:		
			Total of Price	s for TABLE 2 (incl)	carried	forward to the	e Tender Form	:		

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## SUMMARY OF PRICES

Description		R	С
Total Price for Table 1 inclusive of VAT			
Total Price for Table 2 inclusive of VAT			
	Grand Total Incl. VAT: Table 1 + Table 2. ( <i>To be carried forward to the form of offer</i> )		

TENDER No: 26320 (5U)

## **SECTION 9: OFFICIAL TENDER FORM**

Part A: OFFER BY TENDERER - In response to Tender Number: 26320 (5U) I / we hereby offer to supply the goods / services detailed hereunder in accordance with the Technical Specification, and subject to the Standard and Special Conditions of Tender (Goods/Services), and General and Special Conditions of Contract, which accompanied your Tender (with which I / we acknowledge myself / ourselves to be fully acquainted) at the price stated below, or in the case of individual rates are indicated in Section 8: Bill Of Quantities / Schedule of Rates / Activities.

	N PRICE OF VAT	VAT AMOUNT		OTATION PRICE CLUSIVE OF VAT
R	R		* R	
* AMOUNT IN WORDS	i (incl. VAT):			
		d and remain open for accep in the Special Conditions of		ed in the Conditions of Tende
Thekwini Vendor Portal	Registration Number:	PR		
C.S.D Registration Numl	ber:	MAAA		
S.A.R.S Pin Number:				
completion of the fol	lowing is compulse	ory. Failure to declare th	e following w	ill invalidate your offer
Declaration of Intere		ory. Failure to declare ti	ie ioliowing w	iii iiivaiiuate your one
	ors, managers, principle shar	reholder or stakeholders currently ast twelve (12) months?	in the service of	Yes No
	•	anagers, principle shareholder or service of the state in the past twelver		Yes No
Name of entity's member	Position in Entity	Name of Relative (if applicable)	1	
		I nolder or stakeholder of your entit ns in the service of the state and/o	•	Yes No
			or mile may be	
nvolved with the evaluation ( Name of entity's member			-	titution Nature of Relationship
Name of entity's member	of this quotation? If yes plea	se furnish particulars below  Name of Relative (if applicable)	Name of State Ins	
Name of entity's member	of this quotation? If yes plea	se furnish particulars below	Name of State Ins	
Name of entity's member  Refer to the	of this quotation? If yes plea	Name of Relative (if applicable)  uments in Section 4(d) for the d	Name of State Ins	
Name of entity's member  Refer to the	of this quotation? If yes plea	Name of Relative (if applicable)  uments in Section 4(d) for the d  * Name	Name of State Ins	
Name of entity's member  Refer to the Signature:	of this quotation? If yes plea  Position in Entity  e Consolidated MBD Docu	Name of Relative (if applicable)  uments in Section 4(d) for the d  * Name	Name of State Installed	
Name of entity's member	of this quotation? If yes plea  Position in Entity  e Consolidated MBD Docu	Name of Relative (if applicable)  uments in Section 4(d) for the d  * Name	Name of State Installation of "in servi (capitals):  Capacity:	
Refer to the Signature:  Name of Business:	of this quotation? If yes plea  Position in Entity  e Consolidated MBD Docu	Name of Relative (if applicable)  uments in Section 4(d) for the d  * Name	Name of State Inserving (capitals):  Capacity:  Tel:	
Refer to the Signature:  Name of Business:	Position in Entity  e Consolidated MBD Docu	Name of Relative (if applicable)  uments in Section 4(d) for the d  * Name	Name of State Inserving (capitals):  Capacity:  Tel:	
Refer to the Signature:  Name of Business: Address:	Position in Entity  e Consolidated MBD Doct	Name of Relative (if applicable)  uments in Section 4(d) for the d  * Name	Name of State Institution of "in serving (capitals):  Capacity:  Tel:  Fax:	ce of the State"
Refer to the Signature:  Name of Business: Address: Denotes Mandatory Info Failure to complete	Position in Entity  e Consolidated MBD Documents  rmation  the Mandatory Info	Name of Relative (if applicable)  uments in Section 4(d) for the d  * Name  rmation and sign this T  - The Purchaser, as represe	Name of State Installed In	ill invalidate the tender
Refer to the Signature:  Name of Business: Address: Denotes Mandatory Info Failure to complete	Position in Entity  e Consolidated MBD Documents  rmation  the Mandatory Info	Name of Relative (if applicable)  uments in Section 4(d) for the d  * Name  rmation and sign this T  - The Purchaser, as represent Tender, Specifications, ar	Name of State Installed In	ill invalidate the tender

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