CLARIFICATION TO PRE-BID QUERIES

SIGNATURE & SEAL OF TENDERER
**Indian Institute of Technology Bombay**

**Name of Work:** Supply, Installation, Testing & Commissioning of A.V. System for P.C. Saxena Auditorium Inside IITB Campus  
**Date:** 4th April 2014

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### Clarification to Prebid queries by the agencies

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Page No./Clause No./Item No.</th>
<th>Queries</th>
<th>Clarifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>NIT – Pg. 2 Pt. 2(a)</td>
<td>Similar work should include AV rooms, conference rooms.</td>
<td>The definition of “Similar Work” shall remain unchanged as specified in NIT.</td>
</tr>
<tr>
<td>2</td>
<td>NIT – Pg. 2 Pt. 2(c)</td>
<td>Construction work?</td>
<td>A = Maximum value of construction work… shall be read as A = Maximum value of AV work</td>
</tr>
<tr>
<td>3</td>
<td>NIT – Pg. 5 Pt. 3.1</td>
<td>Kindly explain – The value of executed works should be brought to current costing.</td>
<td>The clause is self-explanatory.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>We would request if the capacity of the Auditorium from 300 to a 150 as it is a very specific number which might not be feasible for everyone. If not, a range can be mentioned.</td>
<td>The capacity of the auditorium shall remain unchanged as 300 as mentioned in the NIT.</td>
</tr>
<tr>
<td>4</td>
<td>NIT – Pg. 5 Pt. 3.8</td>
<td>Certification of performance for completed work - Who should certify the same? From System Integrator or Client.</td>
<td>The performance certificate of completed works shall only be obtained from Client.</td>
</tr>
</tbody>
</table>
| 5       | NIT – Pg. 6 Pt. 5.2 & 5.3    | Form E & Form D - More clarity need on no. of projects to mention? Clarify both “Form” in detail. | All works under execution or awarded, similar to this work, shall be mentioned in “FORM D”.  
Performance reports from clients for all completed works, which are mentioned in the list of completed works, shall be mentioned in “FORM E”. |
<p>| 6       | NIT – Pg. 11 FORM D          | Under Execution – so how all details will be marked completed? | Complete list of “Project under execution or awarded” shall be provided. |</p>
<table>
<thead>
<tr>
<th>SR. NO.</th>
<th>PAGE NO./CLAUSE NO./ ITEM NO.</th>
<th>QUERIES</th>
<th>CLARIFICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Clause of Contract Clause 1 &amp; 1A</td>
<td>You have said in the document that 5% PBG is required; also you have said it can be adjusted with the EMD &amp; running bills to the value of 5%.</td>
<td>Contractor shall submit a Performance Guarantee amounting to 5% of Tender value, as prescribed under “Clause 1”. IITB shall also deduct a sum at the rate of 5% of the gross amount of each running bill as Security Deposit, in the format as prescribed in “Clause 1A”</td>
</tr>
</tbody>
</table>

**Volume – 2. Technical Specification**

<table>
<thead>
<tr>
<th>8</th>
<th>List of approved make</th>
<th>Could you provide the Model number of the owner furnished equipment to be integrated with new supply.</th>
<th>The model number shall be issued along with Addendum.</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Technical specification of Item VI to be provided.</td>
<td></td>
<td>The technical specification shall be issued along with Addendum.</td>
</tr>
</tbody>
</table>

**Volume – 3. Bill of Quantities**

| 10      | BOQ in Open format required | BOQ in editable format shall be issued along with Addendum. |

**General**

<table>
<thead>
<tr>
<th>11</th>
<th>Schematic drawings of Video needs to be provided.</th>
<th>The schematic drawing of video system shall be issued along with Addendum.</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Drawings in CAD format needs to be provided.</td>
<td>Noted and shall be issued along with Addendum.</td>
</tr>
<tr>
<td>13</td>
<td>Payment terms</td>
<td>Payment terms shall be followed as specified in Contract condition under clause no. 7, 9 &amp; 9A.</td>
</tr>
<tr>
<td>14</td>
<td>Is IITB exempted from Custom duty or IITB can buy on direct Import basis?</td>
<td>IITB shall not provide any exemption. Contractor shall buy all materials.</td>
</tr>
</tbody>
</table>
NAME OF WORK: SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF A.V. SYSTEM FOR P.C. SAXENA AUDITORIUM INSIDE IITB CAMPUS

ADDENDUM / CORRIGENDUM

MAKE & MODEL NUMBER OF THE OWNER FURNISHED EQUIPMENT

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Description</th>
<th>Make</th>
<th>Model No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Main FOH speakers</td>
<td>JBL</td>
<td>VRX 932LA-1</td>
</tr>
<tr>
<td>2</td>
<td>Mounting bracket for Array speakers</td>
<td>JBL</td>
<td>VRX-AF</td>
</tr>
<tr>
<td>3</td>
<td>Subwoofer</td>
<td>JBL</td>
<td>VRX915S</td>
</tr>
<tr>
<td>4</td>
<td>Amplifier for subwoofer and FOH speakers</td>
<td>Crown</td>
<td>IT-9000HD</td>
</tr>
<tr>
<td>5</td>
<td>Stage front fill loud speakers</td>
<td>JBL</td>
<td>CTRL 25AV</td>
</tr>
<tr>
<td>6</td>
<td>Amplifier for Front fill speakers</td>
<td>Crown</td>
<td>XTi-1002</td>
</tr>
<tr>
<td>7</td>
<td>Stage monitors</td>
<td>JBL</td>
<td>PRX-415M</td>
</tr>
<tr>
<td>8</td>
<td>Amplifier for stage monitors</td>
<td>Crown</td>
<td>Xti-2002</td>
</tr>
<tr>
<td>9</td>
<td>Audio Equiliser</td>
<td>dBX</td>
<td>231s</td>
</tr>
<tr>
<td>10</td>
<td>DI Box</td>
<td>BSS</td>
<td>AR-133</td>
</tr>
<tr>
<td>11</td>
<td>Loudspeaker for Green rooms and Pre function area</td>
<td>JBL</td>
<td>CTRL 24CT</td>
</tr>
<tr>
<td>12</td>
<td>Amplifier for Pre/Post function area and green room</td>
<td>Crown</td>
<td>CTs-1200</td>
</tr>
<tr>
<td>13</td>
<td>Speakers for Post function area</td>
<td>JBL</td>
<td>CTRL25AV</td>
</tr>
<tr>
<td>14</td>
<td>Volume controller</td>
<td>BSS</td>
<td>BLU-3</td>
</tr>
<tr>
<td>15</td>
<td>Digital audio processor</td>
<td>BSS</td>
<td>BLU-100</td>
</tr>
<tr>
<td>16</td>
<td>Expansion for audio processor</td>
<td>BSS</td>
<td>BLU-BOB-2</td>
</tr>
<tr>
<td>17</td>
<td>32 Channel audio mixer</td>
<td>Soundcraft</td>
<td>LX7ii 32</td>
</tr>
<tr>
<td>18</td>
<td>Outboard effect processor</td>
<td>Lexicon</td>
<td>MX300</td>
</tr>
<tr>
<td>19</td>
<td>Control room Speakers</td>
<td>JBL</td>
<td>C2PS</td>
</tr>
<tr>
<td>20</td>
<td>mounting kit for C2PM</td>
<td>JBL</td>
<td>MTC-2P</td>
</tr>
<tr>
<td>21</td>
<td>Headphone for monitoring</td>
<td>AKG</td>
<td>K-99</td>
</tr>
<tr>
<td>22</td>
<td>Wireless Handheld Microphone set</td>
<td>AKG</td>
<td>WMS-470 D5 Vocal set</td>
</tr>
<tr>
<td>23</td>
<td>Wireless Headworn microphone system</td>
<td>AKG</td>
<td>WMS-470 Presenter set</td>
</tr>
<tr>
<td>24</td>
<td>1:4 Antenna splitter</td>
<td>AKG</td>
<td>PS4000W</td>
</tr>
<tr>
<td>Sr. No.</td>
<td>Description</td>
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</tr>
<tr>
<td>--------</td>
<td>-------------------------------------------------------</td>
<td>--------</td>
<td>------------</td>
</tr>
<tr>
<td>25</td>
<td>Antenna power supply unit</td>
<td>AKG</td>
<td>PSU 4000</td>
</tr>
<tr>
<td>26</td>
<td>Active directional antenna for microphone system</td>
<td>AKG</td>
<td>SRA-2B/W</td>
</tr>
<tr>
<td>27</td>
<td>Antenna patch cable</td>
<td>AKG</td>
<td>MKPS</td>
</tr>
<tr>
<td>28</td>
<td>Antenna Extension cable</td>
<td>AKG</td>
<td>MKA20</td>
</tr>
<tr>
<td>29</td>
<td>Wired stage microphone</td>
<td>AKG</td>
<td>D5</td>
</tr>
<tr>
<td>30</td>
<td>Gooseneck Microphone</td>
<td>AKG</td>
<td>GN 50 EPS</td>
</tr>
<tr>
<td>31</td>
<td>Hypercardiod Capsule</td>
<td>AKG</td>
<td>CK33</td>
</tr>
<tr>
<td>32</td>
<td>Shock Mount for gooseneck microphone</td>
<td>AKG</td>
<td>H 600</td>
</tr>
<tr>
<td>33</td>
<td>Shotgun Microphone with wind screen</td>
<td>AKG</td>
<td>C568-B +W68</td>
</tr>
<tr>
<td>34</td>
<td>16 Core shielded audio sneak cable</td>
<td>Link- Eurocable</td>
<td>SSS16C</td>
</tr>
<tr>
<td>35</td>
<td>2 core 4 sq mm speaker cable</td>
<td>Link- Eurocable</td>
<td>CVS-02N40</td>
</tr>
<tr>
<td>36</td>
<td>4 core 4 Sq mm speaker cable</td>
<td>Link- Eurocable</td>
<td>CVS-04N40</td>
</tr>
<tr>
<td>37</td>
<td>4 core shielded audio cable</td>
<td>Kramer</td>
<td>BC-2T</td>
</tr>
<tr>
<td>38</td>
<td>Microphone cable</td>
<td>Kramer</td>
<td>BC-1T</td>
</tr>
<tr>
<td>39</td>
<td>Stage breakout box with 12 mic in 2 line in and 2 line out with all connectors</td>
<td>Neutrik</td>
<td>NSB2B12/4</td>
</tr>
<tr>
<td>40</td>
<td>Half normalised patchbay</td>
<td>Neutrik</td>
<td>NYS-SPP-L1</td>
</tr>
<tr>
<td>41</td>
<td>1/4&quot; phono connector</td>
<td>Neutrik</td>
<td>NP3X</td>
</tr>
<tr>
<td>42</td>
<td>Speakon connector</td>
<td>Neutrik</td>
<td>NL-4</td>
</tr>
<tr>
<td>43</td>
<td>Plate mount XLR Female</td>
<td>Neutrik</td>
<td>NC3FD-LX</td>
</tr>
<tr>
<td>44</td>
<td>Plate mount XLR Male</td>
<td>Neutrik</td>
<td>NC3MD-LX</td>
</tr>
<tr>
<td>45</td>
<td>Cable end XLR male</td>
<td>Neutrik</td>
<td>NC3MXX</td>
</tr>
<tr>
<td>46</td>
<td>Cable end XLR female</td>
<td>Neutrik</td>
<td>NC3FXX</td>
</tr>
</tbody>
</table>
1. HD SDI optical fiber video transceiver

- Transceiver shall be capable to transmit 3G-SDI, HD-SDI, and SDI signals very long distances over a single fiber.
- Transceiver shall capable to pass embedded audio, ancillary ID and metadata information, and SD/HD-SDTI digital video signals.
- Transceiver shall supports data rates from 270 Mbps to 2.97 Gbps
- Transceiver shall have input equalization and reclocking on buffered outputs.
- It shall have dual buffered Video outputs.
- There shall be option to monitor theand trouble shoot video link with the help of status indicator.

2. 3G SDI to HDMI Scaler.

- Scaler shall capable to scale 3G-SDI, HD-SDI, and SDI video signals to HDMI video.
- It shall have one video and audio inputs and one Scaled HDMI output with one buffered video output.
- It shall support HDMI audio embedding
- It shall have selectable output resolution upto 2K
- It shall have Input equalization and reclocking on buffered loop-through
- It shall have feature to control the aspect ratio at the output side.
- It shall have picture controls for brightness, contrast, and detail, as well as horizontal and vertical positioning, overscan, and sizing
- It shall have feature of automatic output standby. This means it shall mute the output when there is no active input video present.
- It shall have Internal video test patterns and pink noise generator for calibration and setup
- It shall have RS232 Port for third party control interface.

3. Professional Video Camera

- The video camera shall have HD-SDI output, HDMI output, USB 2.0, and IEEE 1394 output (DV only)
- The video camera shall have two locking XLR inputs with switches for mic/line, two RCA audio outputs, and +48V Phantom Power capability.
- Camera shall have Waveform and vectorscope display, focus assists, auto focus with face detection.
INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

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ADDENDUM / CORRIGENDUM

- White balance, mode display, zebra display, color bar, tally lamps, 4-position ND optical filter controls.
- Camera shall have Built-in stereo microphone.
- Camera shall support Recording of two channels of LPCM audio in the PH and DV modes, and Dolby Digital in all HD modes.
- Camera shall have Optical Image Stabilizer (O.I.S) for smooth stable shooting
- Camera shall have Built-in SMPTE time-code generator/reader.
- Camera shall have 22X HD optical zoom.
NOTES:
1. ALL DIMENSIONS IN MM UNLESS OTHERWISE SPECIFIED.

ISSUED FOR: TENDER

B 17/01/14 AMENDED SS AVS
A 26/11/13 FIRST DRAWN SS AVS
REV DATE DESCRIPTION DRW CHK

PROJECT : IT MUMBAI
TITLE : SCHEMATICS CONTROL
JOB NO : 1 1 1 1

DATE
REV
DESCRIPTION
DRW FREE

LEVEL 2, KALPATRU SYNERGY
SANTACRUZ (EAST)
Mumbai, 400 055
Tel: +91 22 3953 7500
e-mail: info@hewshott.com
website: www.hewshott.com

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