



THE URBAN DEVELOPMENT CORPORATION OF TRINIDAD AND TOBAGO LIMITED (UDECOTT)

REQUEST FOR PROPOSALS FOR THE COMPLETION OF THE HARMONY HALL COMMUNITY CENTRE

The Urban Development Corporation of Trinidad and Tobago Limited, (UDeCOTT) invites suitably qualified and experienced entities to submit proposals for the **COMPLETION OF THE HARMONY HALL COMMUNITY CENTRE**.

In accordance with the Public Procurement and Disposal of Public Property Act, 2015 (as amended), suppliers of goods, works and services, interested in conducting business with UDeCOTT must be registered on the OPR Procurement Depository. The relevant guidelines for registration can be found on the OPR website via <https://opr.tt.org/procurement-depository/>. Therefore, UDeCOTT is inviting suitably qualified suppliers to register and apply for pre-qualification in the OPR's Procurement Depository for the following:

Line of Business Code: 72121103 - Commercial and Office Building Renovation and Repair Service

The tender process for this project will be conducted via UDeCOTT's E-Tender System. The RFP package will be available on the E-Tender System from **Monday 7 October, 2024**. To access the Tender, Proponents must register on the E-Tender System via <https://udecott.etenderworld.tt/login.php>.

Should you encounter any technical difficulties in accessing or using the system, you are to immediately contact our IT Helpdesk at 225-4004 ext. 206 or etenderhelpdesk@udecott.com, carbon copying the Office of the Chief Procurement Officer at tenders@udecott.com.

The successful contractor shall be chosen using competitive selection process as set out in the Request for Proposals (RFP).

INFORMATION SESSION AND SITE VISIT

An **Online Information Session** will be held via **Microsoft Teams** on **Friday October 11, 2024 at 9:00 a.m.**

A **Site Visit** will be held on **Friday October 11, 2024 at 12:30 p.m.** starting at the Corner Malibu Crescent, Harmony Hall, Marabella. Interested parties are kindly asked to confirm their availability, together with the **names and preferred email addresses** of their representatives who will be in attendance, via email to tenders@udecott.com.

SUBMISSION

Proponents are advised that submissions must include ALL the documents as set forth in the RFP and must be in accordance with the terms therein.

Failure to do so may result in disqualification.

The deadline date for submissions is **November 4, 2024 at 2:00 p.m. (AST).**

Additional information may be requested through email forwarded to the attention of **The Office of the Chief Procurement Officer** at tenders@udecott.com.

UDeCOTT reserves the right to reject any or all proposals for failure to comply with any mandatory requirements stated in the RFP.

Please visit our website at udecott.com for further details and updates.

THE OFFICE OF THE CHIEF PROCUREMENT OFFICER

FREQUENTLY ASKED QUESTIONS (FAQs)

FOR THE COMPLETION OF THE HARMONY HALL COMMUNITY CENTRE

What is the purpose of this Request for Proposal?

The purpose of this Request for Proposal is to identify and contract a suitably qualified and experienced contractor with the specialised expertise necessary to undertake the Project.

Are Proponents required to purchase the RFP package?

There will be no cost for the RFP package.

Are interested parties required to register with the Office of the Procurement Regulator?

Proponents are advised that in light of the proclamation of the Public Procurement and Disposal of Public Property Act, 2015, all proponent interested in conducting business with UDeCOTT must be registered on the OPR Procurement Depository. The relevant guidelines for registration can be found on the OPR website via <https://oprtd.org/procurement-depository/>. Proponents are required to apply for pre-qualification in the OPR's Procurement Depository for the following:

Line of Business Code: 72121103 - Commercial and Office Building Renovation and Repair Service.

What is the Location of the site?

The Site is located at the Corner Malibu Crescent, Harmony Hall, Marabella.

Is it mandatory to attend the site visit and online information session?

Attendance to the site visit and online information session is **not** mandatory. It does however provide a greater understanding of the requirements of the RFP.

Are there any eligibility requirements for this Procurement Process?

In order to be eligible for evaluation and/or consideration to provide the Services, Proponents must be able to demonstrate the following:

- Incorporation or otherwise registered to do business in Trinidad and Tobago **prior** to the award of any contract for the provision of the Works, as evidenced by the Certificate of Incorporation or Registration (as applicable),
- Submission of valid statutory clearance/compliance certificates, namely;
 - VAT Clearance Certificate
 - BIR Clearance Certificate
 - NIS Certificate of Compliance

Are Proponents required to submit a Bid Bond with their Proposals?

No Bid Bond is not required for this RFP.

Proponents are to note that the responses provided as guidance to these Frequently Asked Questions does not relieve the Proponent of its obligation and responsibility to fulfil and comply with all requirements of the Request for Proposals.



Harmony Hall Community Center

Scope of Works

September, 2024

1.0 Description of Works

The project involves the completion of the Harmony Hall Community Centre.

The Main Building will accommodate all the core functions and requirements of the modern community facility. The facilities are as follows:

1. A Multi-Purpose Hall and Dressing Rooms.
2. A Community Gym, a Teaching Kitchen with Servery area and Classroom.
3. A Cyber Café and Training Room.
4. HVAC, Plumbing, Electrical, Security, Fire Detection and Suppression Systems.
5. Elevator.
6. Generator
7. Waste Disposal Area within premises.
8. Administrative Office.
9. Washroom Facilities and Janitor Rooms.

Site Requirements:

1. A clearly defined and controlled perimeter (fencing, gates)
2. Tank farm and plumbing amenities.
3. Waste Disposal Area within the premises.
4. Secured parking arrangement and integrated landscaping.

2.0 Scope of Works

Scope of Works for the Project includes:-

- i) Provision by the Contractor of Preliminaries including but not limited to temporary utilities including electricity, waste management and disposal, insurances, HSE inclusive of ppe, welfare facilities, superintendence, subcontractor coordination and verification of works and project works scheduling. Furnishing all labour, materials, tools, equipment, transportation and services necessary for the successful completion of the construction of the project.
- ii) Ensure all Statutory Approvals are obtained.
- iii) Clear site of all vegetation and debris and maintain hoarding, disposing of all waste properly.
- iv) Repairs to guttering and roofing elements where required.
- v) Entire Facility - Remedial works to be undertaken to repair interior and exterior walls, beams, floors, ceiling (tiles and gypsum), doors, windows, staircase, etc. This will include

- all cracks, broken render, broken door laminate, surface imperfections, patch works, damaged surfaces, replacement of damaged ceiling tiles and floor tiles etc. Finished surface must match existing / surrounding areas.
- vi) Repainting of building front external wall paint.
 - vii) Painting of metal works.
 - viii) Make good all doors and door closures and supply and install ironmongery to match existing ones installed. Verify that existing keys are functional. Replace non-functional locks.
 - ix) Supply and installation of benches and clothes hooks for dressing rooms.
 - x) Supply and install teak fire hose reel enclosure.
 - xi) Sand, prepare surface and refinish wooden stage with approved finishes.
 - xii) Complete gym flooring.
 - xiii) Supply and install reinforced concrete screed to top of elevator shaft ensuring proper grading and flow of storm water. Waterproofing works to top of elevator shaft.
 - xiv) Rectify, complete and commission all required electrical systems and services including lighting, plugs, switches, cables etc for the facility, including liaising with utility company to secure permanent connection.
 - xv) Complete and commission all required plumbing systems including liaising with utility company to secure approvals.
 - xvi) Complete, service and commission all required HVAC and ventilation systems necessary for the facility.
 - xvii) Complete and commission Fire Detection Systems (inclusive of Fire Suppression System) as specified.
 - xviii) Rectify, complete and commission CCTV & Security System and Sound & Stage Lighting Systems as specified.
 - xix) Rectify, complete and commission ICT and Data System as specified.
 - xx) Complete and Commission Elevator.
 - xxi) Complete Generator and ATS installation and Commission. Obtain Generator License.
 - xxii) Rectify carpark area and complete carpark (inclusive of wheel stops and ADA compliant spot(s), testing).
 - xxiii) Complete external works inclusive of drainage and driveway access, fencing and gate, remedial works to boundary wall and sidewalk, rectify and complete grano to apron, complete tank farm and enclosed pump housing, provisions for a laundry area within the enclosed tank farm as required.
 - xxiv) Rectify existing landscaping and complete landscaping within ramp area.
 - xxv) Steel Bollards - Supply and install steel bollards, inclusive of reinforced concrete foundation and connecting chain to protect Transformer / Electrical Meter / CT Cabinet.
 - xxvi) Complete Guard Booth, inclusive of door and ironmongery, painting etc.
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- xxvii) Complete internal signage to match existing signage.
- xxviii) All other items of work as specified in the project drawings, Bill of Quantities or implied as necessary for the successful completion of the Harmony Hall Community Centre.
- xxix) Development and submission of all handover and closeout documents including As-built drawings, warranties, operations and maintenance manuals, commissioning documents, Statutory approvals for the facility.
- xxx) Provision of a key box with all keys labelled accordingly.
- xxxi) General cleaning of entire facility prior to handover.

3.0 The Defects Liability Period (12 months)

Provide the necessary Construction attendance during the Defects Liability period as required to facilitate handover, correct, repairs and make good any defect that may be identified over the period in accordance with the contract.

4.0 Local Content

Given the community based approach, the Contractor is required to include in his labour force a minimum of forty percent (40%) personnel and/or sub-contractors from the immediate vicinity, that is, within a five (5) mile radius.

5.0 Regulations

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|----------------------|--|
| LOCAL
REGULATIONS | <ul style="list-style-type: none">• Requirements of the OSH Authority in accordance with the OSH Act 2004 with amendments of 2006• Requirements of the EMA of Trinidad and Tobago & Water Pollution Rules 2019• Requirements of the Trinidad and Tobago Fire Service (TTFS), Ministry of National Security of Trinidad and Tobago• Requirements of the Electrical Inspectorate Division, Ministry of Public Utilities of Trinidad and Tobago• Requirements of the Public Health Department in accordance with the Public Health Ordinance Act• SMACNA HVAC Duct Construction Standards• The National Plumbing Code of Trinidad and Tobago• Trinidad & Tobago Electricity Commission Wiring for Light & Power 8th Edition |
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- Trinidad & Tobago Electrical Wiring Code Part 1 - Low Voltage Installations (TTS 171: Part 1: 2015)
- Trinidad & Tobago Electrical Wiring Code Part 2 - High Voltage Installations (TTS 171: Part 2: 2002)
- Trinidad & Tobago Electrical Wiring Code Part 3 – Renewable Energy Systems and Interconnection Requirements (TTS 171: Part 3: 2011)
- Workplace Design – Lighting of Indoor work places – Specification (TTS 611-2008)
- Water and Sewerage Authority Guidelines for Design and Construction of Water and Wastewater Systems in Trinidad and Tobago
- Trinidad and Tobago Bureau of Standards (TTBS) TTS 171: Part 1& Part 2
- Public Health of Trinidad & Tobago

Other codes where applicable: IBC 2009, ASCE7-05, ACI 318-05, ACI530-05, ASCE5-05, AISC341-05,360-05, ASHRAE, NFPA Standard

6.0 SPECIFICATIONS

Finishes

1. All interior and exterior walls are rendered, primed and 2 coats of paint, while all interior floors to be as specified in the design. In the absence of the specification, all floors should be porcelain tiles. A minimum of three (3) sample options for each type of tile to be presented to the Client for approval.
2. Carpentry and Joinery/Kitchen Cupboard: Full Teak or equivalent hardwood. Straight-grain, consistent colour and free from soft hear, sapwood, shakes, splits, waived edges and all evidence of insect attack or compression faults. No knots will be allowed on exposed faces.
3. All paint systems shall provide a minimum of 5 years warranty that is subject to the Employer's approval including color scheme. Paints acceptable for these works shall be Sherwin Williams or equal and approved, applied in strict accordance with the manufacturer's specifications.

Sound and Stage lighting

PA system with 2 Zone common areas paging with Opti voice capabilities
Audio System Design

- The Public Address (PA) system shall be designed for sound reinforcement during assemblies, speeches, and Performances.

Basic components of system

- Loudspeakers
- Subwoofer
- Digital mixer
- Audio snake
- Wireless microphones
- Wireless paging microphone
- Mixer power amplifier
- Flush mount ceiling speakers
- Portable speaker

Standard equipment list for Auditorium.

List of standard Auditorium System equipment

Item No.	Description	Quantity
1	Flexible array Loudspeaker	2
2	Dual 10" Powered Subwoofer	1
3	Digital Stereo 8 channel Mixer	1
4	Audio Snake	1
5	Wireless Microphones	2

List of standard PA System Equipment

1	Flush mount ceiling speakers with removable or rotatable badges		Quantity varies depending on size and number of rooms
2	Portable Speaker with rechargeable battery	1	

3	Mixer Power Amplifier	1	
	Wireless Paging Microphones	1	

Component Performance Specification

Loudspeakers shall satisfy the following minimum performance

specifications: -

- a. The Loudspeaker shall be a 1000-watt self-powered two-way, ported loudspeaker system utilizing Eight (8) mid/high-range drivers.
- b. The Loudspeakers shall have a 12-inch LF high performance subwoofer. The enclosure shall be made of High impact composite materials with M8 threaded insert points.
- c. The Loudspeaker shall have an integrated 2-channel mixer with independent level controls.
- d. The Loudspeaker shall allow for control over its vertical coverage pattern by manual louvered adjustment with automatic changes to its internal EQ to maintain optimum tonal balance.
- e. The Loudspeaker shall be designed for wall mount installation or suspended up to 20 ft high.
- f. The Loudspeaker shall have a Nominal Dispersion of 100° H x 40° V with variable adjustments for the vertical axis.
- g. The Loudspeaker input shall have a nominal rated impedance of 10 k ohms (10 kΩ)
- h. The Loudspeaker shall have an Input Impedance of 2.2 kΩ (MIC), 10 kΩ (Line)
- i. The Loudspeaker input connections will allow for direct connection XLR /1/4" XLR: Pin 1 (GND), Pin 2 (+), Pin 3 (-) 1/4" TS/TRS, (2) RCA
- j. Exposed cosmetic surfaces of the Loudspeaker should be Black and the acoustically transparent grille component should be formed of powder-coated perforated steel.
- k. Each Loudspeaker shall have a bandwidth of 43 Hz - 20 kHz and a maximum continuous acoustic output of 132dB SPL.
- l. The Loudspeaker shall have an internal dynamic limiter with distortion at rated power being 0.1% Max (30 Hz - 15 kHz)
- m. Dimension shall not exceed 664.66 mm x 334.3 mm x 372.5 mm (26.1" x 13.1" x 14.6")
- n. Warranty shall be 5 years.

Subwoofer shall satisfy the following minimum performance specifications: -

- a. The Subwoofer shall be a 1000-watt self-powered compact format system utilizing two ten (10") high excursion LF drivers. The enclosure should be

- made of High impact composite materials with high impact composite end caps.
- b.** The Subwoofer should be designed for installation in specialist localities including but not limited to House of Worships, Resorts and Hospitality venue.
 - c.** The Subwoofer shall have a Polarity switch to adjust polarity of subwoofer for easy correction of low-frequency overlap between the main loudspeaker and subwoofer.
 - d.** The Subwoofer shall possess line output EQ that sets the Subwoofer's output to a high-pass filter or full
 - e.** Range, which allows for easy crossover selection when used with a main loudspeaker.
 - f.** The subwoofer shall have a Dynamic Limiter.
 - g.** The Subwoofer shall have a Nominal Dispersion being Omni-directional.
 - h.** The Subwoofer input shall have a Cross over frequency within the range 40 – 100 Hz.
 - i.** The Subwoofer input connections will allow for direct connection XLR /1/4" XLR: Pin 1 (GND), Pin 2 (+), Pin 3 (-) 1/4" TS/TRS,
 - j.** Exposed cosmetic surfaces of the Subwoofer should be Black and the acoustically transparent grille component should be formed of powder-coated perforated steel.
 - k.** Each Subwoofer shall have a bandwidth of 38 Hz – 250 Hz and a maximum continuous acoustic output of 130dB SPL,
 - l.** The Subwoofer should have a dynamic limiter with distortion at rated power being 0.1% Max (30 Hz - 15 kHz)
 - m.** Warranty should be 5 years.

Audio snake

- a.** The number of input connections should be at least 12.
- b.** The number of output connections should be at least 4.
- c.** The connections should be XLR: Pin 1 (GND), Pin 2 (+), Pin 3 (-)
- d.** The cable should be of suitable length to position the casing of the head at the back of the stage and the tail in the control room.
- e.** The head enclosure should be made of metal.
- f.** The connections should have numbered wires for identification at the tail end.
- g.** Warranty should be 5 years.

Wireless microphones

- h.** Working Range should be 91 m (300 ft) Line of Sight
- i.** Audio Frequency Response 50 to 15,000 Hz
- j.** Total Harmonic Distortion of Ref. ± 33 kHz deviation with 1 kHz tone 0.5%, typical

- k. Dynamic Range of 100 dB, A-weighted, typical
- l. Audio Input Level should be max of -16 dBV, min (0 dB) +10 dBV
- m. Input Impedance 1 M Ω
- n. RF Transmitter Output 10 mW, typical
- o. Power Requirements must be 2 LR6 AA batteries, 1.5 V, alkaline
- p. Battery Life should be up to 14 hours (alkaline)
- q. Receiver
- r. XLR connector 200 Ω
- s. 6.35 mm (1/4") connector 50 Ω
- t. XLR connector -27 dBV (into 100 k Ω load)
- u. 6.35 mm (1/4") connector -13 dBV (into 100 k Ω load)
- v. RF Sensitivity
- w. 105 dBm for 12 dB SINAD, typical
- x. Power Requirements 12-15 V DC @ 235 mA, supplied by external power supply (tip positive)
- y. Warranty should be 1 years.

Mixer Power Amplifier for Opti voice paging shall satisfy the following minimum performance specifications: -

- a. The mixer/amplifier should employ Class-D amplification together with a digital signal processing architecture running at 48 kHz / 24 bit.
- b. The mixer/amplifier should incorporate a switch-mode power supply allowing normal operation from AC outlets ranging from 100 – 240 V ($\pm 10\%$) at 50/60 Hz. The amplifier should have an IEC 320-C14 electrical power inlet and should be equipped with a removable power supply cord. A power switch should be located on the front panel.
- c. The product should include protection from shorted loads and general overheating.
- d. The mixer/amplifier's physical size should be 1 RU in height by 1 RU in width and be capable of rack mounting.
- e. The product should have venting with a single fan, continuous left-to-right airflow. Each output channel should have output trim controls.
- f. The mixer/amplifier should have two output channels with a frequency response of 55 Hz to 20 kHz (+0/-3 dB) and drive 70/100 V distributed audio systems.
- g. The mixer/amplifier should have THD+N at rated power less than or equal to 0.3%. Output connections should be made via 2-pin touch-proof Euroblock connectors.
- h. The mixer/amplifier should meet or exceed the following performance specifications: channel separation (crosstalk) less than or equal to -60 dB below rated power at 1 kHz and dynamic range of 88 dB.
- i. The mixer/amplifier should incorporate 3 line-level inputs (two RCA stereo, one 3.5 mm stereo) and one microphone input for paging applications.

Two of the line level inputs should be selectable via a switch on the front panel while the third input should override line input channels upon connection.

- j. The nominal input sensitivity should be 0 dBV for line level inputs and -40 dBV for microphone inputs.
- k. The microphone input should be mounted on the rear, support dynamic microphones and select telephone systems with PTT switching.
- l. The paging microphone input should have automatic ducking capabilities activated via a selector switch on the rear panel.
- m. The microphone input should bypass master volume control via a selector switch on the rear panel.
- n. All inputs should have individual input gain controls with the exception of the 3.5 mm priority input connector on the front panel.
- o. The mixer/amplifier should have an auxiliary line-output via two RCA connectors. The front panel should also have user-accessible treble, bass and master volume controls.
- p. Warranty should be 5 years.

Flush mount ceiling speakers shall satisfy the following minimum performance specifications: -

- a. The full-range loudspeaker shall contain a single full-range 2.25-inch transducer, low frequency range down to 83 Hz, and sensitivity of 86 dB SPL / 1 W @ 1 m
 - b. The full-range Loudspeaker shall meet the following performance specifications: On-axis system frequency response should be 83 Hz to 19 kHz (-10 dB) with the use of recommended active equalization.
 - c. The Loudspeaker sensitivity should be 86dB SPL in half-space environment with 1 W input at 1 meter.
 - d. The long-term power handling rating should be 20 W (AES test methodology using IEC system noise, 2-hour duration). Maximum continuous output shall be 99 dB SPL and the maximum peak output should be 105 dB SPL, both in half-space environment.
 - e. The nominal coverage pattern should be 160° conical at 1-4 kHz.
 - f. The Loudspeaker shall be constructed of an engineered-plastics front baffle with an integrated steel formed enclosure. The Loudspeaker shall consist of PC-PBT plastic materials that are resilient to cooking oil exposure. The Loudspeaker should be plenum rated for use in air handling spaces and in compliance with the following safety standards; UL1480 for Fire Alarm and Signaling Systems, UL2043.
 - g. The transducers shall be located behind a perforated steel grille with a powder-coated finish.
 - h. The Loudspeaker shall contain standard mounting arms.
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- i. The Loudspeaker shall be available in black or white.
- j. The Loudspeaker shall fit a modern aesthetic with the option to remove logos.
- k. Input connectors shall be a Euro block pin connector with loop-through, located on the front baffle.
- l. The Loudspeaker shall have a nominal rated impedance of 16 ohms and should be wired in parallel with a line voltage matching (stepdown) transformer with a level selector appropriate for output taps of 1, 2, 4, 8, 16 Watts and Bypass (16 ohms).
- m. The Loudspeaker input connections shall allow for direct connection to 70-volt, 100-volt or low-impedance amplifiers. Loudspeaker back can dimension shall be 127 x 125 mm (5.0 x 4.9 in) and net weight should be 1.63 kg (3.6 lbs) with grille. Outward front baffle dimensions should be 182 mm (7.2 in).
- n. Warranty should be 5 years.

Portable speaker/ Monitor shall satisfy the following minimum performance specifications: -

- o. The Portable speaker shall be suitable for use in commercial setting including Houses of worship, Schools and Universities, Resorts and Hospitality venues or Live music performances
- p. The Portable speaker shall be a multiple driver, full-range portable loudspeaker system with internally supplied power amplification and active equalization for multiple operating modes. The transducer complement shall consist of high-excursion full range drivers, With a dedicated low frequency driver.
- q. The Portable speaker shall have a Rechargeable lithium-ion battery allows performance of up to 8 hours.
- r. The Portable speaker shall have an Onboard 3-channel mixer which offers reverb, and EQ controls on two channels, with a dedicated channel for either wired (3.5 mm) or wireless music sources via Wireless Bluetooth® streaming.
- s. The Portable speaker shall allow for multiple placement orientations with Auto eq to maintain tonal consistency.
- t. The Portable speaker shall be compatible with standard 35 mm pole mounts.
- u. The nominal horizontal beam width of the portable speaker shall be 140°, and the vertical coverage shall be 40°.
- v. The Power Amplification for transducers shall be supplied by the integrated power supply providing 130 W continuous pink noise, band-limited from 65 Hz to 14 kHz (-3 dB).
- w. The input connectors of the Portable speaker shall consist of one XLR with equalization for a

- x. dynamic handheld microphone, one 1/4" TRS, stereo RCA, and one 1/8" TRS receptacle. The output connectors of the portable speaker shall consist of one 1/4" balanced TRS
- y. Warranty should be 5 years.

Digital Mixer shall satisfy the following minimum performance specifications: -

- a. Digital stereo 8 Channel mixer containing eight high-quality audio preamps with
- b. XLR-combo jacks for microphones or instruments, and switchable phantom power
- c. Aux inputs for additional sources minimum four
- d. USB-A and -B for USB drive playback or PC/Mac interfacing
- e. Balanced 1/4" TRS and XLR stereo outputs
- f. Independent headphone output
- g. The Digital Mixer shall offer Updated, studio-quality effects with advanced digital
- h. audio processing. Effects include compressor, limiter, de-esser, noise gate,
- i. chorus, flanger, phaser, tremolo, delay, and reverb
- j. The Digital Mixer shall have on built in on board tonal presets for different instruments or equipment such as Shure/Sennheiser mics, Acoustic/Electric Guitars, Saxophone, DJ controllers and the likes of the industry.
- k. The Mixer shall have sound processing for natural-sounding vocals and instruments
- l. The Digital mixer shall have EQ focusing the sound presets for effective adjustments on the fly
- m. The digital mixer shall offer Independent EQ, dynamics and effects per individual channel, Dedicated reverb for Aux sends, and a global shared reverb for use across all channels
- n. The digital Mixer shall offer Master output EQ to compensate for venue acoustics
- o. The Digital Mixer should allow for Full end-to-end tonal optimization when used Loudspeakers and Subwoofers with cross over range between 40 – 100 Hz.
- p. The digital mixer shall have Seamless Live Control with Tactile controls and indicators designed for live on-stage
- q. use by musicians and DJs
- r. The Digital Mixer shall offer an uncluttered user interface
- s. The digital Mixer shall be able to create and store Built-in tap tempo delay, chromatic tuner, and recallable scenes.
- t. The digital mixer shall allow for low light operations with LED display and illuminated controls are easy to read.