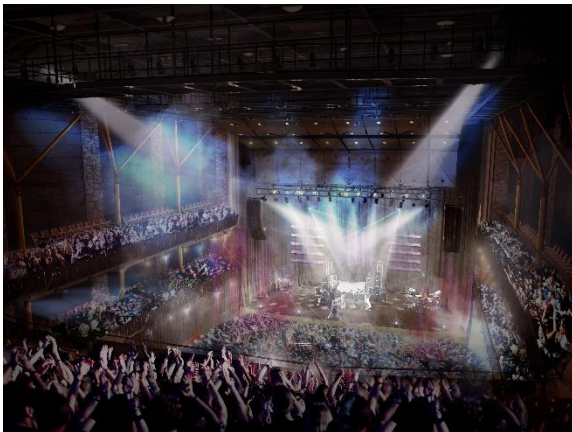




# Beacon Hall

Preliminary Technical Specification

Updated: March 2023



Please note that these are preliminary specifications. We will not be able to confirm exact details until nearer to our reopening in Autumn 2023.

The exact makes and models of some of the equipment have not yet been selected, but where possible, we have provided an indication of the specification to expect.

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## Expected Capacities

Please note these figures are gross capacity and do not allow for sightline, technical or house holds.

	Total (with choirs)	Stalls			Lower Balcony	Upper Balcony	Choirs
		Front	Mid	Rear			
Seated (No stage extension)	1741 (1881)	403	284	158	350	546	140
Seated (2m stage extension)	1682 (1822)	344	284	158	350	546	140
Seated (4m stage extension)	1623 (1763)	285	284	158	350	546	140
Part standing	2154 (N/A)	1100		158	350	546	N/A

Lower Balcony has 110 side balcony seats and Upper Balcony has 117 side balcony seats.

The seats in front and mid stalls can be removed for part standing events. In this format the entire stalls will be sold as a 'general admission' area (no reserved seats).

### Wheelchair Positions

Stalls	Lower Balcony	Upper Balcony	Choirs
10	5	2	2

## Stage

The stage is a concert platform and therefore will not have a proscenium arch.

The stage surface will be polished wood and therefore drilling, screwing or nailing items through the stage surface will not be permitted.

A black dance floor will also be available for events that need a dark surface.

### Stage Dimensions

Depth (centre stage)	8.9 m
Width	18.1m
Stage Height (from auditorium floor)	1m
Height to canopy (from stage)	12.3m
Height to rigging points (from stage)	16m

### Stage Extension

Extendable in 2 increments of 2m in the centre.

## **Mixer Position**

Two mixer positions will be available depending on the auditorium configuration. Both positions are centred to the stage and not against a wall or under the balcony.

For fully seated events the mixer position will be in the rear stalls area. For standing events an alternative mixer position can be created in the front stalls area.

## **Pianos**

- Steinway D    Manufactured 2022
- Steinway D    Manufactured 1987
- Yamaha C3    Manufactured 2008

## **Rigging**

Beams and strong points will be available in the roof of Hall 1 providing exceptional flexibility and load-bearing for rigging productions of all sizes. Rigging is possible with either soft strops or beam clamps.

In-house lighting will remain permanently hung on house trusses. These fixtures cannot be removed for touring equipment.

Loose motors and trusses can be provided for touring equipment if required.

## **Loose Rigging Equipment**

6x 1 tonne D8+ Chain hoists

8x 250kg D8+ Chain hoists

2x 4m Ladder truss (black)\*

12x 3m Ladder truss (black)\*

4x 2m Ladder truss (black)\*

4x 1m Ladder truss (black)\*

Assorted rigging accessories (strops, shackles, O rings, etc)

\*Ladder truss is expected to be used predominantly for drapes and soft goods.

## **Tabs & Drapes**

16m black backdrop (hung from furthest upstage truss)

8x legs (3m wide)

2x Up/Down stage sides

# Power

## Stage Right

### *Lighting*

250A/3 Supply feeding:

1x 200A Powerlock

1x 125A/3 Ceeform

1x 63A/3 Ceeform

1x 32A/3 Ceeform

### *Stage Engineering/Motors*

1x 125A/3 Ceeform

1x 63A/3 Ceeform

### *Audio Visual*

1x 32A/1 Ceeform

## Stage Left

### *Audio Visual*

1x 125A/3 Ceeform

2x 63A/3 Ceeform

1x 32A/1 Ceeform

# Audio

## Main PA

The Main PA system will work in conjunction with the speech reinforcement & delays system to give a balanced coverage of >110 dB (A) SPL across the auditorium. The flown arrays will be on motors so that they can be retracted and hidden above the acoustics canopy when not required. The front fills can also be moved as required.

### *Flown Arrays*

20x L-Acoustics KARA II

8x L-Acoustics KS21

### *Front Fills*

6x L-Acoustics X8

## Speech reinforcement & Delays

The Speech reinforcement & Delays PA system is designed to work standalone for events where it would not be appropriate to have a full line array system on show. This system will give a balanced coverage of >96dB (A) SPL across the entire auditorium.

2x L-Acoustics Syva (stage low level)  
12x L-Acoustics 5XT (stalls and lower balcony delays)  
2x L-Acoustics A10i WIDE (Upper Balcony delays)  
3x L-Acoustics A10i WIDE (Front Balcony Speech)  
2x L-Acoustics X8 (Canopy side fills)  
14 x L-Acoustics 5XT (Side balcony fills)  
4 x L-Acoustics 5XT (Box fills)  
4x L-Acoustics X8 (Choirs)  
All amplification on appropriate amplifiers

### **Loose equipment**

12x L-Acoustics X12 monitors on 12x channels of amplifications

### **Audio Consoles**

#### **FOH Mixing Console**

1x Allen & Heath S7000 w/ Waves Card  
1x Allen & Heath SQ5

### **FOH Stage Racks**

1x Allen & Heath GX4816 (48 in, 16 out)  
2x Allen & Heath DX32 (24 in, 8 out)  
2x Allen & Heath DT168 (mounted in equipment racks and used for patching audio to DANTE from high level facilities panels)

### **Monitor Console**

1x Allen & Heath C3500

### **Monitor Stage Racks**

Either use FOH stage racks with DLive Multisurface control or:

1x CDM 48 (48 in, 24 out)  
2x 32way analogue splits

## **Audio Distribution, Networking & Control**

Allen & Heath DMO connected to consoles via GigaACE.

DANTE network connecting to Auvitrans controller for DANTE/AVB conversion to L-Acoustics amplifiers. Also used for audio distribution for recording, live streaming and show relay.

## **Microphones**

Microphones and DI boxes are expected to be shared across all spaces, but we have provided an indication of a typical microphone package for the Hall 1 below. Please enquire if your microphone requirements differ.

2x AKG C414  
2x AKG C451B  
1x Audix D6  
3x Beyerdynamic M201  
6x DPA 4099  
1x Electro-Voice RE20  
4x Sennheiser E604  
1x Sennheiser E906  
4x Sennheiser E935  
1x Sennheiser MD421  
1x Shure Beta 91a  
1x Shure Beta 52a  
3x Shure SM57  
2x Shure Beta 57a  
8x Shure SM58  
2x Shure Beta 58a  
1x Shure Beta 87a  
1x Shure KSM137

8x BSS AR-133 DI Box  
5x Radial Stereo DI Box

## **Microphone Stands**

20x Tall K&M Microphone Stands  
10x Short K&M Microphone Stands

## **Communication**

A mixture of Green GO digital and Tecpro analogue comms (with interfaces between) will be available. Touring 2-wire systems can also be interfaced into our system for connection to followspot positions and to wireless comms.

6x Tecpro BP253 belt packs

4x Green Go Wireless comms

Mixture of single or dual muff headsets

# Lighting

## Control

The venue's lighting infrastructure will consist of CAT6 cabling and networking control equipment supporting the sACN protocol. sACN to 5pin DMX nodes will be installed in the rack room (for patching throughout the venue) and on the overhead lighting trusses. 5pin DMX outlets will be available in all areas of the venue.

## Dimming/Relay Power

ETC Sensor3 racks with ThruPower modules will allow dimmer, relay or constant power to 152x 10a circuits Each circuit will terminate as either a 6-channel Socapex or as a 16a ceeform connector.

## Lighting Consoles

1x Chamsys Magic Q500M with Stadium Wing for large events

1x Chamsys Magic MQ70 situated in the rear stalls control room

## Orchestral Lighting

Over the stage will be an acoustic canopy. Mounted within this will be ETC ArcSystem fixtures providing the orchestral platform lighting. It is anticipated that these fixtures will provide an average >800lux on the orchestral area.

## Lighting Fixtures

A comprehensive, professional package of automated LED lighting will be available, as expected for a world-class concert hall.

The lighting hung permanently from our five in house lighting trusses with a small allowance of fixtures to be used as a floor package. Exact plans and locations of equipment is still TBC

14x Ayrton Diablos S

10x Ayrton Eurus TC

28x Robe Spiider

16x Chauvet Colorado Batten Q15

4x ETC Source Four LED Series 2 with 15-30 Lens

10x ETC Source Four LED Series 2 with 10deg Lens

4x Chauvet Strike Array 4 LED Blinders

4x Chauvet Strike Array 2 LED Blinders

4x GLP JDC1 Strobes

3x Robert Juliat Authur 800w LED Followspots



## Effects

2x Smoke Factory Tour Hazers

1x Look Viper 2.6 Smoke Machine

2x Antari AF3 fan

## Audio Visual & Projection

HD-SDI, Cat 6 and fibreoptic runs are spread throughout the venue for the interconnection of cameras and video equipment. A robust NDI network will also be installed within the audio visual network for the distribution of video over IP.

**Audio visual equipment is shared between all spaces at Bristol Beacon please enquire for availability.**

1x Christie Digital DWU-1100-GS (10k HD Video Projector)

1x 6.5m (w) 16:9 projection screen

4x Bird Dog P200s

1x Bird Dog Controller

2x Panasonic GH5s

1x Blackmagic Atem Mini Pro

1x Blackmagic Atem Mini Pro Extreme

1x High spec PC (intel i9 10900x CPU, 32GB RAM, RTX 4000 Graphics Card, Blackmagic Design DeckLink Quad HDMI & 8K Pro, XAir Interface) running VMix Pro License

## Backstage

### Dressing rooms

All dressing rooms have a sofa, hanging space, a full length mirror, vanity mirrors with lights and wifi.

	<u>Capacity</u>	<u>Facilities</u>	<u>Access</u>
Dressing Room 1	4 People	WC & Shower	Stepped access
Dressing Room 2	4 People		Stepped access
Dressing Room 3	6 People		Stepped access
Dressing Room 4	10 People	WC and shower	Stepped access
Dressing Room 5	2 People	Accessible WC & shower	Stage level wheelchair access
Dressing Room 8	15 People	WC & Shower	Wheelchair access via lift
Dressing Room 9	10 People		Wheelchair access via lift
Green Room	60 People		Wheelchair access via lift

There are also 2 production offices and 1GB wifi throughout the area.

There is a large green room on the lower floor with 2 chorus dressing rooms (Rooms 8 & 9) adjacent with toilets and showers. It is accessible from Stage door and stage level by lift or stairs. This is equipped with a kitchen for tour parties.

There are 2 additional accessible dressing rooms designed to serve Hall 2 The Lantern but these can be used for Hall 1 should the need arise:

	<u>Capacity</u>	<u>Facilities</u>	<u>Access</u>
Dressing Room 6	3 People	Accessible WC & Shower	Stage level wheelchair access
Dressing Room 7	5 People	WC	Stage level wheelchair access

### **Internet**

Bristol Beacon has a 1GB ethernet connection throughout. This is carried on either WiFi on a dedicated network. We can also link to ethernet points around the venue.

### **Kitchen & Catering**

Hot/Cold Water

Fridges

2x 32a single phase power

Numerous 13amp supplies

### **Unloading**

Equipment may be unloaded at the Colston Street stage door level. Access to the stage level scene dock is via a large goods lift 6m(l) x 3m(w) x 3m (h).