

Sydney Opera House

Playhouse

Technical and Production Information



January 2018



sydney opera house

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sydneyoperahouse.com

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Architectural photographs by Jack Atley and Jeremy Piper

The information contained in this document is given in good faith and is believed to be correct. All measurements are approximate and should be checked on site. While every effort is made to fulfil production requirements from in-house stock, no guarantee is made that the equipment listed will be available for a particular event. Availability is subject to the requirements of the other Opera House venues.

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Introduction

Welcome to Sydney Opera House.

Sydney Opera House is a major performing arts venue staging over 2,400 events a year across seven major venues. Guided tours, functions, bars, restaurants and shops also operate on a daily basis. One of Australia's premier tourist destinations, and a treasured local landmark, we welcome around 8.2 million visitors annually.

A State, National and World Heritage listed *masterpiece of human creative genius*, the Opera House is unlike any other performing arts centre in the world. State and Federal laws are in place to protect its heritage values and these affect how we plan and stage events.

Every event must be managed carefully so that it is integrated with our other activities and those in the immediate precinct to ensure the safety and security of people, and protect the site from anything that might damage its heritage values. Once your booking has been confirmed, we will allocate members of our Event Operations team to work with you to plan every aspect of your event and ensure its success.

The Playhouse is an intimate 398-seat end-stage theatre on the western side of the building, below the Concert Hall. Previously a music room and a cinema, today it is used for main stage drama, musical theatre, children's productions, lectures and music concerts. The Playhouse regularly plays host to some of the country's most prestigious performing arts companies, including Bell Shakespeare and Sydney Festival.

We ask that you work with us to help protect architect Jørn Utzon's vision for the Opera House site and conserve this iconic landmark venue for future generations to enjoy. We trust you will enjoy your experience with us at the House.



General Information

The Playhouse walls and seats are clad in white birch timber and the stage is painted black. The white birch wall panels at the front of the auditorium, closest to the stage, are covered in black wool to minimise light reflections. The theatre is carpeted in grey wool and the seats are upholstered in dark purple wool. With 398 seats, the theatre offers an intimate atmosphere and excellent sightlines from every seat.

The Playhouse has an end-stage with no wing space. There is a hanging system over the stage with 20 battens operated on electric winches, but no fly tower above. It is best suited to single-set productions such as small musicals, drama and recitals. It is also an excellent venue for seminars and films.

The Playhouse is located on the Ground floor in the south-western corner of the Opera House, below the Concert Hall. The theatre is served by the Western Foyer, which is accessed via the Western Broadwalk.

The Western Foyer is shared by the Drama Theatre, The Studio and Playhouse and offers unmatched views across the harbour to the Sydney Harbour Bridge. The southern end of the shared foyer space is dedicated to the Playhouse.

The Western Foyer's food and beverage outlets open approximately two hours pre-theatre. The ticketing outlet and cloak room open 30 minutes prior to the first performance in the Playhouse, Drama Theatre, or The Studio, whichever is first. Outside these hours, the main ticketing outlet in the Box Office Foyer provides a point of sale for performances in all venues.

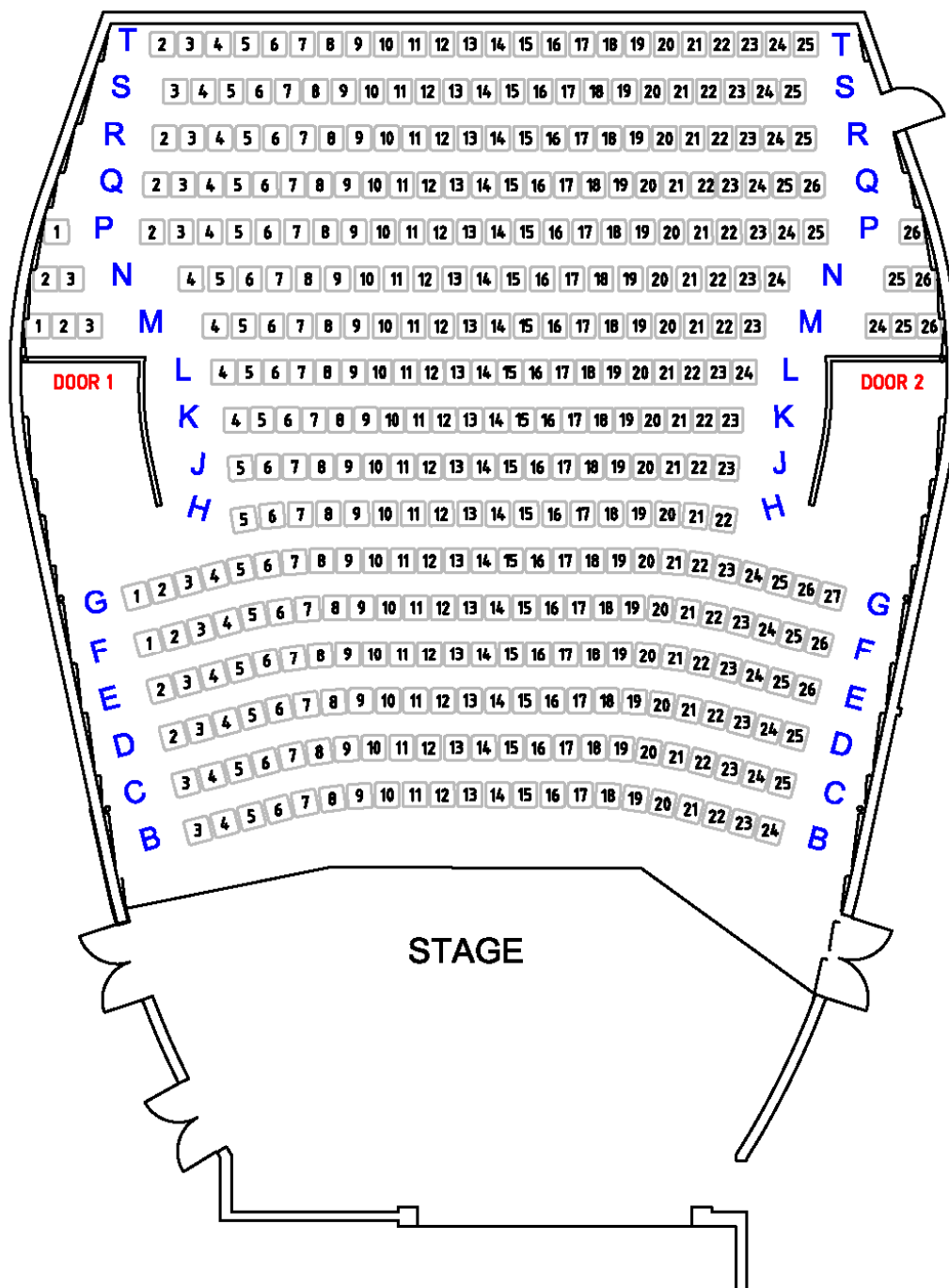


The southern end of the shared Western Foyer is dedicated to the Playhouse

Seating

The maximum seating capacity in the Playhouse is 398 seats in stalls (note that there is no row A). Entrance to the auditorium for patrons is through 2 doors leading from the Western Foyer. There are stairs inside each entry door leading up to row H, then more stairs up to row T or down to row B.

There are 4 wheelchair positions, two on each side of the auditorium in row G, with an associated companion seat for each position. There is a stair climber lift inside each entry door to provide wheelchair access. Our Front of House staff will assist patrons with the use of these lifts. If these positions are required, seats must be removed from rows G and H and the theatre's capacity is reduced by up to 10 seats (if all four wheelchair positions are used).

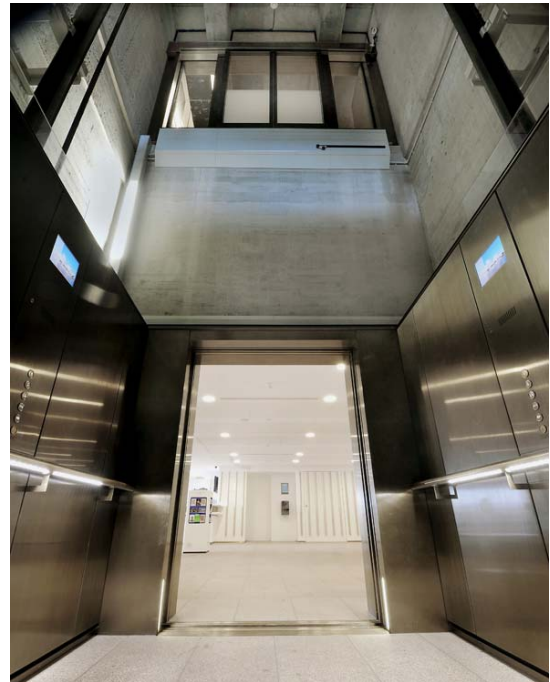


Accessibility

The Playhouse auditorium is wheelchair accessible. There is space for up to four wheelchairs, two each side of the auditorium. These must be pre-booked to enable time for seats to be removed.

There is a public elevator from the Lower Concourse to the Western Foyer, providing access to and from the car park and Lower Concourse restaurants and bars. The same elevator provides access to the Box Office Foyer on Level 1, where tickets can be purchased or collected when the Western Foyer box office outlet is closed.

Stage access is extremely limited. Please discuss any access requirements to the stage with the Venue Hire Manager prior to confirming your booking in the theatre.



Assisted Hearing System

An FM radio transmitter operates within the Playhouse on a dedicated frequency. Please see our Front-of-House staff in the foyers for assistance and to arrange a receiver. A loop system also operates in selected seats in the Playhouse. Patrons are advised to turn their hearing aid to the **T** switch to pick up the program.

Please discuss any other accessibility needs with your Account Manager in advance so that the appropriate arrangements can be made for your event.

Public Transport

Circular Quay is a five to ten minute walk from the Opera House. Buses, trains and ferries are all available at Circular Quay. To ensure your event's public transport needs can be met and for further information please contact:

Transport Info line: 131 500
TTY: 1800 637 500
<http://www.transportnsw.info>

Sydney Buses
<http://www.sydneybuses.info>

Sydney Trains
<http://www.sydneytrains.info>

Sydney Ferries
www.sydneyferries.info

Complimentary Shuttle Bus

Intended primarily for elderly and less mobile customers, a complimentary shuttle service operates between Circular Quay and the Opera House at certain times. The service is linked to performances in our larger theatres, including the Concert Hall. Please check with your Account Manager to confirm the operating times during your event.

Seating is limited and available on a first come, first served basis. The bus runs between Circular Quay near bus Stand E (under the Cahill Expressway overpass) and the Opera House Vehicle Concourse.

There is no bus service for any theatres on Sunday evenings.

Indicative Shuttle Bus Schedule

Before performances:

Bus starts 75 minutes before matinee and evening performances in the Concert Hall or Joan Sutherland Theatre and runs continuously for 1 hour. Where there is no performance in the main halls, the bus service commences 45 minutes before matinee and evening performances in the Drama Theatre, The Studio or Playhouse, and runs continuously for 30 minutes.

After performances:

Bus starts 10 minutes after the performance finishes and runs continuously for 30 minutes.

Parking

The Sydney Opera House Car Park adjacent to the Opera House is operated by Wilson Parking, phone 1800-PARKING. It is not owned or managed by the Opera House. However we do have a special arrangement for a reduced daily rate for performers and staff. Parking ticket validation can be done at a machine located just inside Stage Door. There is normally no provision for parking on the Opera House site.

Accessible Parking

There are 11 accessible parking spaces on Level 1 and 12 spaces on Level 6 of the Wilson's Sydney Opera House Car Park for holders of RMS Mobility Parking Scheme permits. Car spaces on Level 6 also have direct wheelchair access to lifts.

Vehicle Access

Vehicle access for deliveries to the Sydney Opera House is via the Loading Dock and is by arrangement only. The loading dock is a mixed work zone; including vehicles, pedestrians, plant and machinery used by all the theatre and precinct operations. Deliveries must be arranged and booked in advance. It is vital that they arrive on schedule to assist us in managing the requirements of all Sydney Opera House logistical needs.

The Sydney Opera House Loading Dock has a Height Restriction of 4.3m and cannot accommodate B-double articulated vehicles. Other access will need to be arranged for these larger vehicles. Bicycles are not permitted in the Loading Dock.

All client staff and drivers requiring access to the Loading dock will need to complete a safety induction and SOH procedures will need to be followed. Please note vehicles are not to be left unattended in the dock and no parking is available. For security reasons, vehicles that have not

been booked in will be denied access to the site. For more information please refer to the *Loading Dock Operations Booklet* (available on request). Please discuss all of your access needs with the Production Manager for your event.

Transport Schedule

In order for us to manage deliveries across all the Opera House venues, we require that a Transport Schedule for deliveries to and from your event is provided at least one week in advance. The Transport Schedule should include the type and height of each vehicle, registration number and details of the driver.

All vehicles requesting access to the Opera House must stop at the security checkpoint at the main gate house. For security reasons, vehicles that have not been booked in will be denied access to the site.

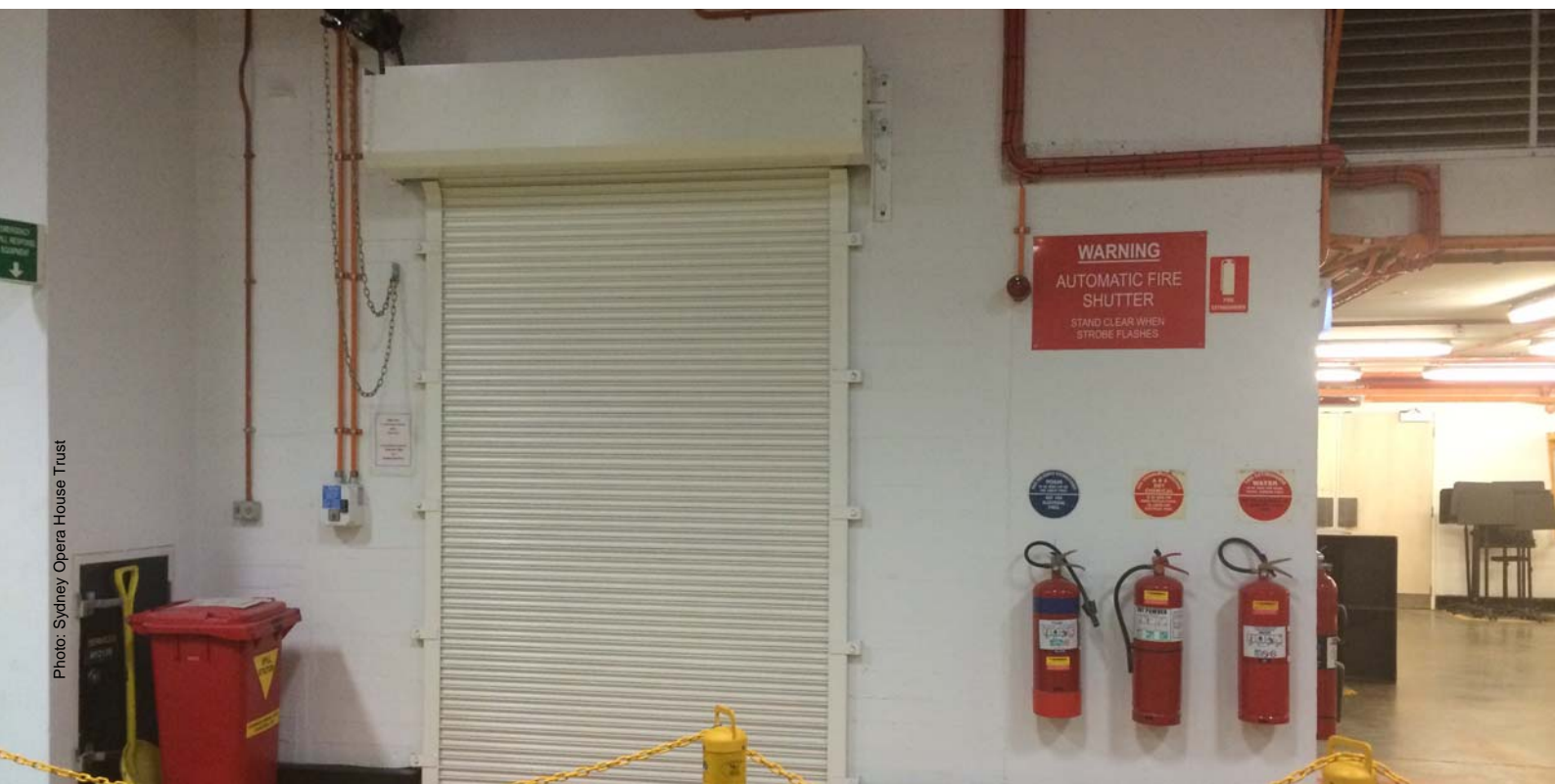
Load-in Area

The Playhouse has a small scenery dock located directly off Central Passage. Central Passage is on the Ground floor accessible via the loading dock, with the scenery dock and stage level 985mm above. Forklifts are available to assist with loading and unloading. These must be operated by licensed Opera House staff.

Access to the scenery dock is via one of two doors: a double door from the side of the dock; or a roller shutter door directly from Central Passage. Stage access from the scenery dock is via a sliding fire door in the upstage Opposite Prompt (stage right) wall, directly onto the stage.

Double door	2.19m wide x 2.27m high
Roller door	1.62m wide x 2.32m high
Sliding door to stage	5.3m wide x 2.27m high

Safety is of the highest priority. In order to ensure the safety of all people using Central Passage, we require that pedestrians remain within the marked paths. Anyone working in the Central Passage or Scenery Dock area are required to wear high visibility vests and protective footwear.



Height Restrictions

Transport contractors must check to ensure that load heights do not exceed the maximum:

Height of Concourse	3.6m <i>safe clearance</i>
Loading Dock	4.3m high <i>safe clearance</i>

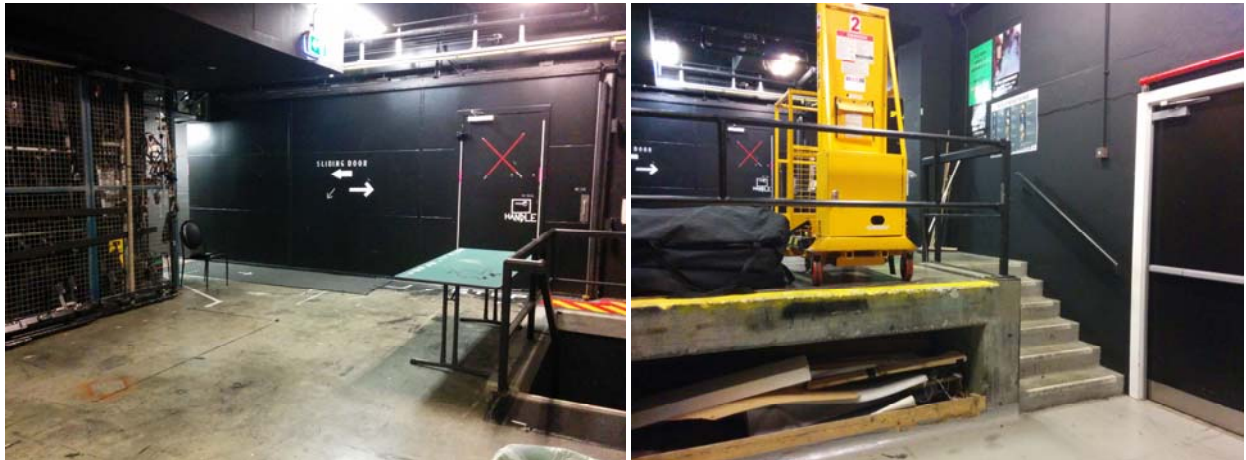
Maximum Loads

Central Passage Floor	9 tonne axle load <i>no overtaking or passing</i> 6 tonne axle load <i>passing allowed</i>
Western Broadwalk	27.5 tonne over 3 axles <i>limited areas only</i> 23.5 tonne on 2 axles
Northern Broadwalk	27.5 tonne over 3 axles <i>limited areas only</i> 23.5 tonne on 2 axles

Storage Space

Storage space is very limited. Please discuss your needs with your Production Manager as early as possible.

Playhouse scenery dock



Smoke Management System

The smoke management system in the Playhouse consists of a smoke curtain located above the auditorium seats in row C. In the event of the fire alarm system being triggered, this curtain will automatically lower from the ceiling, stopping 2.1m above the floor. This is designed to contain any smoke and allow patrons to leave the theatre without undue delay.

At the same time all the emergency panic lighting will automatically switch on, the smoke exhaust fans located at the top of the stage tower will start and make-up air (sourced from the foyer) will be delivered via the ducts located under the seats in the auditorium.

Special Conditions

- To ensure that this make-up air can replace the air that is extracted from above the stage, there must always be at least 15m² of open space between the auditorium and the stage
- Before any scaffolding is built that may impede the travel of the smoke curtain, arrangements must be made with the Emergency Planning & Response Group to isolate the smoke curtain to avoid any damage should the curtain drop onto the scaffold
- No cables may be installed that will interfere with the travel path of the smoke curtain. Any cables installed along the side of the auditorium must either use the special conduit paths above the curtain on the side walls or cross the path of the curtain below the guides that are mounted on the side walls

Your Production Manager or Production Safety Officer can assist with meeting all of these requirements.

Risk Management

In accordance with NSW OH&S legislation, a comprehensive risk assessment is required during pre-production for all shows and events. The Risk Assessment needs to consider the risks associated with your specific event. It should be delivered to your Opera House Production Manager at least seven days before the event. Our staff can assist you with this process.

General considerations:

- Equipment may be subject to safety checks by Opera House staff
- All mains-connected electrical equipment requires a current compliance test tag from a suitably licensed person
- Overhead equipment (including lighting and scenery) must be rigged by a qualified rigger, using appropriately certified equipment
- Lighting equipment rigged overhead must be secured with a safety chain or similar
- Scenery and large props must be of a fire retardant fabric or treated with a fire retardant. A certificate of such treatment must be produced on request
- Polystyrene, plastic and other such materials that cannot be treated with fire retardant are not permitted
- Approved drapes must be of a fire retardant fabric or treated with an approved fire retardant and with an appropriate label attached to the drape
- Compressed air may only be used by suitably trained operators

Venue specifications

Stage Extension

The front of the stage can be extended downstage into the auditorium in two parts. The first extension requires the removal of the first row of seats; the second extension requires the removal of the first two rows of seats.

There may be a labour cost associated with moving the stage extension. Please discuss your requirements with your Production Manager. At the beginning of the hire period, the theatre will normally be set without the stage extension. Any changes must be done within the hire period and must be reset before the next presenter arrives in the theatre.

The sliding door at the rear of the stage must be kept fully closed during performances. The scenery dock cannot be used as an extension to the stage.

Stage Dimensions

The Playhouse stage dimensions are:

	No extension	1st extension	2nd extension
Width <i>widest part</i>	13.4m	13.4m	13.4m
Width <i>upstage wall</i>	10.2m	10.2m	10.2m
Depth	6.77m	7.72m	8.67m
Stage floor height <i>above auditorium floor</i>	1.0m	0.73m	0.45m
Overhead hanging height <i>stage to concrete beams</i>	6.5m	6.5m	6.5m
Drift	6.5m	6.5m	6.5m
Seating Capacity	398	376 <i>1 row removed</i>	353 <i>2 rows removed</i>

** There is no fly tower. The hanging battens sit between architectural concrete ribs in sets of five battens per bay. There are no penetration points through this concrete structure. Dimensions are approximate and critical measurements must be confirmed on site.*

Stage Floor

Surface	50mm oregon timber, overlaid with a 9mm weathertex sheeting, painted black
Stage Rake	0 degrees (flat)
Material	50mm timber
Maximum Loading	7.5kPa (500 kg/m ²) – distributed 4.5kN (450kg) - concentrated

Care of Building Surfaces

The Opera House is a world heritage listed property of exceptional significance and the building surfaces, including the rare white birch laminate timber used in the seats, walls and ceiling must be protected from damage.

No holes or permanent marks of any kind may be made on any surface in the Playhouse without the written approval of Opera House management. Please discuss any requirements with your Production Manager.

Stage Plans

A basic stage plan is available at sydneyoperahouse.com

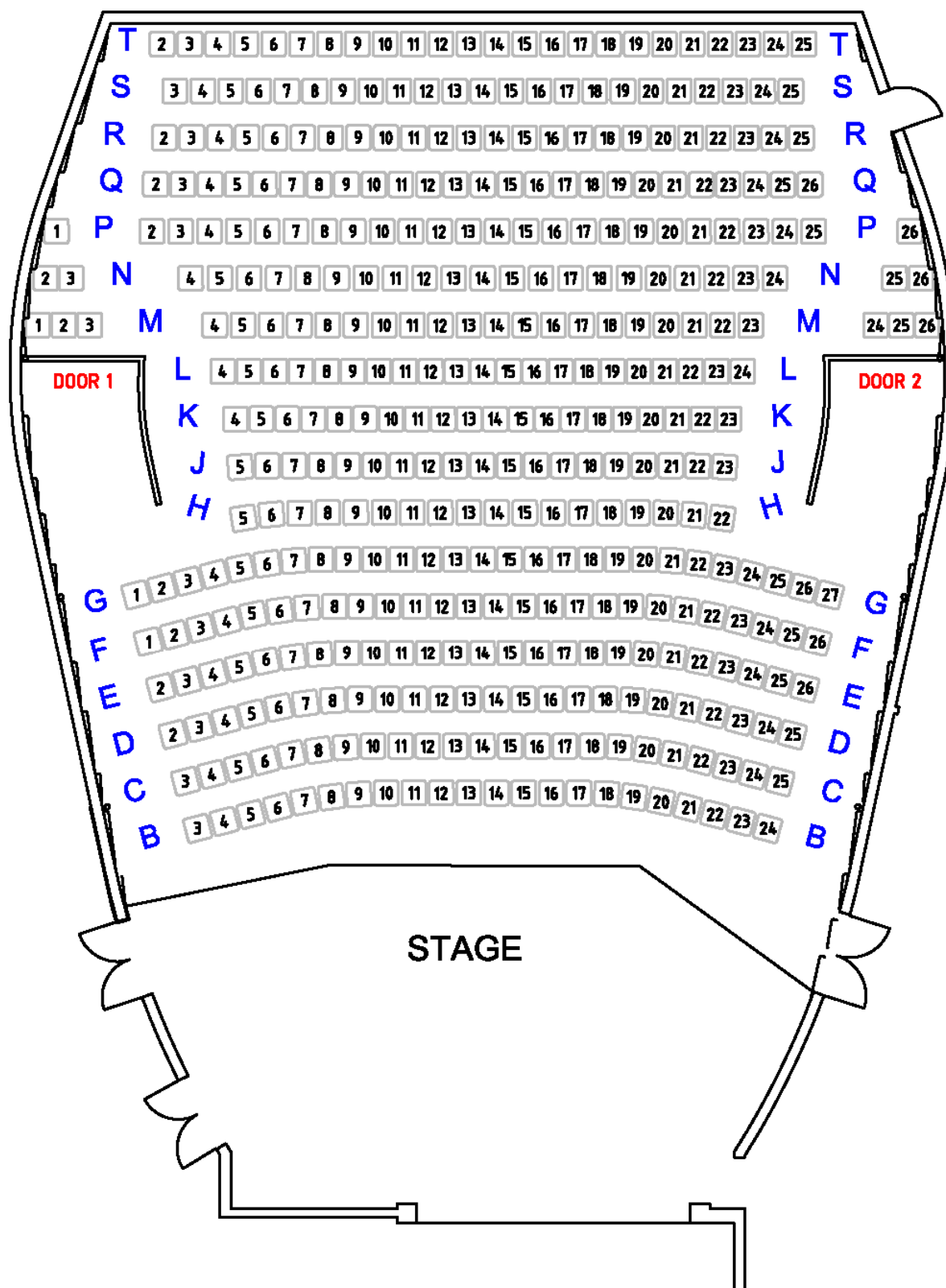
CAD plans to scale can be requested through Event Operations, please email techspec@sydneyoperahouse.com or through your Production Manager.

Hairy Maclary, 2011

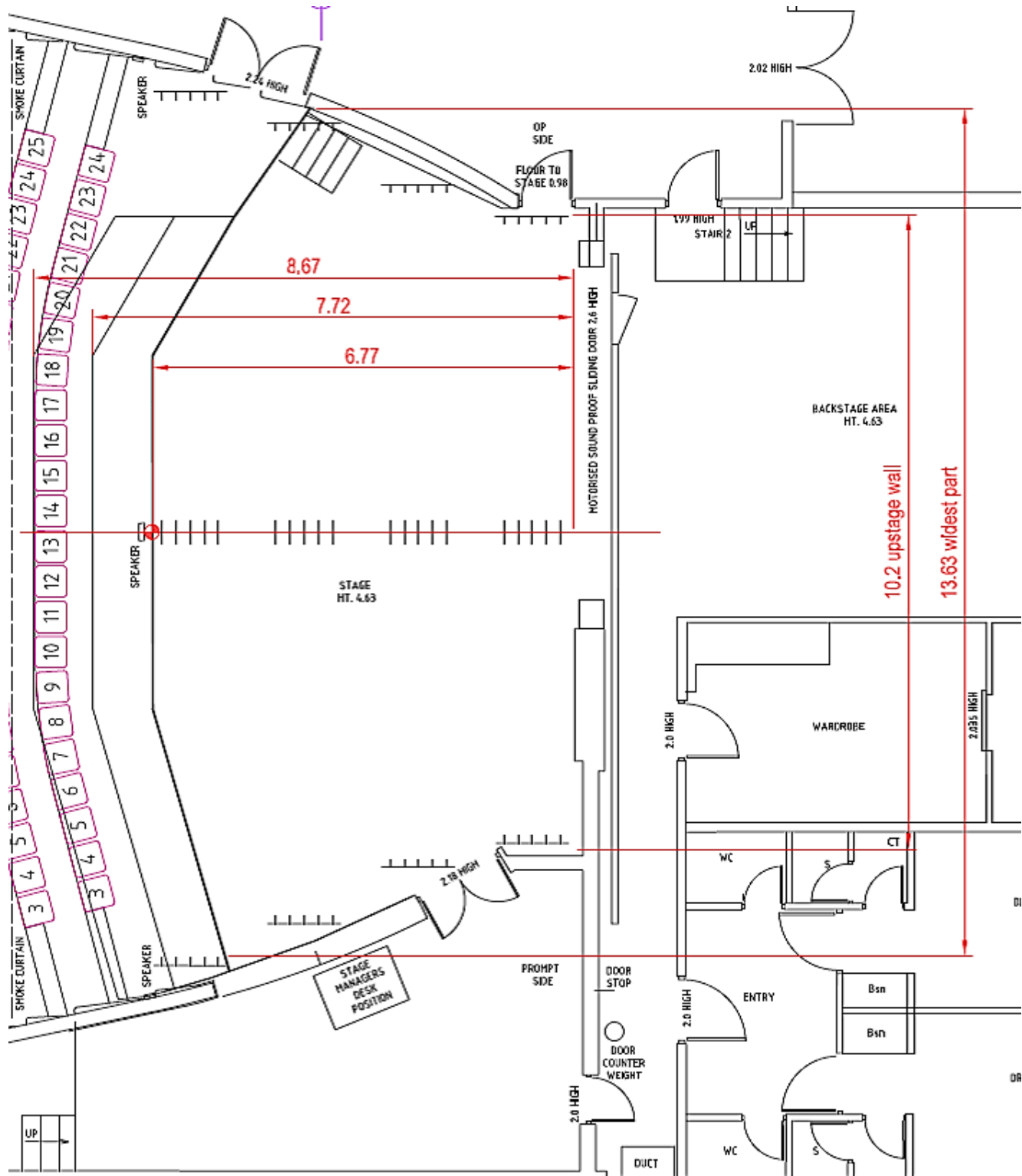


Sydney Opera House Playhouse

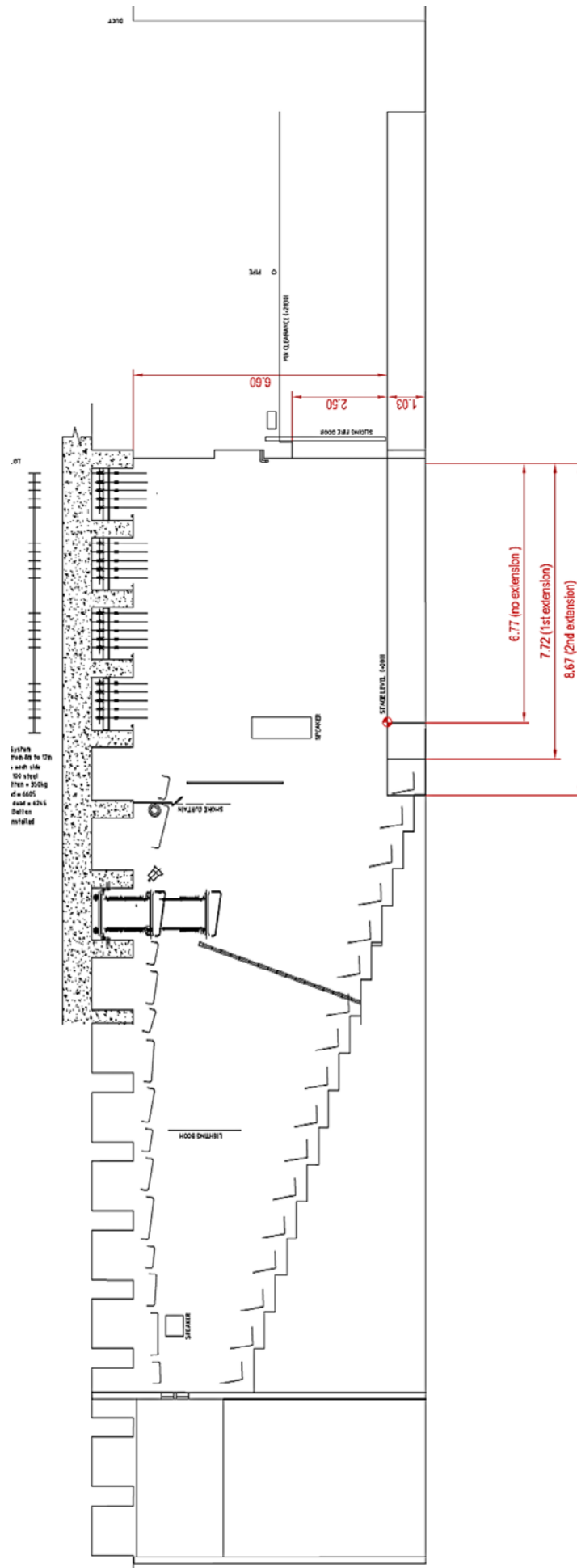
Theatre Plan – without stage extension
(not to scale)



Stage Plan (not to scale)

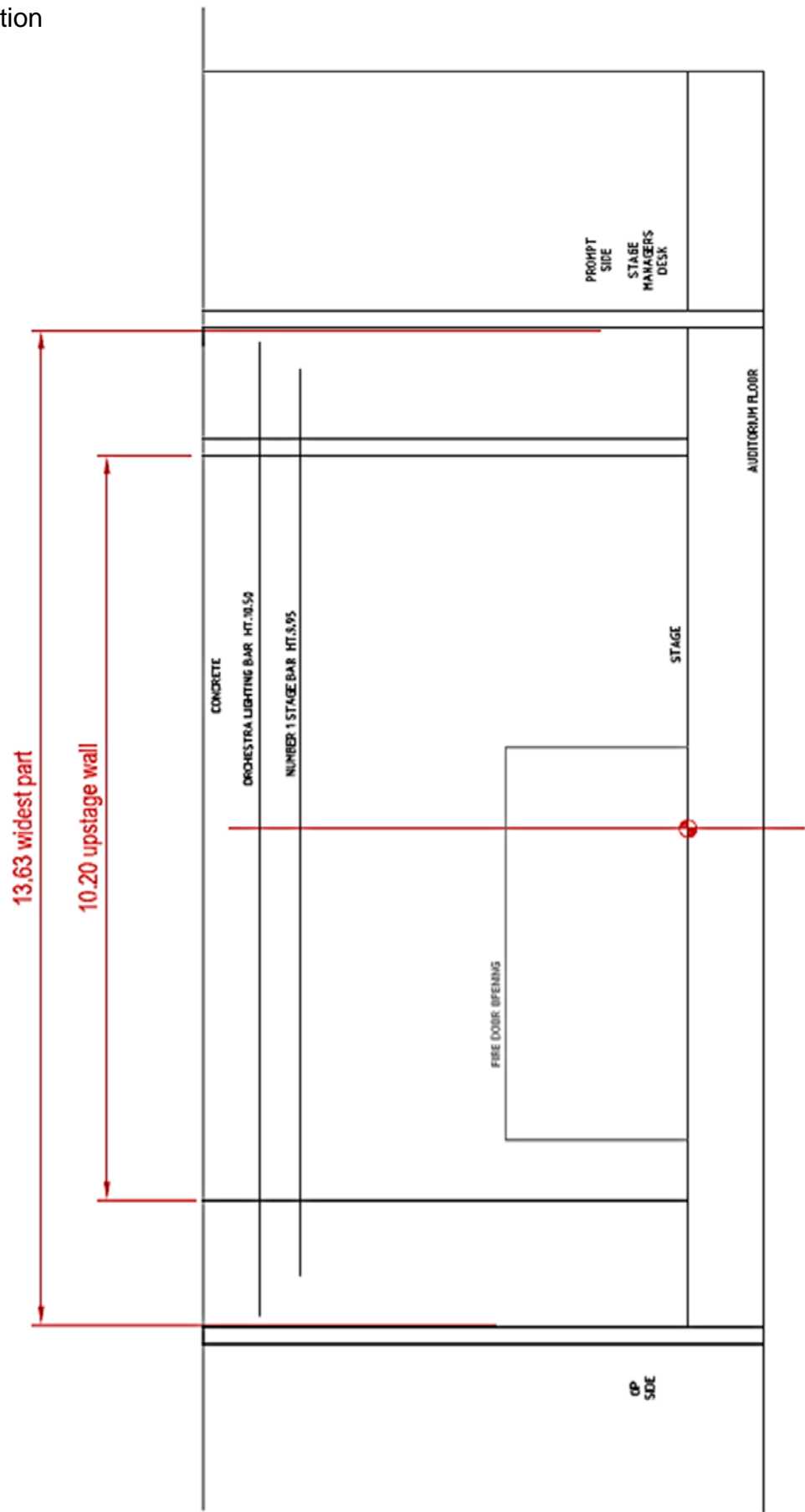


Section at Centre Line
(not to scale)



Sydney Opera House Playhouse

Stage Elevation
(not to scale)



Staging

Stage Machinery

The stage machinery in the Playhouse consists of remote controlled electric winches, which may only be operated by authorised Opera House staff. At the commencement of each long term hire the grid will be totally clear. It must be cleared again at the end of each hire period. If your event is scheduled during another producer's long term hire, there may be limitations on the availability of certain lines or lighting positions. Our Production Manager will discuss specific details with you during pre-production.

There is a concrete ribbed ceiling, within which the battens sit at a maximum drift of approximately 6.5m. There is no provision for flying, only hanging. There are 20 battens of 100mm x 50mm steel (in four bays of five) with powered electric winches and remote control. The battens may be driven individually or in a group, but only one bar per bay in a group. The battens vary in length and have sliding extensions (refer stage plan). The maximum load capacity per batten is 350kg, with a 700kg total maximum per bay of 5 battens. These battens also provide onstage lighting positions.

Staging Equipment

A full set black wool masking is available, including drapes (6.4m drop), borders & legs. Tab tracks, gauzes and white fill backcloth are also available. Adjustable Megadeck rostra and orchestral furniture can be supplied if required. The rostra have a non-slip, timber top measuring 1m x 2m. The minimum height is 200mm, then adjustable in 200mm increments from 400mm to 1000mm. The load capacity per rostrum is 500kg/m².

Please discuss rigging or other equipment needs with your Production Manager.

The Incredible Book Eating Boy, 2014



Keyboard Instruments

Pianos

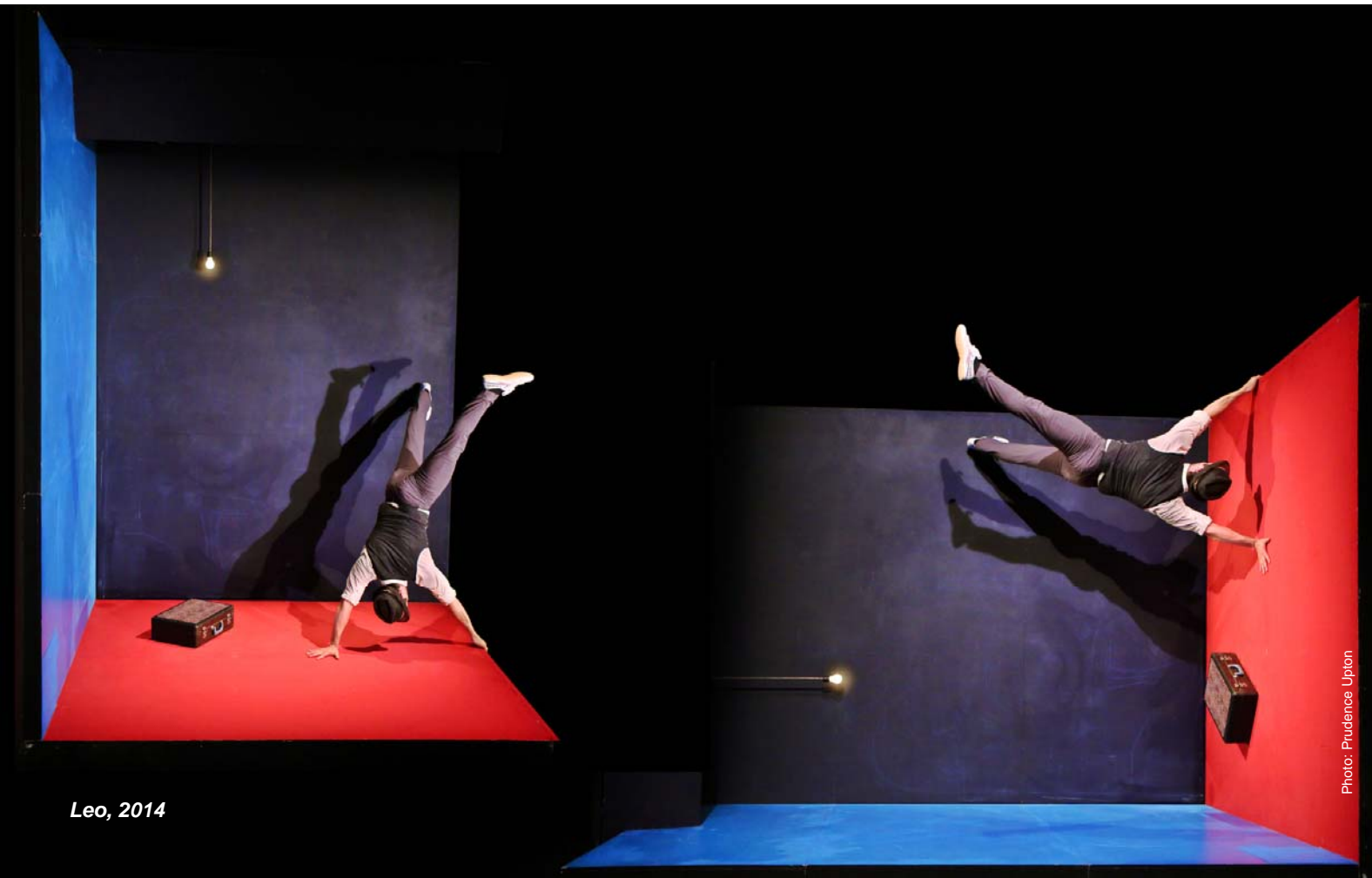
There is a choice of Steinway 9' D series concert grand pianos, Yamaha CFX 9' concert grand piano, Yamaha baby grands and Yamaha upright pianos (subject to availability). Our production staff will normally select the most suitable piano for your event. However, provided time is set aside in your production schedule, it is possible for your pianist to play and select from the available options. Please advise your Account Manager if you require a piano selection session at the time of confirming your production schedule. Venue hire fees do not include piano hire or tuning costs.

Pitch

Our pianos are tuned just above the A440 standard concert pitch to A441 ($A = 441 \text{ Hz}$). Tunings for Opera House pianos are arranged through our contracted piano tuner. Only slight variations to the tuning pitch will be considered. Please discuss any special requirements with your Account Manager as early as possible so they may be discussed with our tuner.

Care

Mechanisms of instruments may not be tampered with (or "prepared") in any way without our express permission. Requests will be discussed with our piano tuner and any agreed preparation will be done by our tuner. No food, liquid or substantial props are to be placed on the instruments.



Stage Lighting

Control

The Playhouse lighting system is controlled by an ETC ION computerised control system, with an ION Remote Processor Unit tracking backup system.

Both systems have 2048 channels and use the ELC DMX over Ethernet system for DMX distribution.

An ION Net3 Remote Video Interface is installed on stage in Prompt Corner (Stage Left) and another is available for use with designer's monitors at the Production Desk, which can be temporarily set up in the Stalls during production set up and rehearsals. Various remote control units are available for rigging and focussing on stage.

Data

The Opera House has an ELC DMX over Ethernet system. It utilises sACN to distribute an almost infinite number of DMX universes. In the Playhouse it appears in the Control Room, the Dimmer Room, the stage area and the auditorium. Some points have permanently installed Ethernet to DMX nodes, and extra nodes can be installed on request. External network devices must be approved by the Opera House prior to installation onto the network. Please discuss your needs with your Production Manager.

Dimmers

3 x State Automation "SOLUTION 96" dimmer racks are installed in Plant Room 41 (adjacent to Dressing Room 6). They are fitted with 3kW & 5kW APC dimmer modules and 3kW VST (sine-wave) dimmer modules.

Dimmers are allocated as follows:

FOH	Dimmers 1 – 40 (40) = 3kW VST dimmers
FOH	Dimmers 40 – 84 (44) = 3kW APC dimmers
Over-stage area	Dimmers 85 – 258 (174) = 3kW APC dimmers – multicore outlets
Over-stage area	Dimmers 259 – 262 (4) = 5kW APC dimmers
Stage floor	Dimmers 263 – 286 (24) = 5kW APC dimmers
House Lights	Dimmers 287 – 288 (2) = 5kW APC dimmers

By special arrangement, the 3kW APC and VST dimmer modules can be swapped around within the racks as required. One module contains two dimmers.

Power

All general and dimmed electrical power supplies are 240V AC @ 50 Hz.

Additional 3-phase supplies (415V AC) are available with Wilco pattern 5-pin connectors, or with a distribution board, by prior arrangement.

Lighting Positions

FOH Audience Bar 1	A fixed bar over row E, accessible for rigging & focusing by a catwalk lowered from the ceiling 36 x 3kW dimmer outlets
FOH booms	3 each side of the auditorium 6 x 3kW dimmer outlets each
Orchestra Bar	A tri-truss on chain motors over the downstage edge <i>assuming the stage extension is not in use</i>
Stage area	29 x 2m lighting bars that can be rigged on any of the 20 overhead flying battens - each bar has 6 x 10A outlets, which are connected to multi-core cables and plugged into dedicated dimmer outlets
Stage floor	24 x 5kW dimmer outlets. (Each dimmer appears on both sides of the stage)

Lighting Equipment

A comprehensive range of luminaires are allocated to the Playhouse. This includes 1.2kW Fresnels, 575w and 650w Profiles. As this list is regularly modified and updated please contact your Production Manager for the latest version.

Work lights are rigged wherever they are required and space should be left on the plan for them.

Music Stand Lights

24V LED scone lights are available if required.





Festival of Dangerous Ideas 2014

Photo: Daniel Boud

Rehearsal & Work Lights

The lamps connected to the 4 rehearsal & work light dimmers can also be controlled from push buttons located in the control room and backstage. These are used when the control room is unattended.

House Lights

The main house lights are custom warm white LED fixtures. There are incandescent lights over the aisles and rear crossover. The house lights can be controlled by the lighting desk or a manual system on a highest-takes-precedence basis.

Additional Equipment

A range of additional equipment is available subject to the demands of the other theatres. Our staff can also assist with hiring in additional equipment on your behalf, if required. Please discuss your requirements with your Production Manager in advance.

Effects

Colour

A full range of LEE Filters are available.

Smoke and fog machines

A number of haze machines are available, subject to requirements in other theatres. Any smoke / haze or dry ice machines that are brought into the Opera House must be approved prior to use. A 'material safety data sheet' will be required for any machine that has not been previously approved for use within the Opera House. The Production Manager must be consulted whenever any smoke, fog or haze effects are used. The Stage Manager must also be informed prior to each use of an effect, as arrangements must be made to isolate the automatic fire alarm system.

Strobes

For audience comfort and safety, the use of strobes may require warning notices to be displayed in the foyer. Please discuss this with your Production Manager.

Pyrotechnics, naked flame and lasers

Pyrotechnics, naked flames and lasers may only be used with prior written approval. Your Production Manager can assist with submitting an application.



Sound & Audio Visual

Acoustics

The acoustics in the Playhouse are typical of a drama venue. Projected voice for plays and drama works well in this venue without the need for reinforcement. Reinforcement is recommended for musicals, live music, conferences and talks.

Mixing Positions

There are 3 mixing positions in the Playhouse:

- The standard operating position is from the Sound Control Room. This position is always setup and ready to go. Operating sound in the control room does have limitations. The control room is a separate room at the rear of the auditorium with a window that can be opened onto the auditorium.
- The second operating position is located in the auditorium. This requires seats being held from sale (M24-26, N25-26, and P26). All live music and radio mic productions should be mixed from the auditorium for optimum quality.
- The 3rd position is located in row T, with seats being removed as required.
- cat 5 patching exists in all locations.

Standard Control Room Console

Midas Pro2c

- Midas DL431 Mic Splitters x 2
- Midas DL451 Modular I/O x 2
- Klark Teknik DN9650 Network Bridge

Standard Control Room Equipment

- 6 x Channels of Shure Axiom Radio Mics
- Apple Mac Mini running Qlab
- Lake Control Tablet

PA System

The following PA system is installed in the Playhouse, all speakers are installed, tuned and delayed to a standard configuration of the Playhouse.

Speakers

Main Left Right PA

- 2 x D&B Audiotechnik Q7 are flown either side of stage, attached to the side walls and covering the most of the auditorium.

Centre PA

- 1 x D&B Audiotechnik Q7 speaker hung on the front of stage orchestra bar,
- a second D&B Audiotechnik Q7 is hung in line with the D&B Audiotechnik D6 delay speakers for rear of auditorium coverage

Subwoofers

- 2 x D&B Audiotechnik QSUBs installed in a left-right position on the side walls above the D&B Audiotechnik Q7s provide low frequencies to the theatre

Delays

- 2 x D&B Audiotechnik D6 Delays are installed on the side walls halfway up into the auditorium to cover the very rear corners of the house

Front Fill

- 3 x EAW JF50 can be added to the downstage floor to lower the image of sound and to fill the front couple of rows of the house

Amplifiers/Control

- 2 x D&B Audiotechnik D12
- 2 x D&B Audiotechnik D6
- 4 x Crown MacroTech
- 2 x Dolby Lake Processor

There is a preset configuration for the PA, but the operator can tune and adjust the system as needed using the Lake Tablet.

Additional Equipment

The following equipment belongs to a house-wide inventory and can be allocated to your production, subject to the demands of the other theatres. Please discuss your needs with your Production Manager.

FOH and Monitor Consoles

- Midas Pro2
- Midas Pro1
- Yamaha PM5D RH

Additional Outboard

- Lexicon PCM 91
- Lexicon PCM 80
- Lexicon MPX1
- DBX 160SL Stereo compressors
- DBX 1066 Stereo compressors
- Drawmer 501 Stereo gates
- Klark Teknik DN360 GEQ
- Yamaha SPX990
- TC Electronics M5000
- TC Electronics M3000
- TC Electronics M2000
- TC Electronics D2

Stage Monitors

- D&B Audiotechnik M4
- D&B Audiotechnik E15X SUB
- EAW SM200ih
- Martin WTM0.5

Shure Axient Wireless System

- Shure AXT 100 Belt packs
- Shure AXT 200 Handhelds with Neumann KK105 head
- DPA 4066 Head mic
- DPA 4061 Miniature Lapel mic

Shure In-Ear-Monitors

- Stereo PT10T Dual Wireless Transmitters
- Stereo channels hard-wired Shure PSM700 in-ear-monitors
- Shure SE425 Earpieces

Microphone Selection

The Opera House has a wide range of microphones from brands such as Sennheiser, Shure, AKG, DPA, Beyer and Rode. Please discuss your needs with your Production Manager.

Additional Speakers

- D&B Audiotechnik Q10
- D&B Audiotechnik JSUB
- D&B Audiotechnik E12
- D&B Audiotechnik E8
- D&B Audiotechnik E6
- D&B Audiotechnik E15X SUB
- Meyer MSL4
- Meyer CQ1
- Meyer UPJ 1P
- Meyer UPA 1P
- Meyer UPM 1P
- Fostex 6301BX Powered Monitor

Additional Playback

- MacBook Pro running QLab
- SFX Laptop

Other

- 240v to 110v drop down transformers

Video Replay, Switching and Patching

The Sound & Audio Visual department has a range of playback options and switchers. Opera House vision equipment is shared between all theatres. Please consult your Production Manager as early as possible in regard to booking this equipment.

Switchers

- Barco Screen Pro II
- Folsom Image Pro HD
- Blackmagic Design ATEM 2 M/E Production Studio 4K

Vision Playback

- Doremi NUGGET Pro
- MacBook Pro
- DVD – Pioneer DVD-V8000

Projection

There are two main projection positions

- The Long Throw position is from the lighting control room. This position works well with a long throw lens and can fill a screen as wide as the stage.
- The Lighting Bridge position works well with a short throw lens and can generally fill a large screen. The main benefit of this position is that the projector light can shoot over the top of the actors' heads.

Projectors

- Barco HDX14

Projectors have long and short throw lens options.

Screens

- Stumpfl 7300mm x 4100mm (24ft x 13.5ft) 16:9 ratio fastfold screen
- Stumpfl 6100mm x 3400mm (20ft x 11.3ft) 16:9 ratio fastfold screen
- Stumpfl 2400mm x 1800mm (8ft x 6ft) 4:3 ratio fastfold screen

Video Monitors

There is a longview and lowlight camera for backstage video monitoring, and conductor view or shortview monitors can be arranged.

Samsung 75" and Samsung 55" display monitors can be supplied, or other equipment hired in as required, for presentations to the audience or monitoring back to the stage. Please discuss your needs with your Production Manager.



Recording & Broadcast

Recording, broadcast or photography of an event may require a separate Recording Agreement to be made with the Opera House and may incur a recording fee. A Recording / Broadcast Allowance (RBA) may also be payable to technical staff working on the event. Please discuss recording plans as early as possible. Written permission must be sought before recording an event for any purpose.

Commercial Audio Recording

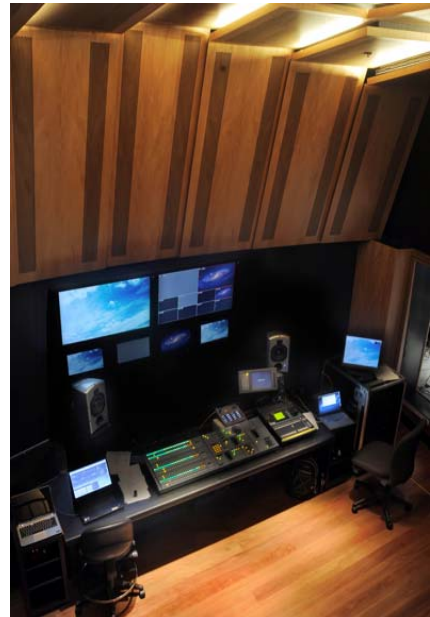
A commercial recording can be made from the Playhouse or in the Sydney Opera House Recording Studio via an advanced optical fibre based network. Multi-track digital recording is available on Pyramix Genex or Pro Tools.

The Recording Studio is located 2 levels below the Concert Hall and is equipped with a Euphonix System 5 Digital Console.

A Recording Agreement must be negotiated with the House and a recording fee is usually payable.

In addition, a Recording / Broadcast Allowance (RBA) is usually payable to technical crew working on the event.

Archival audio recording (where no part of the recording is to be used for commercial purposes) is available as a digital file.



Video Recording

A 'Commercial Recording' is any recording made for the purpose of sale, broadcast, exhibition or any activity resulting in financial gain for the owner of the recording. A Recording Agreement must be negotiated with the House and a recording fee is usually payable. In addition a Recording / Broadcast Allowance (RBA) is usually payable to technical crew working on the event.

An 'Archival Recording' is a recording made for the sole purpose of documenting technical and performance aspects of a production. Archival Recordings are exclusively for the use of creative and management employees directly associated with a Company, Artist or the House. Archival Recordings are not intended to create a direct commercial benefit for the owner of the recording, and are not to be used for broadcast, exhibition, distribution or sale in any form. For all Archival Recordings, application should be made to the House for waiver of any recording fee or RBA payments.

The standard archival recording format is digital file via download or hard drive. Broadcast standard recordings can be arranged. Any special requirements should be discussed with your Production Manager.



Sydney Opera House Recording Studio

Photo: Geoff Ambler, courtesy of Scott Carver Architects

Outside Broadcast

There are two outside broadcast interconnect points at the northern end of Central Passage: OB East and OB West. Vehicles up to 4.2m high and 8m long can normally be accommodated via the north door.

Both OB points are equipped with three 40A 3-phase Wilco outlets and six single-phase 10A GPOs, with a total available power supply of 100A across all outlets. Both OB points contain video, audio, and camera (triaux) patch panels linking them to each other, to the Concert Hall and the Joan Sutherland Theatre, and further afield via the Central Control Room (CCR).

Outside links can also be arranged using Telstra's Digital Video Network (DVN) or the AARNet IP network. Presenters are encouraged to discuss their requirements with our Technology department before committing to an OB design.

Communications system integration between OB trucks and the Concert Hall stage intercoms and two-way radios is also possible. Please consult your Production Manager while scoping your broadcast.

Signal Transport

A comprehensive optical fibre network interconnects all venues, the OB positions, and the Recording Studio. This allows broadcast-quality audio and video to be transported using Riedel MediorNet, network bridges from Klark Teknik, or the Stagetec Nexus network. The Opera House also broadcasts using video conferencing and web streaming equipment.

Communications

Stage Manager's Desk

A state-of-the-art Stagetec Stage Manager's Desk (SMD) is located in Prompt Corner (Stage Left). The desk is fully programmable, includes four broadcast-quality show relay screens, two integrated Riedel Artist communications panels and dynamically assignable tactile LED buttons.

The SMD controls audio and video relay to both front-of-house and back-of-house spaces, and can be used to broadcast live or pre-recorded announcements to backstage or foyer spaces. There is an automatic message stacking facility to prevent conflict with other venues when announcements are simultaneously sent from other theatres to common areas of the building, such as the Green Room. Features include dynamic allocation of paging, program audio relay, cue lights, and foyer bells. Front-of-house functions are generally managed by the theatre manager from a touch screen in the foyer, however these functions are also accessible at the SMD.

Show Relay

Longview

A colour image of the Playhouse stage is distributed to the SMD, lighting control, sound control, Green Room, some dressing rooms, and venue foyers. The SMD has pan, tilt, and zoom control of the longview camera. A low-light camera is also permanently installed and sends vision to the SMD.

Headset Communications

The Opera House provides a Riedel Artist wired intercom system that operates across all venues. Permanent talkback stations are available in lighting and sound control. Wired headset tie lines are installed at all regular operating positions. Additional headsets and desktop stations can be supplied. Please consult your Production Manager.

A Riedel Acrobat CC-120 wireless beltpack system operates in the Playhouse. This integrates seamlessly with the Riedel Artist wired intercom system. 8 WB-2 wireless beltpacks are reserved for the theatre, with additional units available by arrangement with your Production Manager.

Backstage Facilities

Dressing Rooms

The hire of the Playhouse normally includes the use of the 7 associated dressing rooms for the duration of the booking. Please discuss your needs as early as possible

Six rooms have adjoining shower and toilet facilities and can accommodate 3-4 artists each. One room can accommodate 3 artists, but has no ensuite facilities.

A selection of dressing rooms have lockable lockers, drawers and small cupboards, the keys for these are available from your Stage Manager. Lockers and drawers must be cleared and keys returned at the conclusion of the hiring period.

Rehearsal Rooms

Rehearsal space is very limited across the Opera House, with five major theatres competing for space. Requests should be discussed well in advance of the event. No guarantee is given that any rehearsal space will be available

Kitchen and Wardrobe Area

Located behind the stage at stage level is a laundry/kitchenette facility with a washing machine, tumble dryer, stand-up dryer, sink, refrigerator, urn, filtered water tap and microwave. Ironing equipment, steamer and wardrobe racks are available on request. There is a lockable cupboard available for use by Company Stage Management to secure props and valuables during a season. The key is available from the Opera House Stage Management department.

Wi-Fi

Complimentary Wi-Fi is available back-of-house in the Green Room, the Playhouse dressing rooms, and front-of-house in the Western Foyer and Lower Concourse. Log in as SOH_Guest.

Staff & Artists

Sydney Opera House Staff

Our staff are covered by the Sydney Opera House Enterprise Agreement (2013), and remain under the direction of Sydney Opera House management at all times.

The Agreement is designed to ensure a safe working environment and staff wellbeing. For this reason, certain restrictions apply to hours of work, the allocation of specially qualified staff to specific tasks, minimum crew numbers on certain tasks, and mandatory rest breaks.

Sydney Opera House management reserves the right for our staff to access our venues at any time for any reasonable purpose.

In order to ensure safety, the correct operation of specialist equipment and/or the protection of the Opera House from damage, certain tasks may only be performed by Opera House staff using our equipment. The Account Manager and/or Production Manager assigned to your event will advise you of the staffing arrangements suitable to your event.

Green Room

The Green Room is located one level above the Playhouse. Offering a Harbour view to the north, the Green Room includes a cafeteria, a licensed bar, complimentary Wi-Fi, a lounge area and a small games area with a pool table. The Green Room is common to all theatres in the Opera House and is for the exclusive use of artists, crew, staff and their guests. It is intended to be a private environment for performers and crew to rest, enjoy a meal, prepare and socialise before and after the performance.

Any visitors must be signed in at Stage Door and escorted to the Green Room by the host artist or staff member and remain with their host at all times. Access to the Green Room is not available to the general public or patrons. For the privacy of artists and staff, photography is not permitted in the area.

Access and Other Conditions

- All Opera House staff, members of performing companies, other authorised personnel and all back-of-house visitors must enter or exit the building via the Stage Door, located on the ground floor level off the Vehicle Concourse, at the southern end of Central Passage
- Identification cards must be worn at all times, except by artists when on stage
- Access will only be granted to contractors and production staff after attending an Opera House safety induction
- All visitors must be signed in at the Stage Door, be issued with and wear a Visitor's pass and be accompanied by their host at all times. It is the responsibility of the host to escort the visitor to Stage Door when leaving and return the Visitor's pass



- Smoking is not permitted in any of the interior areas, or any of the designated exterior areas of the Opera House
- Smoking, matches, pyrotechnics and other naked flames are prohibited on stage unless written permission is granted – please discuss your production needs with your Account Manager
- Artists and management should keep their particular areas clean, tidy and secure
- Access for visiting staff and artists is restricted to only those areas connected to the hired venue, common back-of-house areas and public spaces
- The use of Central Passage and the Green Room is common to all theatres
- The Green Room is for the exclusive use of artists, presenters, Opera House management and staff and their visitors. Members of the public or media are not permitted to use these facilities.
- No food is to be prepared in dressing rooms, locker rooms or other back-of-house areas
- No crockery or eating utensils may be left in any area other than the Green Room
- No filming, recording or photography, is allowed on-site unless formal permission has been obtained from the Opera House
- Pets, including animals to appear on stage are not permitted in the building without special permission in accordance with the relevant regulations
- Artists, staff and management must comply with the regulations in the Sydney Opera House Trust By-Law (2010) made under the Sydney Opera House Trust Act 1961

"The Opera House has a special energy and beauty unlike anywhere else in the world. I will never forget the first time I sang there for the Royal opening for the Queen amongst a stellar Aussie line up. I always consider it an honour to perform there."

- Olivia Newton John

