



Technical  
Specification

NST Campus May 2017

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## General Information

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SO17 1TR

### **Contact Information**

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## Contacts

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## Hotels

Below are the main independent and chain hotels nearby. There are many other independent hotels available within Southampton.

<b>Highfield House Hotel</b>	119 Highfield Lane, Portswood, Southampton. SO17 1AQ.	023 8055 4223	res@highfieldhousehotel.co.uk
<b>Premier Inn Southampton Airport</b>	Mitchell Way, Southampton, Hampshire SO18 2XU	01582 567890	
<b>The Elizabeth House Hotel</b>	42-44 The Avenue, Southampton, SO17 1XP.	02380 224 327	mail@elizabethhousehotel.com
<b>Banister House Hotel</b>	11 Brighton Road, on Banister Road, Southampton, SO15 2JJ.	02380 221 279	info@banisterhouse.co.uk
<b>Travelodge</b>	144 Lodge Road Southampton Hampshire SO14 6QR	0871 984 6212	www.travelodge.co.uk
<b>Hilton Hotel</b>	Bracken Place, Chilworth, Southampton, SO16 3NG.	02380 702 700	www.hilton.com/en

## Digs List

A full digs list is available from:  
Alison Thurley  
Office Administrator  
023 8031 5500 ext 0;205  
alison.thurley@nstheatres.co.uk

## Taxis

West Quay Cars: 023 80 999 999  
Radio Taxis: 023 80 666 666  
Streamline Taxis: 023 80 223 355  
ATS Taxis: 023 80 222 222

### **Accessible Facilities**

Two wheelchair spaces on both house left and house right. This can be increased to a maximum of fifteen wheelchair spaces by the removal of two rows of seats. An additional seven seats can be added in the wheelchair spaces.

An accessible toilet is located opposite Box Office, in the foyer.

A wireless assisted listening and audio description system is fitted to both the main house and the studio.

Signed performances are available.

Touch tours are offered 45mins before audio described performances.

### **Parking**

#### **Loading**

Vehicles delivering to the theatre can be parked next to the dock doors. Up to two 45ft (13.5m) Lorries can be parked here. This is a one way road; all vehicles must enter from University Road, and exit by Salisbury Road. There are drop-bollards protecting the loading area. If you arrive before the theatre staff you can ring University Security to gain access on 023 8059 2811. *Vehicles can only stay in this area whilst loading.*

#### **University Car Parks**

All car parks on the University campus are for permit holders only Mon-Fri 9am-5pm, except for one, small, pay and display car park.

If you need to park on campus, then we need to book spaces for you in the Visitors Car Park. Please advise us if you need spaces booking as soon as possible.

After 5pm, and at weekends, all car parks are free to use

### **Travel Directions**

#### **Car**

##### **From North:**

Take the M3 to J14 (A33 Southampton). Take A33 exit and continue to roundabout. At the roundabout go straight over onto Bassett Avenue. Continue straight ahead to roundabout. At the roundabout take first exit (almost straight over) and continue to traffic lights at major crossroad. At the crossroad turn left into Burgess Road. Go straight over at next two sets of traffic lights and merge into right filter lane. Turn right at this junction into University Road.

For car parks, after 100m turn right into Salisbury Road or left into University Crescent (for Pay and Display).

For the dock door, continue on University Road for 200m and turn right just before the second pedestrian crossing. Turn left on the pedestrian crossing just before the bus interchange, onto the brick road and through the bollards. See above for details of parking.

##### **From East/West:**

Take the M27 to J5 (A335 Airport). Take J5 exit onto roundabout. Take 1st exit/slip road (from East) or 4th exit (from West) off roundabout onto Stoneham Way. Go straight over the first two sets of traffic lights. Merge into middle lane before the third set of lights. Cross these traffic lights into right turn lane. At the fourth set of traffic lights (by McDonald's) bare right onto Burgess Road. Continue along Burgess Road until the second set of traffic lights, at the major junction with University Road. Take the left turn lane onto University Road.

For car parks, after 100m turn right into Salisbury Road or left into University Crescent (for Pay and Display).

For the dock door, continue on University Road for 200m and turn right just before the second pedestrian crossing. Turn left on the pedestrian crossing just before the bus interchange, onto the brick road and through the bollards. See above for details of parking.

## Bus

[www.traveline.org](http://www.traveline.org)

### **Uni-link: [www.unilinkbus.co.uk](http://www.unilinkbus.co.uk)**

All services to the Interchange, opposite the theatre.

### **National Express [www.nationalexpress.com](http://www.nationalexpress.com)**

National Express coaches serve the University Interchange, stopping at their own stand behind the theatre.

**032** - Southampton to London

**203** - Portsmouth, Southampton to Heathrow

## Train

[www.nationalrail.co.uk](http://www.nationalrail.co.uk)

### **South West Trains**

Fast trains between *London Waterloo and Bournemouth* stop at *Southampton Airport Parkway* and *Southampton Central* stations, then by taxi or Uni-Link bus service (see above). Southampton Airport Parkway Station is the closest station served by trains from London.

- Express services take between 1hr 11mins and 1hr 33mins between Waterloo and Southampton Airport Parkway, with journeys to Southampton Central taking a further 8 mins.
- There are also Stopping services on this line, which take around 2hrs 50mins between Waterloo and Southampton Airport Parkway.

There is a local service between *Romsey* and *Totton* via *Chandlers Ford* and *Eastleigh*, calling at all stations: transfer to the Uni-Link bus at Airport Parkway, Central or Swaythling stations.

### **Southern**

Trains from *Brighton* and *London Victoria* stop at Southampton Central.

### **First Great Western / Great Western Railway**

Trains from *Portsmouth, Bristol and Cardiff* stop at Southampton Central.

## Stage Management

### **Production Office**

Stage Left, between the pass doors. Shared with in-house wardrobe construction.

Phone available, two network ports, Windows XP computer available.

Fax, copier and printer available in the Administration Offices (behind Box Office).

Alternatively, both of the dressing rooms have a phone and two network ports (RJ45) available.

### **Green Room**

6m x 3.5m Located next to the stage door, opposite dressing room 2. Level access from the stage. Tea & coffee making facilities. two microwaves, toaster & dishwasher.

### **Dressing Rooms**

Dressing Room 1, 6m x 3.8m suitable for 12 people comfortably with fixed clothes rails in middle of room

Dressing Room 2, 5.6m x 5.5m suitable for 16 people comfortably with fixed clothes rails in middle of room.

Each room has:

- Two sinks
- Fixed dressing tables
- Mirrors & make-up lights.
- Toilets & showers adjacent.
- Level access from the stage.

*These rooms are shared with the Studio space.*

*Additional rooms can be hired from the University, at extra cost.*

### **Stage Managers Console**

Consisting of:

- Show relay speaker.
- Colour and infrared stage video monitors.
- Phone.
- Tannoy to all backstage areas and FOH.
- Tec-pro comms system (2 channels), 1 master station, 17 packs available.

Situated in the SL wing. Can also be positioned in SR wing or in Audio Describers Box.

### **Crew**

Available as required; minimum of two crew with at least one on stage. BECTU/UKT rates. No stage door staff.

### **Access**

Level access to all backstage areas, except operation boxes, fly-floors etc. Two steps to stage door.

No accessible toilets backstage.

### **Policies**

House opens ½ hr prior to curtain.

Normal curtain is 7:30pm evening, 2:30pm matinee.

The building is a smoke free environment. Smoking area outside stage door.

No person involved with a production should have consumed alcohol within 8 hours prior to starting work.

Fully licensed bar and restaurant; closes after the interval. Late opening available, POA.

As the bar & Studio share a space, when there is a Studio performance a foyer bar will be operated.

## Load-in Area

**Dimensions**

Two 45' trailers can be accommodated at a time. They are at 90° to the dock door.

Dock door 3.02m high x 2.1m wide.

Roller shutter 2.65m high x 5.7m wide in the SR wing between dock door and stage *\*Note that this is lower than the dock door.*

Level access from pedestrianised roadway to the stage.

Vehicles delivering to the theatre can be parked next to the dock doors. Up to two (2) 45ft (13.5m) lorries can be parked here. This is a one way road; all vehicles must enter from University Road, and exit by Salisbury Road. There are drop-bollards protecting the loading area. If you arrive before the theatre staff you can ring University Security to gain access on 023 8059 2811. *Vehicles can only stay in this area whilst loading.*

**Map**

See Attachment A.



## Stage

### Seating

500 seated + 10 standing max.

Varies according to stage format. See attachment B.

Default format is one (1) forestage with small sound position.

### Seating Chart

See attachment C.

## Stage Dimensions

### Groundplan & Section

See attachments F & G.

Stage depth to back wall	
Stage depth (excluding crossover)	8.56m
Back forestage depth	2.68m
front forestage depth	2.37m
Stage Setting Line (back of iron runners)	+310mm from front of stage
Proscenium Width	9.1m
Proscenium Height	4.5m
Stage height (from Auditorium)	0.9m
Orchestra Pit depth	1.9m
Height to grid	9.91m
Stage Left Wing	2.1m @ 6.5m high
Stage Right Wing	4.1m (2.1m @ 6.5m high, remainder @ 3m high)

### House Draperies

#### House Curtains

1x pair red velour.

#### Legs

8x black serge, 1.5m wide x 7m high (5' x 23').

#### Masking Flats

8x black serge, 1.5m wide x 5m high (5' x 16'4").

2x black serge, 1.8m wide x 6m high (5'11" x 19'8").

2x black serge, 1.45m wide x 6m high (4'9" x 19'8").

Various small flats; black serge, used to create quick change areas, etc.

#### Borders

5x black serge, 13m wide x 2.4m high (42'7" x 7'10"), no fullness, conduit pocket.

#### Full Stage

2x black serge, 7m wide x 5m high (23' x 16'4"), fullness, chain.

2x black velour, 6m wide x 6m high (19'8" x 19'8"), no fullness, chain.

**Gauzes**

Black, Sharks Tooth, 11.5m wide x 4.7m high (37'9" x 15'5"), conduit pocket.  
 Black, Sharks Tooth, 10.5m wide x 6m high (34'5" x 19'8"), conduit pocket.  
 White, Sharks Tooth, 9.5m wide x 5m high (31'2" x 16'4"), conduit pocket.

**Cycloramas**

White cotton, seamless, 12m wide x 9m high (39'4" x 29'6"), conduit pocket.

**Projection Screens**

BP, 14m wide x 5m high (45'11" x 16'4"), eyes top edge, conduit pocket.

**Miscellaneous**

Black Serge, for fitting behind the Auditorium Curved LX Bars. 1 cloth for each side.  
 Black serge, polyester lining, 13m wide x 0.95m high (42'7" x 3'1"), no fullness, conduit pocket. For fitting to orchestra pit rail.

**Tab Track**

Triple-E Unitrack tab track available (Approx. 27m straight), with runners, master runners, overlap arms and pulleys. Some curved sections also available.

**Steeldeck**

8'x4'	13
8'x2'	2
4'x4'	2
6'x2'	1
4'x3'	1
4'x2'	1

**Legs** Length is to top of steeldeck platform.

300mm	450mm
600mm	750mm
900mm	1050mm
1200mm	1500mm
1800mm	

Please check numbers in stock.

**Line Set Data**

The motor and winch bars are only to be operated by trained Nuffield Theatre staff.

**Line Plot**

See attachment D.

**Working height of bars**

Hemp bars; high trim is 9885mm (32'6") above stage floor.  
 Motor bars; high trim is 9250mm (30'4") above stage floor.  
 low trim is 260mm (10") above stage floor.

[Trim on Motor Bars 2-8 is measured to the centre of the lower rail of the ladder truss. The centre of the higher rail is 350mm (14") above.]

Winch Bars; Advance 2; high trim is 6300mm above stage floor.

Advance 1; high trim is 6700mm above stage floor.

*Advance 1 is removed when the Loadstars are required for other set or LX lifts.*

### Bars

*See appendix D - Line Plot for WLL (UDL & CPL) for each bar.*

Hemp Bars: 12m (39'4") 50mm (2") dia. aluminium scaffold.

Motor Bar 1: 10m (32'9") 50mm (2") dia. aluminium scaffold.

Motor Bars 2-8 & Advance 2: 12m (39'4") 50mm (2") dia. ladder truss, 350mm (14") pipe centres.

Advance 1: 7.9m (25'11") 50mm (2") dia. IWB.

### Type

21 hemp, 3 line lift.

8 motor, 3 line lift.

2 winch, Advance 2: 3 line lift.

Advance 1: 4x 1ton Loadstar chainhoists.

### Fly Rail

Stage right. 8m (26'3") above stage floor.

Motors bars operated from SL wing or SL fly floor.

## Support Areas

### Crossover

Upstage of the fly bars. 750mm (2'5") wide, carpeted. [1500mm (4'11") total width, used for ladder & masking flat storage. Also contains a fire escape trap, which must be kept clear.]

### Access

Front of House: through pass doors either side of stage.

Green Room & Dressing Room 2: Stage left (SL), level access.

Dressing Rooms 1 & 2, Toilets: Upstage left (USL), level access, 920mm (3') wide corridor.

Wardrobe Maintenance: Upstage centre (USC), level access, 790mm wide door (2'7"). Also door through to Dressing Room 1.

### Workshop

Stage right (SR), adjoining get-in. 8850mm x 7420mm (29' x 24'4"). Pillar drill, band saw. Some power & hand tools available. Welder, metal & wood chop saws all available with notice.

### Access Equipment

Tallescope (3.9m-5.9m, (13'-19½')).

*The Tallescope is operated in accordance with the ABTT guidelines for Access Equipment. This requires four people to operate it.*

Ladders.

## Power

Mid-stage left (MSL) supply panel: 230V/415V~ 3ph+N+E 100A/leg, 32A 3ph+N+E Ceeform, 63A 3ph+N+E Ceeform, 125A 3ph+N+E Ceeform.

Downstage right (DSR) supply panel: 230V/415V~ 3ph+N+E 100A/leg, 32A 3ph+N+E Ceeform, 63A 3ph+N+E Ceeform, 125A 3ph+N+E Ceeform.

Other Supplies: 230V/415V~ 3ph+N+E 80A/leg.

DS of tension wire grid (TWG): 32A 3ph+N+E Ceeform, 16A MCB.

USL of tension wire grid (TWG):: 32A 3ph+N+E Ceeform, 32A MCB.

US of SR fly-floor: 32A 3ph+N+E Ceeform, 32A MCB.

*Southampton's 3 phase power supply has a reverse phase cycle.*

## Power Distro

### Distro 1

Input: 63A 1ph+E Ceeform, 63A 2-pole MCB.

Outputs: 2x 32A 1ph+N+E Ceeform, 32A RCBO.  
4x 16A 1ph+N+E Ceeform, 16A RCBO.  
2x 13A BS1363, 10A RCBO.

### **Lifting Equipment**

4x 1000KG Loadstars. Power: 16A 3ph+E Ceeform. Control: 16A 110v 4pin Ceeform.

#### **Distro & Control**

##### **Outboard LV4**

Input: 63A 3ph+N+E Ceeform. Power Output: 4x 16A 3ph+E Ceeform. Control Output: 16A 110v 4pin Ceeform.

### **Music**

#### **Chairs**

35x chairs, cushioned. Mixture of blue, red, green, orange.

#### **Stands**

5x unlit stands.

19x RAT, lit stands.

#### **Stand Lights**

None separate, see RAT stands above.

#### **Conductor Podium**

1x RAT, lit conductors stand.

### **Platforms**

Steeldeck as shown under Stage.

### **Lecterns**

#### **1x silver 'truss' style lectern. Notes**

Tension wire grid above forestages.

Various treads available.

The Safety Curtain must be lowered and raised in the presence of the audience at each performance.

## Lighting

### **Rigging**

All LX must be rigged on motor bars unless agreed in advance with venue staff. The safe point loads are relatively low on hemp sets due to distance between line sets.

### **Power**

Dimmers: 230V/415V~ 3ph+N+E 400A/leg.

Non-dims / working lights: 230V~ 3ph 100A/leg.

House lights & orchestra: 230V~ 1ph+N+E 63A.

US Orchestra Pit (back forestage): 3x BS5733 15A sockets.

DS Orchestra Pit (front forestage): 3x BS5733 15A sockets.

Mid-stage left (MSL) supply panel: 230V/415V~ 3ph+N+E 100A/leg, 32A 3ph+N+E Ceeform, 64A 3ph+N+E Ceeform, 125A 3ph+N+E Ceeform.

Downstage right (DSR) supply panel: 230V/415V~ 3ph+N+E 100A/leg, 32A 3ph+N+E Ceeform, 64A 3ph+N+E Ceeform, 125A 3ph+N+E Ceeform.

Other Supplies: 230V/415V~ 3ph+N+E 80A/leg.

DS of Tension Wire Grid: 32A 3ph+N+E Ceeform.

USL of Tension Wire Grid: 32A 3ph+N+E Ceeform.

US of SR fly floor: 32A 3ph+N+E Ceeform.

*Southampton's 3 phase power supply has a reverse phase cycle.*

### **Dimmers**

216 x Strand LD90 2.5kW (DMX 1-216).

12 x Strand LD90 5kW (DMX 217-228).

4 x Strand LD 90 House Lights (DMX 230-233).

2 x Strand LD 90 Orchestra Pit Lights (DMX 236-237).

Spare dimmers & controllers available.

### **Lighting Desks**

ETC, Gio, 2048 outputs, v2.5 software (beta versions available), 2 external touch-screen monitors.

ETC, Expression 3, 400 channels, v3.11 software.

Located in control box above rear of auditorium. Can be moved to production desk in centre of auditorium (row L) or the auditorium sound position.

Zero 88 Linebacker.

ELC focusBRAIN XL: focus remote.

### **DMX input ports**

LX Control Box:

Production Desk.

Downstage Left<sup>†</sup>.

FOH Auditorium sound position:

*2 universes available at all input ports, except, 1 universe at ports marked †.*

*Outputs available at all lighting circuit positions. 7 runs, each 1 universe, plus 1 universe to the dimmer racks.*

2 universe DMX splitter in DMX patch bay, LX box. Not RDM compatible.

### House lights

4 circuits + 4x Strand Patt. 743s above forestages.  
DMX 1/230-234.  
Recommended level for all HL channels is 60%.

### Circuits

All 2.5kW circuits terminated in BS5733 15A sockets. 48 circuits (on the fly rails) also terminated in socapex.

153x hard patch circuits, to 72x dimmers.

144x 2.5kW hard wired circuits; 54x stage left fly-floor, 18x FOH Bridge 1, 24x FOH Tension-wire grid, 24x paired between stage left fly-floor fly-rail & upstage and downstage left stage boxes, 24x paired between stage right fly-floor fly-rail & upstage and downstage right stage boxes.

12x 5kW hard wired circuits; 4x stage left fly-floor, 2x FOH tension wire grid, 2x Mid-stage left wall. Terminated in both 4x BS5733 15A sockets (2x10A) and 32A Ceeform.

36x 16A non-dim circuits. Terminated in BS5733 15A sockets. Controlled from panel in LX control box.

### Circuit Chart

See attachment E.

### Front of House Positions *Measurements to main stage (1800mm above datum).*

Advance 1 & 2: variable - see groundplan and section. Attachments F & G.

Bridge 1: 10470mm (34') throw at 36°. WLL 50kg per 2m section.

Bridge 2: 13490mm (44') throw at 25°. WLL 50kg per 2m section.

Side Bridges: 9830mm-19,900mm (32'-65') throw at 62°-17°. WLL 50kg per 2m section.

Curvy Auditorium Bars: 7040mm-12600mm (23'-41') throw at 20°-6°. WLL 75kg each.

FOH Proscenium Booms: 5200mm (17') throw at 0°. WLL 500kg each.

FOH Boom 2: 6770mm (22') throw at 0°. WLL 75kg each.

### On-stage Booms

On-stage Proscenium Booms: 6200mm (17') throw at 0°. WLL 100kg each

### Equipment Inventory

Please ensure LX plans are sent to venue staff with adequate time to ensure all required units are in current working condition.

### Profiles

SIL 30 (23-40°)	30	10kg
SIL 40 (32-46°)	4	10kg
Source 4 - 575W (see lenses below)	31	5.3kg + lens
Source 4 Zoom 15-30° - 750W	8	9.5kg
Source 4 Zoom 25-50° - 750W	4	8.5kg
Source 4 Lustr Series 2 (LED) (see lenses below & in floods)	8	8.4kg + lens
ADB Warp 12-30°	1 (no accessories except gel frame)	11.5kg

### Source 4 Lens

50°	12	+2.2kg
36°	17	+2.2kg
26°	8	+2.2kg

19°	4	+2.2kg
10°	3	+3.6kg

### Fresnels

Patt. 743	19 (+4 used as House Lights)	9.2kg
Tulla Lito 1K	8	8.5kg
Patt. 243	9 (1 of which is missing Barn Doors)	15kg
Coemar 2K	6	8.3kg

### Parcans

Par64 (CP60, 61 or 62)	34	2kg
Par56 Short Nose	6	2kg
Pin Spots	8	
<i>Birdies are treated as consumables. Please enquire.</i>		

### Floods

IRIS 4	5	32kg
IRIS 1	5	12kg
Coda 4	8	11.0kg
Minuette Flood 500W	2 (+2 in use as working light)	4.5kg
Flood Bank (16xPar16)	2	5.9kg
Cyc lenses for Source 4 Lustr (c/w barn doors)	8	+1.9kg

### Others

Patt. 252 2K Projector	2	16.5kg
Patt. 750 - Beamlight	2	4.2kg
Flexicon QDS50 fibre optic light source	4	
Pendant fitting BC, 15A plug	21 ( <i>Please check</i> )	

**Effects – Lanterns** These items attract a hire charge. POA.

UV Cannon	2	
Atomic 3000 Strobe	2	7.8kg
Martin Mania DC1	1 (modified to allow separate control of motor and lamp)	6.3kg
Rotating Beacon (Fuzz light)	2 (with 2xBlue, 1xRed, 1xClear covers)	
Moon Box 1000mm dia. lit area, 1350mm dia. case. (2ch LED, Warm & Cool White)	1 (with 15m power and DMX loom)	

**Effects Machines** These items attract a hire charge. POA.

Look Unique Hazer 2.1	1	n/a
Le Maitre Neutron Star Haze Machine	1	n/a

Rosco 1700 Smoke Machine	1 (with manual or DMX control)	10.3kg
Rosco Cold Flow	1	n/a
Look Power Tiny Smoke Machine	1 (with optional radio remote)	n/a
DMX adapter for Neutron Star Hazer (can also be used with the Power Tiny)	1	n/a
Mini Mist Smoke Machine	2	n/a
Bubble Machine	1	
SNOWboy SP Falling Snow Machine	1	8kg
CITC Little Blizzard Snow Machine	3 ( <i>Nuffield Productions Only</i> )	16kg

**Scrollers & Animation** *These items attract a hire charge. POA.*

Rainbow Maxi Scroller PSU	1	4.2kg
Rainbow Mini Scroller PSU	1	3.6kg
Rainbow TWO16 Scroller	6 (Fits Par, SIL or S4 Zoom)	2.2kg
DHA DC Animation Control Mk4	1	n/a
DHA Gobo Rotator RTR003	1 (Fits Source 4 or S4 Zoom) (B size Gobo)	
DHA Varispeed Yo-Yo	1 (Fits Source 4 or S4 Zoom) (B size Gobo)	
DHA Varispeed Animation Rotator	1x AMU 085 (Fits Source 4) 1x AMU160 (Fits Source 4, S4 Zoom or SIL)	
DHA Animation Wheel: DD20 Course Radial Breakup	1	

### Accessories

Top Hat – Par64	6	
Top Hat – Source 4 75mm	2	
Top Hat – Source 4 125mm	11	
Iris – Source 4	3	
Iris – SIL	6	
Mirror Ball Motor	3	
200mm (8”) Mirror Ball	1	
280mm (11”) Mirror Ball	1	
Fibre Optic Loom: 25 tails x0.75mm, 2500mm long	1	
Fibre Optic Loom: ~535 tails x0.75mm, 2500mm long	1	
DMX Repeater	1	
Colortran 5033 Pantograph (SWL 40kg)	1	
Transformer for Birdies	17 ( <i>Please check</i> )	

### Cable

480m (1574') 15A cable.  
 Grelcos (2-fers), Trelcos (3-fers), various adapter cables (5A,13A,15A,16A).  
 89m Socapex, 6 circuits, with BS5733 15A tails.  
 DMX (5 pin XLR), adapters (3-5pin, 5-3pin).  
 140m (459') Scroller (4 pin XLR).



**Notes**

Video monitors on Prompt Desk (Colour & Infra-red).  
Cue lights available.

## Video

### Wiring

Facilities panels are located around the venue.

See Attachment H.

Video cables in the building Facilities Panels are to BBC PSF 1/3M.

**Equipment Inventory** *Items marked '\*' attract a hire charge. POA.*

**Projectors** These items attract a hire charge. POA.

BenQ MS619ST projector	1	3,000lm (ANSI), 13,000:1 contrast, 0.9-1.08:1 zoom lens	2.6kg
Sanyo PLC-XP57L projector	1	5,500lm (ANSI), 1000:1 contrast	16.7kg +lens
Lens for above	1	0.9 to 1.1:1	+0kg
	1	0.8:1	
Panasonic PT-DZ13K projector	2	12,000lm (ANSI), 10,000:1 contrast	38.2kg +lens
Lens for above	2	ET-D75LE6 0.9 to 1.1:1	+8.3kg
	2	ET-D75LE10 1.3 to 1.7:1	+5.7kg
	2	ET-D75LE20 1.7 to 2.4:1	+5.1kg
DMX Shutter	1		

### Projection Screens

BP, 14m wide x 5m high (45'11" x 16'4"), eyes top edge, conduit pocket.

### Catalyst Media Server

Mac Pro	2	OSX 10.9.5, 3.5GHz 6-Core Intel Xeon E5, 16GB RAM
Catalyst	2	V5 Pro (3 screens, 36 layer, 40mixes, 10DMX Universes)
Blackmagicdesign Intensity Pro 4K	2+2	2 in each Mac Analogue and HDMI capture cards
MOTU audio express 6x6 sound cards	2	1 for each Mac
Lightware MX12x12DVI-Plus Matrix	1	
Quadview KVM switch [4 port]	1	
Ether-lynxs II Artnet node	1	
CyberPower UPS	1	
Gigabit Unmanaged Switch	2	

### External

Monitors (Benq GL2250-T)	4	
Remote KVM Receiver	1	

### Cameras

Canon Legria HF G25 HD Camcorder	1	
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## NST Campus, Technical Specification - Main House

Blackmagicdesign Pocket Cinema Camera	1	
Kiwifotos LMA-NK M4/3 Lens mount adapter	1	
Sigma 24mm F1.8 DG Aspherical Macro	1	

### DVI extenders

HPC Modulized HD BaseT Extender	2	DVI-D & RS232 100m Cat6 @ 1920x1200 or 1080p
HDMI Super Extender	2	50m 2xCat6 @ 1080p 45m 2xCat5e @ 1080p
HDMI Extender over 100BaseT (IP)	1	80m Cat5 @ 1080p 100m Cat5e @ 1080p 120m Cat6 @ 1080p

Cat 7 cable S/FTP, 75m

4x Cat 5e UTP cable loom, 75m

## Sound

### **Power**

Supply: 230V~ 1ph+N+E 63A.

Main Racks: 230V~ 1ph+N+E 63A, 63A Ceeform.

Control Box: 230V~ 1ph+N+E 32A, 20xBS1363 13A sockets (4 in use).

FOH Auditorium control position: 230V~ 1ph+N+E 13A, 2xBS1363 13A sockets.  
230V~ 1ph+N+E 32A, 8xBS1363 13A sockets.

DSR *or* DSL: 230V~ 1ph+N+E 63A, 63A Ceeform.

Orchestra Pit: 230V~ 32A, Back Forestage 3xBS1363 13A sockets, Front Forestage 3xBS1363 13A sockets.

All sound power is on the same phase (L1).

### **Power Distro**

#### **Distro 1**

Input: 63A 1ph+E Ceeform, 63A 2-pole MCB.

Outputs: 2x 32A 1ph+N+E Ceeform, 32A RCBO.  
4x 16A 1ph+N+E Ceeform, 16A RCBO.  
2x 13A BS1363, 10A RCBO.

### **Wiring**

Facilities panels are located around the venue.

See Attachment H.

### **Control Locations**

#### **Control Box**

Above rear of auditorium (not recommended).

#### **FOH Auditorium**

Under control boxes.

Small Sound Position (default location): 6'x3' steeldeck. Takes the space of 7 seats.

Large Sound Position: 8'x3'7" steeldeck with 6'x3' steeldeck wing. Takes the space of 13 seats.

### **Hearing Assist System**

Williams Sound T800 FM transmitters.

Channel 70: 863.250MHz & 863.750MHz (Ch1:Stage Sound, Ch2:Audio Description).

20 Headsets.

### **Monitor/Paging System**

'ROH': Dressing rooms, green room and all backstage offices & workshops.

'FOH': Foyer, toilets & bar.

'House': Auditorium, if patched via the main PA processor.

Auxiliary input is possible.

### **Production Communications**

Tec-pro communication system (2 channels), 1 master station in prompt desk, 16 belt packs (single channel), 1 dual channel belt pack & 18 headsets. 1 radio adaptor pack.

**Equipment Inventory** *Items marked '\*\*' attract a hire charge. POA.*

**Mixing Desks**

DigiCo SD9 (with 1x D-rack), v760 software
Soundcraft Spirit 12:4:2 Analogue Desk
Yamaha MX12/4

**Main House PA – Fixed Installation**

K-array KP102	8	Main L&R	2 x KA40 Amps
K-array KP52	2	L&R Front Fills	1 x KA10 Amp
K-array KMT18P	4	L&R Subs	1 x KA40 Amp

Main PA distribution through Xilica XP-8080 processor.

**Portable Speakers**

Ohm MR10M Wedge	2	9kg	150W 8 Ω
dB Opera 100 Lyric (Active)	2	9kg	140W+40W
JBL Control 1 Pro	6	1.8kg	150W 4 Ω
Bose 101	2	0.5kg	10-60W 4 Ω
Meyer UPM-1P (Active)	4	9.6kg	350W

**Microphones**

Shure SM58	3
Shure SM57	2
Crown PCC 160	3
Audio Technica Rifle Mic	4
*EW300 G3 Sennheiser Lapel Radio Mics	12
*Additional EW300 handheld transmitter	2

**Playback**

Denon DCD-620 CD Player	1
Denon DN-C630 CD Player	1
*2x Mac Mini with QLab 3 licenses for audio (inc. midi)	1

**Amplifiers**

IMG Stageline 500W	1	2x 150W into 8Ω	2x 200W into 4Ω
TOA P150D	1	2x 150W into 8Ω	2x 220W into 4Ω
Crown 460CSL	1	2x 200W into 8Ω	2x 240W into 4Ω
Amcron DC-300A series II	1	2x 175W into 8Ω	2x 305W into 4Ω
Lab.Gruppen E-12:2 amp	1	2x 300W into 8Ω	2x 600W into 4Ω

**Accessories**

Round base mic stand	1
Boom arm mic stand	5
Table top mic stand	2
16 way XLR - XLR loom	2

## Wardrobe

### **Dressing Rooms**

Dressing Room 1, 6065mm x 3830mm (20' x 12'6"), 12 people (14 people crush loading). Fixed cloths rail (2885mm (9'6")).

Dressing Room 2, 5680mm x 5500mm (18'7" x 18'), 12 people (19 people crush loading). Fixed cloths rails (2x2430mm).

2 sinks, fixed tables, mirrors & make-up lights are available in both rooms. Portable clothes racks are available.

Toilets & showers adjacent.

Level access from the stage.

*These rooms are shared with the Studio space.*

*Additional rooms can be hired from the University, at extra cost.*

### **Wardrobe Area (Laundry)**

Upstage centre. 2825mm x 4445mm (9'3" x 14'7"). Direct access to crossover [790mm wide door (2'7")] and dressing room 1.

Sink - hot & cold water.

5x13A sockets.

Phone.

2x network ports (RJ45).

#### **Irons**

1

#### **Ironing Boards**

1

#### **Steamers**

1

#### **Washers/dryers**

Industrial washing machine, 6kg.

Industrial Tumble dryer.

Spin dryer.

#### **Rails and hangers**

3x1030mm (3x 3'4") fixed clothes rails.

### **Quick Change Booths**

Built as required in the wings.

## Attachments

A - Map of Load-in area

B - Auditorium Format Capacity Table

C - Seating Chart

D - Line Plot

E - Circuit Chart

F - Common Hire/Consumables Charges



Attachment A - Map of Load-in area

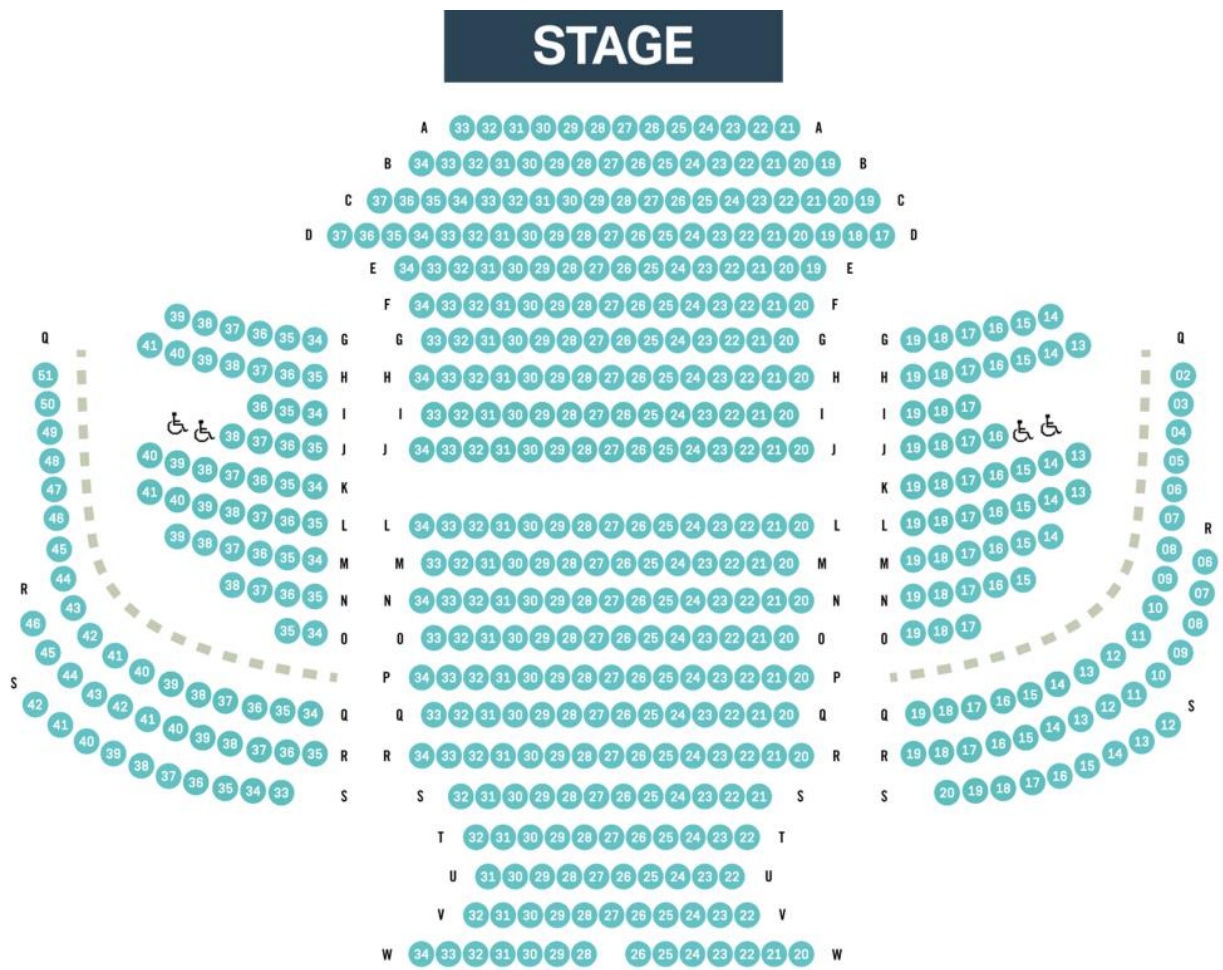


**Attachment B - Auditorium Format Capacity Table**

Format	Rows	No Sound Position	Sound Position	Large Sound Position
Normal Maximum:	A-W	510	(503)	(497)
No Forestages (without row A):	B-W	497	490	484
One Forestage:	E-W	441	434	428
Two Forestages:	H-W	396	389	383
Christmas:	D-W	-	451	(445)

These figures include the 10 standing spaces, the 7 seats added to the wheelchair spaces and the 4 house seats.

**Attachment C - Seating Chart**



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Attachment D - Line Plot

Distance from Setting Line mm	Type	Number	Production Bar Description	Production Weight (kg)	WLL (UDL) kg	WLL (CPL) kg
-3,275	W	Adv 2			250	
-1,052	W	Adv 1				200
240	M	1			250	
520	H	1			100	10
750	M	2			500	
1,200	H	2			100	10
1,650	M	3			500	
2,100	H	3			100	10
2,250	H	4			100	10
2,400	H	5			100	10
2,550	H	6			100	10
3,000	M	4			500	
3,300	H	7			100	10
3,450	H	8			100	10
3,600	H	9			100	10
3,900	M	5			500	
4,350	H	10			100	10
4,800	M	6			500	
5,100	H	11			100	10
5,250	H	12			100	10
5,550	H	13			100	10
5,700	H	14			100	10
6,000	M	7			500	
6,450	H	15			100	10
6,600	H	16			100	10
6,970	H	17			100	10
7,300	M	8			500	
7,760	H	18			100	10
7,910	H	19			100	10
8,060	H	20			100	10
8,250	H	21			100	10

H = Hemp

M = Motor (vari-speed)

W = Motor Winch

**Notes**

- The WLL for the Hemp Bars is the limit of the equipment. The limits of safe manual handling should also be considered. The self-weight of the hemp sets is approx. 50kg.
- Motor Bar 1 has a maximum speed of 30 meters per minute.
- Motor Bars 2 through 8 have a maximum speed of 16 meters per minute.
- Advance Bar 1 uses the four Loadstar chain hoists. If these are required elsewhere in the production this bar will be unavailable

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Attachment E - Circuit Chart

Dimmer	Phase	Location	Non-Dims	ND Phase
1-72	L1 (Blue)	Hard Patch	n/a	
Patch				
P1-24		SL Side Bridge	ND1-4	L1 (Blue)
P25-48		SR Side Bridge	ND5-8	L1 (Blue)
P49-66		Bridge 2	ND9+10	L1 (Blue)
P67-78		Tension Wire Grid (DSL)	ND11	L1 (Blue)
P79-96		Tension Wire Grid (DSL)	ND12	L1 (Blue)
P97-102		SL Proscenium Boom	ND13	L1 (Blue)
P103-114		SL Auditorium Curvy Bar	ND14	L1 (Blue)
P115-126		SR Auditorium Curvy Bar	ND15	L1 (Blue)
P127-132		SR Proscenium Boom	ND16	L1 (Blue)
P133-138		Upstage Wall	ND17+18	L1 (Blue)
P139-150		Sub-stage	ND19	L1 (Blue)
P151-153		Front Forestage	ND20	L1 (Blue)
P154-156		Back Forestage	ND21	L1 (Blue)
73-96	L2 (Yellow)	Tension Wire Grid (DSR)	ND22	L2 (Yellow)
97-114	L3 (Red)	Bridge 1	ND23+24	L3 (Red)
115-168	L3 (Red)	SL Fly Floor	ND25-28	L3 (Red)
169-180	L2 (Yellow)	DSL Stage (also SL Fly Floor)	ND29+30	L2 (Yellow)
181-192	L2 (Yellow)	MSL Stage (also SL Fly Floor)	ND31+32	L2 (Yellow)
193-204	L2 (Yellow)	DSR Stage (also SR Fly Floor)	ND33+34	L2 (Yellow)
205-216	L2 (Yellow)	USR Stage (also SR Fly Floor)	ND35+36	L2 (Yellow)
217-220 (5K)	L3 (Red)	SL Fly Floor (US)	-	
221-224 (5K)	L2 (Yellow)	MSL stage	-	
225-226 (5K)	L1 (Blue)	Tension Wire Grid (DSL)	-	
227-228 (5K)	L1 (Blue)	Upstage Wall	-	

Overhead IWB's

IWB	Number of Circuits	Standard Position
Advance 2	16	Advance 2
Advance 1	12	Advance 1
LX 1	18	M2
LX 2	18	M3
LX 3	18	M4
LX 4	12	M6
LX 5	12 (+ 4 in a 5K loom)	M7

Attachment F – Common Hire/Consumables Charge

Type	Item	More Details	Qty	Week Rate	Day Rate	Unit Cost
Sound	Radio Mic	Beltpack (EW300 G3)	12	£50.00	£15.00	
Sound	Radio Mic	Hand held (EW300 G3)	2	£50.00	£15.00	
Video	Sanyo PLC-XP57L Projector	2 lenses available	1	£650.00	£250.00	
Video	Panasonic PT-DZ13K Projector	Short, Med, and Long throw lenses available	2	£500.00	£350.00	
Video	BenQ MS619ST Projector		1	£90.00	£40.00	
LX	Unique Hazer	inc. 1 full bottle of fluid	1	£40.00	£15.00	
LX	Rosco Smoke Machine	inc. 1 full bottle of fluid	1	£25.00	£10.00	
LX	Power Tiny	inc. 1 full bottle of fluid	1	£40.00	£15.00	
LX	Rosco Cold Flow	*Excludes cost of CO2	1	£60.00	£25.00	
LX	Snow Machine	inc. 1 full bottle of fluid	2	£40.00	£15.00	
LX	Mini Mist	extra canisters charged as per Sales	2	£30.00	£10.00	
Stage	Steeldeck	8x4	12	£15.00	£6.00	
Stage	Steeldeck	8x2 or 4x4	N/A	£12.00	£5.00	
Stage	Steeldeck	4x2 etc.	N/A	£10.00	£4.00	
Stage	Steeldeck Re-topping	If damaged or cut	N/A			£50.00
Stage	Handrail for Steeldeck	4"	2	£4.00	£1.50	
Stage	Handrail for Steeldeck	8"	6	£4.00	£1.50	
Stage	Triple E	price per 2 meters section	10	£4.00	£1.00	
Consumables	LX tape	per roll, any colour	N/A			£1.00
Consumables	Gaffa tape	per roll	N/A			£5.00
Consumables	Flints Black paint	per 5L tin	N/A			£22.00
Consumables	Flints Black paint	per 5L tin	N/A			£22.00
Consumables	Flambar	per 1L spray bottle (measured per 1/4 bottle)	N/A			£12.50
Consumables	Unique Haze Fluid	extra bottle 2L	N/A			£18.00
Consumables	Snow Machine Fluid	extra bottle 2L	N/A			£10.00