



## Technical Specification

**Please find enclosed our technical information.**

**Detailed under Technical Specification is our basic lighting rig – which is supplied free of charge. Please note items marked \*\* and in **bold** are chargeable at a reduced rate from that of external hire companies. If used, they will be itemised on the Production Form for recharge on the Settlement Statement. A charge is also applicable for any colour gel or equipment specifically requested by your Company.**

**Should you have any further queries please do not hesitate to contact me.**

**We look forward to receiving your technical rider in due course.**

**Yours sincerely**

**Julian Maxwell  
Senior Technician**

July 2014

# New Theatre, Cardiff – Technical Specification



## Technical Department:

Julian Maxwell – Senior Technician

Del Jenkins – Technician

Steve Whittle – Technician

Dan Gibbins - Technician

Leigh Duncan Jones - Technician

Adam Cobley – Technician

Alan Thomas – Building Services Manager

Mike Mohamed-Fleming – Building Services Assistant

Darren Dunnett - Building Services Assistant

**Our aim is for you and your company to have an enjoyable and successful visit.**

**To ensure this, we would appreciate you following the guidelines below:**

## Car Park

**Please note:** The car park to the rear of the theatre is the property of the hotel next door. The theatre does not have permission to park vehicles there unless loading or unloading for Get In or Get Out. Wheel clamping, which carries a fixed penalty, operates in this area.

**Please make your company aware of this before your visit.**

## Stage

Please give us notice of any stage use planned during your visit. This will enable us to rota staff accordingly and also to let us know who is in the building in case of emergency.

## Dressing Rooms / Band Room

All dressing rooms are cleaned each morning and are unlocked. If you wish for them to be kept locked at all times, please advise the Stage Door Keeper.

## Damage / Breakages

Inevitably there will, from time to time, be accidents, which cause damage to New Theatre property. Please let us know as soon as possible if this occurs. We strongly advise that you inspect the dressing rooms and other areas you are occupying on arrival to ensure that you are not held responsible for damage caused by previous occupants.

## Safety Curtain / Power Supplies

The safety curtain and power supplies are to be operated by New Theatre staff only.

## Flying

All flying at the New Theatre, Cardiff must be done using the counterweight bars in house. **Any other hanging (e.g. truss or motor points) is undertaken under the risk of the visiting company or persons acting on their behalf.**

**A suitably qualified rigger must rig these points.**

## Lighting and electrical equipment

All lighting and electrical equipment brought into the Theatre should be in a safe condition and fit for the use it is designed for. The New Theatre, Cardiff reserves the right to ask for copies of relevant test certificates.

## Risk assessment

On arrival a risk assessment of the touring show needs to be made available. A copy of the New Theatre risk assessment for the get in area is available upon request.

## Smoking Policy

Due to Welsh Assembly legislation the New Theatre operates a no smoking policy throughout the building (including on stage during a performance)

## Get Out

The New Theatre Cardiff is a Bectu / TMA house. **A four-hour minimum get-out applies here.**

## New Theatre, Cardiff – Technical Specification

### CONTACT SHEET

General Manager	Grant McFarlane	<a href="mailto:GMcFarlane@cardiff.gov.uk">GMcFarlane@cardiff.gov.uk</a>	02920 87 8800* 07814 681253
Administration			02920 87 8787
Admin fax			02920 87 8788
Programming and Marketing Manager	Matt Smith		02920 87 8886
Stage Door	Sue Derrick		02920 87 8900 02920 87 8990(M)
Stage Door fax			02920 87 8921
FOH Managers	Caroline Hurst Philip Sage		02920 87 8790
Senior Technicians	Julian Maxwell	<a href="mailto:JMaxwell@cardiff.gov.uk">JMaxwell@cardiff.gov.uk</a>	02920 87 8778* 02920 87 8994(M)
Technicians	Del Jenkins Steve Whittle Adam Cobley	<a href="mailto:Newtheatretechnical@cardiff.gov.uk">Newtheatretechnical@cardiff.gov.uk</a>	02920 87 8771* (Crew room)
Sound / LX	Leigh Duncan_Jones	<a href="mailto:Lduncan-jones@cardiff.gov.uk">Lduncan-jones@cardiff.gov.uk</a>	07525 499050
Building Services Manager	Alan Thomas	<a href="mailto:AlThomas@cardiff.gov.uk">AlThomas@cardiff.gov.uk</a>	02920 87 8775 02920 87 8992(M)
Building Services Assistants	Mike M Flemming Darren Dunnett		02920 87 8775 02920 87 8993(M)
Company office			02920 87 8913
Company fax line			02920 87 8916

\* These lines have voice mail.

(M) These lines are internal mobile phones.

**To call internally, dial the last 4 digits from any internal phone.**

## New Theatre, Cardiff – Technical Specification

### DRESSING ROOMS

#### **GROUND FLOOR**

Dressing room 1	-	5 Persons
Dressing room 2	-	5 Persons
Dressing room 3	-	5 Persons

#### **FIRST FLOOR**

Dressing room 5/6	-	27 Persons
Dressing room 7	-	4 Persons
Dressing room 8	-	5 Persons
Dressing room 9	-	7 Persons

#### **SECOND FLOOR**

Dressing room 10	-	4 Persons
Dressing room 11	-	5 Persons
Dressing room 12	-	5 Persons
Wardrobe		
Laundry		
Wig room		

#### **UNDER STAGE**

Band room	-	Large
Musical Director's room (Audio Description room)		
Company office		

### WARDROBE

2 x Huesbsch LW17 commercial Top loading, 18lb load washing machines.

2 x Huesbsch LEZ17 Commercial Tumble Driers 20lb load

Tokens are available from stage door upon request.

**Please note there are no facilities available to accommodate any incoming company appliances.**

## New Theatre, Cardiff – Technical Specification

### QUICK REF. CHART

	<b>Metres</b>	<b>Feet</b>
Pros width	9.10	30'
Pros height (bottom of house tabs)	7.00	23'
Wall s/l - s/r	23.50	77'
Wall s/l - counter weight frame	22.65	74'
Post pros - u/s dock	16.55	54'6"
Post pros - d/s dock	12.15	40'
Dock opening width	9.90	32'6"
Dock opening height	7.00	23'
Between fly floors	12.65	41'6"
Fly floor s/l & s/r width	5.45	17'6"
Fly floor under d/s	7.50	24'6"
Fly floor under u/s	7.00	23'
Cross-over bridge under	8.55	28'
C/w 1 grid trim	15.74	51'6"
Hemp set 3 grid trim	15.34	50'
Dock Door opening	4.91mtr/h -2.74 w	

Stage rake	2°	1" in 24"
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	<b>SWL</b>
Single purchase	435kg
Double purchase	386kg
Up & down set	100kg
Motorised spot bar	450kg

	<b>Metres</b>
Front of house multi core run though 17cm pipe	
Stage left to mixer position	36
Stage left to stage right	17
Total run	53

## New Theatre, Cardiff – Technical Specification

### LX

#### CONTROL

ETC EOS – 10,000 channels & 4000 outputs  
EOS Remote processing unit – 10,000 & 4000 outputs  
Strand 550i – Running software version 2.8.5

#### DIMMERS

Controlled by DMX  
120 X 10amp Permuss  
48 X 10amp Strand LD90  
12 X 25amp Permuss

#### DISTRIBUTION

1 X 12m 24-way IWB  
14 X 3m 6way IWB  
2 X 23m Socapex multi-core  
8 X 20m Socapex multi-core  
2 X 17m Socapex multi-core  
2 X 14m Socapex multi-core  
10 X Socapex → Male 15A fan-out  
4 X Socapex → Female 15A fan-out  
4 X Socapex → Female 15A 6-way box  
75 X 2m TRS  
30 X 6m TRS  
24 X 10m TRS  
17 X 14m TRS  
14 X 18m TRS  
A selection of 5-pin DMX cable

#### FOLLOW SPOTS

2 X Robert Juliat Cyrano 2500 Kw HMI follow spot, fitted with sights

#### FRESNEL

36 X Cantata Fresnel - 1200W  
**\*\*12 X Cantata Fresnel - 1200W also available for hire @ £5.00 each per week**

#### PROFILE

**\*\*16 X Source 4 15°/30° - 750W also available for hire @ £5.00 each per week**  
**\*\*6 X Source 4 36° - 750W also available for hire @ £5.00 each per week**  
**\*\*6 X Source 4 26° - 750W also available for hire @ £5.00 each per week**  
**\*\*2 X Source 4 19° - 750W also available for hire @ £5.00 each per week**  
**\*\*2 X Source 4 50° - (lens tube only) also available for hire @ £5.00 each**  
**\*\*2 X Source 4 19° - (lens tube only) also available for hire @ £5.00 each**

#### PARCANS

**\*\*48 X Par 64 also available for hire @ £4.00 each per week**  
– Selection of beam widths available

#### FLOODS

**\*\*5 X Iris four for hire @ £20.00 each per week**  
**\*\*12 X Coda four for hire @ £15.00 each per week**

## New Theatre, Cardiff – Technical Specification

### LX Cont.

**FOH** (see plan for positions)

- 12 X Source 4 10° profile – With iris (Gods)
- 12 X Source 4 10° profile – With iris (Cages)
- 12 X Cantata 11/26 profile (Boxes I, J, E, D)
- 10 X Selecon 25/50 profile (Boxes G, H, C, and B)

### **MISCELLANEOUS**

**\*\*Sheets of Gel charged @ £5.50 each**

**\*\*1 X Jem DMX controlled smoke machine for hire @ £35.00 per week**

**\*\*1 X Jem DMX controlled fan for hire @ £20.00 per week**

- 6 X Tall double-extension stands min 1.5m (5'). Max 3.8m (12½')
- 4 X Bench Stands
- 6 X Doughty boom arms

### ACCESS EQUIPMENT

- 1 X Genie GR-20 Runabout
- 1 X Large Tallascope
- 1 X Zarges *max 6.1m (20')*

**PLEASE NOT THE NEW THEATRE DOES NOT PERMIT THE MOVEMENT OF A TALLESCOPE WITH A PERSON IN THE WORKING PLATFORM**

### AUDIO VISUAL

Routable AV patch bays located in various points around the backstage and FOH areas including the circle front.

A colour CCTV and infrared cameras are located on the circle front

### PROMPT CORNER

**Our prompt corner is located in the DSR wing** (See ground plan)

The prompt desk consists of:

- Pull out shelf
- Cue light system
- Cans
- Colour TV/video – (Colour camera)
- Black and White monitor – (Infrared camera)
- Monitor speaker – (Show relay)

We have 4 cans points on stage, 1 on the flyfloor, 1 for lx operator and 1 for sound operator in the control room, 2 for followspot operators in the followspot box and 1 in the orchestra pit.

We also have a radio cans system linked to the hard-wired system.

Our cue light system has 8 cue lights on stage, 1 for lx operator and 1 for sound operator in the control room, 1 on the flyfloor and 1 in the orchestra pit.

## New Theatre, Cardiff – Technical Specification

### IN-HOUSE SOUND RIG

#### **GENERAL DESCRIPTION**

The mixing position is in the control room at the rear of the stalls. With adequate notice the mixer can be moved into the auditorium for live mixing.

There are 24 mic and 4 speaker tie lines to each of the following:

Stage right

Stage left

Orchestra pit

There are also 8 mic tie lines from the circle front to the prompt corner

#### **CONTROL, AMPS AND SPEAKERS**

- 1 X Spirit 324 Live digital mixer with lexicon FX – 12 inputs expandable to 18
- 1 X Spirit M12 Analogue mixer – 12 Mono 4 Stereo inputs
- 2 X 'C' Audio SR 404 amp driving the cluster
- 1 X 'C' Audio SR 202 amp driving the delay rings, one channel for each ring
- 2 X 'C' Audio SR 404 amp driving the stalls and circle box positions
- 4 X Renkus-Heinz speakers in central cluster for circle & upper-circle cover
- 2 X Renkus-Heinz speakers in boxes A&F for stalls cover
- 2 X Delay rings positioned on underside of circle and upper circle (BES speakers)
- 4 X 350W Turbosound wedge speaker
- 2 X JBL Control 5 speakers
- 1 X C audio pulse 4 300 Amp

#### **EQ RACK**

DOD R-830A 15 Notch dual channel

Harrison GP230 1/3 octave dual channel

Klark-Teknic DN360 1/3 octave dual channel

#### **FX RACK**

- 1 X Yamaha SPX1000 processor
- 1 X Titan CD player
- 1 X Tascam MD player
- 1 X Sony MD player

#### **MICROPHONES**

- 7 X Crown PCC160
- 2 X AKG CK9
- 1 X AKG D900
- 4 X Shure SM58
- 2 X Sennheiser MD421



## New Theatre, Cardiff – Technical Specification

### IN-HOUSE SOUND RIG Cont.

#### MISCELLANEOUS

- 3 X Canford active DI boxes
- 4 X EMO DI BOXES
- 6 X Boom stands
- 2 X 10M Post office jack – XLR multicore
- A selection of mic stands
- A selection of speakon cable
- A selection of XLR mic and speaker cable

- We have a litestructures platform that can be erected in the rear stalls area for the sound mixing position, **Prior notice needs to be given for the relevant seats to be taken off sale.**

### ORCHESTRA PIT

**\*\*15 X RAT music stands for hire @ £3 each per week**

A Steel deck riser can be supplied for the MD.

Cans and Cue light are available in the pit.

## New Theatre, Cardiff – Technical Specification

### GROUND PLAN KEY

1	Prop bay
2	Scene dock
3	Sub-station
4	Dock door at street level
5	Trap to understage. <i>Trap nearest dock door can be removed to provide understage crossover</i>
6	Dip traps
7	Dimmer socket outlets
8	House tabs. <i>Can be operated from fly floor or stage level</i>
9	Fly floor. <i>Downstage 7.5m under</i> <i>Upstage 7m under</i>
10	Counterweight system <i>Single purchase bars 5 &gt; 28, 40 &gt; 45 - 435kg SWL</i> <i>Double purchase bars 1 &gt; 4, 29 &gt; 39 - 386kg SWL</i> <i>Bars 12.05m long - 48mm od</i> <i>Winch bar SWL = 500kg</i> <i>Bar trims c/w 1 = 15.74m. Hemp set 3 = 15.34m.</i>
11	Packing rail at 2.9m & 3.5m
12	Fly's crossover bridge. 8.55m under
13	Soffit 7m under
14	Fire corner <b>Please keep clear at all times</b>
15	Safety curtain
16	Safety curtain and drencher control panel and counterweight. <b>Please keep clear at all times</b>
17	Perch canopy 2.03m under. Dimmer patch panel underneath
18	Production mains supply <b>Please keep clear at all times</b> <i>1 X 200a 3 phase camlocks, RCD 300ma @ 200ms delay</i> <i>2 X 125a 3 phase socket outlet</i> <i>3 X 63a single phase socket outlet</i>
19	Production mains supply on fly floor <i>1 X 200a 3 phase camlocks, RCD 300ma @ 200ms delay</i> <i>1 X 32a 3 phase socket outlet</i>
20	Prompt corner and call system point
21	Sound & video tie lines
22	Pit lifts Lift1, Lift2, and Lift3. <i>All three can move between stage level, or down to 2.75m.</i> <i>Lift1 small pit or apron.</i> <i>Lift2 &amp; Lift3 6 Rows A&gt;F can be removed to increase size of pit, or stage apron.</i> <i>The pit also has a 3.25m cantilever back under the stage.</i>

## New Theatre, Cardiff – Technical Specification

### GROUND PLAN KEY Cont.

23	Multi-core run <i>150mm drainpipe to rear stalls and control room. Run to sound position = 27m Run to control room = 34m</i>
24	Box A
25	Box F
26	Speaker hoist SWL 250kg
27	Chandelier points. <i>Can be used for truss points. <b>Please note. Notice needs to be given for this to be arranged A charge is also incurred</b></i>
28	To dressing rooms
29	Fire exit and pass door to FOH
30	TV cable traps
31	Fire hose
32	Radiator
33	NA

# New Theatre, Cardiff – Technical Specification

## HANGING PLOT

C/W	metres	feet/inches	DESCRIPTION	WEIGHT
HMP 3	12 • 46	40' 10½"		
HMP 2	12 • 32	40' 4½"		
HMP 1	12 • 16	39' 10¾"		
			<b>FLY'S CROSSOVER BRIDGE/GRID BEAM</b>	
45	10 • 90	35' 9"		
44	10 • 71	35' 1¼"		
43	10 • 53	34' 6"		
42	10 • 33	33' 10¼"		
41	10 • 15	33' 3"		
40	9 • 95	32' 7½"		
39 DP	9 • 63	31' 7"		
38 DP	9 • 45	30' 11¾"		
37 DP	9 • 26	30' 4¼"		
36 DP	9 • 06	29' 8½"		
35 DP	8 • 87	29' 1"		
34 DP	8 • 67	28' 5¼"		
33 DP	8 • 48	27' 9¾"		
32 DP	8 • 31	27' 3"		
			<b>GRID BEAM</b>	
31 DP	7 • 93	26'		
30 DP	7 • 74	25' 4½"		
29 DP	7 • 55	24' 9"		
28	7 • 36	24' 1½"		
27	7 • 17	23' 6"		
26	6 • 98	22' 10½"		
25	6 • 78	22' 2¾"		
24	6 • 41	21' ¼"		
23	6 • 23	20' 5"		
22	6 • 03	19' 9"		
21	5 • 85	19' 2"		
20	5 • 65	18' 6¼"		
19	5 • 47	17' 11"		
18	5 • 27	17' 3¼"		
17	5 • 08	16' 7¾"		
			<b>GRID BEAM</b>	
16	4 • 89	16' ½"		
15	4 • 70	15' 5"		
14	4 • 51	14' 9¼"		
13	4 • 32	14' 2"		
12	4 • 12	13' 6¼"		
11	3 • 94	12' 11"		
10	3 • 75	12' 3½"		
9	3 • 34	10' 11¼"		
8	3 • 15	10' 4"		
7	2 • 97	9' 8¾"		
6	2 • 77	9' 1"		
5	2 • 58	8' 5½"		
4 DP	2 • 39	7' 10"		
3 DP	2 • 20	7' 2½"		
			<b>GRID BEAM</b>	
2 DP	1 • 81	5' 11"		
WINCH	1 • 33	4' 4"		
1 DP	1 • 08	3' 6½"		
TABS	0 • 69	2' 3"	<b>HOUSE TABS</b>	
IRON	0 • 64	2' 1"	<b>UPSTAGE EDGE</b>	
IRON	0 • 47	1' 6½"	<b>DOWNSTAGE EDGE</b>	
S/LINE	0 • 00	0' 0"	<b>FRONT EDGE OF STAGE</b>	

# New Theatre, Cardiff – Technical Specification

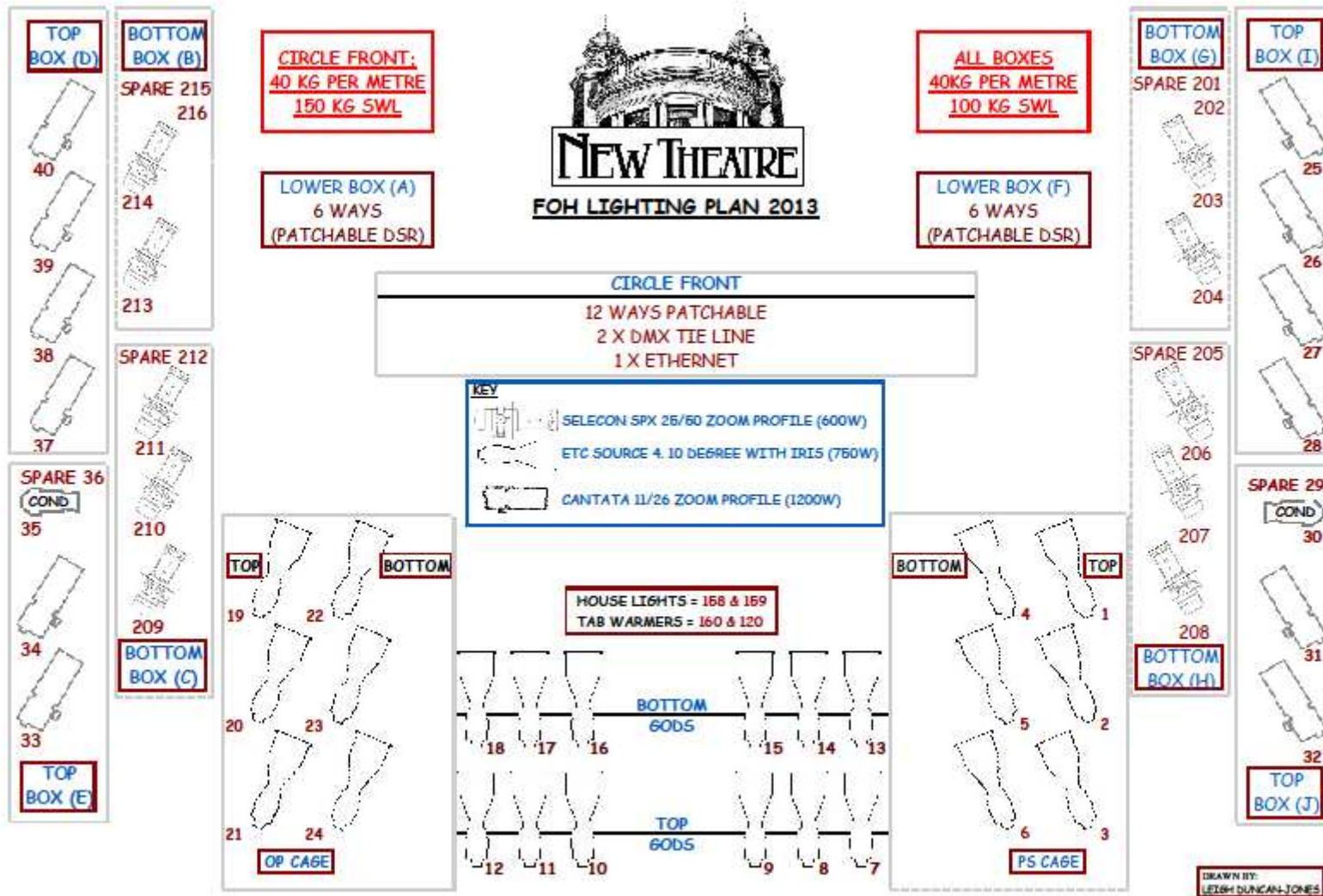
## GRID TRIM

C/w	Met (M)	G/trim	Imp	G/trim	Description
Hemp 3	12.46	15.34	40' 10½"	50' 4"	Hemp
Hemp 2	12.32		40' 4½"	50' 4"	Hemp
Hemp 1	12.16		39' 10¾"	50' 4"	Hemp
		<b>Fly's</b>	<b>X-over</b>	<b>Bridge</b>	
45	10.90		35' 9"	50' 2"	Single purchase
44	10.71		35' 1¼"	50' 2"	Single purchase
43	10.53		34' 6"	50' 1"	Single purchase
42	10.33		33' 10¼"	50' 2"	Single purchase
41	10.15		33' 3"	50' 2½"	Single purchase
40	9.95		32' 7½"	50' 3"	Single purchase
<b>Beam</b>					
39	9.63		31' 7"	50'	Double purchase
38	9.45		30' 11¾"	50' 3"	Double purchase
37	9.26		30' 4¼"	50' 2½"	Double purchase
36	9.06		29' 8½"	50' 3½"	Double purchase
35	8.87		29' 1"	50' 3"	Double purchase
34	8.67		28' 5¼"	50' 4½"	Double purchase
33	8.48		27' 9¾"	50' 4½"	Double purchase
32	8.31		27' 3"	50' 5"	Double purchase
<b>Beam</b>					
31	7.93		26'	50' 5½"	Double purchase
30	7.74		25' 4½"	50' 6"	Double purchase
29	7.55		24' 9"	50' 6½"	Double purchase
28	7.36		24' 1½"	50' 5"	Single purchase
27	7.17		23' 6"	50' 6"	Single purchase
26	6.98		22' 10½"	50' 4"	Single purchase
25	6.78		22' 2¾"	50' 5½"	Single purchase
<b>Beam</b>					
24	6.41		21' ¼"	50' 6"	Single purchase
23	6.23		20' 5"	50' 6½"	Single purchase
22	6.03		19' 9"	50' 7"	Single purchase
21	5.85		19' 2"	50' 7"	Single purchase
20	5.65		18' 6¼"	50' 8"	Single purchase
19	5.47		17' 11"	50' 8½"	Single purchase
18	5.27		17' 3¼"	50' 8½"	Single purchase
17	5.08		16' 7¾"	50' 9"	Single purchase
16	4.89		16' ½"	50' 9"	Single purchase
15	4.70		15' 5"	50' 9½"	Single purchase
14	4.51		14' 9¼"	50' 10¼"	Single purchase
13	4.32		14' 2"	50' 10¼"	Single purchase
12	4.12		13' 6¼"	50' 10¼"	Single purchase
11	3.94		12' 11"	50' 10¼"	Single purchase
10	3.75		12' 3½"	50' 10¼"	Single purchase
<b>Beam</b>					
9	3.34		10' 11¼"	50' 11¼"	Single purchase
8	3.15		10' 4"	50' 11¼"	Single purchase
7	2.97		9' 8¾"	51'	Single purchase
6	2.77		9' 1"	51' ¼"	Single purchase
5	2.58		8' 5½"	51' ¼"	Single purchase
4	2.39		7' 10"	51' 2½"	Double purchase
3	2.20		7' 2½"	51' 2¾"	Double purchase
2	1.81		5' 11"	51' 2¾"	Double purchase
Winch	1.33		4' 4"		
1	1.08	15.74	3' 6½"	51' 8"	Double purchase
Tabs	0.69		2' 3"	23" <sub>bot tabs</sub>	<b>House tabs</b>
Iron	0.64		2' 1"		<b>U/S edge</b>
Iron	0.47		1' 6½"		<b>D/S edge</b>

# New Theatre, Cardiff – Technical Specification

## NOTES

# New Theatre, Cardiff – Technical Specification

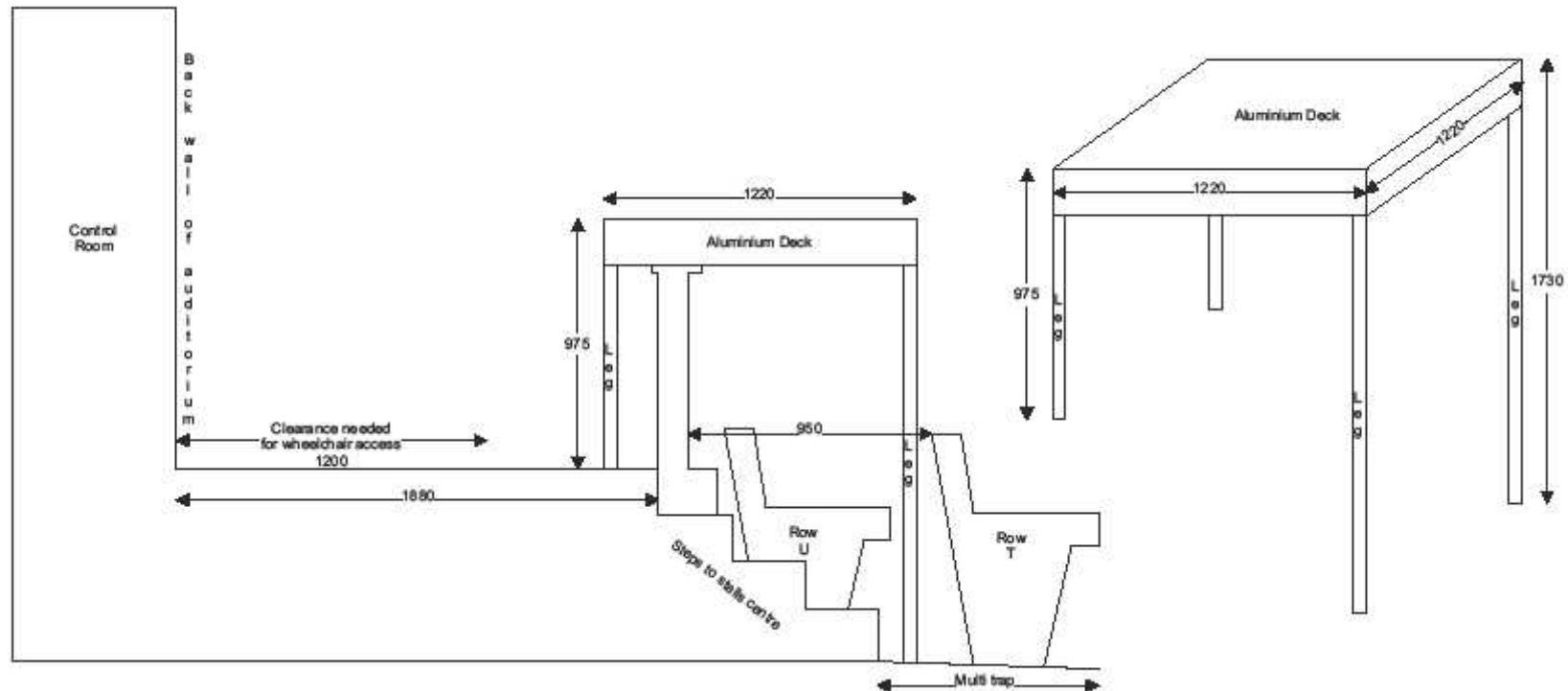
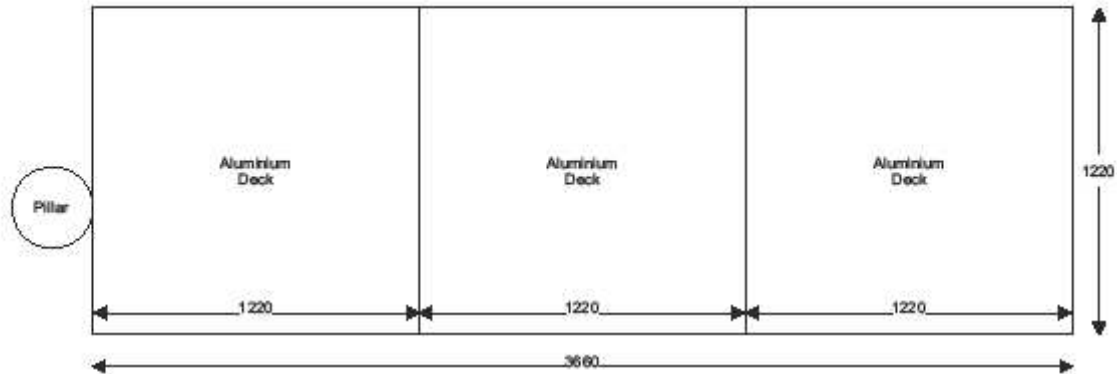


## New Theatre, Cardiff – Technical Specification AUDITORIUM SOUND MIXING POSITION

**Please note:** The sound position is located at the rear of the stalls. This is also the main wheelchair user and emergency services route into the auditorium and access to the lift to upper levels. When considering the set-up of your sound equipment please take into consideration the imperative need to allow 1.2 meters minimum clearance as shown in the diagram below. It may be that extension cables from the racks to the mixer are required to achieve this.

The sound engineer also must be made aware that should the need arise during the performance; they may be required to move from their operating position to allow the movement of disabled patrons and customers with additional needs.

**There will be no deviations from the above guidelines.**





New Theatre, Cardiff – Technical Specification

**ORCHESTRA PIT CROSS SECTION - NOT TO SCALE**

