



Theatre Royal Whakatū Nelson Technical Specification

Version : October 2021

Technical Manager

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Theatre Manager

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Stage Dimensions

Our setting line is the upstage edge of the proscenium arch

Stage Surface	Flat, painted, ply-wood. Non-sprung
Stage height	890mm from auditorium floor
Proscenium arch	8100mm wide x 4900mm high
Total Stage depth	9770mm - Edge of stage to upstage wall
Apron Depth	1230mm - Edge of stage to setting line - Orchestra pit does not raise
Onstage depth	8540mm - Setting line to upstage wall
Stage weight loading	Max 500kg per square metre

Wing-space and gallery dimensions

Wing-space PS	2000mm - Offstage of leg to fly rail
Wing-space OP	6500mm - Offstage of leg to wall
Wing height	5000mm - Stage floor to underside of gallery walkway

Gallery handrail	6800mm - Height from stage
PS Gallery rail from centre	5720mm
OP Gallery rail from centre	6190mm
Pan bar to gallery PS	180mm
Pan bar to gallery OP	560mm

Dock / Stage Access Dimensions

Loading dock door	2750mm wide x 2800mm high
Upstage scene door	3300mm wide x 2700mm high

The dock door is set 1250mm up, and 2300mm back from closest sealed vehicle access because of a 300mm high landing for the stage door pedestrian access.

A full sized tail-lift will span this distance, albeit at an incline, defined by the truck deck height. We're aware it's not ideal.

Vehicle Access & Parking

There is no backstage parking, sorry.

Vehicle access to the stage door / scene dock is via Vanguard Street.

Our dock space is shared with adjacent businesses. Advanced notice is required for truck access to be uninhibited. Trucks can typically remain in situ for single day events as long as they pull forward to provide stage door pedestrian and emergency vehicle access.

Fly Tower Specifications

SWL per batten is 400kg distributed, 200kg point.

Batten in-dead	1300 mm (top of batten)
Batten out-dead	10450 mm (top of batten)
Maximum drift	9150 mm
Stage floor to grid	10670 mm (underside)
Grid block beams	12500mm (underside)
Battens are	75 x 50 mm RHS
Batten length	10600 mm
Suspension wires	4x 6mm wire rope placed 1600mm & 4800mm from centre
Pan bars from centre	PS 5460mm OP 5850mm

Orchestra Pit

Please talk to us if you are require use of the orchestra pit.

Exposing or closing the orchestra pit is a manual process requiring 4 people. This can be managed be our crew, or yours with one designated VT. When open, the pit is railed and netted. A central removable section provides an MD Position. Retaining access between the auditorium and stage during show requires seats to be removed from sale, prior to public release.

Pit Depth	1500mm below auditorium floor, 2400 below stage/net
Orchestra pit room	3500mm x 8000mm - Concave front wall
Rear band room	6800mm x 8000mm - Generally utilised for some storage.

Masking

All venue drapery is maintained with a current application of fire-treatment. Documentation is available on request. Any drapery or fabric drops brought into the venue must be fire treated.

1x House curtain	Red velvet, overlapped split
1x Valance	Red velvet - Not Installed
5x Pairs of black legs	6m high, 3m wide, flat. 4x return arms.
4x Black borders :	3m drop, 11m wide, flat
1x Black tabs	6m drop, 6m wide, pleated
2x Tab Tracks	
1x Black cyc Screen	6m high, 11m wide. Front or rear project. PVC, 50% Gain
1x White cinema Screen	5.2m high 12.5m wide. Front project. 90% Gain - Not Installed
1x Black ground-row	300mm high, 9.2m wide in 4x 2.3m sections. Painted ply

Sound System

Our sound system provides excellent coverage throughout the auditorium to 110dBa and is suitable for theatre, music theatre, dance playback and concert applications.

Mains	2x QSC HPR 135i - 3way active 2x Peavey Q118 subs w/ Samson SX3200 amplifier
Circle Fill	2x QSC K12 - 2 way active
Front Fill	2x EAW VR-62 front fill speakers w/ QSC USA450 amplifier
Centre Set	2x QSC K12 - 2 way active
Drive	1x DBX Drive-rack Venu 360
Console	1x Allen & Heath ZED16 - 8Mic Pre, 4 Stereo in mixer
Snakes	3x 12/4 XLR to stage (2x PS, 1x OP) 10x XLR returns to amp rack
Stage Fill	2x JBL M825 speakers w/ Phonic amp
Inputs	1x vocal microphone and stand

The Sound system is based around 3-way speakers stacked on 18" subs either side of the proscenium arch. HF fill is provided to the first few rows of the stalls and dress circle.

The main system is tuned and time-aligned with a Drive-rack Venu360.

The HPR and K12 speakers are run in stereo pairs, while subs and front fill are mono.

2x QSC K12's, rigged on FOH 1 Truss provide a seperate centre vocal cluster.

The DriveRack settings are typically locked, but we are happy to create a duplicate profile

Power

Standard 10A and technical earth 10A (for audio) outlets are located throughout the facility.

Stage

Dimmer Room (DS L)	4x 40A	3 Phase
	1x 300A	Lighting Power-lock
	1x 200A	Sound Power-lock
DS R	1x 40A	Technical Earth 3 Phase
	1x 60A	3 Phase
US L	1x 40A	3 Phase
US R	1x 40A	3 Phase

Other

Operating Position	1x 40A	3 Phase
	1x 40A	Technical Earth 3 Phase
Loading dock	1x 63A	3 Phase
Gallery Level	3x 40A	3 Phase
Fly Level	1x 40A	3 Phase
Rehearsal Room	2x 40A	3 Phase
Auditorium ceiling	2x 40A	3 Phase
Band Room	1x 40A	3 Phase
	1x 40A	Technical Earth 3 Phase

Rigging & hanging positions

Use of rigging is included in the venue hire. Damaged components will incur a replacement fee.

FOH 1: 9m alloy box truss, dead-hung.
5.4m high, 3.1m from setting line (60°)

FOH 2: 9m alloy box truss on 2x 500kg motors
5.4m high, 4.7m from setting line (45°)

Overhead: 4x Pre-wired lighting electrics w/ 20 circuits each + DMX. Counterweight flown.
4x Ladders on PS & OP Pan Bars. In leg bays 1-4, loomed with 6 circuits + DMX.
Dummy bars and scaffold tube available for counterweight flown auxiliary bars.

Floor/Scaff 8x Baseplates
8x 2.5m Scaffold tube.
40x 450mm outrigger
40x 90deg scaff clips
10x Turtles

Rigging 10x Dummy-bar clamps - 150kg SWL
12x 2m round soft slings - 2T SWL
4x 1m round soft slings - 3T SWL
20x 500mm Chain
4x 3.5m black fly wires, 208kg SWL
4x 5m black fly wires, 208kg SWL
Misc. clamps, pipe, clips, turnbuckles & shackles.

Access: Genie-lift and a variety of ladders for focussing etc

Lighting System

Use of the following lighting equipment is included in the venue hire.

Blown lamps, damaged components & wasted gel and will incur a replacement fee.

Fixture stock	<i>All fixtures are fitted with suitably rated hock-clamps and safety wires.</i> 24x Selecon Rama Fresnel 1200 with barn-doors 6x Selecon Rama PC 1200 with barn-doors 13x Pacific 14/35 13x Pacific 23/50 4x 4 Bay Selecon 1000W Lui Cyc Units 2x 650W 'Mini' PC 16x QUAD18 LED Pars (RGBW) 12x A sized gobo Holder 10x B sized gobo holder 10x Iris for pacific 30x Par 64 Can with CP62 lamps (plus limited stock of alternative lamps)
Control Equipment	Theatrelight Cuemaster II - 120 channel control desk ETC Ion Xe20 w/ dual touch screens Showfile available on request
Dimmers	108x 2.4kW Dimmers DMX - Theatrelight PID II Rack 12 channel Theatrelight DMX Dimmer Tour Pack
Switches	12 channels of PID DMX Switching
10A Way-lines	IEC Patch bay with 250 way-lines terminating throughout facility. Excluding the 5 'stage spot-bar' weiland outlets for overhead LX bars, all way-line outlets are standard 10A sockets.
DMX	2x DMX input way-lines from operating position to DMX splitter rack. 2x 10ch primary DMX splitters for saturated data of facility waylines. 1x 8ch splitter on PS gallery for lines to LX bars and PS Ladders (5 or 3 pin) 1x 4ch splitter on OP gallery for lines to all OP Ladders (5 or 3 pin) Limited 3/5 and 5/3 adapters are also available.

House Lights

An independent 3 preset system with house at full, half & show; as well as manual up/down. Controls located at the SM panel, foyer and standard operating position.

Standard Configuration

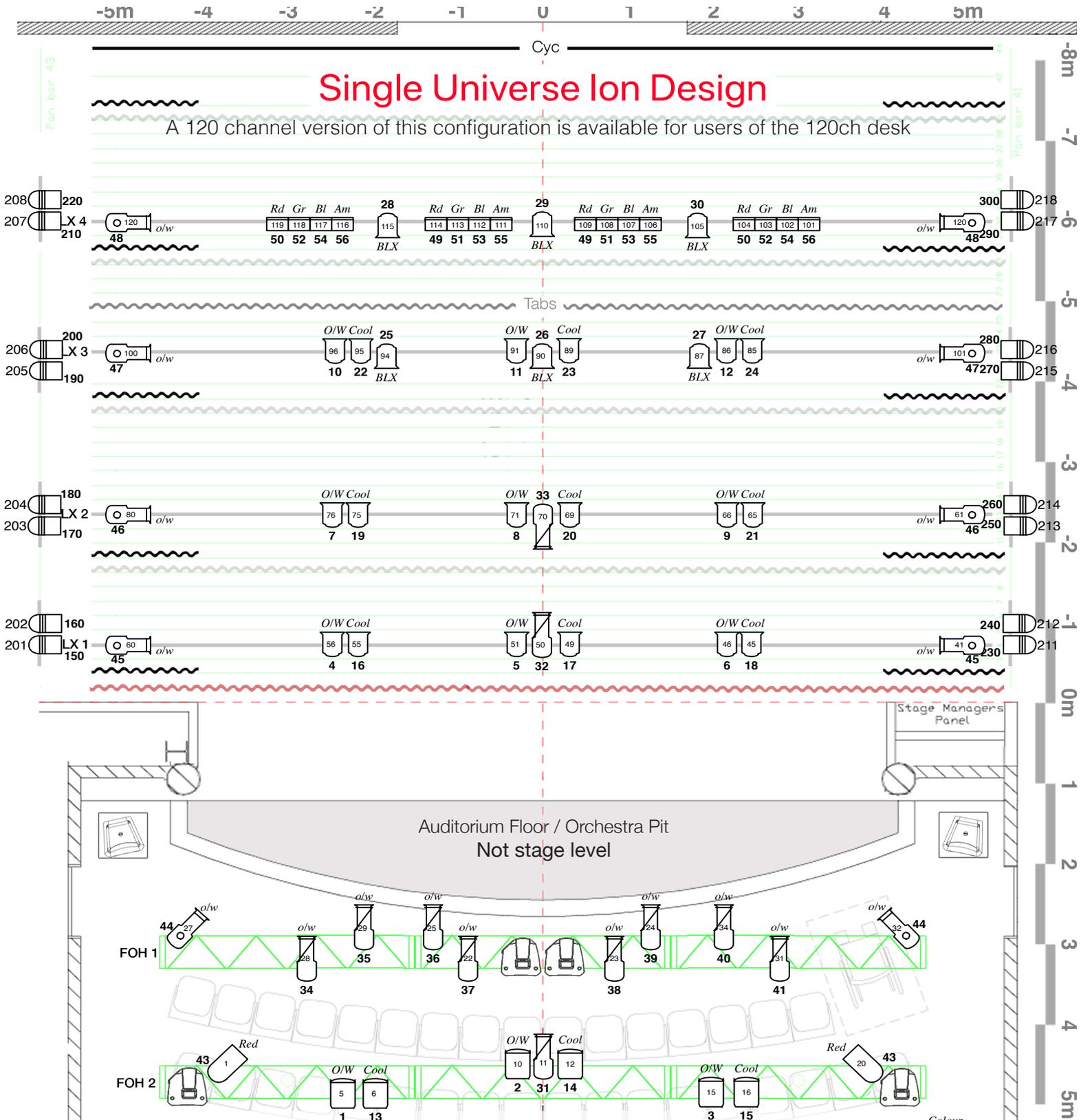
We maintain a standard lighting design and masking configuration. Hirers are welcome to alter this providing it is returned as part of their pack-out.

Our standard lighting configuration provides the following:

- Full stage, open white and cool front light
- Full stage, one colour backlight
- Full Stage break-up gobo
- Curtain warmers
- LED side light onstage (RGBW)
- 11x Spotlight specials
- 4 Colour Cyc

Backstage Facilities

Dressing Rooms	4 Total. 2 per stage level, 2 per 2nd level. Roughly 5m x 2.5m Features well lit makeup mirrors and counter; bench and single seats and fixed costume rails.
Rehearsal Room	8m x 11m Carpeted room with attached kitchenette
Toilets	5x Non-gendered. 2 on Stage level and 3 on 2nd level.
Shower	2x 1 on Stage and 2nd level
Kitchenette	2x 1 on Stage & 3rd level w/ bench, sink, kettle microwave & fridge
Laundry	Located on the third level. Contains large bench space, deep tub, 2x 7.5kg Washing machines, 2x 8kg Dryers, 1x Steamer, 2x Irons & boards
Staging	7x Wooden risers 2400mm x 900mm x 290mm (h)
Internet	Free access guest network available. Cabled internet available by special request.
Data Cabling	CAT6e throughout building terminating in dimmer room patch bay
Comms	1x Clear-Com dual channel base-station 5x Clear-Com single channel belt pack and head-sets Patch points for A and B lines throughout the building
Spotting light	Yes
Stage monitoring	1 vision monitor per dressing room, 1x DS Prompt, 1x movable screen
Paging system	Yes
Wheelchair facilities	Bathroom, shower and dressing rooms on stage level Lift connects wheelchair accessible foyer to stage and pit levels
Blue Lights	Throughout back of house. Not dimmable.
Security	Magnetic locking from FOH to BOH. Keys issued to core crew. Lost key replacement applies. Pin-coded stage door.
Air-conditioning	Temperature control of the auditorium and stage. Fresh air supply to all other back of house areas.
First Aid	First Aid is located in the dimmer room
Fire Safety	Heat activated sprinkler system, smoke doors and fire extinguishers located throughout the building.
Smoke/Particle Alarm	No



Single Universe Ion Design

A 120 channel version of this configuration is available for users of the 120ch desk

- Colour Patch**
- DMX Address Channel (when Not Address)**
- 23/50 Pacific
 - 14/35 Pacific
 - 1200 PC
 - 1200 Fresnel
 - 4 Bay Lui Cyc
 - Gobo
 - PAR 64
 - LED QUAD 18 IRGBW



Theatre Royal Whakatū Nelson

Single Universe Address & Patch + Ion Channel List

Channel	Name / Purpose	Position	DMX	Wayline	Colour	Fixture	Focus Notes
Open White Front Light							
1	Front Light DS L	FOH 2	1	5	o/w	1200 Rama PC	Centred on a persons shoulders standing 1m from DS edge. Focus at 40 Degrees, Barn-doors to trim off arch and stage edge
2	Front Light DS C	FOH 2	2	10	o/w	1200 Rama PC	
3	Front Light DS R	FOH 2	3	15	o/w	1200 Rama PC	
4	Front Light L	LX 1	4	56	o/w	1200 Rama Fresnel	Focus at 45 degrees, tilt 20 degrees upstage. Barn-doors to tidy and off legs.
5	Front Light C	LX 1	5	51	o/w	1200 Rama Fresnel	
6	Front Light R	LX 1	6	46	o/w	1200 Rama Fresnel	
7	Front Light L	LX 2	7	76	o/w	1200 Rama Fresnel	
8	Front Light C	LX 2	8	71	o/w	1200 Rama Fresnel	
9	Front Light R	LX 2	9	66	o/w	1200 Rama Fresnel	
10	Front Light US L	LX 3	10	96	o/w	1200 Rama Fresnel	
11	Front Light US C	LX 3	11	91	o/w	1200 Rama Fresnel	
12	Front Light US R	LX 3	12	86	o/w	1200 Rama Fresnel	
Cool Front Light							
13	Front Light DS L	FOH 2	13	6	Cool Tint	1200 Rama PC	Centred on a persons shoulders standing 1m from DS edge. Focus at 40 Degrees, Barn-doors to trim off arch and stage edge
14	Front Light DS C	FOH 2	14	12	Cool Tint	1200 Rama PC	
15	Front Light DS R	FOH 2	15	16	Cool Tint	1200 Rama PC	
16	Front Light L	LX 1	16	55	Cool Tint	1200 Rama Fresnel	Focus at 45 degrees, tilt 20 degrees upstage. Barn-doors to tidy and off legs.
17	Front Light C	LX 1	17	49	Cool Tint	1200 Rama Fresnel	
18	Front Light R	LX 1	18	45	Cool Tint	1200 Rama Fresnel	
19	Front Light L	LX 2	19	75	Cool Tint	1200 Rama Fresnel	
20	Front Light C	LX 2	20	69	Cool Tint	1200 Rama Fresnel	
21	Front Light R	LX 2	21	65	Cool Tint	1200 Rama Fresnel	
22	Front Light US L	LX 3	22	95	Cool Tint	1200 Rama Fresnel	
23	Front Light US C	LX 3	23	89	Cool Tint	1200 Rama Fresnel	
24	Front Light US R	LX 3	24	85	Cool Tint	1200 Rama Fresnel	
Backlight							
25	Downstage Backlight L	LX 3	25	94		1200 Rama Fresnel	Focus at full flood. Tilt 30 degrees downstage. Barn-doors to tidy.
26	Downstage Backlight C	LX 3	26	90		1200 Rama Fresnel	
27	Downstage Backlight R	LX 3	27	87		1200 Rama Fresnel	
28	Upstage Backlight L	LX 4	28	115		1200 Rama Fresnel	
29	Upstage Backlight C	LX 4	29	110		1200 Rama Fresnel	
30	Upstage Backlight R	LX 4	30	105		1200 Rama Fresnel	
Spotlights							
31	Downstage Centre Front	FOH 2	31	11	o/w	Pacific 14/35	
32	Downstage Centre Top	LX 1	32	50	o/w	Pacific 14/35	
33	Downstage Centre Backlight	LX 2	33	70	o/w	Pacific 14/35	
34	Profile 1	FOH 1	34	28	o/w	Pacific 14/35	
35	Profile 2	FOH 1	35	29	o/w	Pacific 14/35	
36	Profile 3	FOH 1	36	25	o/w	Pacific 14/35	
37	Profile 4	FOH 1	37	22	o/w	Pacific 14/35	
38	Profile 5	FOH 1	38	23	o/w	Pacific 14/35	
39	Profile 6	FOH 1	39	24	o/w	Pacific 14/35	
40	Profile 7	FOH 1	40	34	o/w	Pacific 14/35	
41	Profile 8	FOH 1	41	31	o/w	Pacific 14/35	
42	SPARE		42				
Curtain Warmers							
43	Red Curtain Wamers	FOH 2	43	1 + 20	Red	Par 64 - MFL	Ceramics angled symmetrically on curtain
Gobo Breakups							
44	FOH Gobo Breakup	FOH 1	44	27 + 32	o/w	Pacific 23/50	Focus knobs to around 6.5 and 8 to achieve a blurred dapple. FOH 1 units to cross along downstage, shuttered off arch and front edge of stage. Overhead units to tilted at 45 degrees. LX1-3 panned upstage roughly 15 degrees. LX4 panned downstage to avoid spill on cyclorama.
45	Down Stage Breakup	LX 1	45	41 + 60	o/w	Pacific 23/50	
46	Gobo Breakup	LX 2	46	61 + 80	o/w	Pacific 23/50	
47	Gobo Breakup	LX 3	47	81+ 100	o/w	Pacific 23/50	
48	Upstage Gobo Breakup	LX 4	48	120	o/w	Pacific 23/50	

Channel	Name / Purpose	Position	DMX	Wayline	Colour	Fixture	Focus Notes
Cyc Lighting							
49	Inside Pair A	LX 4	49	109 + 114	Red	Selecon Lui	Set the face of unit at 25 degree downward tilt. Line up and level the top of all four lamp beam edges.
50	Outside Pair A	LX 4	50	104 + 119	Red	Selecon Lui	
51	Inside Pair B	LX 4	51	108 + 113	Green	Selecon Lui	
52	Outside Pair B	LX 4	52	103 + 118	Green	Selecon Lui	
53	Inside Pair C	LX 4	53	107 + 112	Blue	Selecon Lui	
54	Outside Pair C	LX 4	54	102 + 117	Blue	Selecon Lui	
55	Inside Pair D	LX 4	55	106 + 111	Amber	Selecon Lui	
56	Outside Pair D	LX 4	56	101 + 116	Amber	Selecon Lui	
Spare Dimmers							
-	Available Dimmers		57 - 120				

Channel	Name	Position	DMX	Wayline	Colours	Fixture	Focus Notes
LED Side Lighting							
201	Ladder 1 - OP - Top	OP Ladder 1	150	Hot - 189	RGBW	Show Technology QUAD PAR 18 10-Channel Mode	2 units per ladder, paned to face across stage. Bottom lamp tilted to hit 1/3 across the stage from lamp position. Top lamp tilted to hit 2/3 across the stage from lamp position.
202	Ladder 1 - OP - Bottom		160				
203	Ladder 2 - OP - Top	OP Ladder 2	170	Hot - 201			
204	Ladder 2 - OP - Bottom		180				
205	Ladder 3 - OP - Top	OP Ladder 3	190	Hot - 213			
206	Ladder 3 - OP - Bottom		200				
207	Ladder 4 - OP - Top	OP Ladder 4	210	Hot - 225			
208	Ladder 4 - OP - Bottom		220				
211	Ladder 1 - PS - Top	PS Ladder 1	230	Hot - 195	RGBW	Show Technology QUAD PAR 18 10-Channel Mode	2 units per ladder, paned to face across stage. Bottom lamp tilted to hit 1/3 across the stage from lamp position. Top lamp tilted to hit 2/3 across the stage from lamp position.
212	Ladder 1 - PS - Bottom		240				
213	Ladder 2 - PS - Top	PS Ladder 2	250	Hot - 207			
214	Ladder 2 - PS - Bottom		260				
215	Ladder 3 - PS - Top	PS Ladder 3	270	Hot - 219			
216	Ladder 3 - PS - Bottom		280				
217	Ladder 4 - PS - Top	PS Ladder 4	290	Hot - 219			
218	Ladder 4 - PS - Bottom		300				

Theatre Royal Whakatū Nelson Standard Hanging Plot

Our setting line is defined as the upstage edge of the proscenium arch.

Add 1300mm for the distance to the downstage edge.

Listed trim heights are to the underside of the flown object.



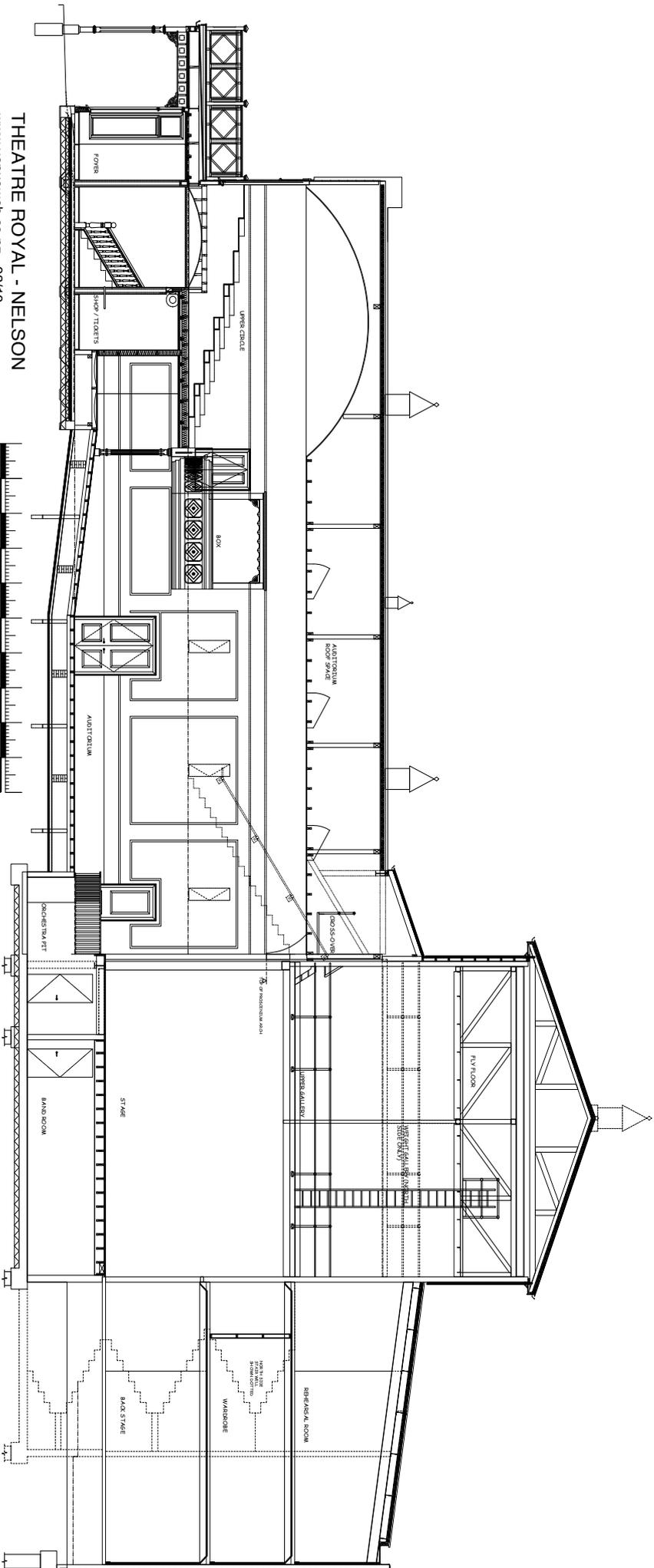
Line-set	mm to setine	Item	Trim Height	Weight	Notes
1	100	House Curtain	4.3m	Bat + 60kg	Red Velvet, overlapped split, 5.5m Drop
2	280	Black Legs #1	6m	Bat + 5kg	
3	460				
4	640	LX 1	5.3m	Bat + 125 kg	20 Pre-Wired Circuits + DMX
5	820				
6	1000				
7	1180				
8	1360				
9	1540	Black Border # 1	4.5m	Bat + 5kg	6m Drop
10	1720	Black Legs # 2	6m	Bat + 15kg	3m Drop
11	1900				
12	2080				
13	2260	LX 2	5.3m	Bat + 125 kg	20 Pre-Wired Circuits + DMX
14	2440				
15	2620				
16	2800				
17	2980				
18	3160				
19	3340				
20	3520	Black Border # 2	4.6m	Bat + 5kg	6m Drop
21	3700	Black Legs # 3	6m	Bat + 15kg	3m Drop
22	3880				
- STRUCTURAL BEAM -					
23	4290	LX 3	5.3m	Bat + 140 kg	20 Pre-Wired Circuits + DMX
24	4470				
25	4650				
26	4830	Tab + Track		Bat + 75kg	Tabs 6m Drop, Centre opening Track
27	5010				
28	5190				
29	5370	Black Border # 3	4.7m	Bat + 5kg	6m Drop
30	5550	Black Legs # 4	6m	Bat + 15kg	3m Drop
31	5730				
32	5910	LX 4	5.5	Bat + 160 kg	20 Pre-Wired Circuits + DMX
33	6090				
34	6270				
35	6450				
36	6630				
37	6810				
38	6990				
39	7170	Black Border # 4	5m	Bat + 5kg	6m Drop
40	7350	Black Legs # 5	6m	Bat + 20kg	3m Drop
OP pan		4x Ladders		Bat + 105kg	6 circuits + DMX to each. 5850mm to C
42	7710				
PS pan		4 x Ladders		Bat + 105kg	6 circuits + DMX to each. 5460mm to C
44	8070	Cyc	5.5 m	Bat + 30kg	5.5.m High Black Fr/Rr Proj (50% Gain)

Theatre Royal Whakatū Nelson

Way-line outlets



Area	Patch Numbers	Location / Description	DMX	No. of Outlets
FOH	1 to 20	Auditorium Roof : Loomed to FOH Truss 2	Yes	20
	21 to 40	Auditorium Roof : Loomed to FOH Truss 1 (+DMX)		20
Overhead	41 to 60	No. 1 Stage Spot Bar : Weilands to LX 1 Electrics (+DMX)	Yes	20
	61 to 80	No. 2 Stage Spot Bar : Weilands to LX 2 Electrics (+DMX)	Yes	20
	81 to 100	No. 3 Stage Spot Bar : Weilands to LX 3 Electrics (+DMX)	Yes	20
	101 to 120	No. 4 Stage Spot Bar : Weilands to LX 4 Electrics (+DMX)	Yes	20
	121 to 140	No. 5 Stage Spot Bar : Spare Weiland Outputs		20
Boxes / Circle	141 to 144	Rear of Dress Circle	Yes	4
	145 to 152	<i>Unused</i>		8
	153 to 158	OP Box	Yes	6
	159 to 164	Prompt Box	Yes	6
	165 to 172	<i>Unused</i>		8
Orchestra Pit	173 to 176	Orchestra Pit Prompt 1	Yes	4
	177 to 180	Orchestra Pit Prompt 2		4
	181 to 184	Orchestra Pit OP 1		4
	185 to 188	Orchestra Pit OP 2		4
Galleries / Ladders	189 to 194	OP Fly Floor No. 1 : Loomed to OP Ladder No.1	Yes	6
	195 to 200	PS Fly Floor No. 1 : Loomed to PS Ladder No.1	Yes	6
	201 to 206	OP Fly Floor No. 2 : Loomed to OP Ladder No.2	Yes	6
	207 to 212	PS Fly Floor No. 2 : Loomed to PS Ladder No.2	Yes	6
	213 to 218	OP Fly Floor No. 3 : Loomed to OP Ladder No.3	Yes	6
	219 to 224	PS Fly Floor No. 3 : Loomed to PS Ladder No.3	Yes	6
	225 to 230	OP Fly Floor No. 4 : Loomed to OP Ladder No.4	Yes	6
	231 to 236	PS Fly Floor No. 4 : Loomed to PS Ladder No.4	Yes	6
Stage Floor	237 to 242	Downstage OP Floor	Yes	6
	243 to 248	Downstage PS Floor	Yes	6
	249 to 254	Upstage OP Floor	Yes	6
	255 to 260	Upstage PS Floor	Yes	6



THEATRE ROYAL - NELSON

www.venueweb.co.nz - 08/10

based on drawings ex Palmer&Palmer, Nelson

0 1 2 3 4 5

10 metres

RUTHERFORD STREET

KERB

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10 metres

