



**THE PIANO**

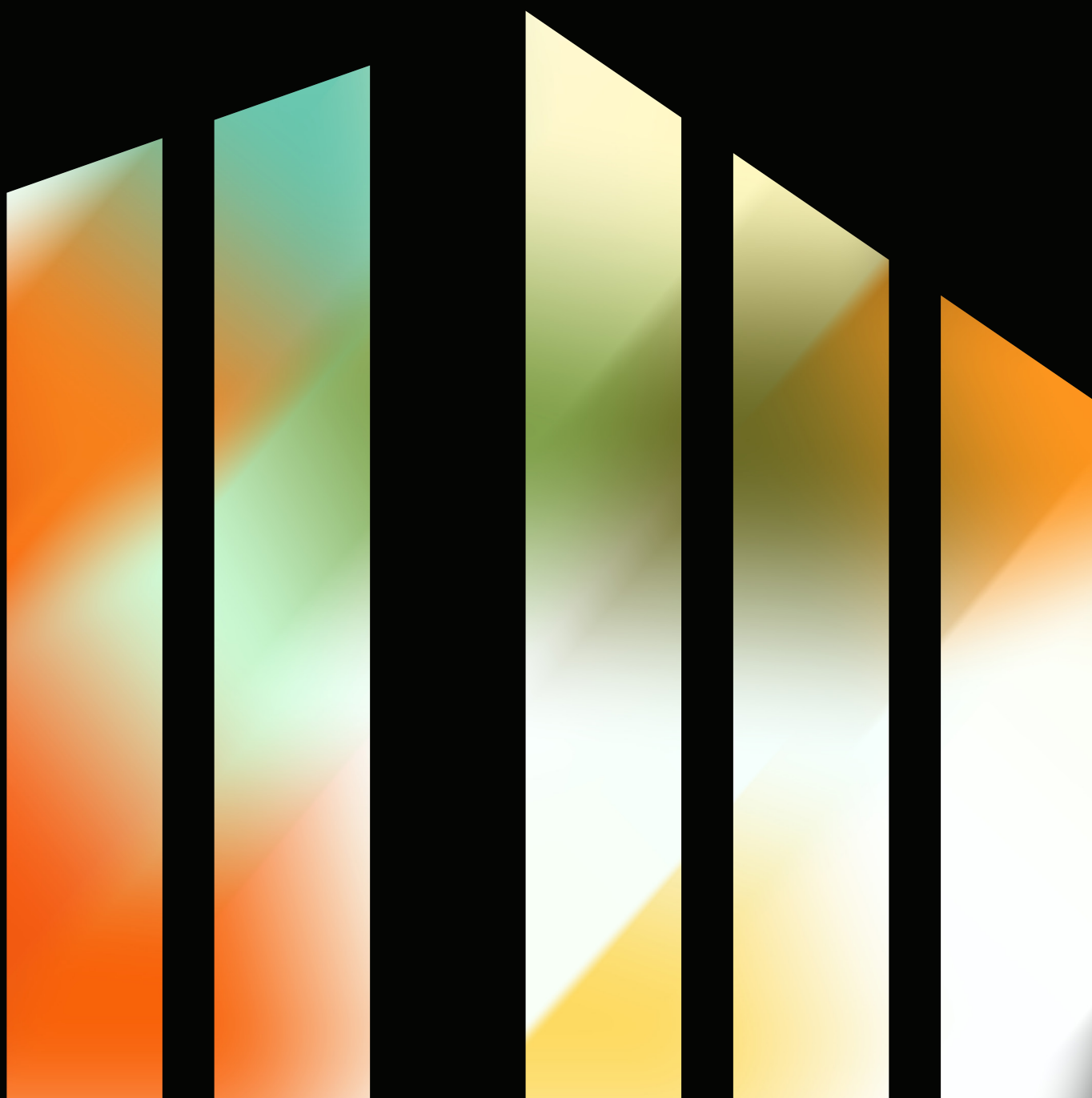
CENTRE FOR MUSIC AND THE ARTS  
Pipiwaharoa: Kūi-kūi whitiwhiti ora

156 Armagh Street,  
Christchurch Central 8011  
New Zealand

[www.thepiano.nz](http://www.thepiano.nz)

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# Technical Specifications



# General Information

## Contact & Further Information

For any questions regarding technical specifications at The Piano, please contact:

**Marcus Norman | Director**  
**+64 3 377 5000**  
[marcus@thepiano.nz](mailto:marcus@thepiano.nz)

## Air Conditioning

The Philip Carter Concert Hall and its associated dressing rooms are fully air-conditioned. The air conditioning in the Concert Hall is operated as a displacement system, with conditioned air being delivered to the space via a floor plenum system and returned to a central air handling unit via high level return grilles. The system has been specified and installed to confirm to strict acoustic criteria. The Stage Manager Room, AV-Tech Room and Green Rooms are also provided with local air conditioning systems with user interfaces.

## Concert Hall Access

Artist access to the Concert Hall is via the stage door at the rear of the concert hall, through the car park.

## Disabled Access

The stage of the Concert hall is accessible by disabled persons.

## Dressing Rooms

Three dressing rooms are available to Hirers of The Philip Carter Concert Hall. All dressing rooms have toilets and one has a shower.

## Fire Services

Use of a smoke machine, hazer, or anything that is likely to trigger the venue smoke detectors will require the alarm system to be isolated, at an additional cost. The isolation can only be performed by appropriate venue staff and must be approved by The Piano and The Piano's insurance company two weeks prior. On occasion, additional venue staff may be required to ensure adequate fire monitoring.

Any charges arising from false alarms, including the cost of Fire Brigade attendance are the responsibility of the Hirer.

## Green Room

The Green Room is located behind the Concert Hall.

## Insurance

Details of insurance are provided with the venue hire agreement.

## Laundry Facilities

Laundry facilities are not available.

## Loading Access

The Concert Hall has a loading dock facility. The loading dock is accessible from the rear of the car park and provides access to the Concert Hall.

Loading Dock Height: 0.8m

Loading Door Height: 2.11m , Width: 1.68m

Concert Hall Entry Door Height: 2.18m , Width: 1.68m

There is also a ground-level side entrance accessible from the car park which provides access to the Concert Hall.

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# General Information

## Pianos

The following pianos are available for hire in the Philip Carter Family Concert Hall:

- 1 Steinway B Grand Piano
- 1 Steinway D Concert Grand Piano

Other pianos available for hire:

- 1 Yamaha C5 Grand Piano
- 1 Yamaha C3 Grand Piano
- 1 Yamaha Upright
- 1 Kawai Upright

## Power

The Piano has a mixture of 10A single phase socket outlets both for general use and audio-visual systems. The audio-visual outlets are located in the Stage Managers Office & the AV Tech Room, with a majority on the Stage. The audio-visual socket outlets are clearly identified as such and operate via a technical earth system. The audio-visual distribution board is also equipped with surge protection filters for additional protection of expensive electronic equipment.

## Smoking

The Piano is a non-smoking venue. By law smoking can only take place in Designated Smoking Areas

## Rigging Overhead

Access to rigging is via a scissor lift. A machine with four wheels no heavier than 2 tonnes in total can go over the floor only if 20mm plywood sheets are put under the wheels for protection and load distribution. The plywood is available on site.

## Rubbish

All Hirer rubbish must be removed from the Concert Hall and dressing rooms at the conclusion of bump out. A small amount of rubbish can be disposed of in the venue bins but excess usage will incur charges.

## Stage Management System

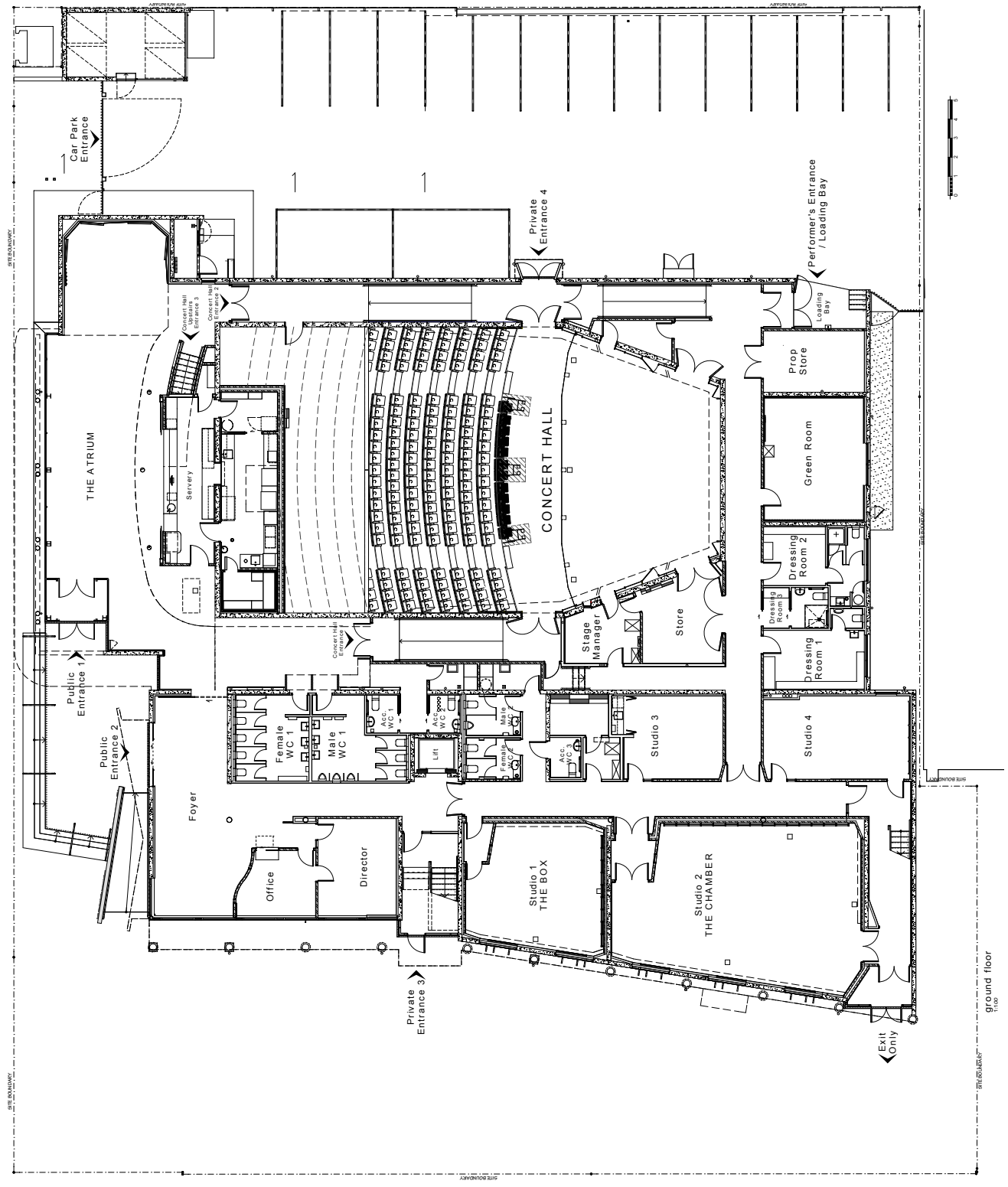
The Stage Managers Desk (SMD) is located stage left at back of Concert Hall.

## WiFi

Event specifics set up cost applies

- High density, performance critical WiFi

# Venue Layout



# Room Capacities

|  | Cocktail | Orchestra | Theatre |
|--|----------|-----------|---------|
| <b>Concert Hall</b>                          | –        | –         | 325     |
| <b>Concert Hall Stage</b><br>Size: 96 sq m   | 100      | 60        | –       |
| <b>Atrium</b><br>Size: 180 sq m              | 120      | –         | –       |
| <b>The Chamber</b><br>Size: 100 sq m         | 80       | -         | 80      |
| <b>The Box</b><br>Size: 50 sq m              | 40       | –         | 30      |
| <b>Studio 3 / Boardroom</b><br>Size: 25 sq m | –        | –         | –       |

# Venue Facilities

## Front of House Facilities

- Full bar available (license from 9:00am - midnight)
- Atrium suitable for pre-show, post show, launches and cocktail functions
- Wireless internet available

## Catering Facilities

- Fully equipped catering kitchen
- Preferred caterers: Lizzies Cuisine, Victoria Foods, Simply Catering, The Social Platter Co, The Catering Dept.

## Conference Facilities

Equipment available for hire:

- Data projector/screen in Concert Hall
- 1x Lectern
- Hand held and wireless mics in Concert Hall
- 2x 65 inch TV's

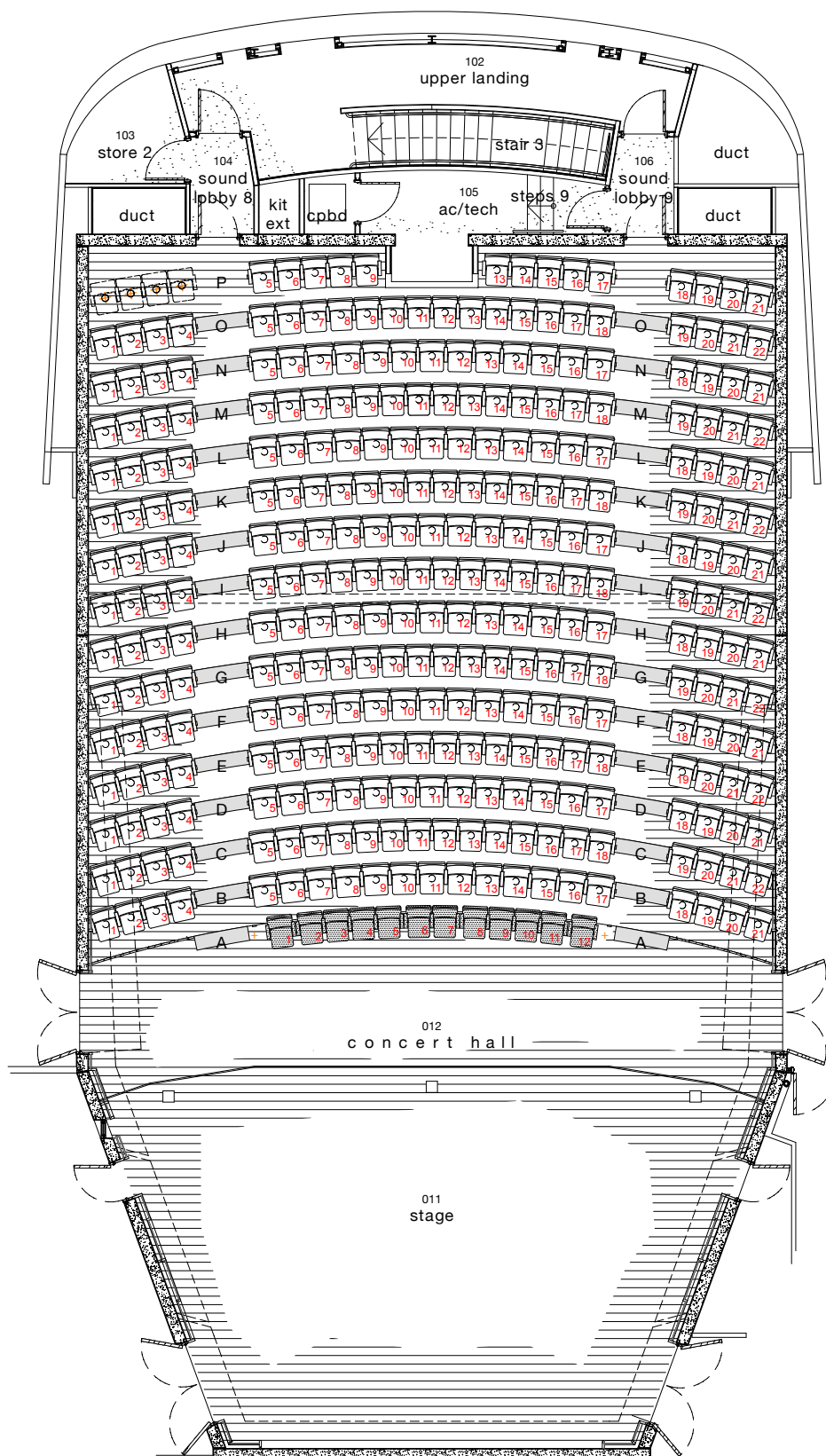
## Backstage Facilities

- Green room with kitchenette
- 3 dressing rooms
- 50 music stands
- Conductor's rostrum

# Seating Information

## Concert Hall Seating Plan

There are 325 seats available in the Concert Hall. The entire first row (Row A, seats 1-12) is removable. If 1-2 wheelchair spaces are required, seats 1 and 12 are easily removed. If more than 2 wheelchair spaces are required, seats 6&7, or the entire row can be removed.



# Staging Information

The Concert Hall does not have a fly tower or Proscenium Arch.

## Stage Floor

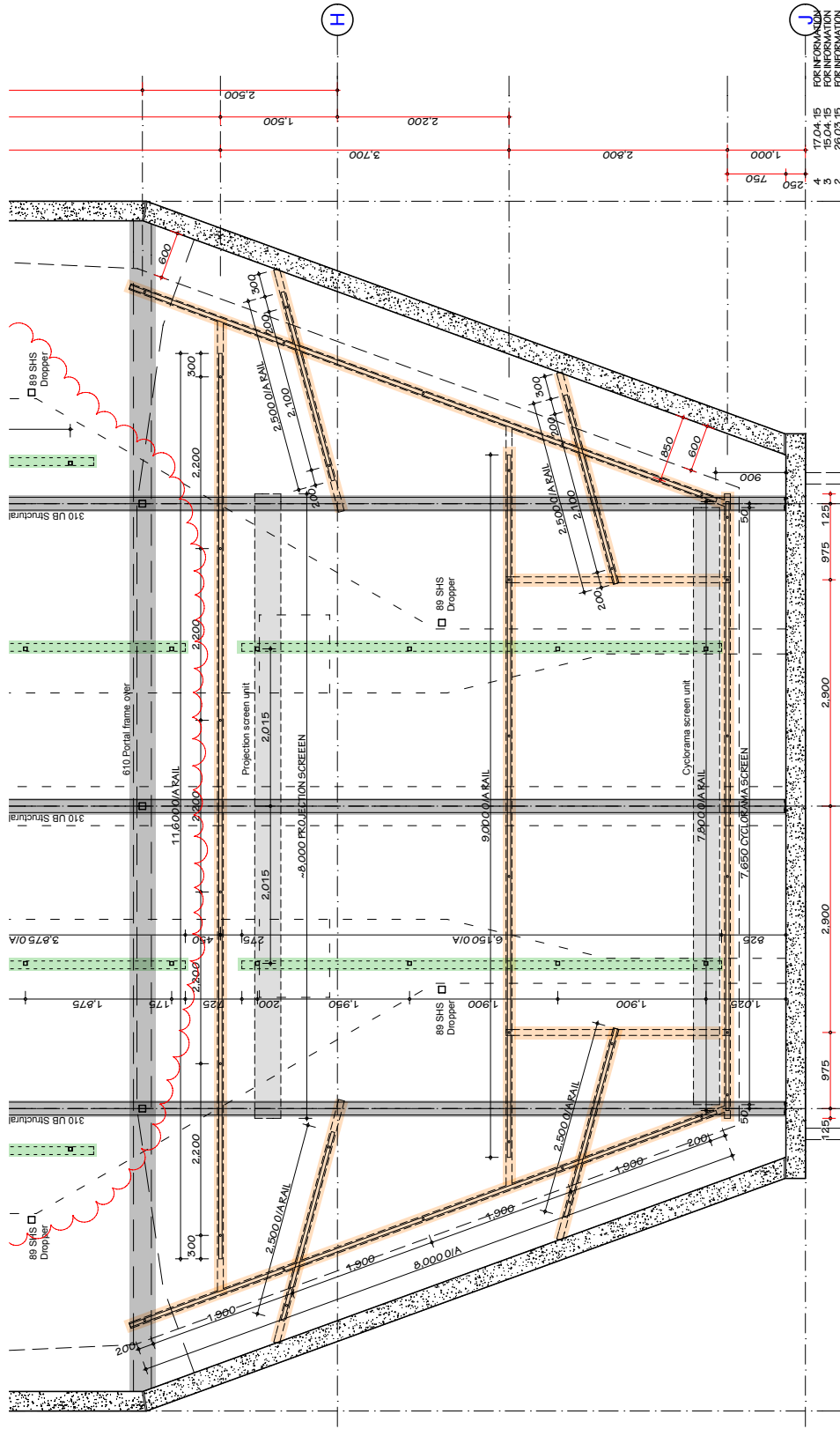
The stage is a sprung timber dance floor.

## Drapes

The standard masking in the space consists of: • 2 x pair of legs, 1 pair towards front of stage and 1 pair towards back of stage. Full height, width customizable up to 2.4m.

## Rigging

No in house rigging.



Concert Hall steelwork - PRELIM  
1:50

Concert Hall steelwork  
setout 1

**WILKIE + BRUCE**  
REGISTERED ARCHITECTS LTD  
Telephone: 03-379 7739 25 Mandeville St. Christchurch  
info@wilkieandbruce.co.nz PO Box 225-141 New Zealand

design: AW  
date: 5EPT'14  
drawn: SF  
scale: 1:200@A1  
file: 4769

**CSS1**

rev: 4

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# Concert Hall Grid Plan

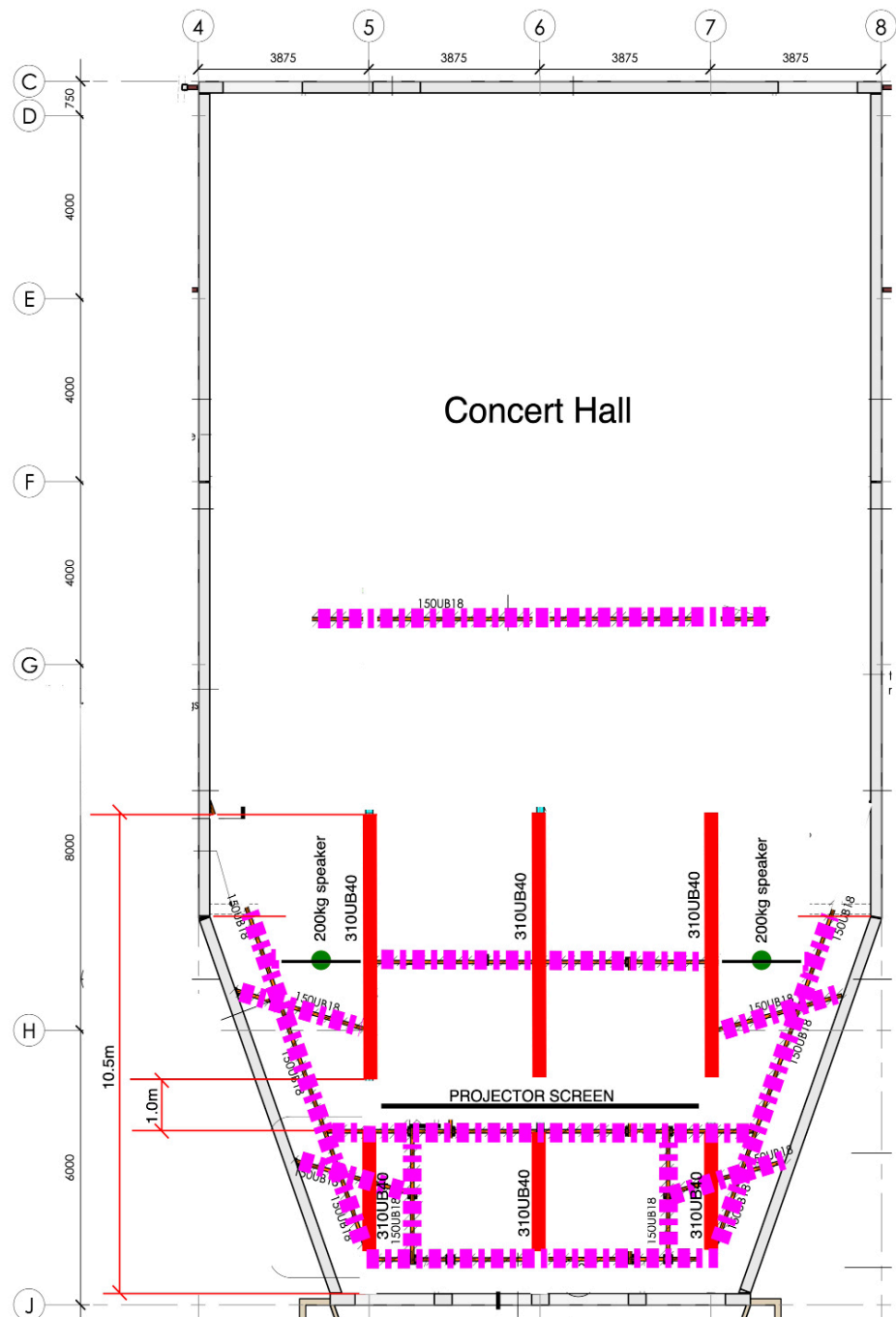
## Lighting Bar Loading

The maximum load on any scaffold tube lighting bar including clamps, fixings, hoists etc shall be no greater than 100kg per lineal metre of scaffold bar, and only in positions marked thus:



### 310UB Loading

The maximum load on any 310UB including clamps, fixings, hoists etc shall be no greater than 250kg per lineal metre of 310UB, and only in positions marked thus:





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# Lighting Information

## Rigging And Height Access

- Seven horizontal overhead rigging bars are provided, one forward of the stage, 4 over stage, and two side light. These bars are approximately 7.8m above stage height.
- Two vertical 'boom bars' are provided forward of the stage.
- Access equipment to lighting bars: No access equipment is available 'in house'. Over stage lighting can be accessed using a 6m scissor lift (Note – 20mm Ply sheets must be used to protect stage floor). FOH lighting bar access.

## Power Supply and Mains Waylines

- 72 x 10amp rated home run waylines are run from lighting rigging positions to patch panel in stage managers room on stage left.
- 2 x 32amp three phase (PDL 56 series) outlets are provided here.
- 16 x 10amp single phase outlets are provided here.
- 1 x 10amp single phase outlet is provided at the control room.

## DMX 512 Stage Lighting Data System

- One DMX outlet is provided at each of the rigging positions. (See lighting plan)
- Two DMX circuits are provided at the control position to patch.
- A DMX patch is provided in the stage managers room.
- An 8-way 5-pin XLR data splitter is provided.
- All DMX outlets are terminated as 5-pin XLR.

## Luminaires

General Frontlight - the stage is divided into 15 areas (3 rows of 5). The downstage two rows are lit with 20 x Philips Selecon Rama LED Fresnels (2 units into each area). The upstage row is lit with 5 x Showtec Performer DDT Fresnel

- 10 x Philips Showline Punchlite 220 RGBW LED Pars provide top light, one for each of the 10 downstage and midstage areas.
- 8 x Philips Showline Punchlite 220 RGBW LED Pars provide high side light, four per side.
- 4 x Fresno 150 Hex Fresnels provide low FOH sidelight, 2 from each FOH perch position.
- 10 x Philips Selecon PLCYC1 Mk2 RGBW Cyclorama Lights for the rear wall and dropdown cyc.
- 4 x Chauvet Ovation F-265WW fresnels provide downstage centre top lighting for small chamber configuration.












A moving head rig is installed, consisting of the following:

- 6 x Chauvet Maverick Force S Profile with framing shutters on FOH pipe.
- 5 x Chauvet Maverick Force S Spot as backlights on upstage pipes.
- 4 x Infinity iW-1915 RGBW wash as backlights on upstage pipe.
- 4 x Martin MAC Quantum LED moving head profile over stage.

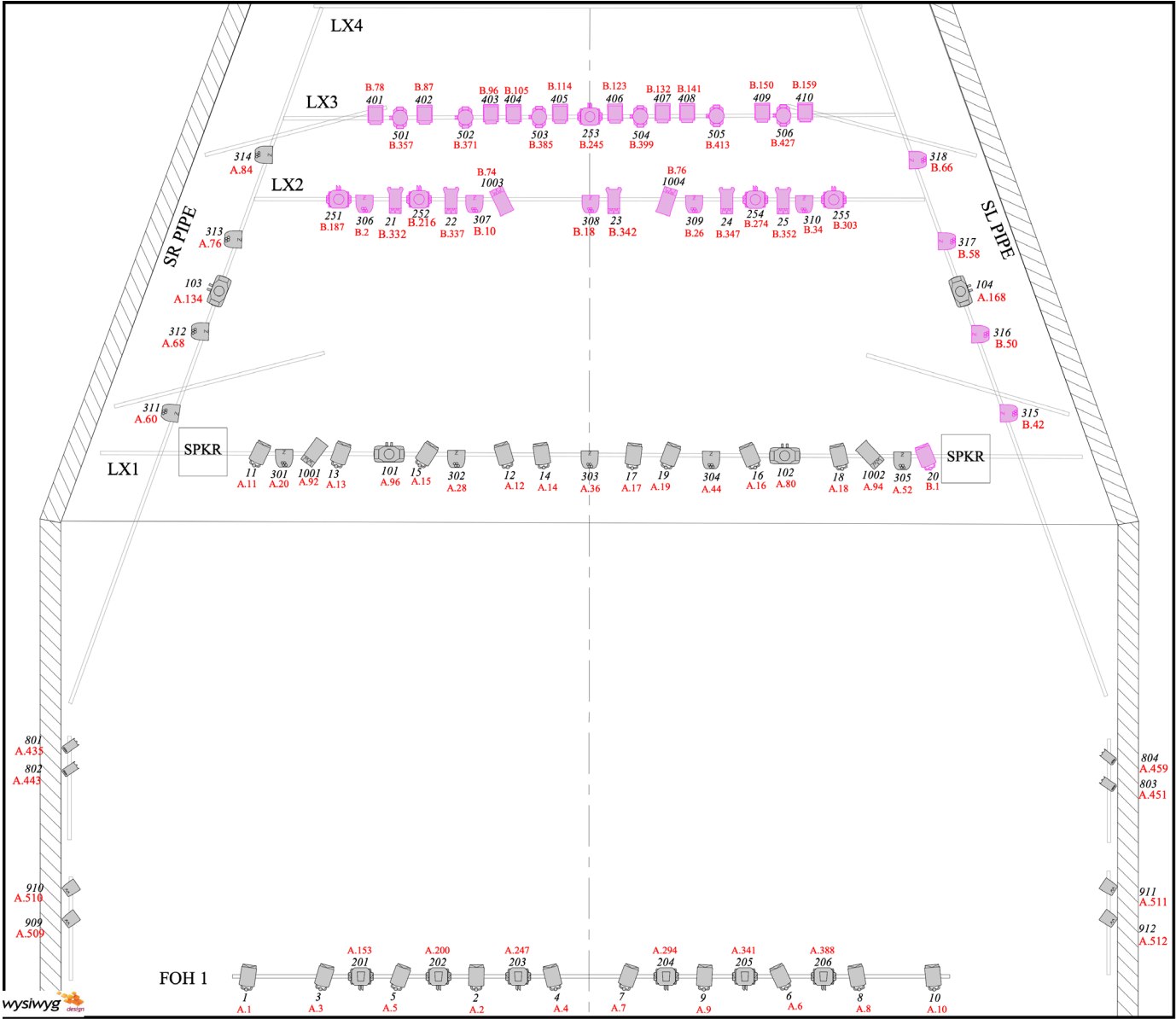
## Control

- Control console- High End Hedgehog 4N, complete with MiniWing4.
- Located in control room at rear of Auditorium.

# Stage Lighting Plan

| Legend  |                                  |
|---|----------------------------------|
| Symbol  | Name                             |
|  | Selecon RAMA LED Fresnel         |
|  | Showtec Performer 2000 DDT       |
|  | Ovation F-265 WW                 |
|  | Frezno 150 Hex Fresnel           |
|  | SL PunchLite 220                 |
|  | Selecon PLCYC-1 LED              |
|  | Chauvet Maverick Force S Profile |
|  | Chauvet Maverick Force S Spot    |
|  | MAC Quantum Profile              |
|  | Infinity iW-1915                 |
|  | WW FANLESS SPOT                  |

Black = Universe 1  
 Pink = Universe 2



# Lighting Patch Sheet

| Channel | Patch | Position | Type                               | Focus         | Data Circuit | Power Circuit | Mode           |
|---------|-------|----------|------------------------------------|---------------|--------------|---------------|----------------|
| 1       | A.1   | FOH1     | RAMA LED Fresnel                   | DS Wash       | DMX11        | 36            | 1 Ch           |
| 2       | A.2   | FOH1     | RAMA LED Fresnel                   | DS Wash       | DMX11        | 33            | 1 Ch           |
| 3       | A.3   | FOH1     | RAMA LED Fresnel                   | DS Wash       | DMX11        | 36            | 1 Ch           |
| 4       | A.4   | FOH1     | RAMA LED Fresnel                   | DS Wash       | DMX11        | 33            | 1 Ch           |
| 5       | A.5   | FOH1     | RAMA LED Fresnel                   | DS Wash       | DMX11        | 33            | 1 Ch           |
| 6       | A.6   | FOH1     | RAMA LED Fresnel                   | DS Wash       | DMX9         | 28            | 1 Ch           |
| 7       | A.7   | FOH1     | RAMA LED Fresnel                   | DS Wash       | DMX9         | 28            | 1 Ch           |
| 8       | A.8   | FOH1     | RAMA LED Fresnel                   | DS Wash       | DMX9         | 25            | 1 Ch           |
| 9       | A.9   | FOH1     | RAMA LED Fresnel                   | DS Wash       | DMX9         | 28            | 1 Ch           |
| 10      | A.10  | FOH1     | RAMA LED Fresnel                   | DS Wash       | DMX9         | 25            | 1 Ch           |
| 11      | A.11  | LX1      | RAMA LED Fresnel                   | MS Wash       | DMX8         | 43            | 1 Ch           |
| 12      | A.12  | LX1      | RAMA LED Fresnel                   | MS Wash       | DMX8         | 41            | 1 Ch           |
| 13      | A.13  | LX1      | RAMA LED Fresnel                   | MS Wash       | DMX8         | 43            | 1 Ch           |
| 14      | A.14  | LX1      | RAMA LED Fresnel                   | MS Wash       | DMX8         | 41            | 1 Ch           |
| 15      | A.15  | LX1      | RAMA LED Fresnel                   | MS Wash       | DMX8         | 43            | 1 Ch           |
| 16      | A.16  | LX1      | RAMA LED Fresnel                   | MS Wash       | DMX8         | 38            | 1 Ch           |
| 17      | A.17  | LX1      | RAMA LED Fresnel                   | MS Wash       | DMX8         | 40            | 1 Ch           |
| 18      | A.18  | LX1      | RAMA LED Fresnel                   | MS Wash       | DMX8         | 38            | 1 Ch           |
| 19      | A.19  | LX1      | RAMA LED Fresnel                   | MS Wash       | DMX8         | 40            | 1 Ch           |
| 20      | B.1   | LX1      | RAMA LED Fresnel                   | MS Wash       | DMX5         | 38            | 1 Ch           |
| 21      | B.332 | LX2      | Showtec Performer 2000 DDT Fresnel | US Wash       | DMX7         | 52            | 5 Ch           |
| 22      | A.16  | LX1      | Showtec Performer 2000 DDT Fresnel | US Wash       | DMX7         | 52            | 5 Ch           |
| 23      | A.17  | LX1      | Showtec Performer 2000 DDT Fresnel | US Wash       | DMX7         | 50            | 5 Ch           |
| 24      | A.18  | LX1      | Showtec Performer 2000 DDT Fresnel | US Wash       | DMX7         | 50            | 5 Ch           |
| 24      | A.19  | LX1      | Showtec Performer 2000 DDT Fresnel | US Wash       | DMX7         | 50            | 5 Ch           |
| 101     | A.96  | LX1      | MAC Quantum Profile                | LX 1 Mover    | DMX8         | 44            | 16-Bit - 19 Ch |
| 102     | A.115 | LX1      | MAC Quantum Profile                | LX 1 Mover    | DMX8         | 39            | 16-Bit - 19 Ch |
| 103     | A.134 | SR SIDE  | MAC Quantum Profile                | SR Side Mover | DMX8         | 39            | 16-Bit - 19 Ch |
| 104     | B.168 | SL SIDE  | MAC Quantum Profile                | SL Side Mover | DMX5         | 44            | 16-Bit - 19 Ch |
| 201     | A.153 | FOH1     | Chauvet Maverick Force S Profile   | FOH Mover     | DMX11        | 31            | 47 CH          |
| 202     | A.200 | FOH1     | Chauvet Maverick Force S Profile   | FOH Mover     | DMX11        | 32            | 47 CH          |
| 203     | A.247 | FOH1     | Chauvet Maverick Force S Profile   | FOH Mover     | DMX11        | 31            | 47 CH          |
| 204     | A.294 | FOH1     | Chauvet Maverick Force S Profile   | FOH Mover     | DMX9         | 30            | 47 CH          |
| 205     | A.341 | FOH1     | Chauvet Maverick Force S Profile   | FOH Mover     | DMX9         | 29            | 47 CH          |
| 206     | A.388 | FOH1     | Chauvet Maverick Force S Profile   | FOH Mover     | DMX9         | 30            | 47 CH          |

# Lighting Patch Sheet

| Channel | Patch | Position | Type                          | Focus    | Data Circuit | Power Circuit | Mode                |
|---------|-------|----------|-------------------------------|----------|--------------|---------------|---------------------|
| 251     | B.187 | LX2      | Chauvet Maverick Force S Spot | MS Mover | DMX7         | 53            | 29 Ch               |
| 252     | B.216 | LX2      | Chauvet Maverick Force S Spot | MS Mover | DMX7         | 53            | 29 Ch               |
| 253     | B.245 | LX2      | Chauvet Maverick Force S Spot | MS Mover | DMX6         | 60            | 29 Ch               |
| 254     | B.274 | LX2      | Chauvet Maverick Force S Spot | MS Mover | DMX7         | 47            | 29 Ch               |
| 255     | B.303 | LX2      | Chauvet Maverick Force S Spot | MS Mover | DMX7         | 47            | 29 Ch               |
| 301     | A.20  | LX1      | SL PunchLite 220              | DSR      | DMX8         | 41            | 8-Bit Simplie - 8Ch |
| 302     | A.28  | LX1      | SL PunchLite 220              | DSC/R    | DMX8         | 41            | 8-Bit Simplie - 8Ch |
| 303     | A.36  | LX1      | SL PunchLite 220              | DSC      | DMX8         | 41            | 8-Bit Simplie - 8Ch |
| 304     | A.44  | LX1      | SL PunchLite 220              | DSC/L    | DMX8         | 37            | 8-Bit Simplie - 8Ch |
| 305     | A.52  | LX1      | SL PunchLite 220              | DSL      | DMX8         | 37            | 8-Bit Simplie - 8Ch |
| 306     | B.2   | LX2      | SL PunchLite 220              | USR      | DMX7         | 51            | 8-Bit Simplie - 8Ch |
| 307     | B.10  | LX2      | SL PunchLite 220              | USC/R    | DMX7         | 51            | 8-Bit Simplie - 8Ch |
| 308     | B.18  | LX2      | SL PunchLite 220              | USC      | DMX7         | 48            | 8-Bit Simplie - 8Ch |
| 309     | B.26  | LX2      | SL PunchLite 220              | USC/L    | DMX7         | 48            | 8-Bit Simplie - 8Ch |
| 310     | B.34  | LX2      | SL PunchLite 220              | USL      | DMX7         | 48            | 8-Bit Simplie - 8Ch |
| 311     | A.60  | SR SIDE  | SL PunchLite 220              | DSR      | DMX8         | 72            | 8-Bit Simplie - 8Ch |
| 312     | A.68  | SR SIDE  | SL PunchLite 220              | MSR      | DMX8         | 72            | 8-Bit Simplie - 8Ch |
| 313     | A.76  | SR SIDE  | SL PunchLite 220              | MSR      | DMX8         | 72            | 8-Bit Simplie - 8Ch |
| 314     | A.84  | SR SIDE  | SL PunchLite 220              | USR      | DMX8         | 72            | 8-Bit Simplie - 8Ch |
| 315     | B.42  | SR SIDE  | SL PunchLite 220              | DSL      | DMX5         | 64            | 8-Bit Simplie - 8Ch |
| 316     | B.50  | SR SIDE  | SL PunchLite 220              | MSL      | DMX5         | 64            | 8-Bit Simplie - 8Ch |
| 317     | B.58  | SR SIDE  | SL PunchLite 220              | MSL      | DMX5         | 64            | 8-Bit Simplie - 8Ch |
| 318     | B.66  | SR SIDE  | SL PunchLite 220              | USL      | DMX5         | 64            | 8-Bit Simplie - 8Ch |
| 401     | B.78  | LX3      | PLCYC-1 MKII LED              | CYC SR   | DMX6         | 62            | 8-Bit - 9 Ch        |
| 402     | B.87  | LX3      | PLCYC-1 MKII LED              | CYC SR   | DMX6         | 62            | 8-Bit - 9 Ch        |
| 403     | B.96  | LX3      | PLCYC-1 MKII LED              | CYC SR   | DMX6         | 61            | 8-Bit - 9 Ch        |
| 404     | B.105 | LX3      | PLCYC-1 MKII LED              | CYC C    | DMX6         | 61            | 8-Bit - 9 Ch        |
| 405     | B.114 | LX3      | PLCYC-1 MKII LED              | CYC C    | DMX6         | 59            | 8-Bit - 9 Ch        |
| 406     | B.123 | LX3      | PLCYC-1 MKII LED              | CYC C    | DMX6         | 59            | 8-Bit - 9 Ch        |
| 407     | B.132 | LX3      | PLCYC-1 MKII LED              | CYC C    | DMX6         | 57            | 8-Bit - 9 Ch        |
| 408     | B.114 | LX3      | PLCYC-1 MKII LED              | CYC SL   | DMX6         | 57            | 8-Bit - 9 Ch        |
| 409     | B.150 | LX3      | PLCYC-1 MKII LED              | CYC SL   | DMX6         | 56            | 8-Bit - 9 Ch        |
| 410     | B.159 | LX3      | PLCYC-1 MKII LED              | CYC SL   | DMX6         | 56            | 8-Bit - 9 Ch        |

# Lighting Patch Sheet

| Channel   | Patch | Position    | Type                          | Focus                  | Data Circuit | Power Circuit | Mode                  |
|-----------|-------|-------------|-------------------------------|------------------------|--------------|---------------|-----------------------|
| 501       | B.357 | LX3         | Infinity iW-1915 RGBW Wash    | US Moving Wash         | DMX6         | 63            | 14 Ch                 |
| 502       | B.371 | LX3         | Infinity iW-1915 RGBW Wash    | US Moving Wash         | DMX6         | 63            | 14 Ch                 |
| 503       | B.385 | LX3         | Infinity iW-1915 RGBW Wash    | US Moving Wash         | DMX6         | 58            | 14 Ch                 |
| 504       | B.399 | LX3         | Infinity iW-1915 RGBW Wash    | US Moving Wash         | DMX6         | 58            | 14 Ch                 |
| 505       | B.401 | LX3         | Infinity iW-1915 RGBW Wash    | US Moving Wash         | DMX6         | 55            | 14 Ch                 |
| 506       | B.427 | LX3         | Infinity iW-1915 RGBW Wash    | US Moving Wash         | DMX6         | 55            | 14 Ch                 |
| 801       | A.435 | SR Boom     | Frezno 150 Hex Fresnel        | Bottom SR Perch        | DMX4         | 19            | SSP - 8 Ch            |
| 802       | A.443 | SR Boom     | Frezno 150 Hex Fresnel        | Top SR Perch           | DMX4         | 19            | SSP - 8 Ch            |
| 803       | A.451 | SL Boom     | Frezno 150 Hex Fresnel        | Bottom SL Perch        | DMX1         | 5             | SSP - 8 Ch            |
| 804       | A.459 | SL Boom     | Frezno 150 Hex Fresnel        | Top SL Perch           | DMX1         | 5             | SSP - 8 Ch            |
| 900       | A.500 | HOUSE LX    | GU10 House Spots - Auditorium | House Lights           | DALI         | 0             |                       |
| 901       | A.501 | HOUSE LX    | GU10 House Spots * 4          | Upstage                | DALI         | 1             |                       |
| 902       | A.502 | HOUSE LX    | GU10 House Spots * 5          | Midstage               | DALI         | 2             |                       |
| 903       | A.503 | HOUSE LX    | GU10 House Spots * 8          | Downstage              | DALI         | 3             |                       |
| 905       | A.505 | HOUSE LX    | GU10 House Spots * 10         | Floor                  | DALI         | 5             |                       |
| 906       | A.506 | Wall Mounts | WW LED Spot Fanless           | Centre stage           | DALI         | 6             |                       |
| 907       | A.507 | Wall Mounts | WW LED Spot Fanless           | Centre stage           | DALI         | 7             |                       |
| 908       | A.508 | HOUSE LX    | Architectural detail on walls | Architectural Lighting | DALI         | 8             |                       |
| 909       | A.509 | Wall Mounts | WW LED Spot Fanless           | Downstage              | DALI         | 9             |                       |
| 910       | A.510 | Wall Mounts | WW LED Spot Fanless           | Upstage                | DALI         | 10            |                       |
| 911       | A.511 | Wall Mounts | WW LED Spot Fanless           | Upstage                | DALI         | 11            |                       |
| 912       | A.512 | Wall Mounts | WW LED Spot Fanless           | Downstage              | DALI         | 12            |                       |
| 1001/1101 | A.92  | LX1         | Ovation F-265WW               | MSC                    | DMX8         | 42            | 1CH - 8Bit Dim + Zoom |
| 1002/1102 | A.94  | LX1         | Ovation F-265WW               | MSC                    | DMX8         | 42            | 1CH - 8Bit Dim + Zoom |
| 1003/1103 | B.74  | LX2         | Ovation F-265WW               | MSC                    | DMX7         | 49            | 1CH - 8Bit Dim + Zoom |
| 1004/1104 | B.76  | LX2         | Ovation F-265WW               | MSC                    | DMX7         | 49            | 1CH - 8Bit Dim + Zoom |

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# Audio & Visual Information

The Piano features a 325-seat concert auditorium fully air conditioned which has been acoustically designed to complement live performance. The following items describe the equipment and system design considerations where appropriate within the auditorium and associated areas of the building.

## **Auditorium AV**

PA system

- Allen & Heath SQ-6 mixing console
- 1x Allen & Heath DX168 and 2x DX168-W digital stageboxes.
- BSS BLU100 Loudspeaker Management
- 2x Adamson line array hangs (Each hang is 3x Adamson IS118 subs in cardioid, with 7x Adamson IS7 tops fed via 2 bi-amp circuits.

Additional equipment available for hire:

- Dual channel wireless microphone receivers (AKG DMS800) complete with DHT800 hand-held microphone TX unit and DPT800 body pack (lapel) microphone TX unit
- Lectern Microphone - Shure MX418 gooseneck Microphone on lectern mount (cabled)
- Cabled microphones
- Foldback monitors

It is intended that these microphones will be routed through the DSP which can be controlled from an iPad so that setup for any event will require minimal technical installation or adjustment.

There are also remote wall controllers available (EC-8BV) for level adjustment of the PA.

## **Microphone Wayline Termination Panels**

These are located at side of stage, stage ceiling, audience seating right hand side, greenroom.

Each contains a generous number of waylines (typically 16) plus 2 X Ethernet connectors.

These facilitate floor level and hung microphone connections as required.

## **Acoustic Banners**

- 14x acoustic banners. 8x around the stage and 6x around the audience seating. When all banners deployed, the reverberation time reduces from 1.6 seconds to 1.1 seconds.
- Recommended all banners up for music recitals - piano, strings, chamber music groups etc.
- Recommended all banners down for speech, seminars, theatre and amplified music.
- For loud acoustic performances, such as orchestra, large choir, brass bands etc Recommend all banners up on stage, and all down in the audience area. If the performers are feeling overwhelmed by their volume on stage, try all banners on stage down and all up in the audience area.

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# Audio & Visual Information

## Projection

- Panasonic PT-MZ16KL laser projector and Panasonic ET-EMS600 lens (available for hire)
- Screen - 300" (7.62 metres) 16:10 Screen Technics ElectriCinema. 4040 x 6465
- Cyclorama - on back wall of stage - can be especially lit for visual effect
- HDMI input on stage for Laptop/DVD Presentation as appropriate.
- HDMI output on stage for video foldback
- SDI Links from Operators Position to Stage Managers Rack
- SDI Links from Operators Position to Stage Rear
- SDI Links from Stage Managers Rack to Stage Floor Boxes
- Kramer VIA wireless presenting device to allow seamless connection

## Performance Recording System

Camera - BirdDog Eyes P200 1080p Full NDI - mounted above the control room. This camera may be remotely pointed and zoomed, it can be used as a visual aid or a stage wide shot record source.

Extron SMP351 Recorder - for some performances input may be switched to a stage level camera on a requirement basis. For that camera, a termination panel has been provided at an upstand in the 2nd row of seating - cabling will allow that camera to be positioned for the best videography.

## Back Of House – Green Room, Dressing Rooms, Passage Ways

- Show feed (audio & visual)

## Auditorium Communication System

- 2 Channel Clear-Com MS-702 base station and Clear-Com RS-701 cabled belt packs with dual earmuff headset

## Wi-Fi and Ethernet Connections – available throughout The Piano building

- High density, performance critical Wi-Fi
- 2.4GHz and 5GHz
- 802.11ac and 802.11n
- 802.1x Authentication
- Default connection allows internet only, can have a private VLAN as required at additional cost
- Building measurement, report on number of visitors, visit length and repeat visit rate based on Wi-Fi devices
- Gigabit Ethernet with PoE in all rooms
- Default connection allows internet only, private VLAN as required at additional cost
- Bluetooth - 18 x Bluetooth beacons throughout the building

## Recording

The Piano offers good facilities for recording. On each side of the stage there are 24 analogue waylines, 6 ethernet ports, and 2 optical MADI ports, all terminating at a patch bay in a backstage green room.

The green room provides an isolated, uncoloured monitoring environment and a 60" screen with a feed