



Chan Centre for the Performing Arts

THE UNIVERSITY OF BRITISH COLUMBIA

6265 Crescent Road
Vancouver, B.C.
Canada V6T 1Z1

Telephone: (604) 822-9197
Administrative Fax Line: (604) 822-1606
Production Fax Line: (604) 822-3036
Box Office: (604) 822-2697

Web Site: www.chancentre.com

Technical Information Package: 29 pages, including this page.

As of February 14, 2020

PRODUCTION STAFF

- Cameron McGill (Co-Managing Director of Facilities and Operations)
Tel: (604) 822-1881, Fax: (604) 827-3609
Email: cameron.mcgill@ubc.ca
- David Humphrey (Production Manager)
Tel: (604) 827-2742, Fax: (604) 822-3036
Email: david.humphrey@ubc.ca
- Andrew Riter (Assistant Technical Director) (Head Lighting Technician)
Tel: (604) 822-2372, Fax: (604) 822-3036
Email: andrew.riter@ubc.ca
- Lloyd Balser (Head Audio Technician)
Tel: (604) 822-2750, Fax: (604) 822-3036
Email: lloyd.balser@ubc.ca
- James Perella (Head Stage/Audio Technician)
Email: james.perella@ubc.ca



Chan Centre for the Performing Arts

Technical Information Package

Table of Contents	Page
Concert Hall	
Stage & Building	4
Venue Drawing	5
Acoustic Treatment	6
Lighting Equipment	7
Sound & Communication Equipment	8
Telus Studio Theatre	
Venue Drawing: End Stage Configuration	14
Stage & Building	15
Lighting Equipment	16
Sound & Communication Equipment	17
Royal Bank Cinema	
Venue Drawing	20
Projection	21
Audio Equipment	21
Lighting Equipment	22
Great Performers' Lounge	22
General Building Stock	23
Video & Projection Equipment	26
List of Equipment and Services subject to additional fees	27
Atmospheric Effects	27
Temporary Power Hook-ups	28



Chan Shun Concert Hall



Chan Shun Concert Hall Stage and Building

Stage Dimensions		Feet	Meters
Stage Width	downstage, from door to door	63' 2"	19.3m
Stage Depth	with chorus loft onstage (standard)	39' 11"	12m
	with chorus loft pushed back	46' 8" (adds 6' 8")	14m (adds 2.0m)
	with pit lift raised to stage height	56' 0" (adds 9' 4")	17m (adds 2.8m)
Stage Height	from audience area to stage deck	3' 5"	1.6m

Please note that the upstage half of the stage is a semi-circle. (see Venue Drawing, page 5)

Orchestra Pit & Lift

- Standard orchestra pit lift configuration is at audience level with three rows of seats in place.
 - 77 fixed seats. (rows AA, BB, CC)
 - The lift is 9' 4" deep and 56' 6" wide (2.8m x 17.2m).
 - The width is 63' 2" (19.3m) if stairs are removed (see Concert Hall Step Units, below).
- The lift can be raised to stage height to extend the stage by 9' 4" (2.8m), or lowered and used as an orchestra pit:
 - When lowered the pit is 8' 10" (2.7m) below the stage deck.
 - The pit is 18' 2" US-DS at centre and 63' 2" wide (5.5m x 19.3m).
 - The pit tapers to 8' 0" deep stage left and right (2.4m).
 - The pit can accommodate 40 – 50 musicians, depending on instrumentation.

Adjustable Chorus Loft

- The standard configuration is with the loft onstage (forward), with all loft seating in place.
 - 180 seats total (bench style).
- The chorus loft comprises the upstage (rear) wall of the stage and the first two of four rows of chorus bench seating.
- The chorus loft can roll upstage 6' 8" (2.0m) in three sections, leaving two rows of chorus seating remaining.

** NB – Neither the orchestra pit nor the chorus loft can be moved during a performance.

**** NB – Separate labour fees may apply for adjusting the position of the choral loft or orchestra lift, or removing seats from the orchestra lift.**

Concert Hall Step Units

- The standard configuration of the Concert Hall stage has stairs installed from stage level to "Orchestra" audience seating level.
- **A separate labour fee may apply for their removal.**

Rigging/Fly System

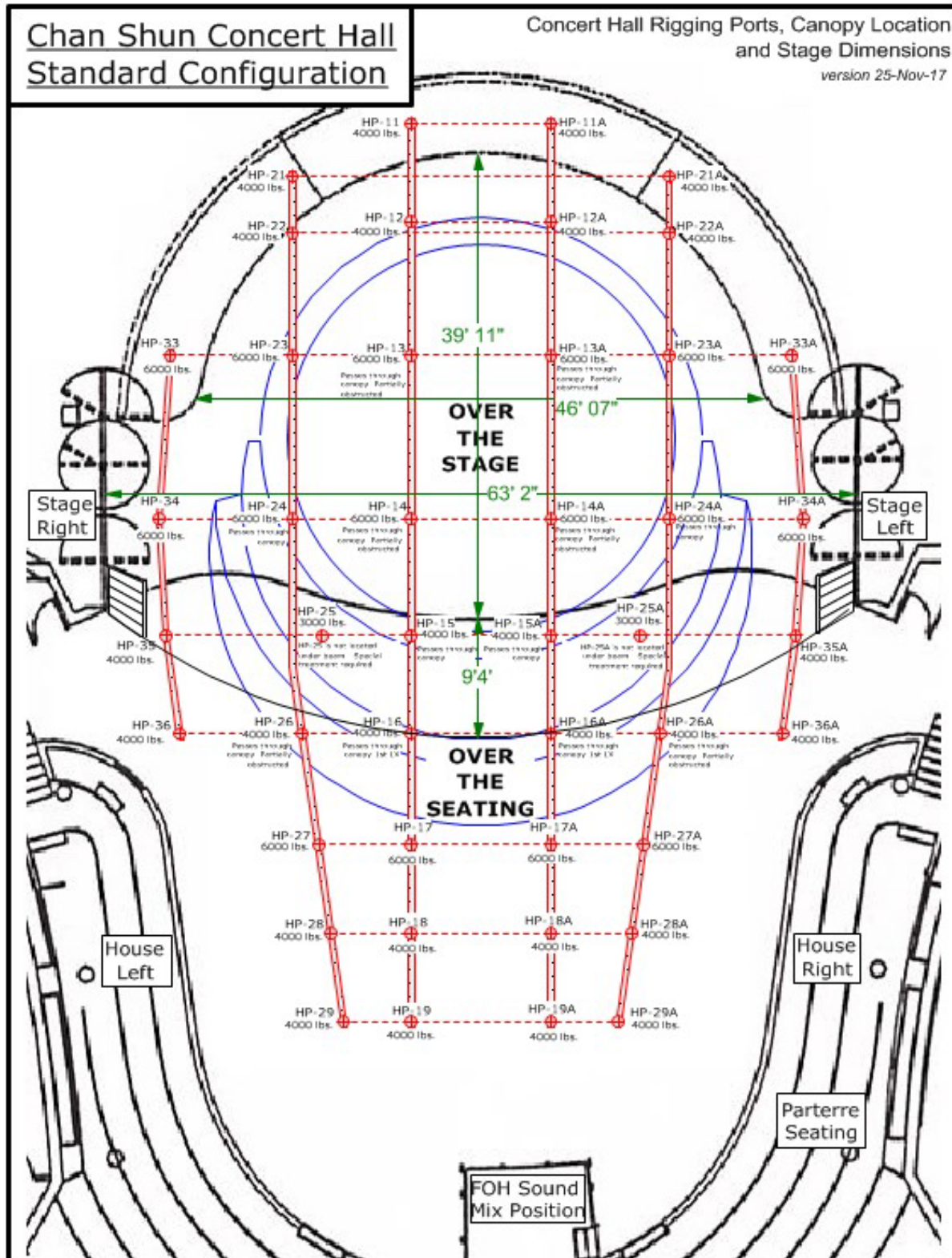
- A conventional counterweight fly system does not exist in the Chan Shun Concert Hall.
- There are six 1-ton CM chain hoist motors mounted on tracks located in the attic.
- 12 sections of 8' (2.5m) Christie Lites 16x16 medium duty square truss are available.
- Additional points in the Concert Hall can be rigged with the rental of additional chain hoists.
- Rigging ports are located in multiple locations in the ceiling, which allow rigging to pass through from the attic to the Hall. (see page 5)
- Some ports pass through the Acoustic Canopy and require special handling.
- A limited amount of light-weight rigging can be done directly from the Acoustic Canopy.

Chan Shun Concert Hall Stage and Building

Stage Masking and Soft Goods

This is an open concept concert hall with no legs or backdrops in place.

Concert Hall Floor Plan and Rigging Diagram





Chan Shun Concert Hall Acoustic Treatment

Acoustic Canopy

- The Acoustic Canopy is a sound reflector suspended over the stage with various acoustic surfaces. Raised and lowered mechanically in one piece, it affects the sound reflected from the stage to the house.
 - Dimensions: 50' US-DS x 40' SL-SR, 2000'sq. (15.2m x 12.2m, 186m sq.)
- It can be set anywhere between 9' 2" (2.8m) and 58' 4" (17.8m).
 - Typical performance heights range from 39' 4" (12m) to 47' 7" (14.5m).
- When the Canopy is set lower than 46' (14m), certain Front of House lighting positions become obscured.
 - At lower heights, sightlines from the balconies start to be obscured.
- The Canopy contains some concert and performance lighting.
- The Canopy can be used for some limited light-weight rigging. Enquire for details.
- The Canopy will not be moved during a performance.

Acoustic Cloth

- The wall surfaces in the Concert Hall can be covered with adjustable (motorized and manual) acoustic banners & curtains.
- The acoustic cloth will not be moved during a performance.

Onstage Diffusion

- Shutters are located behind the upstage wicker wall.
- Adjusting these shutters alters the intensity of the sound as heard by the performers:
 - Closing the shutters generates an immediate reflection back to the performers. This is the standard configuration.
 - Opening the shutters causes the backstage area to become a resonating chamber with the first reflection being substantially delayed, diffused, and diminished.

Reverb Time

- Acoustic cloth all the way out: 4.5sec.
- Acoustic cloth all the way in: 2.75sec.

Additional Masking and Soft Goods

- Spoken-word and amplified musical performances often benefit from additional black draperies hung in the room. Enquire for details of standard installations.
- A stock of black velour masking drops, legs, and pipe and drape is available. Enquire for details.



Chan Shun Concert Hall Lighting Equipment

House Hang

- | | |
|--------------------------------------------------------------------------------------|--------------------------------------------------------|
| (75) ETC Source 4 750w bodies | (8) FE Lighting Par 64 1000w Medium Flood |
| (2) ETC Source 4 575w bodies | (8) FE Lighting Par 64 1000w Narrow Spot |
| (20) ETC ColorSource LED bodies | (6) Selecon 1200 7" 1000w Fresnels |
| (5) Chauvet Colorado2 Quad Zoom RGB-W | (2) Altman 360Q 750w 6x16
(conductor's pit special) |
| (29) ETC Source 4 10° lenses | (2) Lycian Superstar 1275 Follow spots |
| (10) ETC Source 4 14° lenses | (22) Iris kits |
| (44) ETC Source 4 19° lenses | |
| (24) ETC Source 4 26° lenses | (2) Rosco I-Cue (16bit) |
| (4) ETC Source 4 36° lens | (2) Rosco DMX Iris |
| (3) Microh DMX Splitter-4
(Permanently Installed USC Catwalk, Canopy, Stage Left) | |

- These lamps are hung and circuited to provide suitable front light, eight LED tip units, two colour washes from the front, LED front wash, and multiple front and back specials.
- Typical proscenium theatre lighting hangs with multiple electrics for top and back light are not possible in this venue without the addition of multiple truss lines.
- Additional equipment, cables, and accessories are available from the general building stock (see page 23). Enquire for details.
- **A separate fee applies for the use of the follow spots.**

Control & Dimming

- (1) ETC Ion Control Console: 1000 outputs, 100 faders.
 - Console is located in the Lighting booth, at the rear of the Orchestra seating, under a balcony.
 - Console may be moved into the house, to beside the sound pit. Enquire for details.
- (1) ETC Wireless Remote unit for focusing (RFR).
- (1) ETC Remote Video Interface (RVI) for designer's remote in-house (shared with the Telus Studio).
- (1) ETC Unison Paradigm Architectural Control System:
 - During performances, the house and work lights are typically controlled by the Ion console.
- (148) 2400w Strand CD 80 Dimmers are available, including those used in the house hang.
- 20amp TLG connectors are at every lighting position.
- 20amp 19 pin soca connectors are located at most (but not all) positions.
- The Concert Hall is dimmer-per-circuit, with select circuits repeating in some locations.
- Two discreet universes of DMX are possible in the Concert Hall:
 - Universe 1 is wired directly to the dimmers, **and** can be distributed throughout the venue;
 - Universe 2 is only distributed throughout the venue, and cannot control the dimmers;
 - An isolation switch allows staff to choose which of the two universes are distributed around the venue. Only one signal (Universe 1 OR Universe 2) may be sent to the DMX ports.

Cable

- The Chan Centre has a large inventory of 20amp TLG cable that should meet most typical requirements.
- There is small selection of PowerCon and 5pin XLR DMX data cables for house LED units, and a few other client devices.



Chan Shun Concert Hall Sound & Communication Equipment

Centre Cluster

- In the centre cluster array:
 - (3) Meyer Sound CAL 64 Column Array Speakers for audience coverage.
 - (3) Meyer Sound CAL 32 Column Array Speakers for chorus loft coverage.
 - The height is adjustable by motorized winch, with three pre-set (tuned) positions.

Under Balcony Fills

- (2) Meyer Sound UPM-1P Fill Speakers per side are located under the Dress Level (lower balcony), focused for audience seated in the parterres.

Front Fill (Stage Lip Fill)

- (6) Meyer Sound UPM-1P Fill Speakers will be placed on the front edge of the stage when the line array speakers are used.

Line Array

- In the left and right array:
 - (10) Meyer Sound Mina speakers per side.
 - (1) HP-500 subwoofer per side.
 - Motorized winches can grid the array when not in use.
 - (Line array are tuned for (2) different audience sizes: main level or all levels)

Subwoofers (Supplemental FOH use)

- (2) Meyer Sound HP-700 Subwoofers, when required.

F.O.H. Mixing Console

- 48 x 32 Avid DigiDesign Venue Profile Digital Mixing Console (Software v3.11)
 - 48 input, 32 output stage box.
 - IOX expansion card.
 - Avid Venue Pack Plug-ins (Waves v9)
 - Remote control of console via MS Surface over private WiFi network.

F.O.H. Processing

- Centre Cluster is controlled by CAL software on a laptop, and offers digital input only.
- The array and fill speakers are controlled by Galileo 616, via Compass software on a laptop.
 - Digital (default) or analog inputs to speakers are possible.

Playback Devices

- (1) Denon DN-700R Digital Recorder USB (1) Denon DN-T625 CD / Cassette Player

Mix Position

- The In-House mix position is located at the rear of the Orchestra seating section (on centre, not under a balcony) and is approximately 50' (15m) from the stage; (see page 5)



Chan Shun Concert Hall Sound & Communication Equipment

Sound Booth/Projection Booth

- The Sound Control Booth at the rear of the Concert Hall is underneath the balcony (on centre), behind a sliding glass window, and is approximately 80' (24m) from the stage.

Monitor Mixes from F.O.H.

- (4) independent mixes (from F.O.H. console), including:
 - (2) JBL SR series speakers located (hidden) mid-stage left and right as 'side washes.'

On-stage Monitor System (Stand Alone)

- | | |
|------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| (1) 48 x 32 Avid DigiDesign Venue Profile
Digital Mixing Console
48 input, 32 output stage box | (5) Lab.gruppen PLM 10,000 2 channel
amplifiers with Lake Processors |
| (14) Adamson M15 Floor Monitors | (1) Lab.gruppen PLM subwoofer, amplifier
(Crossed over in Lake Processor) |

- Monitor system available with advance booking.
- Remote control of Profile consoles via VNC over private WiFi network.
- Mix Position is Offstage Left.

Additional Equipment

(subject to availability, enquire for details)

Consoles

- | | |
|-----------------------------------------------------------------------------------------------|----------------------------------------|
| (1) 32x16 Soundcraft Si Performer1 Digital
Mixing Console
32 input, 16 output stage box | (1) 24x4x2 Allen & Heath GL2400 analog |
|-----------------------------------------------------------------------------------------------|----------------------------------------|

- Remote control of Soundcraft console via iPad over private WiFi network.

Effects

- | | |
|------------------------------|---------------------------|
| (1) Lexicon MX 400 XL Reverb | (1) Yamaha SPX 990 Reverb |
|------------------------------|---------------------------|

Speakers

- | | |
|------------------------------------------|----------------------------------------------------|
| (8) KV2 EX10 self-powered 2-way speakers | (2) EAW S-850 subs |
| (4) Galaxy Hotspot monitor speakers | (2) Anchor AN100 active "hotspot" type
speakers |

In-ear Monitor System

- (2) Channels Shure PSM 1000:
 - (1) P10T portable rack-mounted Transmitter & (2) P10R Receiver packs.
- (1) Shure PA421B 4 Channel Antenna Combiner
- (1) Shure Shark Fin Antenna.
- (1) Shure SE425 Dual Driver Earphones with disposable foam inserts.



Chan Shun Concert Hall Sound & Communication Equipment

Microphones

- | | |
|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| (6) AKG 535 Cardioid Condenser | (1) Sennheiser MKH 416 Shotgun Condenser |
| (1) AKG D112 Cardioid Dynamic | (2) Sennheiser MD 421 Cardioid Dynamic |
| (5) AKG CK91 Cardioid Condenser | (2) Sennheiser MD 521 Cardioid Dynamic |
| (2) AKG CK93 Hyper Cardioid Condenser | (4) Sennheiser ME 34 capsules (lectern) |
| (1) AKG CK98 shotgun Condenser capsule | (1) Sennheiser E901 PZM Condenser |
| (4) AKG C414b multi-pattern Condenser | (4) Sennheiser E904 Cardioid drum mics |
| (2) Alesis / Groove Tube AM30 Condenser | (1) Shure Beta 52 Cardioid Dynamic |
| (4) Audio Technica 2020 Cardioid Condenser | (4) Shure Beta 56 Super-Cardioid Dynamic |
| (2) Behringer ECM8000 Omni Condenser | (4) Shure Beta 57 Super-Cardioid Dynamic |
| (4) Crown PCC (PZM type) | (6) Shure Beta 58 Super-Cardioid Dynamic |
| (6) DPA 4099 Super Cardioid Condenser, (includes microdot to XLR adapter and various instrument clips) | (2) Shure Beta 91A PZM Condenser |
| (4) Earthworks M23 Omni Condenser | (4) Shure Beta 98 Cardioid Condenser |
| (1) Electro-Voice RE-20 Dynamic | (8) Shure SM 57 Cardioid Dynamic |
| (6) Neumann KM 184 Condenser | (10) Shure SM 58 Cardioid Dynamic |
| | (2) Shure SM 81 Cardioid Condenser |
| | (4) Shure KSM 9 Switchable Super-Cardioid/ Cardioid Condenser |

Wireless

- (8) Shure Axient Digital with 6 KSM9 capsules, 2 SM58 capsules
- (8) Channels Sennheiser EW 500 G3 Receivers Band B (626 - 668 MHZ)
- (8) Sennheiser SK 500 G3 Body Pack Transmitters
- (8) Sennheiser MKE-2 Omni Lavalier Mic
- (8) Sennheiser SK 535 935 Cardioid capsule Handheld Mic
- (4) DPA 6061 Lavalier Microphones
- (2) DPA 4018V Capsules with Adapter and Windscreen for SK 535 Handheld Transmitter body
- (4) DPA 4066 Headset Mics Omni Condenser
- (2) Sennheiser SKP-300 G3 48v XLR-Wireless transmitters for non-wireless sources
- (1) RF Explorer Handheld RF Analyzer with Associated Software for WLX Co-Ordination

****Only 8 transmitters of the Sennheiser wireless system can be used at one time.**

****Up to 2 wireless channels may be used without charge.**

****A separate fee applies for the use of the DPA headsets.**

Stands

- | | |
|------------------------------------------------------------|-----------------------------------------|
| (7) Atlas round bases (table height) | (6) Koenig & Meyer Straight Round Bases |
| (2) Triad Orbit T1 Tripod 360° Boom (short) | (10) K & M Tripod Booms (tall) |
| (1) Triad Orbit T2 Stereo Boom (tall) | (9) K & M Tripod Booms (medium) |
| (6) K & M tripod speaker stands | (17) K & M Tripod Booms (short) |
| (2) Speaker Yokes (accommodates (2) speakers on (1) stand) | (4) K & M choral height with booms |

DI, Iso, and Other Boxes

- | | |
|----------------------------------|--------------------------------------|
| (2) Countryman type 85 Active DI | (3) Radial JPC-1 Active stereo AV DI |
| (2) Furman Isopatch | (4) Radial JDI Passive DI |
| (2) Whirlwind Hotbox Active DI | (2) Radial JDI Passive stereo DI |



Chan Shun Concert Hall Sound & Communication Equipment

- | | |
|------------------------------------|---------------------------------|
| (1) Radial Phazer phase-adjust box | (6) Radial J48 Active DI |
| (1) Iso-Max Video with BNC | (3) Radial Twin ISO |
| | (4) Radial SB-4 Piezo Active DI |

Mic and Speaker Cables, and Adaptors

- (2) 12-Channel 75' Stage Snakes
- (1) 16-Channel 4-Return Stage Snake

- The Chan Centre has a large inventory of single and multi-pair cable that should meet most typical requirements.
- Please enquire for details.

Audio Patch Points and Wiring

- 3-way 48-channel transformer-isolated microphone splitter (located Stage Left in the Concert Hall).
- XLR, Speaker, Video, and Communication patch panels are conveniently located throughout the complex.
- The three venues, and the Loading Dock, can be easily linked via the various patch panels.
- Pull tubes exist underneath the stage floor (front to back), stage to mixing console, and mixing console to Control Booth.
 - Enquire for details prior to arrival.
- The Chan Shun Concert Hall, Telus Studio Theatre, and the loading bay can be easily linked via pull tubes and cable hangers. Enquire for details prior to arrival.
- Optocore Digital Transmission is available between Chan Shun Concert Hall Sound Booth, Amplifier Room, Communication Room, Great Performers' Lounge and Loading Dock. Enquire for details.

Press Feed

- One independent audio send (mono) is readily available as camera/audio/media feed or for other applications where a feed of the board mix is required.
- 12 outputs are available, tapped from 1 volume master.
- Press feed (as provided) will terminate to a male XLR via an isolation transformer.
- Press feed signal is at microphone or line level, in three pre-designated groupings.
- End users are required to provide any and all other necessary adaptors needed to interface with the press feed.

Wireless Hearing Assist

- A Listen Technologies FM Hearing Assistance system is provided.

Communication

- (2) Clear Com Power Supplies (two channels).
- (6) Clear Com RS 501 Belt packs & CC-85 Headsets.
- (1) Clear Com DX 410 Wireless Base Station (2 channel).
- (4) Clear Com BP410 Wireless Belt packs & CC-15-MD4 Headsets.
- Additional equipment subject to availability.

Program Sound/Paging

- Program sound is available for backstage common areas, dressing rooms, and Main Lobby.
- Priority Paging is available in a backstage common areas and dressing rooms.



Chan Shun Concert Hall Sound & Communication Equipment

Audio Recording of Events

- An archival audio recording of the event is easily accomplished, via a pair of microphones under the central cluster.
- Individual microphones in the event can be sent to the recording as well, but the levels will NOT be monitored.
- The basic recording can be given to the client via USB stick after the show, or at a later date.
- A full mic split is also possible, but requires a separate recording audio engineer.
- Please enquire for detail prior to the day of the event.
- See the Chan Centre License Agreement ("Electronic Tape and Broadcast") for costs associated with commercial recordings.

Program Video System

- Program video is available backstage, backstage common areas, and Main Lobby.
- The Chan Centre is wired for 3G-SDI video signal to most common locations throughout the building.

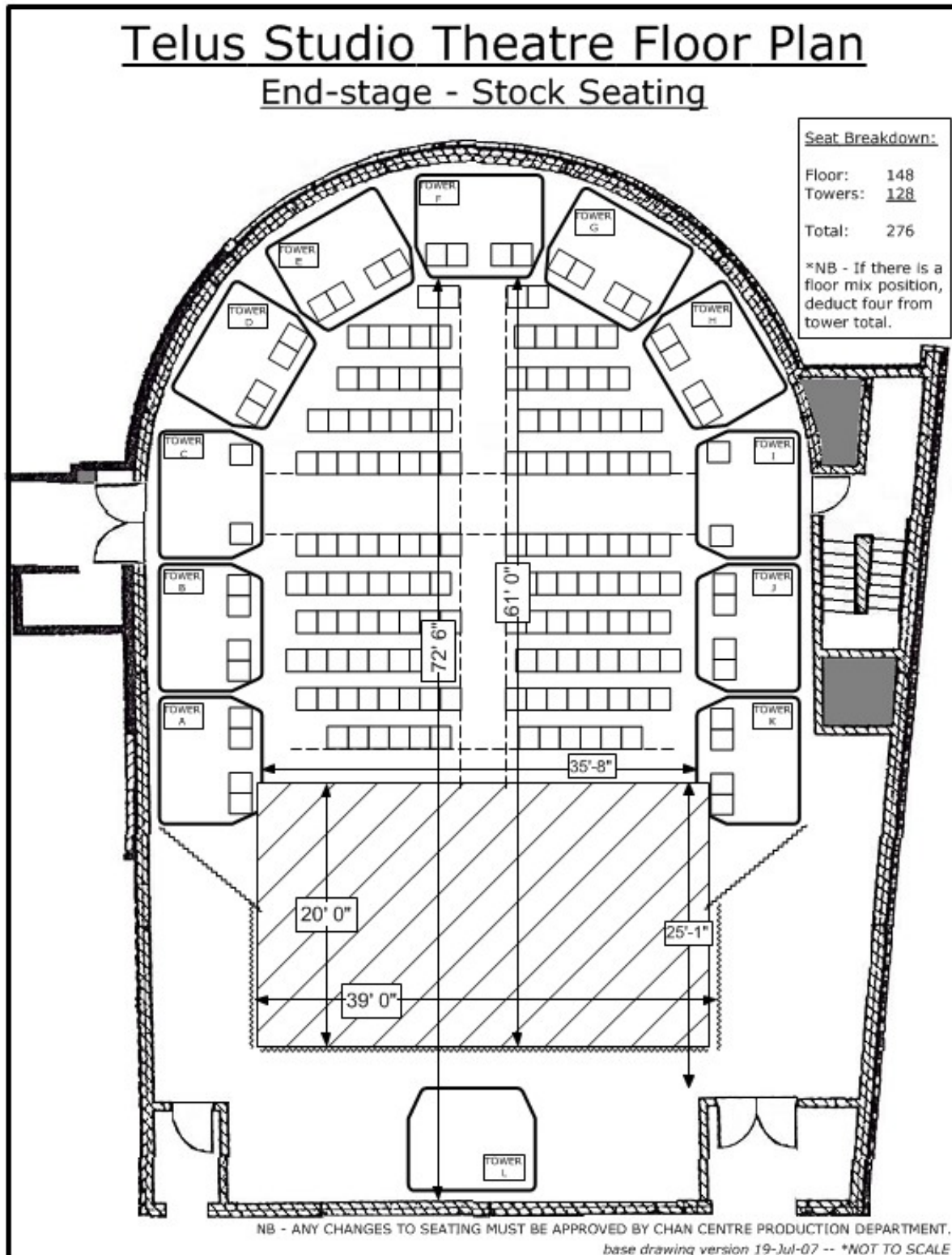
Webcasting Services

- Webcasting services are easily accommodated by the Chan Centre in conjunction with UBC IT Events and Media, or our preferred AV vendor.
- **A separate fee applies for this service. Please enquire for details.**

Digital Signage

- Digital Signage is available in the Glass Lobby for certain events.
- All content must have dimensions of 1920 x 1080 (16:9)
- Static and video formats supported are JPEG, MP4, Power Point and Keynote.
- There is no audio available with this system.
- Please enquire for details

Telus Studio Theatre





Telus Studio Theatre Stage and Building

Rigging Information

- The Telus Studio Theatre does not have a conventional counterweight fly system.
- Rigging is possible from the roof steel.
- Three ½-ton CM chain hoist motors are available:
 - Two are typically used for an upstage truss line.
 - One is typically used for the centre cluster.
- The upstage truss line is comprised of:
 - four sections of 8' and
 - two sections of 3' Arcofab Exposition Series light duty 12x12 spigotted aluminum trusses;
 - A traveler track is rigged with a black velour drape.

Masking and Soft Goods

- The Studio has a basic masking plot with full stage black traveler, and german masking both Stage Left and Stage Right. (see page 14)
- There is a stock of black velour legs and borders available.
- There is a white cyclorama available.

Seating Options

- The basic configuration is an end-style stage. (see page 14)
- A variety of different seating styles are possible.
- (80) Black, padded, armless musician chairs.

**** NB – Enquire for details regarding:**

- **rigging from roof steel;**
- **stock of black velour legs and borders; and**
- **white cyclorama.**

**** NB – See website for details regarding:**

- **different seating configurations; and**
- **different staging configurations.**



Telus Studio Theatre Lighting Equipment

Lighting Inventory

- | | |
|-------------------------------|-------------------------------------------|
| (79) ETC Source 4 575w bodies | (6) FE Lighting Par 64 1000w Medium Flood |
| (1) ETC Source 4 750w body | (19) Selecon Rama 7" 1000w Fresnels |
| | (5) Altman 360Q 750w 6x16 |
| (9) ETC Source 4 19° lenses | (6) Source 4 Iris Kits |
| (55) ETC Source 4 26° lenses | (6) Strand Coda single cell cyc units |
| (16) ETC Source 4 36° lenses | 500w |
| | (1) Rosco I-Cue (16bit) |
| | (1) Rosco DMX Iris |

- These lamps are used in a stock House Hang to provide suitable front light, two top colour washes, a tip wash from each side, and re-focusable specials.
- With the typical house hang, there are (53) 575w S4 bodies, (5) 19° lenses, (38) 26° lenses, and (10) 36° lenses remaining.
- Additional equipment, cables, and accessories are available from the general building stock (see page 23). Enquire for details.
- Par 64 1000w Narrow Spot bulbs are available upon request.

Control & Dimming

- (1) ETC Ion Control Console: 1000 outputs, 80 faders.
 - Console is located in the Lighting Booth, Catwalk Level, off centre.
 - Console may be moved into the house. Enquire for details.
- (1) ETC Wireless Remote unit for focusing (RFR).
- (1) ETC Remote Video Interface (RVI) for designer's remote in-house (shared with the Concert Hall).
- (1) ETC Unison Paradigm Architectural Control System:
 - During performances, the house and work lights are typically controlled by the Ion console.
- (173) 2400w Strand CD 80 Dimmers are available, including those used in the house hang.
- 20amp TLG connectors are at every lighting position.
- 20amp 19 pin soca connectors are located at most (but not all) positions.
- The Telus Theatre is dimmer-per-circuit, with select circuits repeating in some locations.
- Two discreet universes of DMX are possible in the Telus Theatre:
 - Universe 1 is wired directly to the dimmers, and cannot be distributed throughout the venue;
 - Universe 2 is only distributed throughout the venue, and cannot control the dimmers.

Cable

- The Chan Centre has a large inventory of 20amp TLG cable that should meet most typical requirements.
- There is small selection of PowerCon and 5pin XLR DMX data cables for house LED units, and a few other client devices.



Telus Studio Theatre Sound & Communication Equipment

Speaker System

- (2) KV Ex10 speakers are rigged in a centre cluster configuration (End Stage room configuration).
- (2) EAW SB600e subwoofers are located on the catwalk level, immediately behind the cluster.
- KV-2's on stands or other additional FOH P.A. may be available. Please enquire for details.
- Booth console position has (2) JBL Control 1 Studio (booth) Monitors

Mix Positions

- The principal mix position is located in the Sound/Lighting Booth on the fourth level (catwalk level). The Sound Operator monitors the performance via JBL Control 1 studio monitors.
 - See below for console and processing equipment.
- A secondary mix position can be re-located to the ground level of the theatre (on centre, under the balcony tower) to accommodate live music. Enquire for details.
 - A Soundcraft Performer SI-1 Digital mixing console is available.
 - Four seats are lost in the audience area for an In-House position.

Telus Studio Booth Mix Position

- | | |
|----------------------------------------------|-------------------------------------------------|
| (1) 16x4x3 Midas Venice F16 mixing console | (2) Tascam MD-CD1 Compact / Mini Disc Players |
| (1) Ashly Protea II 4.24GS, system processor | (1) Tascam 103 Cassette Player (recording only) |
| (1) Yamaha SPX 1000 Effects processor | (2) TOA P-60F Power Amplifiers |
| (1) DBX 1046 Quad Compressor Limiter | (3) Crest Audio CC151 Power Amplifiers |

Telus Studio Theatre Audio Inventory

- All portable equipment, other than the installed PA, comes from the inventory of the Chan Shun Concert Hall. (Additional Inventory, page 9)

Audio Patch Points and Wiring

- XLR, Speaker, Video, and Communication patch panels are conveniently located throughout the complex.
- The three venues, and the loading dock, can be easily linked via the various patch panels.
- The Chan Shun Concert Hall, Telus Studio Theatre, and the loading bay can be easily linked via pull tubes and cable hangers. Enquire for details.

Press Feed

- One independent audio send (mono) can be made available from the Midas mixing console.
- End users will be required to provide any and all other adaptors needed to interface with the press feed.
- Arrangements for a press feed should be made prior to arrival.

Wireless Hearing Assist

- A Listen Technologies FM Hearing Assistance system is provided.



Telus Studio Theatre Sound & Communication Equipment

Communications System

- (1) Clear Com Power Supply.
- (1) PLPro RM 220 Clearcom Station.
- (6) Clear Com RS 501 Belt packs & CC-85 Headsets.
- Additional equipment subject to availability.

Program Sound/Paging

- Program sound is available for backstage areas, dressing rooms, and Main Lobby.
- Priority Paging is available in a backstage common areas and dressing rooms.

Audio Recording of Events

- An archival audio recording of the event is easily accomplished with prior notice.
- Individual microphones in the event can be sent to the recording, but the levels will NOT be monitored.
- The basic recording can be given to the client via USB stick after the show, or at a later date.
- A full mic split is also possible, but requires a separate recording audio engineer.
- Please enquire for detail prior to the day of the event.
- See the Chan Centre License Agreement ("Electronic Tape and Broadcast") for costs associated with commercial recordings.

Program Video System

- Program video is available in the backstage common area and Main Lobby.
- The Chan Centre is wired for 3G-SDI video signal to most common locations throughout the building.

Webcasting Services

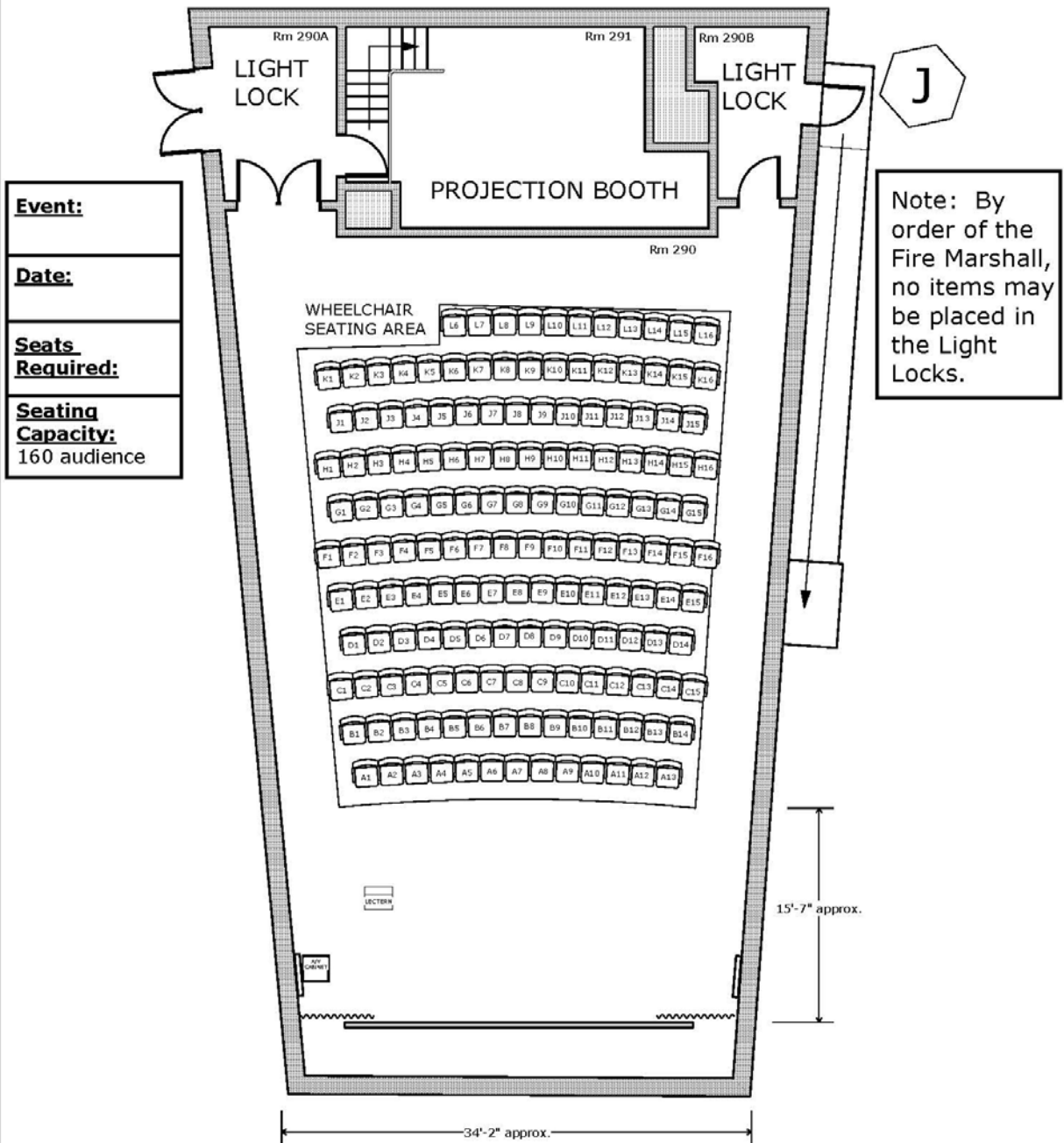
- Webcasting services are easily accommodated by the Chan Centre in conjunction with UBC Lecture Capture and Webcast Event Services.
- **A separate fee applies for this service. Please enquire for details.**

Digital Signage

- Digital Signage is available in the Glass Lobby for certain events.
- All content must have dimensions of 1920 x 1080 (16:9)
- Static and video formats supported are JPEG, MP4, Power Point and Keynote.
- There is no audio available with this system.
- Please enquire for details

Royal Bank Cinema

Royal Bank Cinema Seating Plan:



NB - ANY CHANGES TO SEATING MUST BE APPROVED BY CHAN CENTRE PRODUCTION DEPARTMENT.
base drawing version 20-Dec-06 -- *NOT TO SCALE



Royal Bank Cinema Projection, Audio, and Lighting Equipment

Film Projection

- (1) Strong Super-Lume X 35mm projector with (3) platter feed system.
- (1) Yokogama / Hokushin X-2200 16mm reel feed projector.

Video Projection

- (1) Christie LW 650 projector (1366 x 800, 6500 lumen, 16:9 aspect ratio), mounted in booth.

Slide Projection

- (2) Elmo 301 Pro-Af Omnigraphic slide projectors.
- (1) Kodak SP Programmable dissolve unit.

AV Control and Playback

(located in the downstage left corner of the Cinema)

- | | |
|-------------------------------|--------------------------------|
| (1) Sony SRP-X700 AV Mixer | (1) Tascam DV-D6500 DVD Player |
| (1) Pioneer DVD Player DV-373 | (1) Denon DBP-2012 Blu-Ray |

Projection Control Room

- | | |
|------------------------------------------------|----------------------------------------|
| (1) Ashly SRA 120 Stereo power amplifier | (1) Symetriz SX204 headphone amplifier |
| (3) Bose 100 speakers
(in-booth Monitoring) | (1) Teac W-860R Double Cassette Player |
| (1) Dolby CP65 Cinema Sound Processor | (2) QSC 1700 amplifiers |
| (1) Dorrough 40-A2 loudness monitor | (1) QSC DCA 3422 amplifier (Subs) |
| | (1) QSC DCA 1644 amplifier (Surrounds) |

Speakers

- | | |
|------------------------------------------|---------------------------------------------|
| (3) JBL 4673A projection screen speakers | (12) JBL 8340A projection surround speakers |
| (1) JBL 4642A projection sub speaker | (2) Bose Sound Re-enforcement speakers |
- 5.1 surround is only available for 35mm projections and Blu-Ray playback.
 - Please enquire for details.
 - Dolby A Matrixing is available for Non Sync Sources (DVD etc).

Microphones

- The Cinema can accommodate six microphones without the addition of extra rental equipment.
- All portable equipment, other than the installed PA, comes from the inventory of the Chan Shun Concert Hall. (Additional Inventory, page 9)

Wireless Microphones

Sennheiser EW 550 G1 Wireless System

- (2) Sennheiser ME2 Lavalier Mic
- (2) Sennheiser Handheld Cardioid Mic

**** Only 2 Transmitters of this wireless system can be used at one time****



Royal Bank Cinema Projection, Audio, and Lighting Equipment

Program Sound/Paging

- Program sound is available for the Royal Bank Cinema Lobby and washrooms.
- Paging to the audience is available.

Wireless Hearing Assist

- A Listen Technologies FM Hearing Assistance system is provided.

Program Video System

- The Chan Centre is wired for 3G-SDI video signal to most common locations throughout the building.

Webcasting Services

- Webcasting services are easily accommodated by the Chan Centre in conjunction with UBC Lecture Capture and Webcast Event Services.
- **A separate fee applies for this service. Please enquire for details.**

Lighting House Hang

- | | |
|-----------------------------------------------|-----------------------------------------|
| (1) Altman 360Q 750w 6x9
(lectern special) | (4) Par 64 1000w MFL (front stage wash) |
|-----------------------------------------------|-----------------------------------------|

Lighting Control & Dimmers

- ETC Unison Paradigm Architectural Control System, with DMX input available.
- Unison Control stations are located in:
 - the projection booth by each projector;
 - the main Lobby light lock; and
 - on the portable lectern.
- (18) 2400w Strand CD 80 Dimmers are available for 20amp TLG connectors, including those used in the house hang.
- The Royal Bank Cinema is dimmer per circuit, with circuits repeating in multiple locations.

Lectern

- The Royal Bank Cinema comes with one lectern with integrated control for room lighting.

Great Performers' Lounge Sound Inventory

Portable PA

- (2) KV2 EX10 self-powered 2-way speakers
- (2) K&M Speaker Stands



Chan Centre for the Performing Arts General Building Stock

**This stock is available for use anywhere in the building.
Please contact Production Staff to ensure availability.**

Lighting

- | | |
|-----------------------------------------------|--------------------------------------------------|
| (17) ETC Source4 750w bodies | (4) Selecon 1200 7" 1000w Fresnel |
| (1) ETC Source4 575w body | (10) FE Lighting Par 64 1000w Medium Flood |
| (1) ETC ColorSource4 LED body | (15) Chauvet Colorado2 Quad Zoom RGB-W |
| (1) ETC Source4 10° lenses | (6) Gel extenders (6 ¼" x 5") |
| (4) ETC Source4 14° lenses | (2) Gel extenders (7 ½" x 6") |
| (14) ETC Source4 19° lenses | (2) Iris Kits |
| (5) ETC Source4 26° lenses | (1) Rosco DMX Iris |
| (6) ETC Source4 36° lenses | (1) Rosco RevoPro Dual Programmable Gobo Rotator |
| (8) ETC Source4 50° lenses | |
| (6) Strand Coda single cell cyc units
500w | |

Chairs and Tables

- | | |
|------------------------------------------------------|------------------------|
| (150) Wenger Musician chairs: black, padded, armless | (8) 3' x 6' tables |
| (13) Musician stools: some padded | (1) 1'6" x 6' tables |
| | (2) 2'6" x 2'6" tables |
| | (2) 2'6" x 4' tables |

Music Stands & Lights

- | | |
|-----------------------------------------------|----------------------------------|
| (1) Conductor's score stand | (92) Wenger music stand lights |
| (128) Wenger music stands on rolling
racks | (4) 25' Lex U-ground pit snakes. |

Pianos

- (1) Steinway 9' black satin finish concert grand piano (model D, New York).
 - Tuned to A440. For use in the Concert Hall only.
- (1) Yamaha 7'6" black gloss finish concert grand piano (model C7, North American model).
 - Tuned to A440. For use in the Main Lobby, Concert Hall, or Telus Studio Theatre upon availability.
- (3) adjustable upholstered Jensen piano benches;
 - 17.5" to 20.5" (44cm to 52cm)
- (3) Boston Up-118s PC uprights.
 - Tuned to A440.
 - Located in Telus Studio, dressing room 181, and Great Performers' Lounge.
- (3) adjustable upholstered piano benches;
 - 19" to 23" (48cm to 58cm)
- **Tuning must be arranged in advance. A separate fee applies.**



Chan Centre for the Performing Arts General Building Stock

Lecterns

- The Chan Centre has a pair of matching lecterns designed to reflect the décor of the facility.
- While intended for use in the Concert Hall, they may be used in the other venues, if available.
- The lecterns have internal wiring for microphones, task lights, and AC power.

Stairs and Risers

- (2) Conductor's podiums (without railing):
 - Large is 3'5" x 3'6" x 1' (1m x 1m x 0.3m) &
 - Small is 3'5" x 2'6" x 0'6" (1m x 0.76m x 0.15m)
- (6) Staging Canadell Ready Stage folding risers: 4' x 8' x 8" (1.2m x 2.4m x 0.2m)
- (3) Staging Canadell Executive risers: 4' x 8' x 4" (1.2m x 2.4m x 0.1m)
- (5) Staging Canadell Executive risers: 4' x 4' x 4" (1.2m x 1.2m x 0.1m)
 - Legs for 8", 16", and 24" heights.
- (12) 4' x 8' x 6" (1.2m x 2.4m x 0.15m) black plywood box risers.
 - A variety of plywood leg heights are available in 6" increments.
- Various 1, 2, and 3-step step units in 6" and 8" rises. Enquire for details.
- (2) Harp / Cello risers: 2'6" x 5'0" x 6" (0.76m x 1.5m x 0.15m)
- (6) Violin risers: 2'0" x 4'0" x 6" (0.6m x 1.2m x 0.15m)

Choral Risers

- (9) 4-Tier Wenger Signature Series Choral Risers, with back railings.
 - Approximate capacity is 130 adult choristers, PLUS any standing on the floor.

Pipe and Drape

- | | |
|-----------------------------------------------------------------------|------------------------------------------------|
| (8) Bases, 24", 40lbs | (8) Vertical supports(8' – 14') (2.4m – 4.2m) |
| (16) Drapes, 4'w X 14'h (1.2m w x 4.2m)
20 oz IFR Polyester Velour | (4) Horizontal bars (7' – 12') (2.1m – 3.6m) |

Dance Floor

- (12) panels of flat black dance floor are available.
 - (7) panels of 5'3" x 42'9" (1.6m x 13m)
 - (1) panel of 5'3" x 32'7" (1.6m x 9.9m)
 - (4) panels of 5'3" x 32'3" (1.6m x 9.8m)
- In addition a few small custom curved pieces are in stock to suit our stage
- The panels will cover the majority of the concert hall stage in any configuration

Wardrobe

- Washer and dryer.
- Hand steamer, iron, and ironing board.
- (8) rolling costume racks.



Chan Centre for the Performing Arts General Building Stock

Dressing Rooms

- (7) dressing rooms are on the same level as the Concert Hall and Telus Studio Theatre:
 - (4) 4-6 person rooms
 - (1) 1-2 person room
 - (1) 2-3 person room
 - (1) chorus room (10 persons)
- These rooms are shared between the Concert Hall and the Telus Studio Theatre. The specific breakdown is contained in the Chan Centre for the Performing Arts license agreement. Whenever possible, clients will be given as many dressing rooms as are available.

Loading Dock

- Loading Dock is accessible off of East Mall, between Chancellor Boulevard / North West Marine Drive and Crescent Road.
- Up to three (3) client vehicles are permitted to stay in the Loading Dock area, with priority given to contractor and equipment transport vehicles. Passenger vehicle parking is generally not permitted.
- Bus parking (and shore power) is available. Enquire for details, or other locations on campus for large or oversize vehicles.
- Trucks (without trailers) can stay in the Loading Dock area, without blocking the Loading Bay doors. Trucks with trailers may not fit, or would prevent other user or vehicle access.
- Please discuss transport and parking needs prior to arrival.
- Artist entrance is the Stage Door, at the Loading Bay, off of East Mall.
- Directions are available on the Chan Centre website at www.chancentre.com/directions/
- There are (2) loading doors at dock level.
 - Dimensions: 9' 1" H x 8' 8" W = 12' 6" on diagonal.
 - (2.75m x 2.6m = 3.8m on the diagonal)
- The Concert Hall stage door (upstage right) is approximately an 80' (24m) flat push.
 - Dimensions: 9' 9" H x 7' 6" W = 12' 4" on the diagonal.
 - (3m H x 2.3m W = 3.8m on the diagonal)
- The Telus Theatre loading door (upstage right) is approximately a 40' (12m) flat push.
 - Dimensions: 9' 6" H x 6' 2" W = 11' 5" on diagonal.
 - (2.9m H x 1.8m W = 3.5m on diagonal)
- Cable pass-throughs and cable hooks are available from exterior loading dock into both the Concert Hall and Telus Theatre:
 - 280' – 340' (85m – 104m) of wire is needed from downstage left Concert Hall Sound Panel/Monitor Land to loading dock exterior wall. Additional cable is needed to reach the truck.
 - 70' (21.3m) of wire needed from Telus Theatre upstage right corner to the loading dock exterior wall. Additional cable is needed to reach the truck.



Chan Centre for the Performing Arts Video & Projection Equipment

Video Screen

- (1) Stumpfl MonoBlox S64 Frame
11'3" H x 20'0" W.
16:9 Surface
Front Projection and Rear Projection Surfaces
Includes rigging hardware for flying (which is recommended in our hall).
Please enquire for typical rigging positions.
Optional leg kit available.
- Flown screen locations are approximately 117' (35.5m) or 136' (41.5m) to projector lens.

Projector

- (1) Epson Powerlite Pro Z8350 WNL (H460A)
Polysilicon TFT Active Matrix Projector
1280w x 800h Native Resolution
8500 lumens

Lenses

	Long Throw (installed for front projection)	Short Throw (for rear projection)
Model	ELPLL07	ELPLW04
Zoom Ratio	1:1.39	1:1.37
F Number	1.8 – 2.45	1.8 – 2.26
Projection Distance Ratio	5.76 – 8.09	1.29 – 1.77
Ratio is Projection distance / Screen width		

- The Projector is typically located in the Concert Hall Sound Control Booth, on centre, underneath the balcony, behind a sliding glass window.

****Separate fees apply for the use of the projector and/or video screen.**

Digital Video Equipment

- | | |
|-----------------------------------------------------------------------------------------------|------------------------------------------------------------|
| (2) 22" LCD HDMI 1080p monitors | (2) Roland VC-1-SH SDI to HDMI converters |
| (1) MSI Laptop for A/V use | (3) Roland VC-1-HS HDMI to SDI converters |
| (1) Macbook Pro | (1) Roland VC-1-SC Scan Converter |
| (1) Roland V1-SDI Video Switcher
(HD-SDI & HDMI inputs) | (1) DSan PerfectCue Presenter Remote
(HDMI output only) |
| (1) Panasonic PTZ Robotic Camera
(installed in centre balcony position, program feed only) | |

****A separate fee applies for the use of the A/V Laptop.**



Chan Centre for the Performing Arts Fees for Services & Atmospheric Effects

Separate fees or labour costs will be charged for the following:

- Lycian Follow spots
- Wireless Microphone Systems
- DPA 4066 Headset Mics
- Video screen and/or video projector
- MSI Laptop
- Webcast or broadcasting services
- UBC Security
- Camera, IMAG, or Audio-Visual set-ups;
- Piano Tuning (single, concert, or full tuning);
- Use of Atmospheric Effects (see below);
- Electrical hook-up to any 200A or 400A 3 Ø panel.

Separate labour costs may be charged for the following items:

- Adjusting the position of the Orchestra pit lift, or removing audience chairs;
- Adjusting the position of the Chorus Loft;
- Removing the stairs between the Concert Hall stage and audience level;
** NB: see pages 4 – 5 for standard configuration of Concert Hall.
- Adjusting the position of any of the (5) towers in the Telus Studio.

Please enquire with Production Staff for the current rates.

Atmospheric Effects

- The use of such effects requires temporary modifications to the Fire Alarm system, and its constant monitoring during the event. This is done by UBC Electricians, and the cost will be borne by the client.
- The use of haze and fog is permitted ONLY if discussed prior to your event.
- Only water- or glycol/glycerin-based atmospheric effects are permitted.
- The use of smoke effects (created by burning materials) is PROHIBITED.
- The use of mineral oil hazers, or crackers, is PROHIBITED.
- The location of the effect device(s) must be considered to protect the building, floors, seating, etc. Appropriate care must be taken to minimize the leakage, spillage, or condensation of water or glycol/glycerin for safety reasons.
- Be aware that for some events, fan or machine noise is VERY audible in the venues.



Chan Centre for the Performing Arts Temporary Power Hook-ups

NOTE: For all 400amp and 200amp panels:

- A UBC Electrician is required for all cam-lock and bare-end hook-ups.
 - A separate fee applies, and must be scheduled in advance.
- Cam-Lock connectors are 1016 J-style, with:
 - the "hot" power legs having female connectors; but
 - the Ground and Neutral legs turning around to have male connectors.

Concert Hall ~ Upstage Centre

- (2) 400amp 208v 3 Ø Cam-Lock, building-ground switches.
- (1) 200amp 208v 3 Ø Cam-Lock, isolated-ground switch.
- (1) 60amp 208v 3 Ø 60amp Pin & Sleeve receptacle, isolated-ground. (560R9W)
 - 200amp and 60amp switches are powered from same 200amp service. Total draw on this isolated-ground (audio power) service cannot exceed 200amps.
- Panels are located in a room adjacent to the Concert Hall, with cable pass-throughs in the upstage wall at centre, approximately:
 - 125' (38m) from downstage left (monitor world) and downstage right (Stage Manager's desk).
 - 170' (52m) from the Telus Theatre.

Concert Hall ~ Stage Right

- (1) 50amp 120/208v Range receptacle, building-ground. (NEMA Code 14-50R)
- (1) 50amp 208v 3 Ø 60amp Pin & Sleeve receptacle, building-ground. (560R9W)
- (1) 100amp 208v 3 Ø 100amp Pin & Sleeve receptacle, building-ground (5100R9W)
- Receptacles are:
 - Powered from same 100amp service. Total draw on this service cannot exceed 100amps;
 - Located approximately 100' – 120' (33m – 37m) from typical video projector location in Choir Loft.

Concert Hall ~ Projection Booth

- (1) 50amp 120/208v Range receptacle, building-ground. (NEMA 14-50R)
- (1) 30amp 120/208v Dryer receptacle, building-ground. (NEMA 14-30R)
- Receptacles are located in the Lighting booth adjacent to the Sound Booth, approximately 40' (12m) from the projector position.

Loading Bay/Telus Theatre

- (1) 400amp 208v 3 Ø Cam-Lock, building-ground switch.
- (1) 50amp 120/208v Range receptacle, building-ground. (NEMA 14-50R)
- (1) 50amp 208v 3 Ø 60amp Pin & Sleeve receptacle, building-ground. (560R9W)
- (1) 200amp 208v 3 Ø Cam-Lock, isolated-ground switch.
- (1) 60amp 208v 3 Ø 60amp Pin & Sleeve receptacle, isolated-ground. (560R9W)
 - 200amp and 60amp switches are powered from same 200amp service. Total draw on this isolated-ground (audio power) service cannot exceed 200amps.
- Panels are located in the Loading Bay adjacent to the upstage right corner of the Telus Studio, approximately:
 - 45' (14m), from the upstage centre of the venue.
 - 170' (52m) from the upstage centre of the Concert Hall.



Chan Centre for the Performing Arts Temporary Power Hook-ups

Portable Power Distribution Box and Accessories

- (1) portable distribution box, 60amp 208v 3 Ø, has:
 - (9) 15amp U-Ground circuits, 120v;
 - (2) 20amp TLG circuits, 120v;
 - (1) 50amp 120/208v Range receptacle. (NEMA 14-50R)
 - Connects to 60amp Pin & Sleeve power sources.
- (1) 60amp Pin & Sleeve plug (560P9W) to #2 wire Camlocks (1016 J style) fan-out set is available. Client's distribution box MUST be limited to 60amp input.
- (1) 100amp Pin & Sleeve plug (5100P9W) to #2 wire Camlocks (1016 J style) fan-out set is available. Client's distribution box MUST be limited to 100amp input.