



**CARLSON FAMILY STAGE  
TECHNICAL & PRODUCTION SPECS**

Last Updated Jul 1, 2019

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## **CARLSON FAMILY STAGE AT NORTHROP**

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# CONTACTS

## NORTHROP

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<b>Social</b>	Facebook, Twitter, Instagram, YouTube: @northropumn
<b>Northrop Loading Dock Delivery Address</b>	73 Pleasant Street SE Minneapolis, MN 55455

## TICKET OFFICE

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## SURDYK'S CAFÉ

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## UNIVERSITY CONTACTS

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<b>Campus Security Monitor Escort Service</b>	612-624-WALK
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# SEATING

Carlson Family Stage at Northrop can seat a maximum total of 2,706 people.

<b>Orchestra (G)</b>	744 fixed (10 wheelchair) + 16 loose	760 seats
<b>Orchestra Circle (1)</b>	386 fixed (0 wheelchair) + 14 loose	400 seats
<b>Presidents Circle (2)</b>	357 fixed (0 possible wheelchair) + 46 loose	403 seats
<b>Scholars Circle (3)</b>	433 fixed (2 possible wheelchair*) + 46 loose	481 seats
<b>Gallery Circle (4)</b>	622 fixed (2 possible wheelchair*) + 28 loose	652 seats

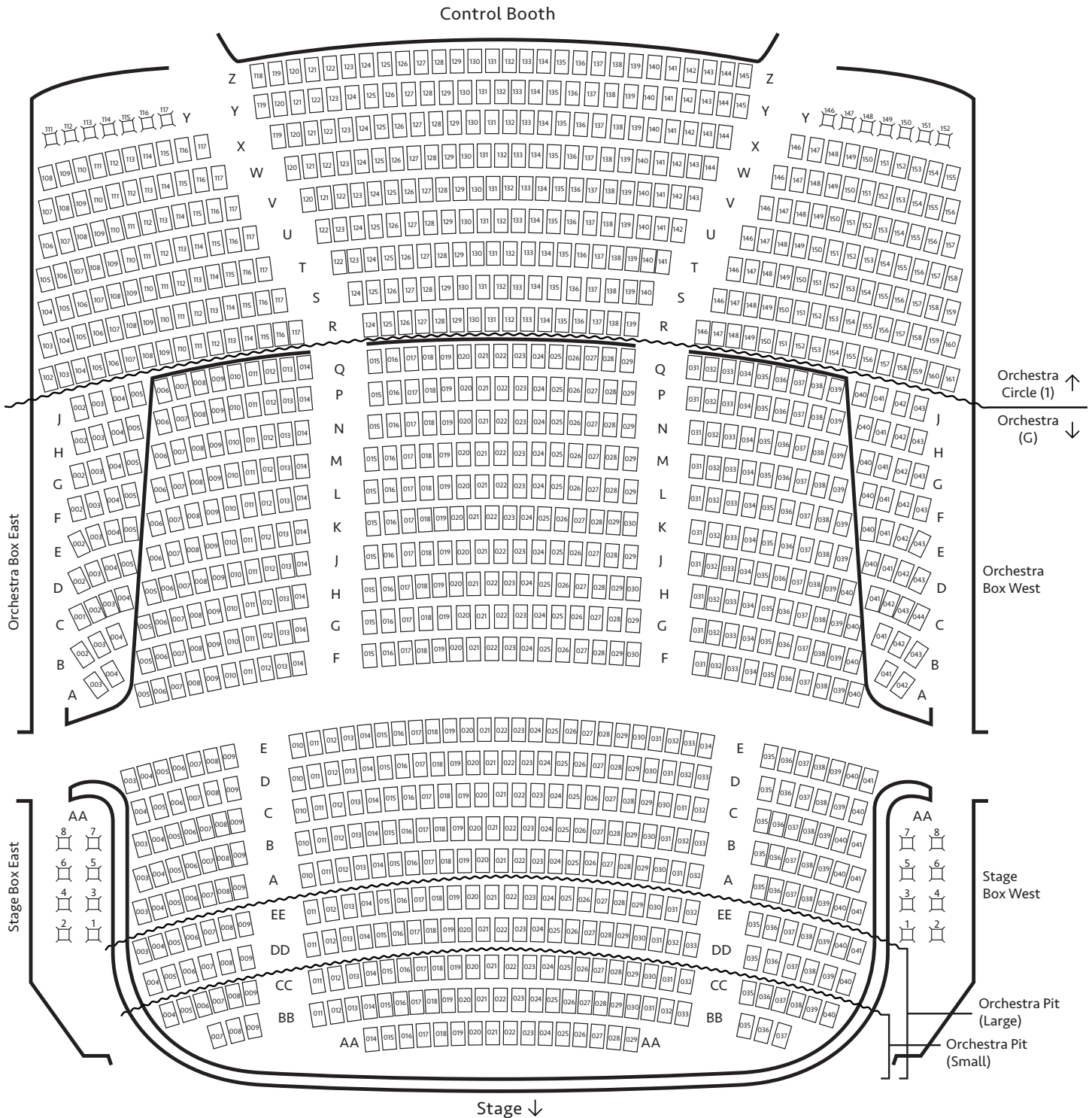
\*Two wheelchair seats or two loose seats can be removed to accomodate one wheelchair.

The following features would require seats to be removed from the Orchestra Level:

<b>Orchestra Pit</b> (Large/Full)	Accommodates up to 68 musicians	150 seats
<b>Orchestra Pit</b> (Small)	Accommodates up to 36 musicians	79 seats
<b>Mixing/Sound Position</b>		30-40 seats

Mix Position seating will need to be removed before or during Load In labor calls. Approximate time to remove is 45 minutes with 4 stagehands.

# ORCHESTRA (G) & ORCHESTRA CIRCLE (1)

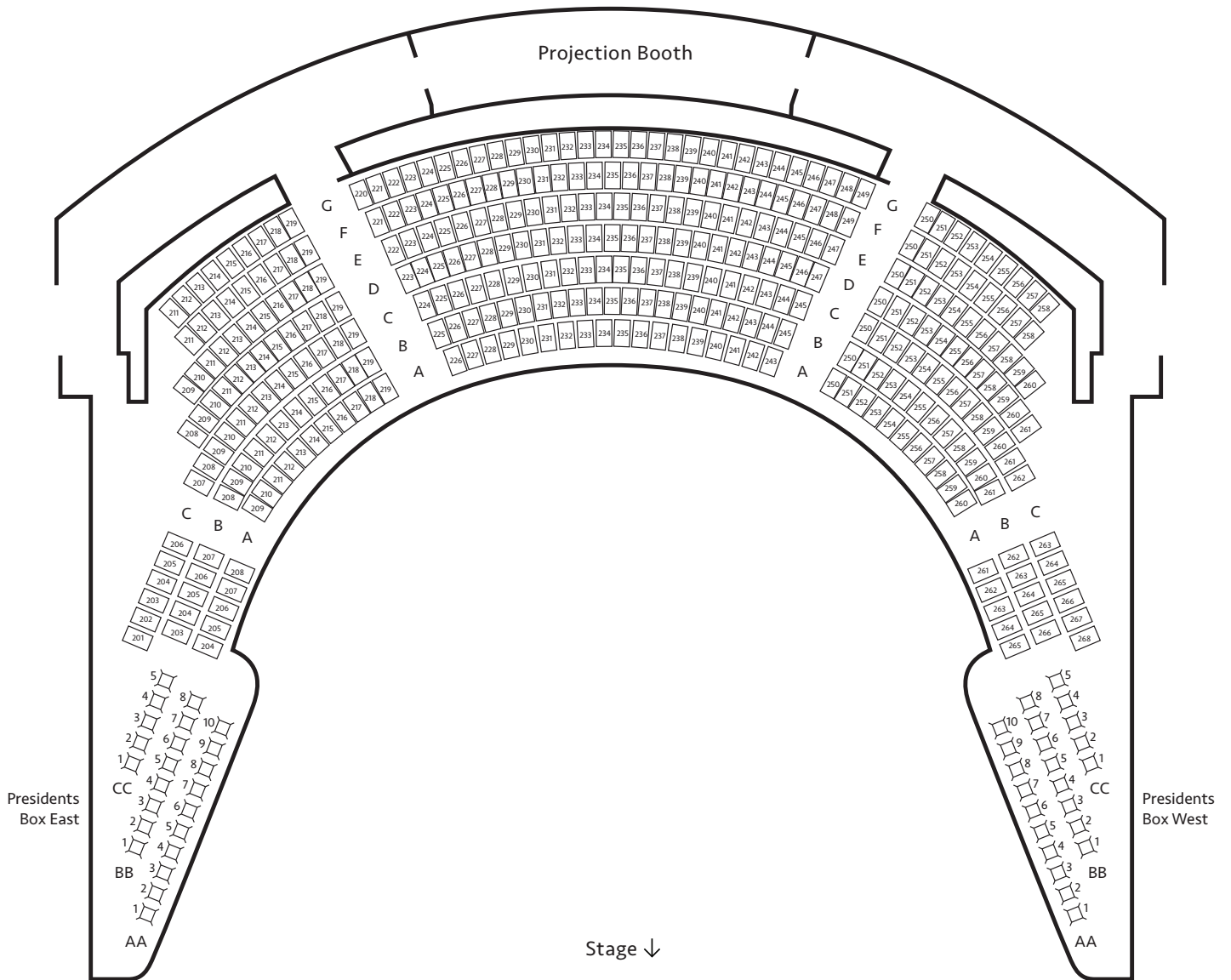


☐ = Loose chair



Seats 004 and 040 of row CC have limited leg room.  
 Rows A and DD may have limited leg room depending on the configuration of the pit for a performance.

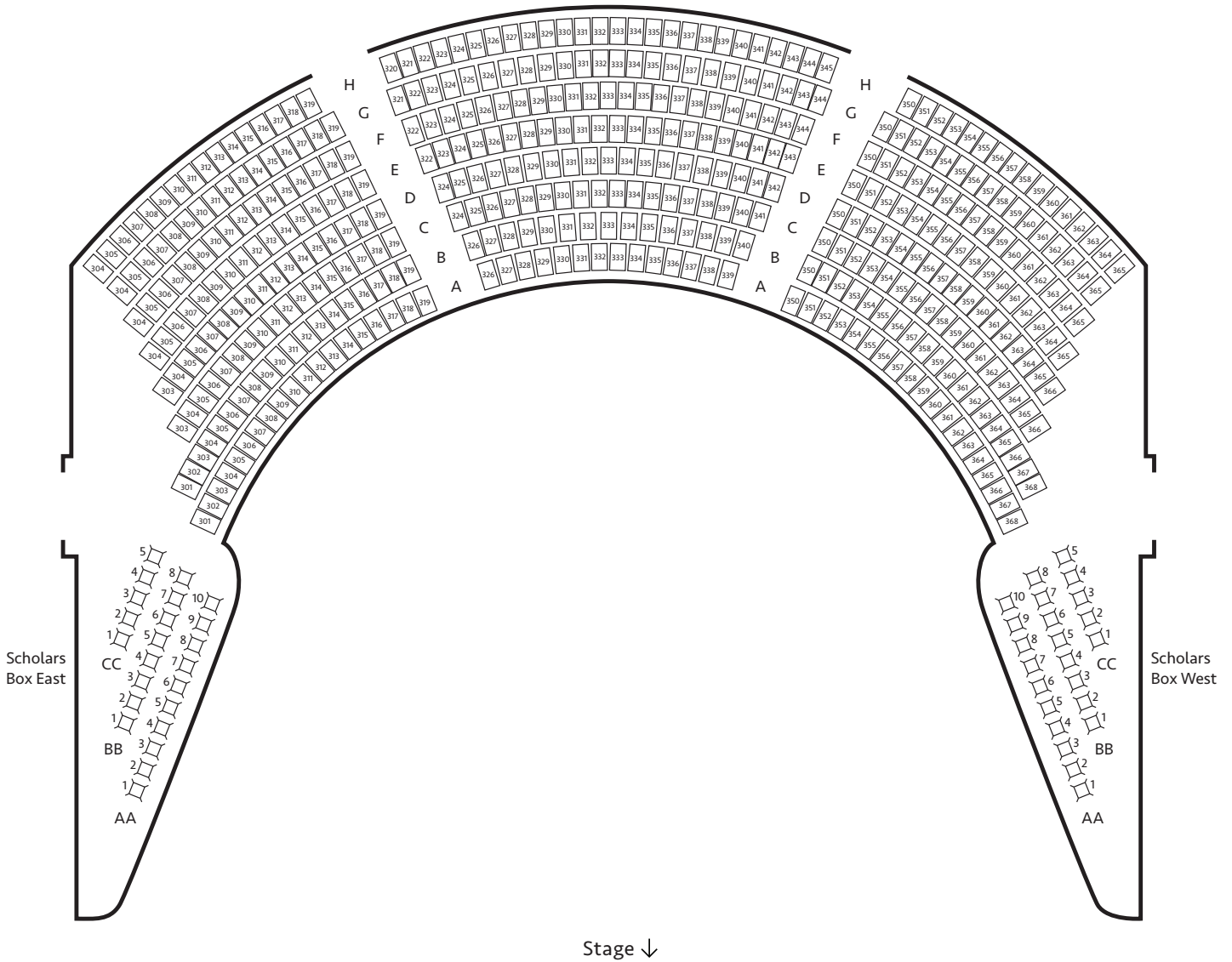
# PRESIDENTS CIRCLE (2)



☐ = Loose chair



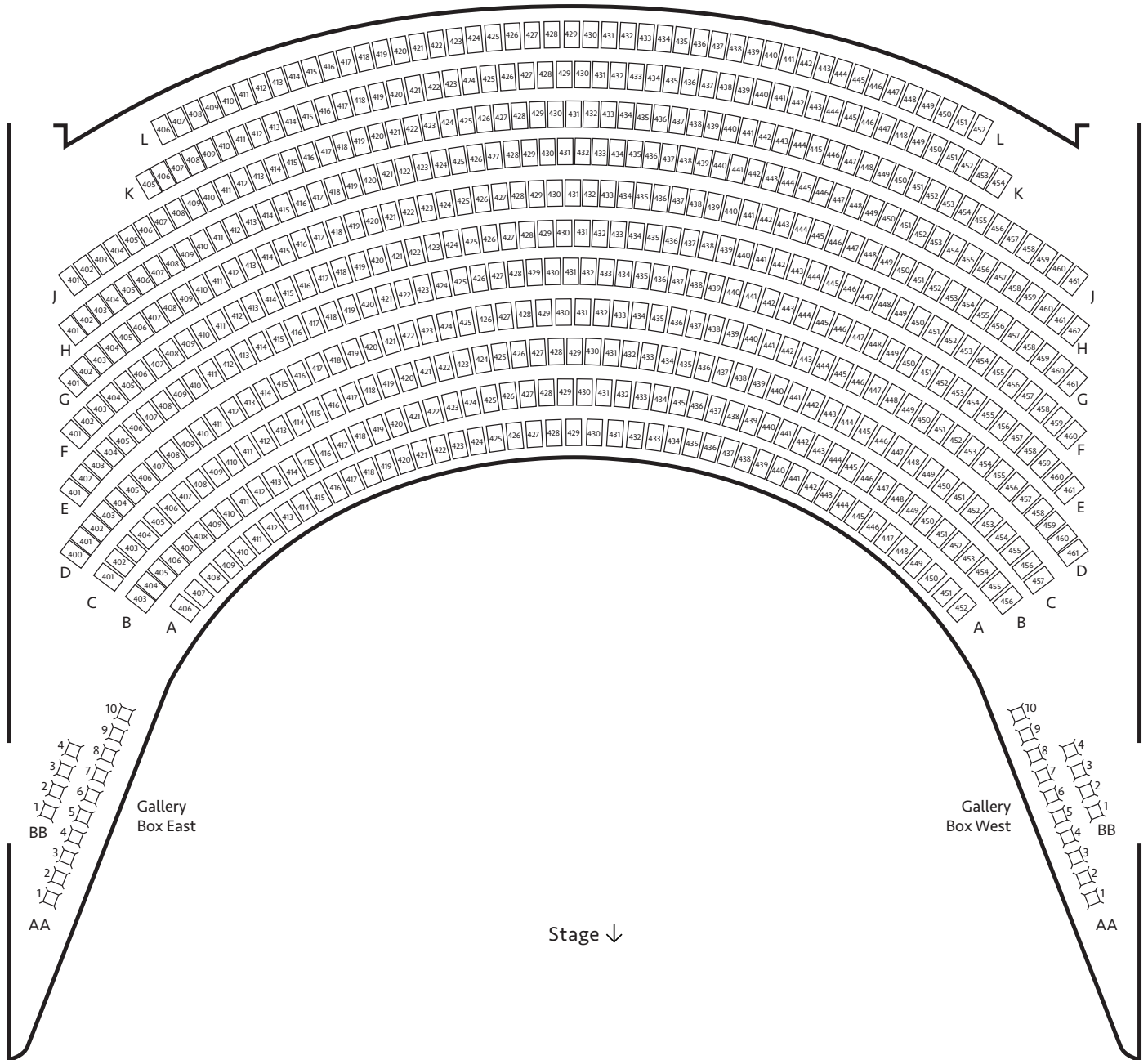
# SCHOLARS CIRCLE (3)



□ = Loose chair



# GALLERY CIRCLE (4)



☐ = Loose chair

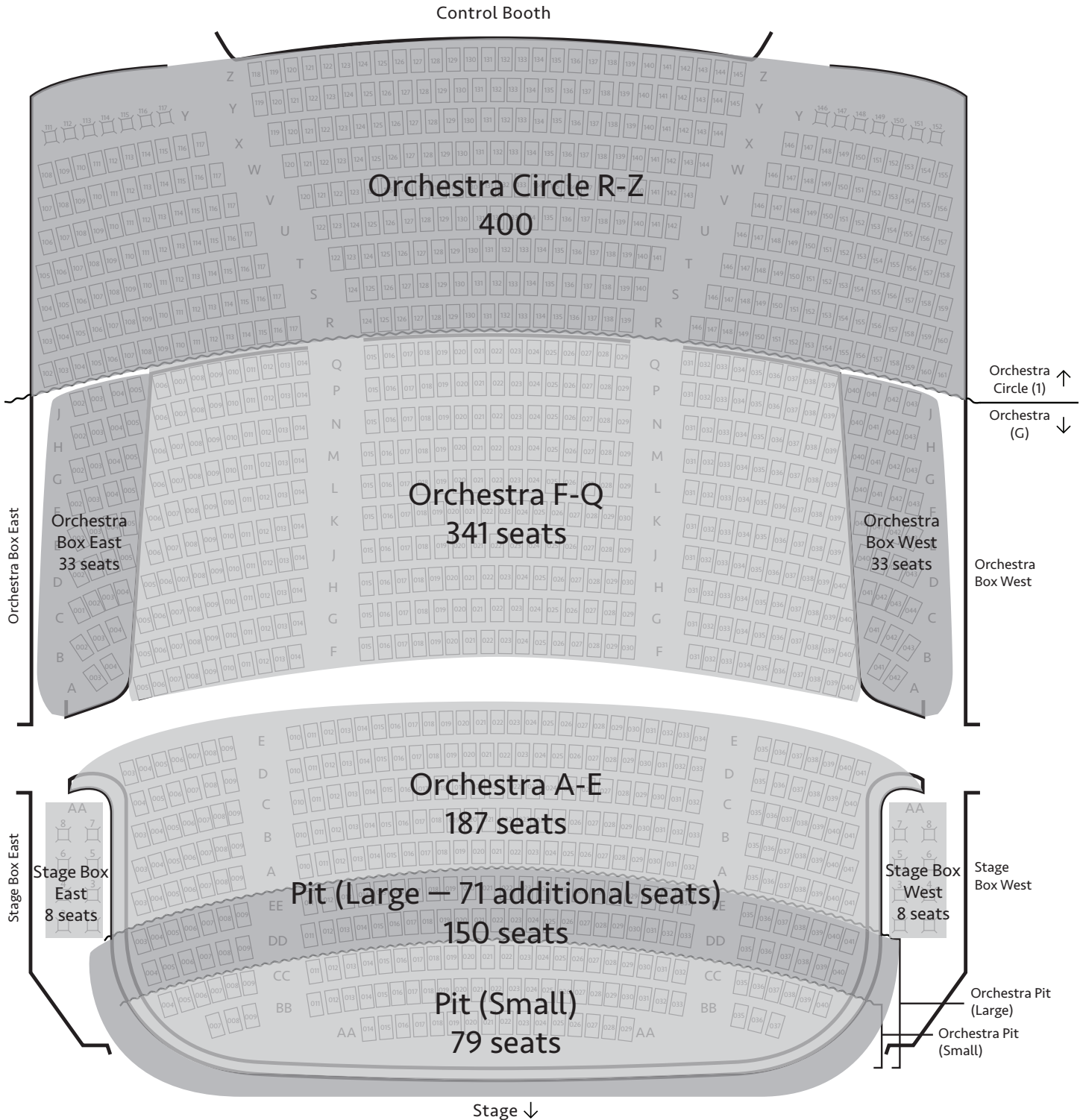


Row L of Gallery Circle is best for patrons 5 foot 6 inches or taller for the best possible viewing experience. Seat bottoms in Row L are thicker to maintain sightlines.



# ORCHESTRA (G) & ORCHESTRA CIRCLE (1)

Total Capacity: 1,160 seats

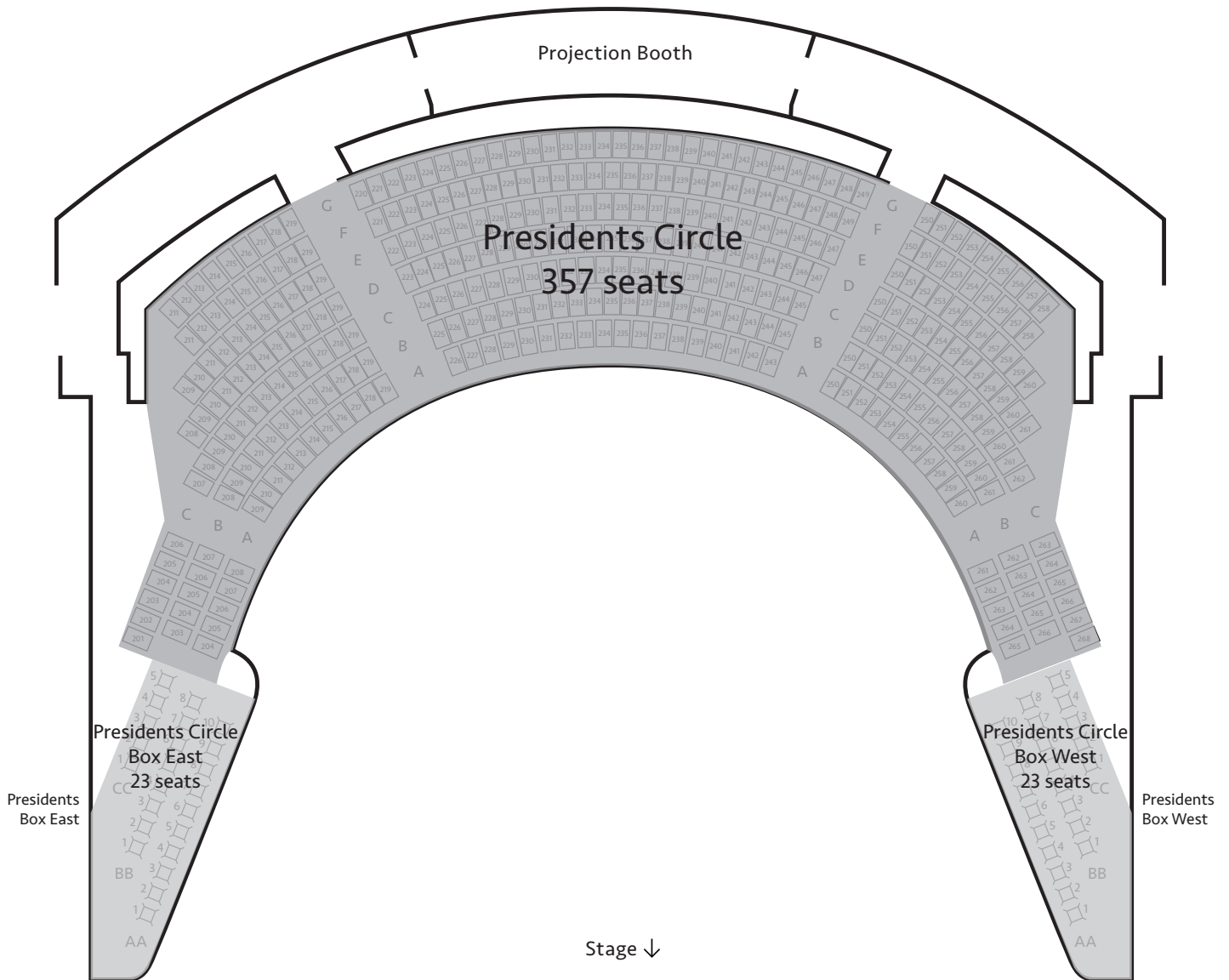


□ = Loose chair



# PRESIDENTS CIRCLE (2)

Total Capacity: 403 seats

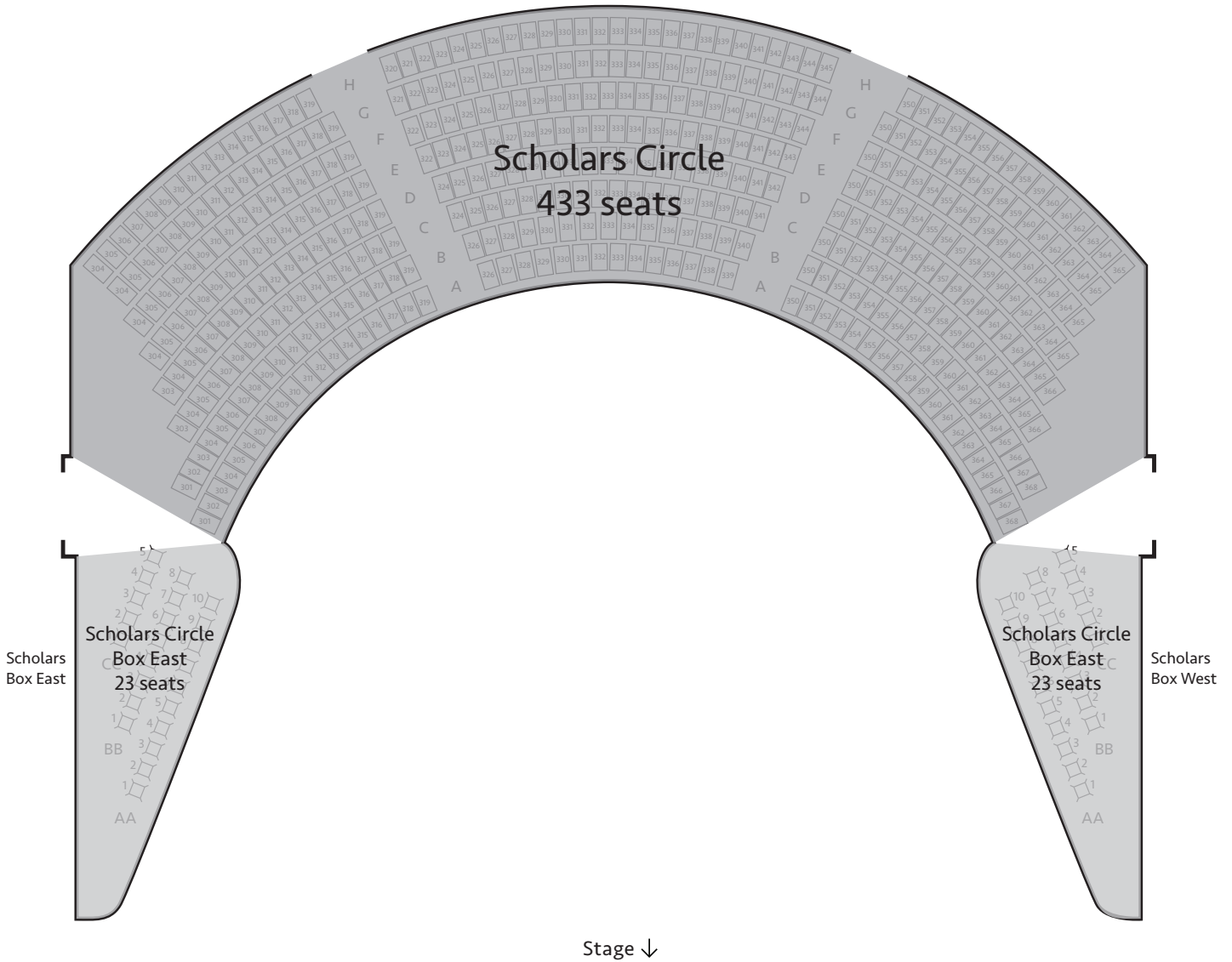


☐ = Loose chair



# SCHOLARS CIRCLE (3)

Total Capacity: 479 seats

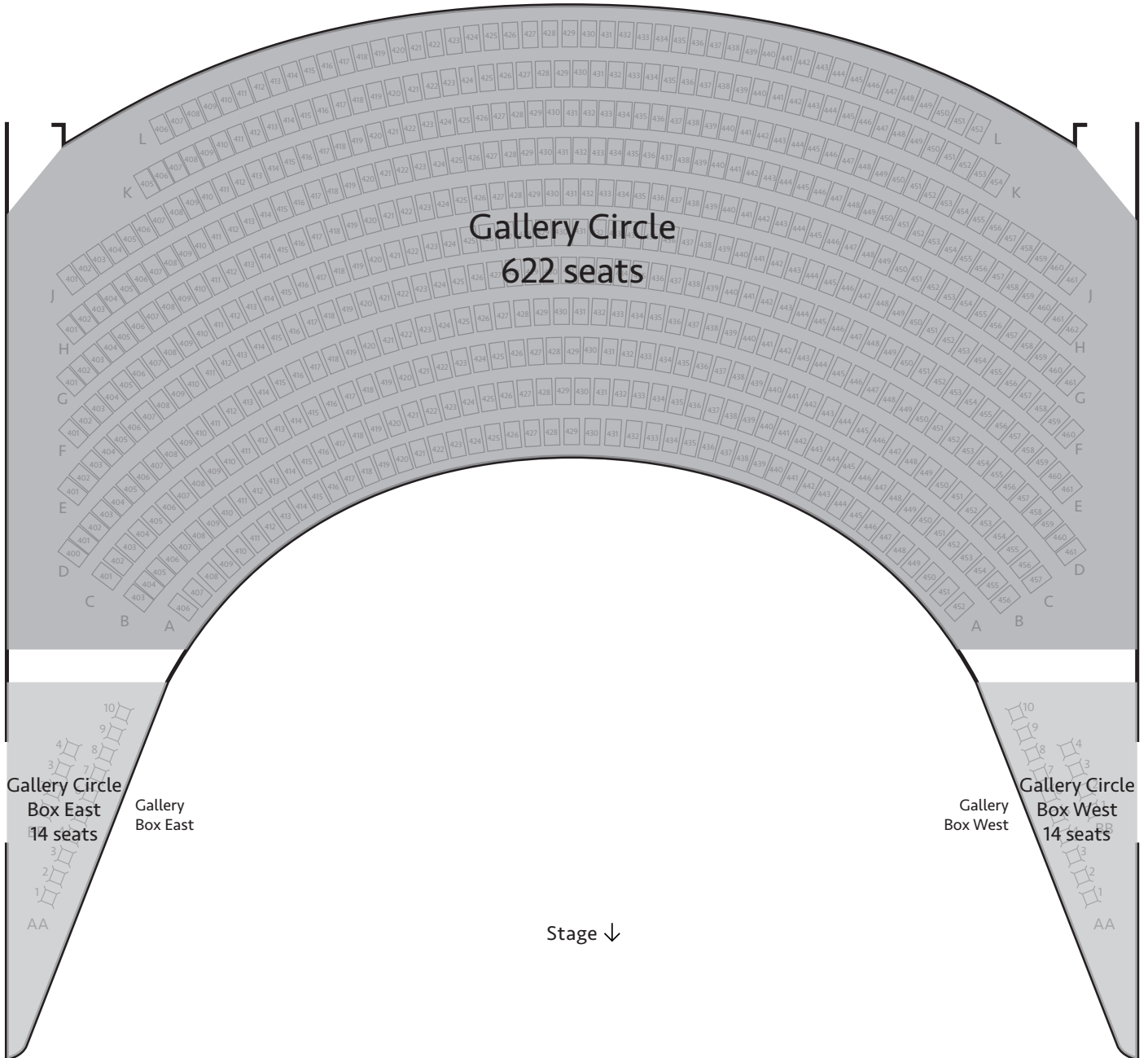


□ = Loose chair



# GALLERY CIRCLE (4)

Total Capacity: 650 seats



□ = Loose chair



# STAGE SPECIFICATIONS

## STAGE & PROSCENIUM

<b>Stage Depth</b> (Plaster line to back wall)	39'6"	12.0 m
<b>Additional Upstage Deadhang Space</b>	17'3"	5.3 m
<b>Stage Width</b> (Loading door to locking rail)	97'	29.6 m
<b>Proscenium Width</b>	60'	18.3 m
<b>Proscenium Height</b> (Maximum)	43'5"	13.2 m
<b>Proscenium Height</b> (Minimum)	33'5"	10.2 m

## ORCHESTRA PIT (Small)

<b>Length</b>	68'	20.7 m
<b>Width on Center</b>	16'2"	4.9 m
<b>Width at Ends</b>	10'11"	3.3 m
<b>Pit Floor to Stage</b>	7'9"	2.4 m
<b>Square Footage</b>	971'	296.0 m

## ORCHESTRA PIT (Large)

<b>Length</b>	72'3"	22.0 m
<b>Width on Center</b>	22'8"	6.9 m
<b>Width at Ends</b>	17'8"	5.4 m
<b>Pit Floor to Stage</b>	7'9"	2.4 m
<b>Square Footage</b>	1,430'	435.9 m

## LOADING DOCK

<b>Truck Access</b>	2 bays with levelers & seals at stage level (Nominal 40' travel distance to stage door, 90' to center of stage)
<b>Stage Loading Door</b>	10' (3.0 m) Width 20' (6.1 m) Height

# BACKSTAGE SPECIFICATIONS

## DANCE FLOOR

(for Stage and Rehearsal Room)

Harlequin Liberty Latchloc Sprung Floor System

Harlequin Reversible Marley Floor

## PODIUMS

### Large

41" h, 56" w, 24.5" d (104 cm h, 142 cm w, 62 cm d)

### Small

45" h, 26.5" w, 21" d (114 cm h, 67 cm w, 53 cm d)

## PIANOS

Essex Upright 1

Steinway Grand  
Model D 1

## LAUNDRY

Washers 2

Dryers 2

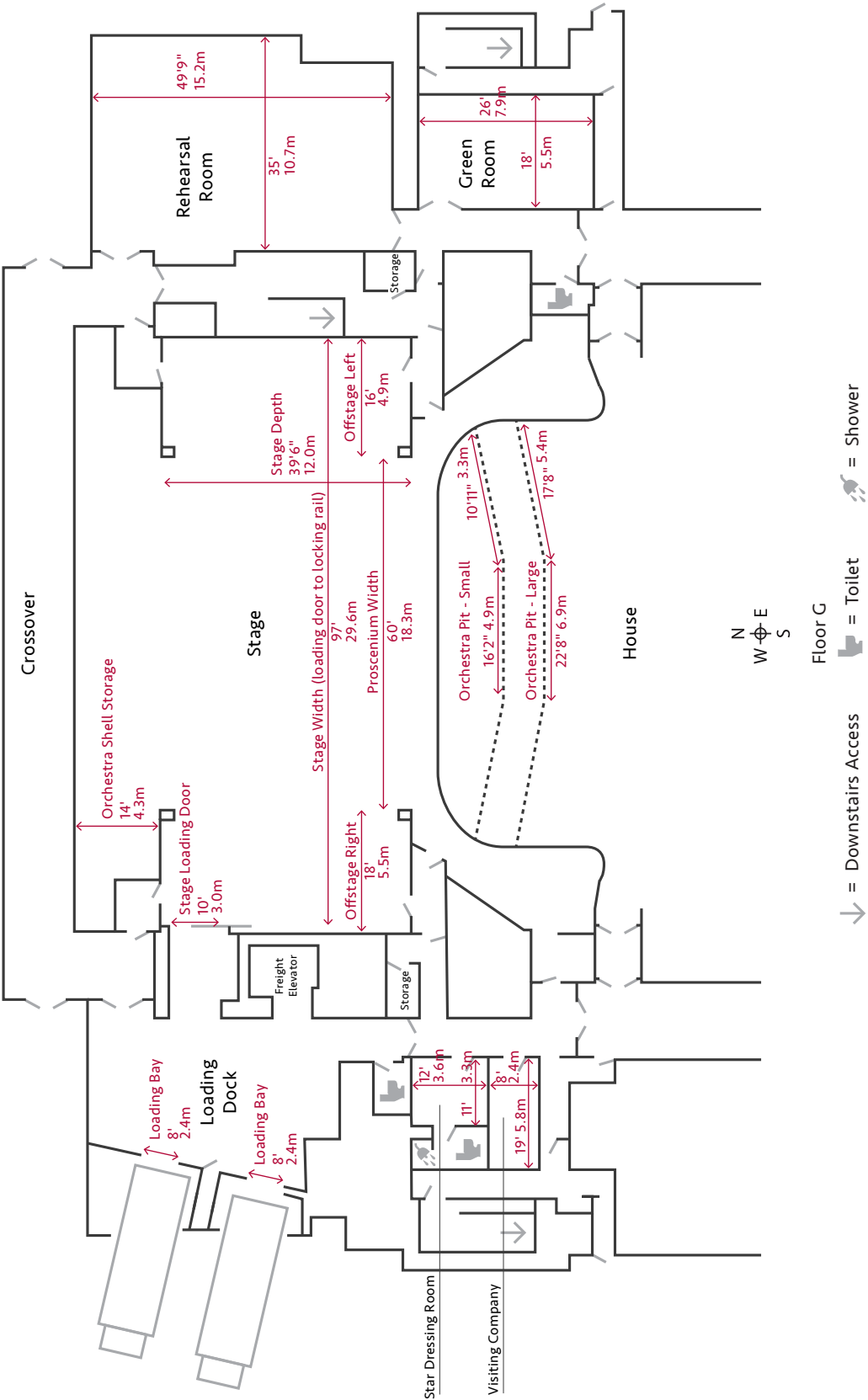
Garment Racks 12

Steamers 2

Irons 4

Ironing Boards 4

# NORTHROP BACKSTAGE GROUND LEVEL



# BACKSTAGE ARTIST FACILITIES

## GROUND LEVEL

	Dimensions			
Rehearsal Room	49'9" x 35'	15.2 m x 10.7 m		
Green Room	26' x 18'	7.9 m x 5.5 m	<b>Makeup Stations</b>	<b>Showers</b>
Star Dressing Room	12' x 11'	3.7 m x 3.4 m	1	1

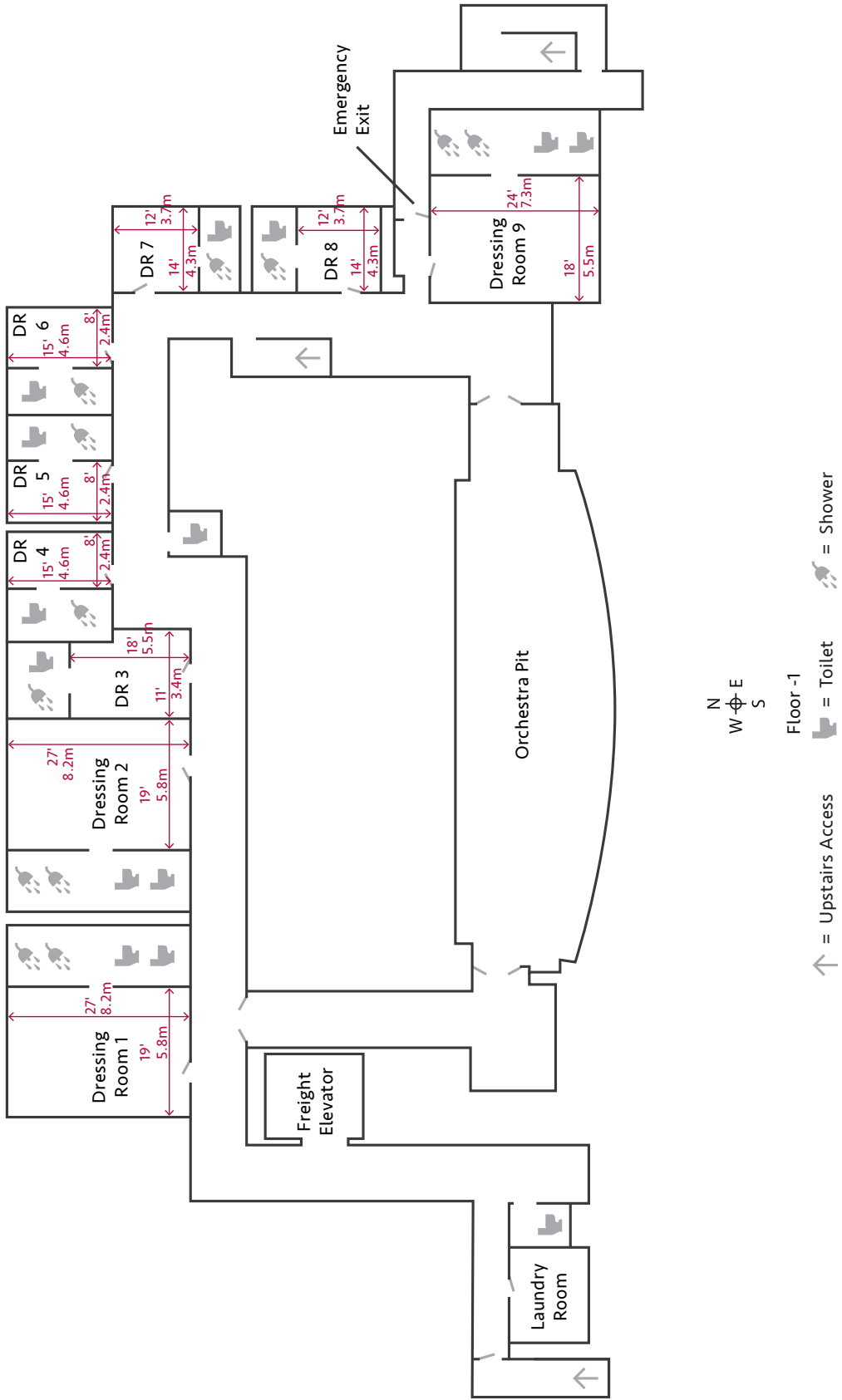
## LOWER LEVEL

### Dressing Rooms

1	27' x 19'	8.2 m x 5.8 m	18	2
2	27' x 19'	8.2 m x 5.8 m	19	2
3	18' x 11'	5.5 m x 3.4 m	1	1
4	15' x 8'	4.6 m x 2.4 m	4	1
5	15' x 8'	4.6 m x 2.4 m	4	1
6	15' x 8'	4.6 m x 2.4 m	4	1
7	14' x 12'	4.3 m x 3.7 m	2	1
8	14' x 12'	4.3 m x 3.7 m	2	1
9	24' x 18'	7.3 m x 5.5 m	18	2



# NORTHROP BACKSTAGE LOWER LEVEL

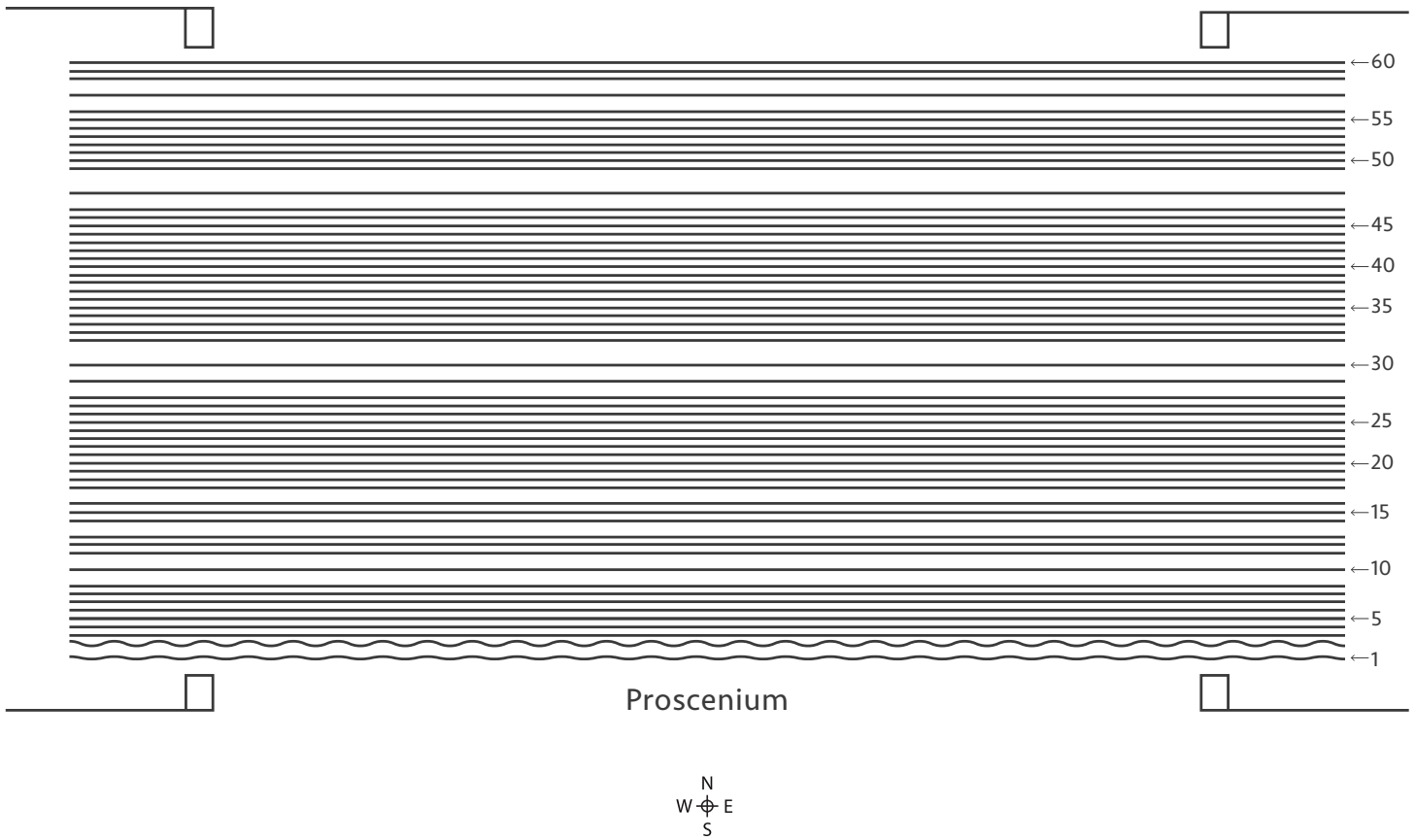


# LINESET SCHEDULE

	40'	12.19 m	<b>Back Wall</b>	26	17'4"	5.28 m	
60	38'10"	11.83 m		25	16'10"	5.13 m	
59	38'4"	11.68 m		24	16'4"	4.97 m	
58	37'10"	11.63 m		23	15'10"	4.82 m	
57	36'10"	11.22 m		22	15'4"	4.67 m	
56	35'10"	10.92 m		21	14'10"	4.52 m	
55	35'4"	10.76 m		20	14'4"	4.36 m	
54	34'10"	10.61 m		19	13'10"	4.21 m	
53	34'4"	10.46 m		18	13'4"	4.06 m	
52	33'10"	10.31 m		17	12'10"	3.91 m	
51	33'4"	10.16 m		16	11'10"	3.60 m	
50	32'10"	10.00 m		15	11'4"	3.45 m	
49	32'4"	9.85 m		14	10'10"	3.30 m	
48	30'10"	9.39 m	<b>Orch. Ceiling N/A</b>	13	9'10"	2.99 m	
47	29'10"	9.09 m		12	9'4"	2.84 m	
46	29'4"	8.94 m		11	8'10"	2.69 m	
45	28'10"	8.78 m		10	7'10"	2.38 m	<b>Orch. Ceiling N/A</b>
44	28'4"	8.63 m		9	6'10"	2.08 m	
43	27'10"	8.48 m		8	6'4"	1.93 m	
42	27'4"	8.33 m		7	5'10"	1.77 m	
41	26'10"	8.17 m		6	5'4"	1.63 m	
40	26'4"	8.02 m		5	4'10"	1.47 m	
39	25'10"	7.87 m		4	4'4"	1.32 m	
38	25'4"	7.72 m		3	3'10"	1.16 m	<b>1st G.P. Lineset (limited use)</b>
37	24'10"	7.56 m		2	3'4"	1.01 m	<b>Main Curtain</b>
36	24'4"	7.41 m	<b>Mid Stage Traveler N/A</b>	1	2'4"	0.71 m	<b>Teaser</b>
35	23'10"	7.26 m					<b>Fire Curtain</b>
34	23'4"	7.11 m		0	0'	0 m	<b>Plaster Line</b>
33	22'10"	6.95 m					
32	22'4"	6.80 m	<b>Projection screen (moveable)</b>				
31	21'10"	6.65 m	<b>Screen surround (moveable)</b>				
30	20'4"	6.19 m					
29	19'4"	5.89 m	<b>Orch. Ceiling N/A</b>				
28	18'4"	5.58 m					
27	17'10"	5.43 m					

<b>Proscenium Opening</b>	60' (18.3 m)
<b>High Trim</b>	68'7" (20.9 m)
<b>Arbor Cap</b>	2,070 lbs (939 kg)
<b>Pipe Length</b>	78' (23.7 m)

# LINESET SCHEDULE



# SOFT GOODS

	QUANTITY	WIDTH x HEIGHT	
<b>House Curtain</b> (Maroon)	1 pair	40' x 33'2"	12.2 m x 10.1 m
<b>Valance</b> (Maroon)	1	78' x 26'2"	23.8 m x 8.0 m
<b>Legs</b>	5 pairs	20' x 30'	6.1 m x 9.1 m
<b>Borders</b>	6	78' x 12'	23.8 m x 3.7 m
<b>Scrim</b> (Black & White)	2	78' x 25'	23.8 m x 7.6 m
<b>Mid-Stage Traveler</b>	1 pair	78' x 24'5"	23.8 m x 7.4 m
<b>Side Tabs</b> (Stage Right)	4	12' x 20'	3.7 m x 6.1 m
<b>Side Tabs</b> (Stage Left)	4	12' x 30'	3.7 m x 9.1 m
<b>Plastic Cyc</b>	1	78' x 25'	23.8 m x 7.6 m
<b>Fabric Cyc</b>	1	78' x 25'	23.8 m x 7.6 m
<b>Full Blackout</b>	1	78' x 30'	23.8 m x 9.1 m
<b>Split Blackout</b>	1	78' x 30'	23.8 m x 9.1 m

# RIGGING

<b>Battens</b>	58 (Ladder battens)	
<b>Batten Length</b>	78'	23.77 m
<b>In Trim</b>	3'10"	1.17 m
<b>Out Trim</b>	68'7"	20.90 m
<b>Batten Locations</b>	75 (17 obstructed/not installed)	
<b>Clearance between Battens</b>	6"	0.15 m
<b>Lineset Live Capacity</b>	2,070 lbs	938.94 kg
<b>Grid Height</b> (From Stage)	71'	21.64 m

Rear stage allows for dead hang rigging from 6 rigging beams 10' (3.05 m) on center. Rear stage rigging height is 32'(9.75 m) and depth of 14' (4.3 m).

# PROSCENIUM ARCH

There are 25 rigging points, each 35-38.5 inches (88.9-97.8 cm) apart.

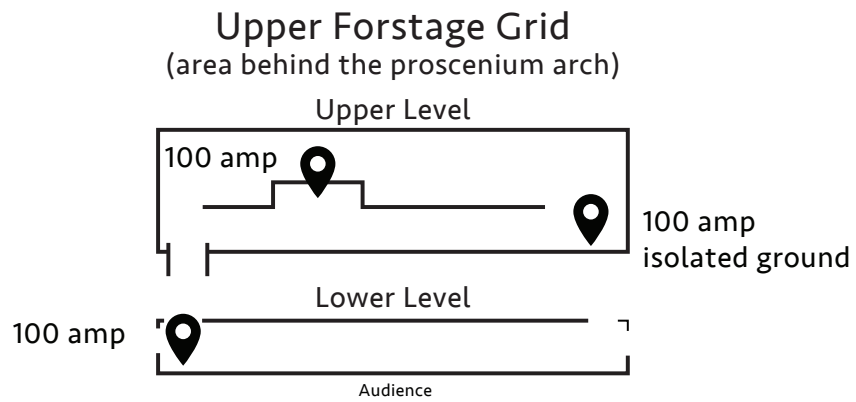
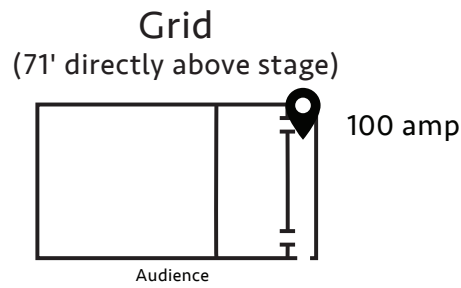
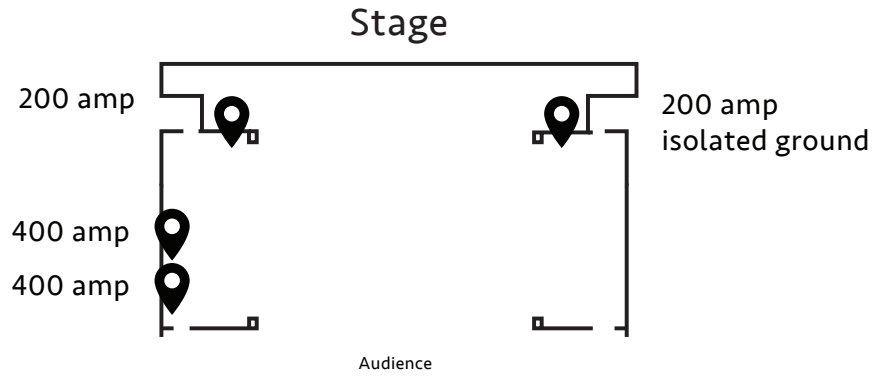


Photo by Patrick O'Leary

# DISCONNECTS

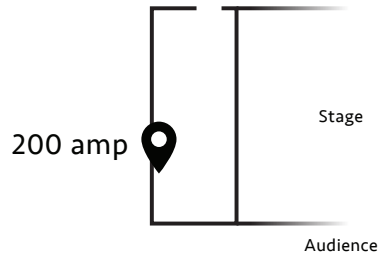
<b>Upstage Left</b> (isolated ground)	200 amp 208 volt 3 phase
<b>Upstage Right</b>	200 amp 208 volt 3 phase
<b>Downstage Right</b>	400 amp 208 volt 3 phase
<b>Downstage Right</b>	400 amp 208 volt 3 phase
<b>Stage Left Gallery</b>	200 amp 208 volt 3 phase
<b>Rehearsal Room</b>	200 amp 208 volt 3 phase
<b>Loading Dock</b> (shore power isolated ground)	100 amp 208 volt 3 phase
<b>Loading Dock</b> (shore power isolated ground)	100 amp 208 volt 3 phase
<b>Upper Forestage Grid</b> (isolated ground)	100 amp 208 volt 3 phase
<b>Upper Forestage Grid</b>	100 amp 208 volt 3 phase
<b>Grid</b>	100 amp 208 volt 3 phase

# DISCONNECT LOCATIONS

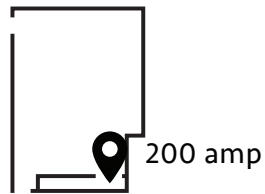


# DISCONNECT LOCATIONS

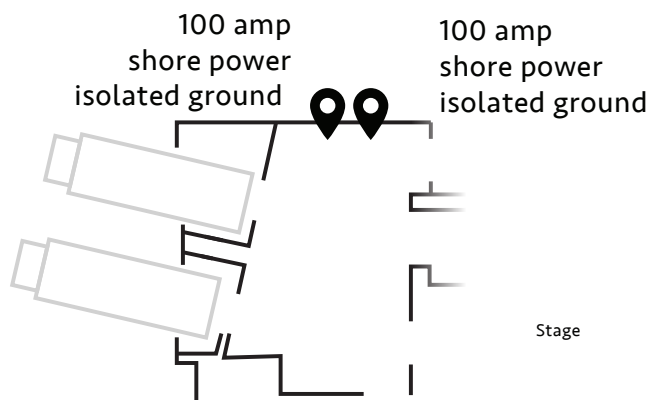
### Stage Right Gallery (above stage right)



### Rehearsal Room



### Loading Dock





# LIGHTING

## CONSOLE

ETC Eos Ti – 4000 Channel  
(Capable of Mid-House Tech Table)

## CONTROL/DMX

ETC Net3  
12 – Two Port Gateways (DMX in or out)  
In-House Power on Universes 1 and 2

## DIMMERS

(ETC Sensor)

Type	Quantity
2.4k Performance	506
6.0k Performance	16
120v Non-Dim	48
208v Non-Dim	48

# LIGHTING INVENTORY

## TYPE QUANTITY

Some additional Source Four barrels available upon request.

**Source Four 5° 750 Watt** 36

**Source Four 10° 750 Watt** 36

**Source Four 14° 750 Watt** 6

**Source Four 19° 750 Watt** 84

**Source Four 26° 750 Watt** 92

**Source Four 36° 750 Watt** 82

**Source Four 50° 750 Watt** 27

**Source Four PAR 575 Watt** 8

**Birdies** 12

**Cyc Lights, 1 cell** 16

(Focusing, 1000 or 1500 watts)

**Cyc Lights, 3 cell** 14

(Aurora, 1000 watts per cell)

**Ground Row, 3 cell** 12

(Aurora, 1000 watts per cell)

**8" Selecon Fresnel 2KW** 42

**PAR 64 1k** 80

(75 lamps each of VNSP, NSP, MFL, and WFL)

**MAC Encore Performance, CLD** 2

(Hung on Mid Balcony Rail)

**Followspots** 4

(3K Lycian)

## ACCESSORIES

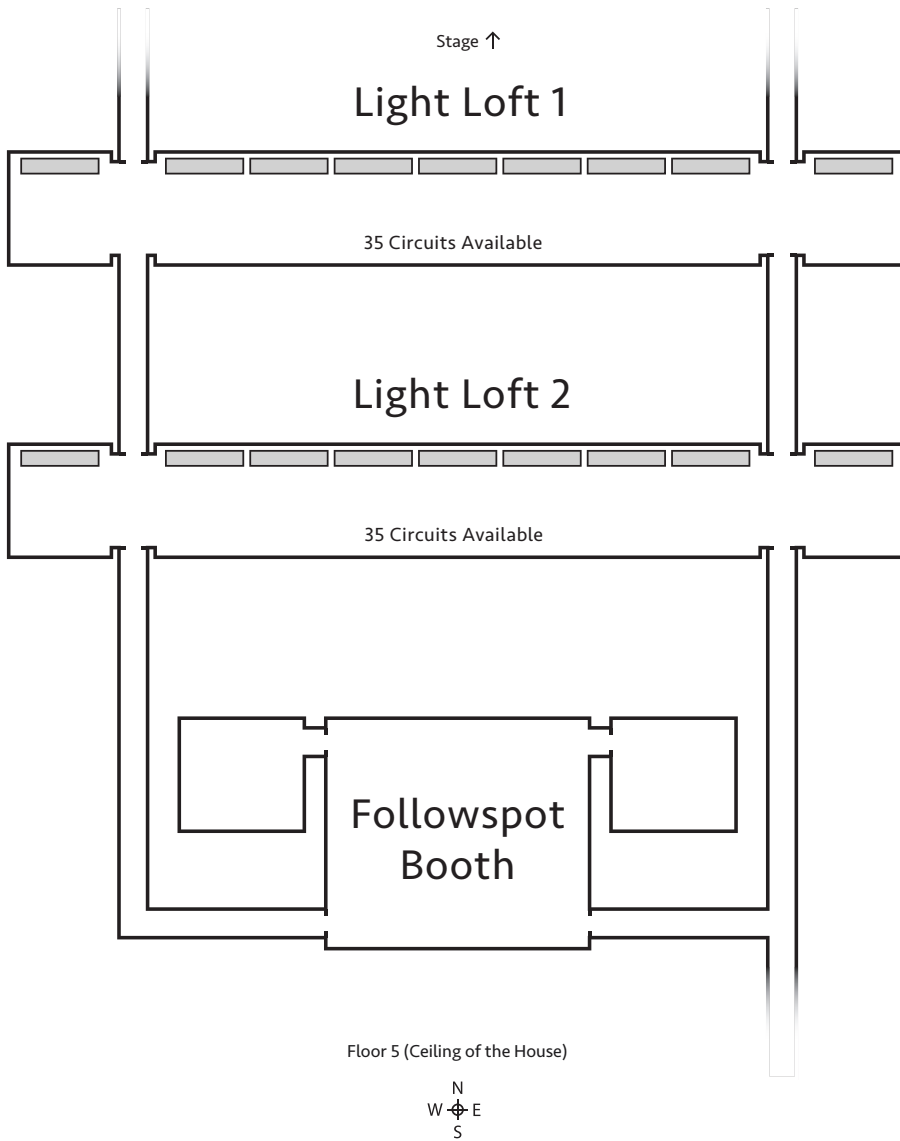
Top Hats, half hats, barn doors, drop-in irises, and donuts available upon request.

## BOOMS

10 - 10ft threaded schedule 40 pipe with base

10 - 20ft threaded schedule 40 pipe with base and top pick

# STAGE PIN CONNECTIONS



## PRESIDENTS CIRCLE BALCONY (2)

18 circuits available

## SCHOLARS CIRCLE BALCONY (3)

18 circuits available

## GALLERY CIRCLE BALCONY (4)

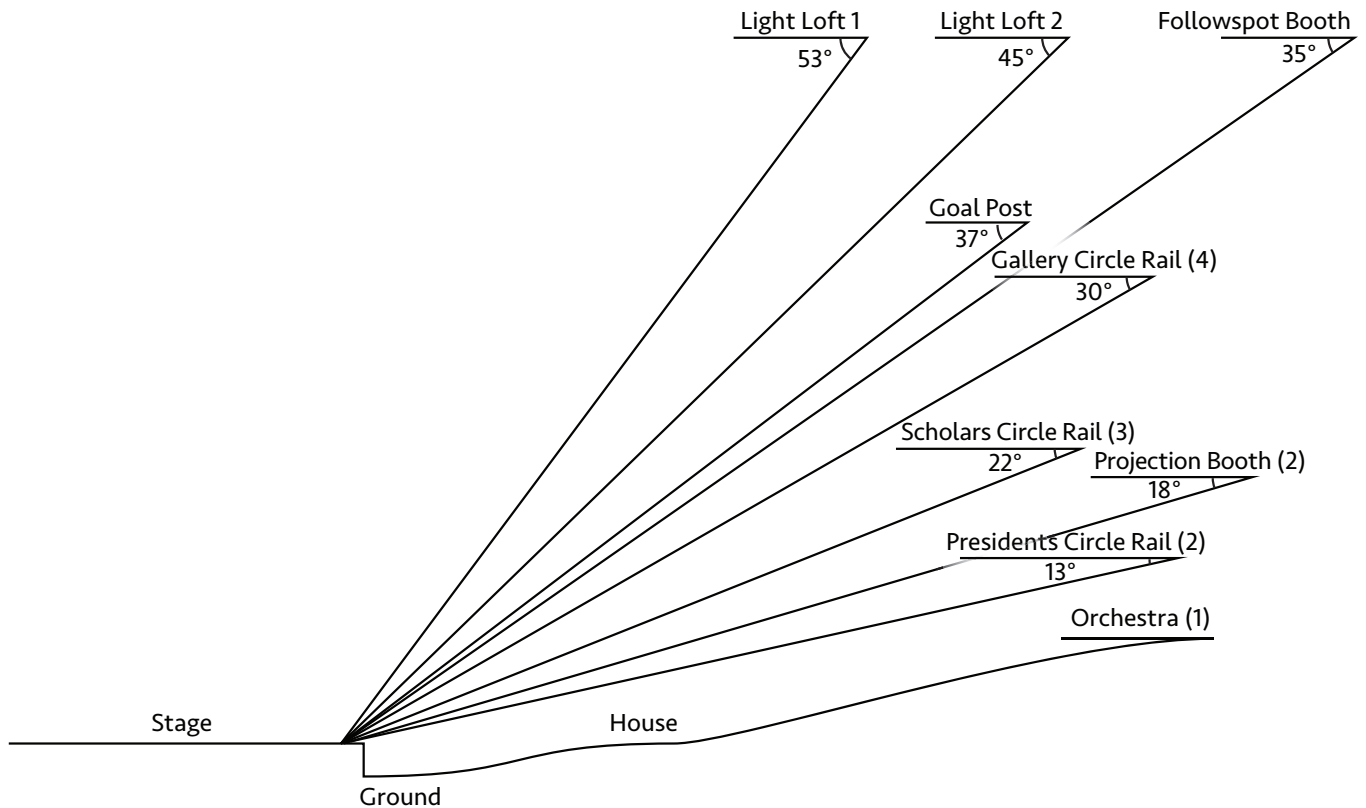
18 circuits available

12 circuits per Goal Post

# LIGHTING ANGLES & DISTANCE TO STAGE

## DISTANCE TO STAGE

Light Loft 1	98'	29.9 m
Light Loft 2	113'	34.4 m
Spot Booth	138'	42.0 m
Goal Post (4)	82'	25.0 m
Gallery Circle Rail (4)	104'	31.7 m
Scholars Circle Rail (3)	89'	27.1 m
Presidents Circle Rail (2)	84'	25.6 m
Projection Booth (2)	107'	32.61 m



# SOUND

## FRONT OF HOUSE SOUND CONSOLE

Digico SD9

## LOUDSPEAKER SYSTEM

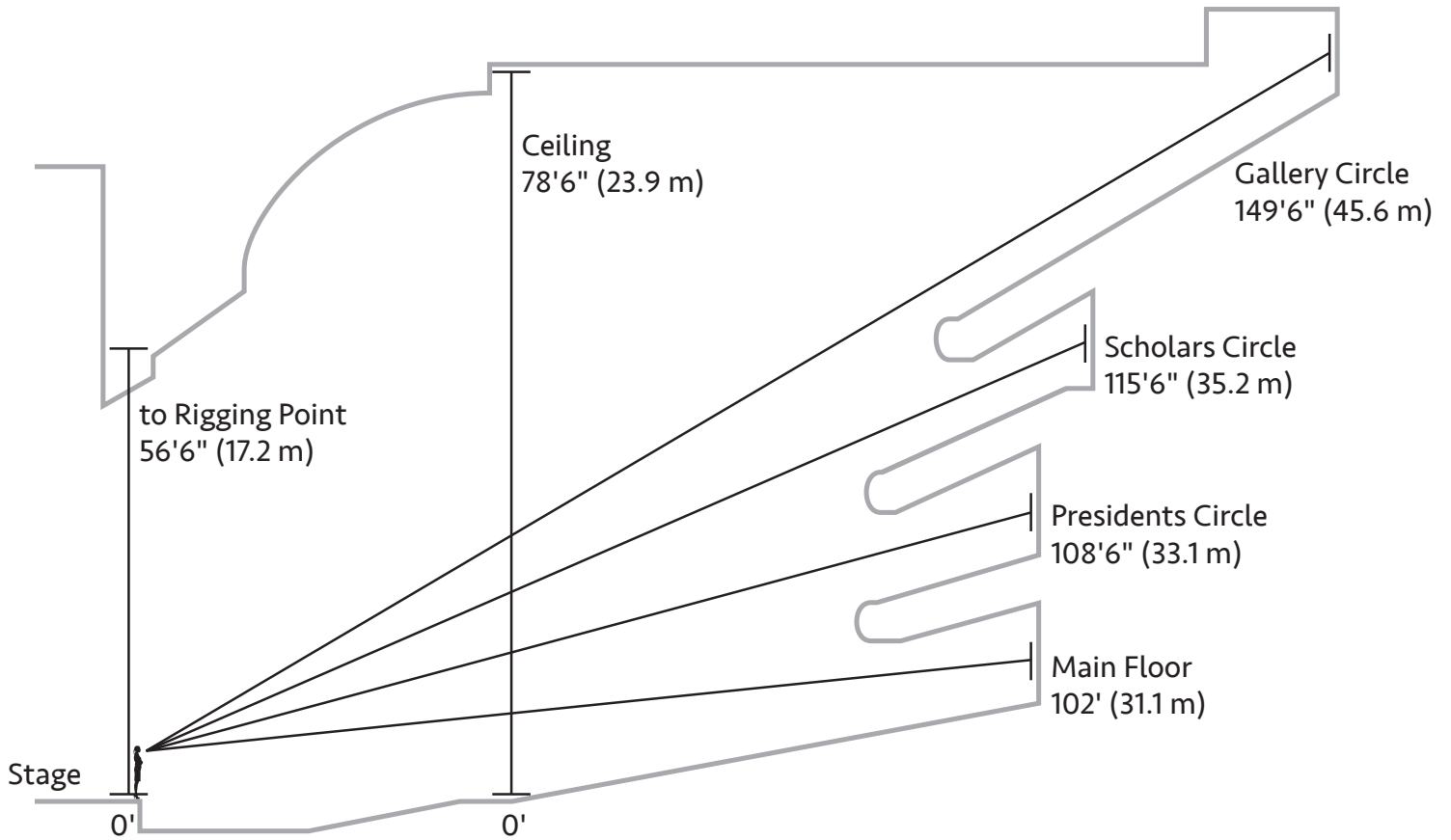
Type	Quantity
<b>JBL Vertec 4888</b>	18 (9 down per side)
<b>JBL Vertec 4880 Subs</b>	8 (4 per side, on ground)
<b>JBL Vertec 4886</b> (main center array)	10
<b>JBL Vertec 4886</b> (balconies L/R/C)	15
<b>Meyer UPQ-2P</b> (infill)	2
<b>Renkus Heinz TRX 61</b> (main floor front fill)	7
<b>Meyer UP Junior</b> (under balcony speakers)	2

## AMPLIFIERS, PROCESSING, CONTROL

Type	Quantity
<b>Crown IT 12000HD</b>	9
<b>Crown IT 9000HD</b>	11
<b>Crown CTS 1200</b>	4
<b>BSS London BLU Processing</b>	
<b>Clear Com System</b>	

# SOUND

## THROW DISTANCES



# VIDEO

## PROJECTION

Barco HDX-W20 Flex 20,000 Lumen WUXGA DLP Projector  
Barco TLD+ (1.2-1.6: 1), TLD+ (2.8-4.5: 1), and TLD+ (4.5-7.5: 1) Zoom Lenses  
The Screen Works 12' x 21.25' Truss Frame Front Project Screen

## CONTROL

Barco PDS-902 3G Presentation Switcher/Scaler

## CAMERA, RECORDER, SIGNAL ROUTING

Sony BRCH700 HD 3CCDs P/T/Z Camera (FOH Position)  
Sony RMBR300 Remote Control Unit  
Sound Devices PIX270i Production Video/Audio Recorder  
4x Decimator MD-HX, 1x Decimator MD-Cross Converters  
BNC/HD-SDI, CAT5, and LC/Opticom Fiber connectivity in patch panels throughout the venue

## PRESENTATION CONTROL

2x Macbook Pro Laptops, Keynote, and QLab 4  
Perfect Cue Micro Slide Advance Remote  
2x USB-C and 2x Thunderbolt/Mini-display HDMI Display Adapters

# HOUSE FEATURES

## STAGE & PROSCENIUM

<b>Stage Depth</b> (plaster line to back wall)	39'6"	12.0 m
<b>Upstage Extension Depth</b>	17'3"	5.3 m

## HOUSE MIX POSITION

<b>Depth</b>	9'6"	2.9 m
<b>Width</b>	18'10"	5.7 m
<b>Distance to Proscenium</b>	68'	20.7 m

Cable Pass to control booth only

## CONTROL BOOTH

<b>Depth</b>	9'7"	2.9 m
<b>Width</b>	37'	11.2 m
<b>Height</b>	9'	2.7 m
<b>Throw Distance</b>	105'	32.0 m

## PROJECTION BOOTH

<b>Depth</b>	6'10"	2.1 m
<b>Width</b>	31'	9.4 m
<b>Height</b>	9'3"	2.8 m
<b>Throw Distance</b>	110'	33.5 m

## FOLLOW SPOT BOOTH

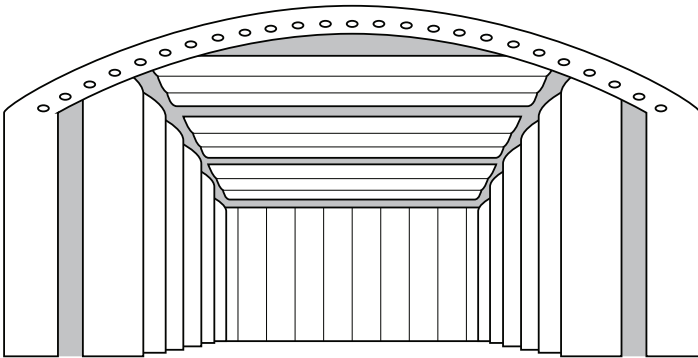
<b>Depth</b>	11'	3.3 m
<b>Width</b>	25' (7.6 m) window, 35' (10.7 m) room	
<b>Height</b>	8'11"	2.7 m
<b>Throw Distance</b>	140'	42.7 m
<b>Follow Spots</b>	4	



# ORCHESTRA SHELL

<b>Tower Count</b>	10	
<b>Tower Depth</b>	5'	1.5 m
<b>Tower Width (open)</b>	12'4"	3.8 m
<b>Tower Width (closed)</b>	6'8"	2.0 m
<b>Tower Height</b>	25'9" to 43'6" (7.8 m x 13.3 m)	
<b>Storage</b>	Upstage Left & Upstage Right	
<b>Orchestra Ceiling Count</b>	3	
<b>Orchestra Ceiling Depth</b>	10'10"	3.3 m
<b>Orchestra Ceiling Length</b>	41'6" to 58'1" (12.6 m x 17.7 m)	

Large



Small

