612.625.6600 // northrop.umn.edu

CARLSON FAMILY STAGE
TECHNICAL & PRODUCTION SPECS

Last Updated August 18th, 2016

UNIVERSITY OF MINNESOTA
Driven to Discover℠

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CARLSON FAMILY STAGE AT NORTHROP

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CONTACTS

NORTHROP

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TICKET OFFICE

Ticketing	**Holly Radis-McCluskey** **Director of U of M** **Tickets & Events** 612-625-0509 radis001@umn.edu
Phone	612-624-2345
Fax	612-625-4008 umntix@umn.edu

SURDYKS CAFÉ

Catering/ Merchandise	**Abby Dunne** **Surdyk's Catering Manager** 612-624-5685 (office) 612-710-3804 (cell) adunne@surdyks.com
Web	surdyks.com

UNIVERSITY CONTACTS

First Aid	**EMS** 612-626-1312 umems@umn.edu dem.umn.edu/umems
Motorist Assistance Program (MAP)	612-626-7275
Security Monitor Program Escort Service	612-624-9255
University Parking and Transportation Services	**Dillon Fried** **Events Manager** 612-626-7275 frie0218@umn.edu
Parking and Transportation Services Phone	612-626-7275 umn.edu/pts parking@umn.edu
Traffic Control	**Sergeant Katie Kitzerow** **U of M Police Department** 612-625-3315 seit0019@umn.edu
UM Connect	**Lyn Weiler** **Network Manager** 612-625-4315 Weile001@umn.edu

SEATING

Carlson Family Stage at Northrop can seat a maximum total of 2,692 people.

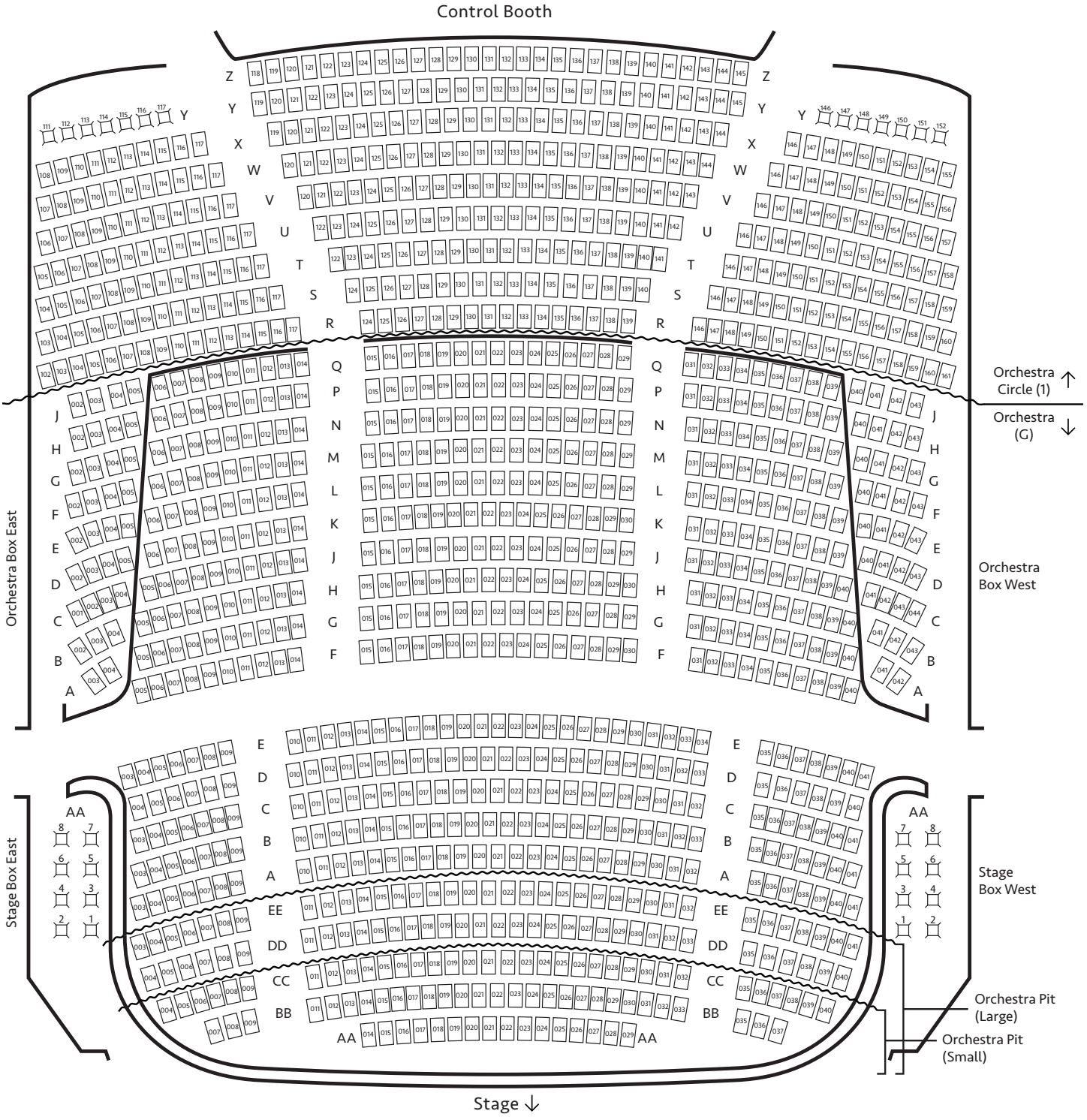
Orchestra (G)	744 fixed (11 wheelchair) +16 loose	760 seats
Orchestra Circle (1)	400 fixed (0 wheelchair) + 14 loose	414 seats
Presidents Circle (2)	357 fixed (0 possible wheelchair) + 46 loose	403 seats
Scholars Circle (3)	433 fixed (2 possible wheelchair) + 46 loose	479 seats
Gallery Circle (4)	622 fixed (2 possible wheelchair) + 28 loose	650 seats

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

Orchestra Pit (Large/Full)	Accommodates up to 90 musicians	-150 seats
Orchestra Pit (Small/Lift wagon only)	Accommodates up to 50 musicians	-79 seats
Mixing/Sound Position		-40 seats

ORCHESTRA (G) & ORCHESTRA CIRCLE (1)

(Larger sizes available upon request)



⌑ = Loose chair

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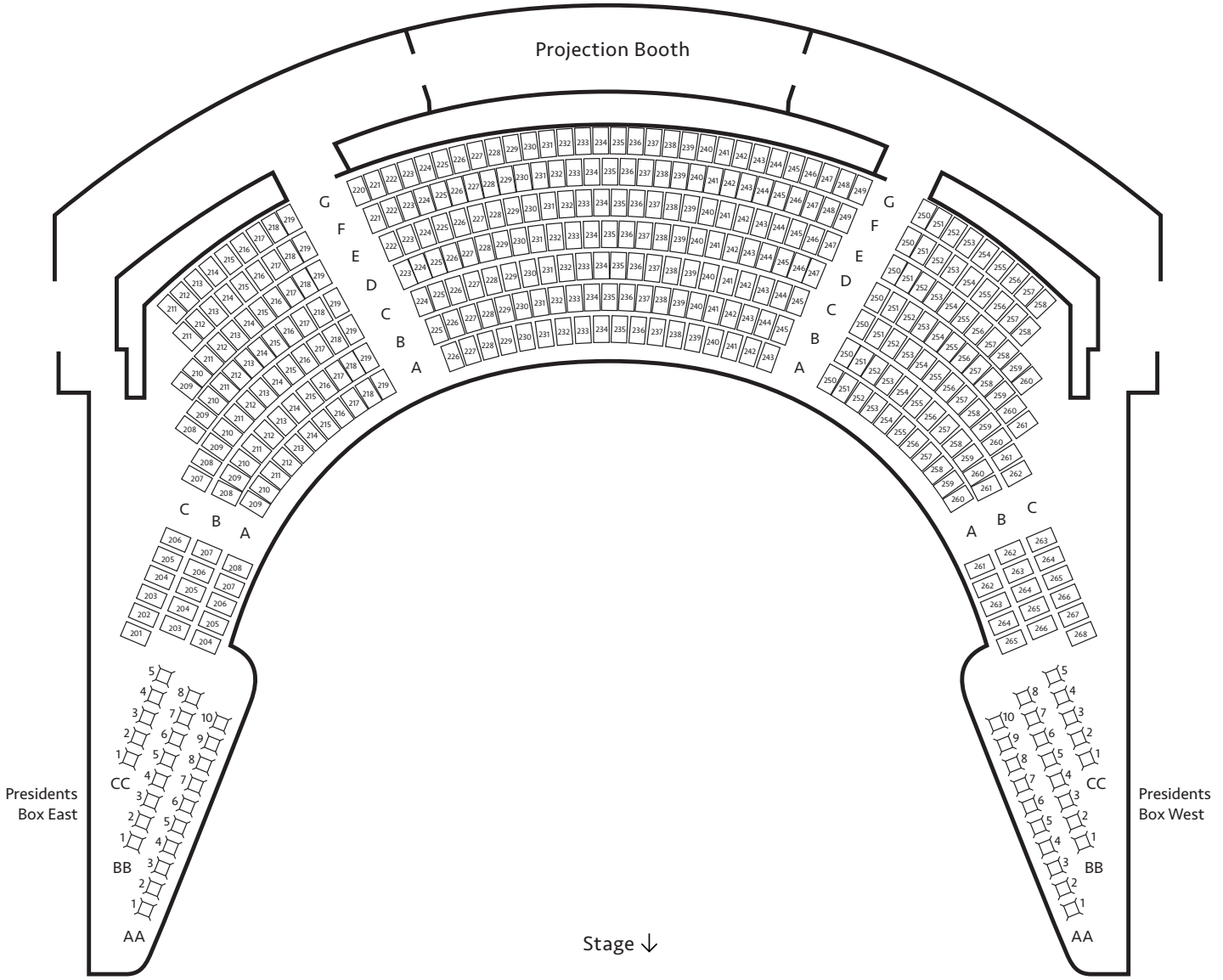
Seats 004 and 040 of row CC have limited leg room.
Rows A and DD may have limited leg room depending on the configuration of the pit for a performance.

PRESIDENTS CIRCLE (2)



⌑ = Loose chair

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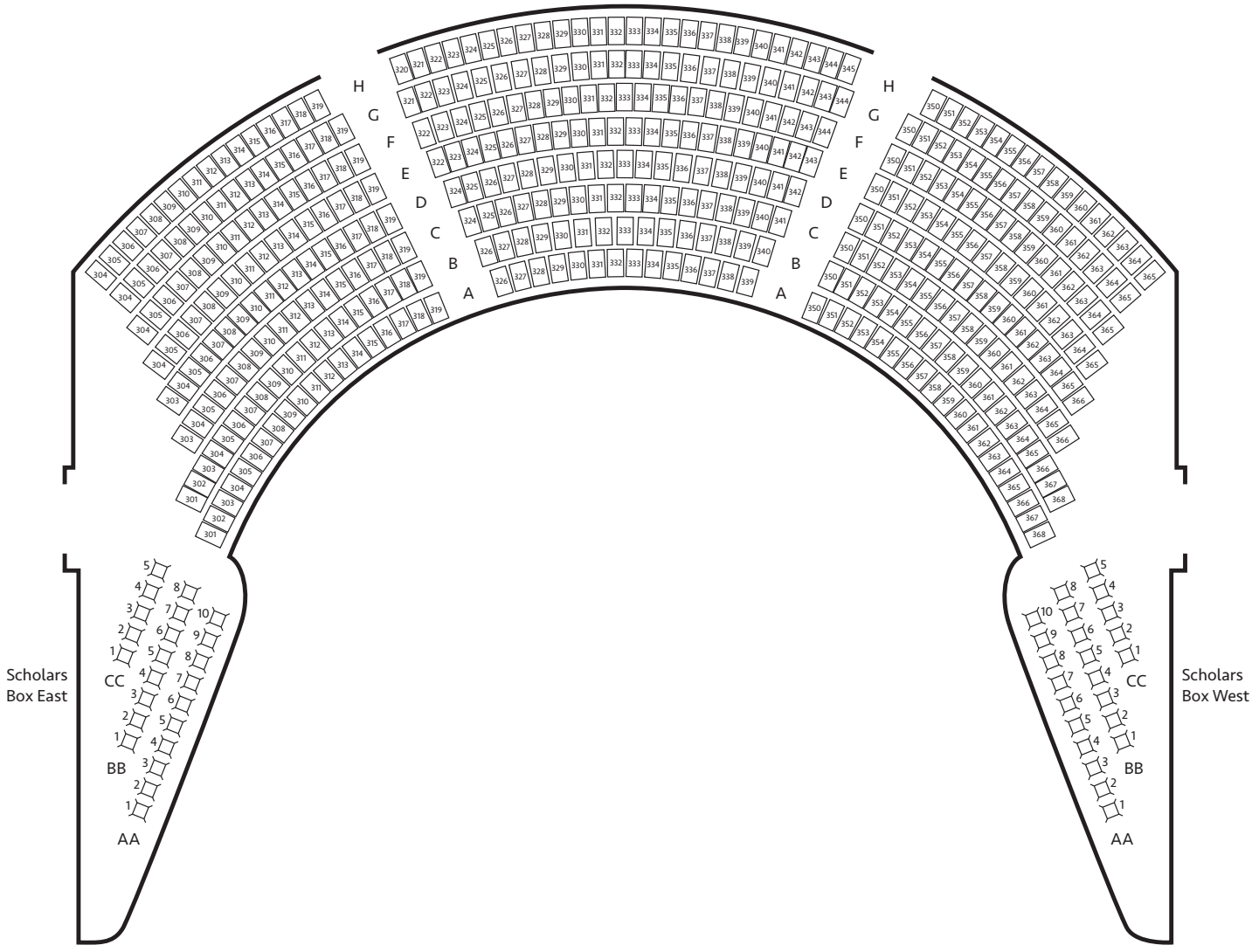
SCHOLARS CIRCLE (3)



⌑ = Loose chair

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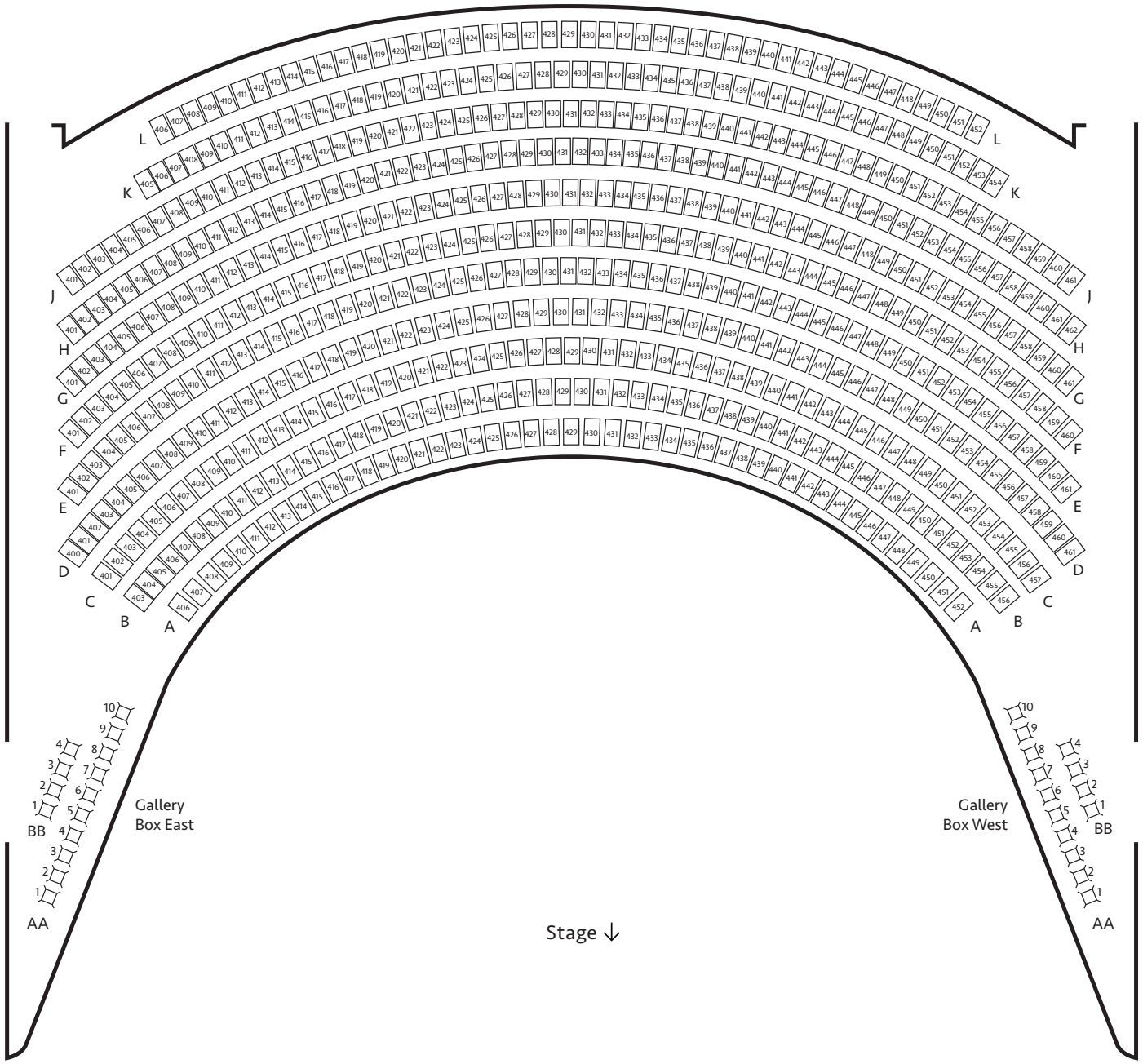
GALLERY CIRCLE (4)



⌑ = Loose chair

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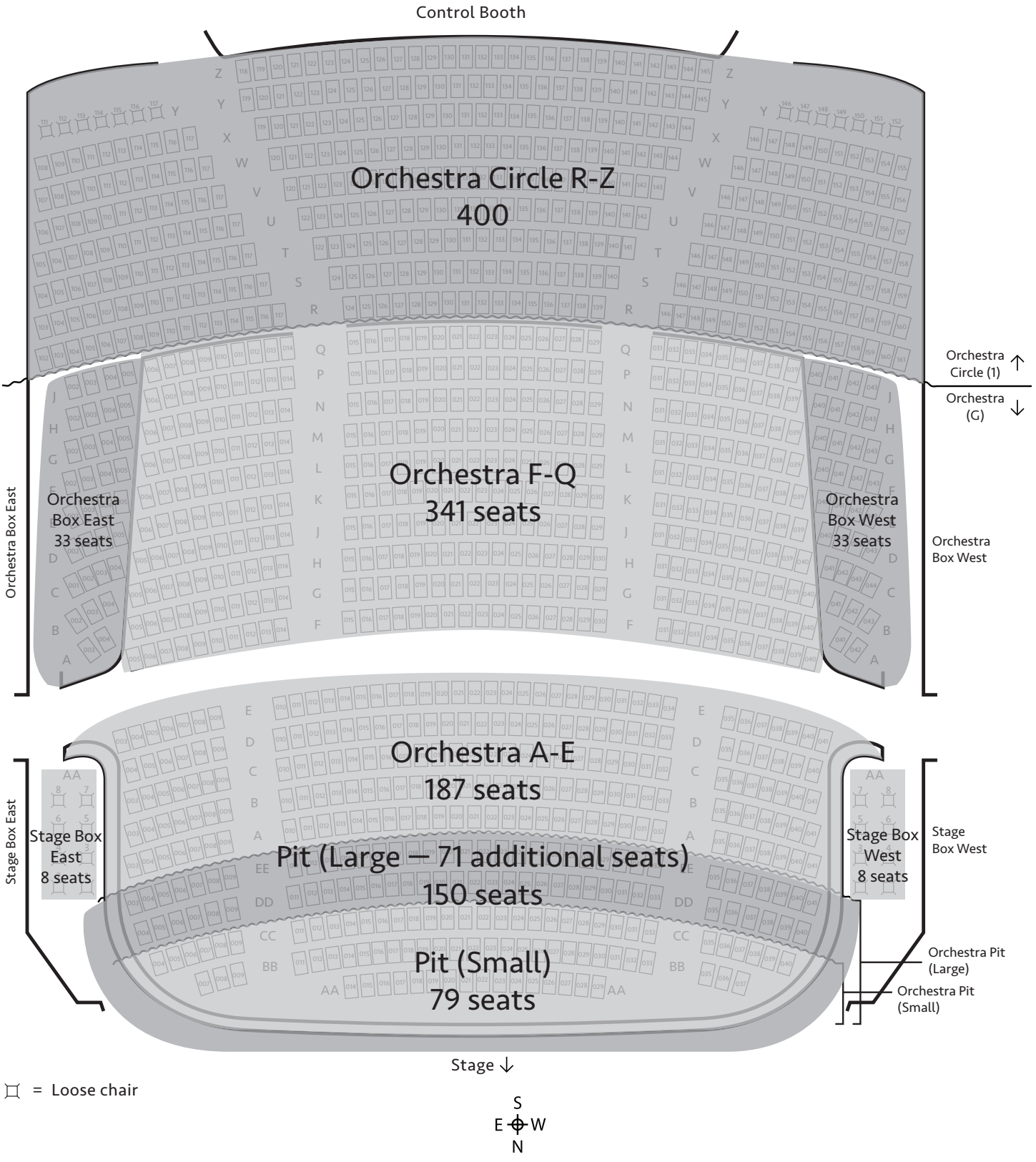
Row L of Gallery Circle is best for patrons 5 foot 6 inches or taller for the best possible viewing experience.
Seat bottoms in Row L are thicker to maintain sightlines.

ORCHESTRA (G) & ORCHESTRA CIRCLE (1)

(Larger sizes available upon request)

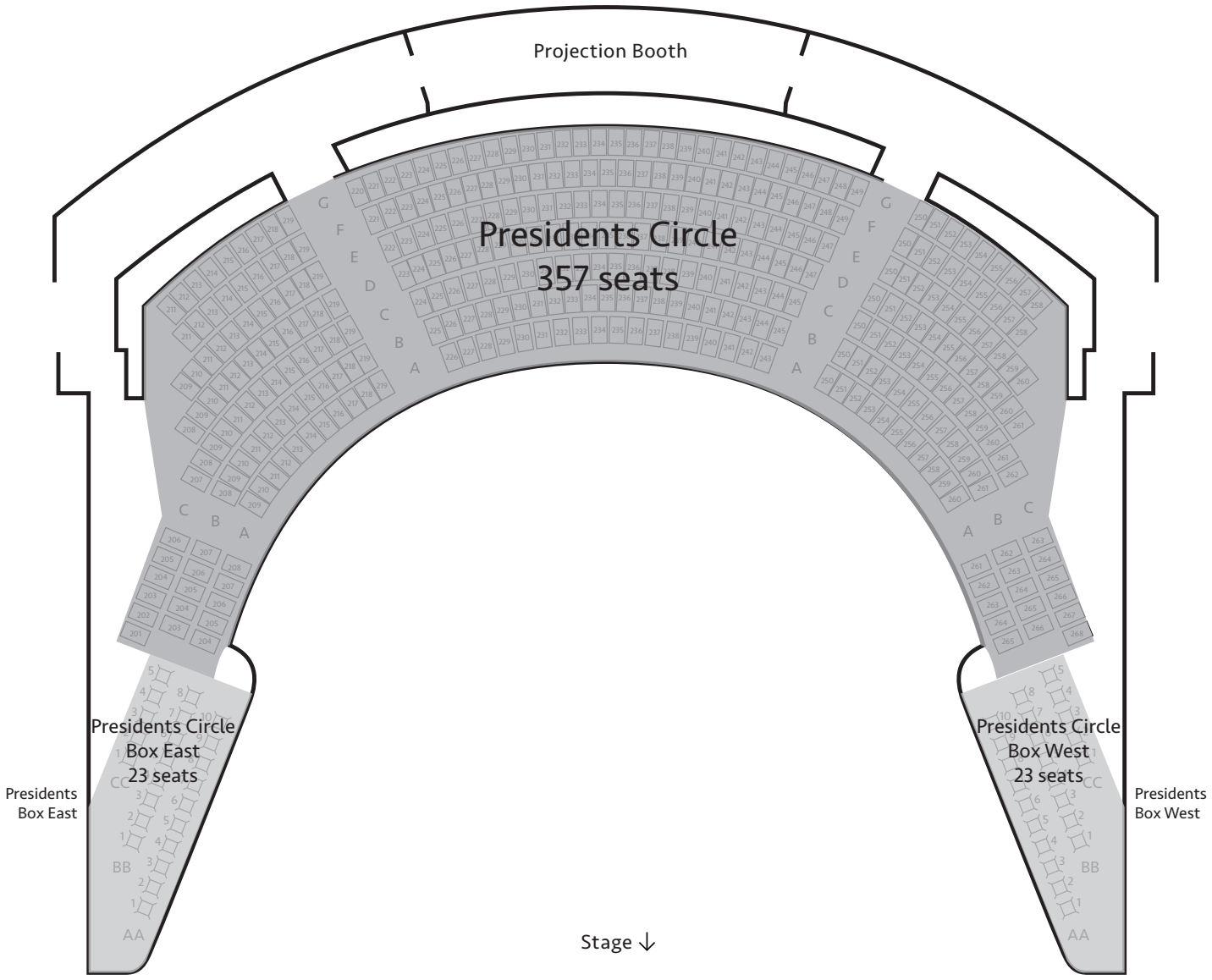
Total Capacity: 1,160 seats



⌑ = Loose chair

PRESIDENTS CIRCLE (2)

Total Capacity: 403 seats



⌑ = Loose chair

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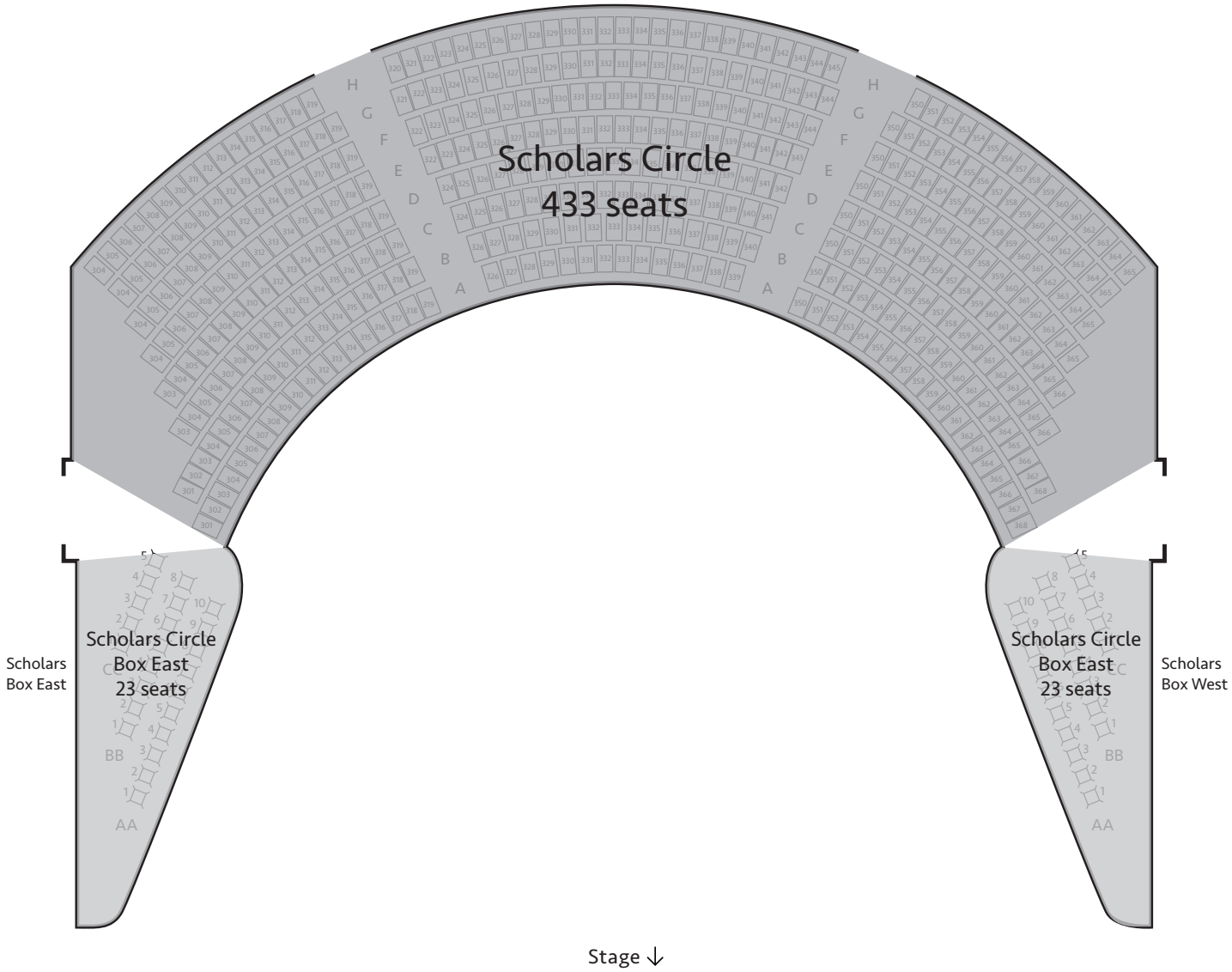
SCHOLARS CIRCLE (3)

Total Capacity: 479 seats



⌑ = Loose chair

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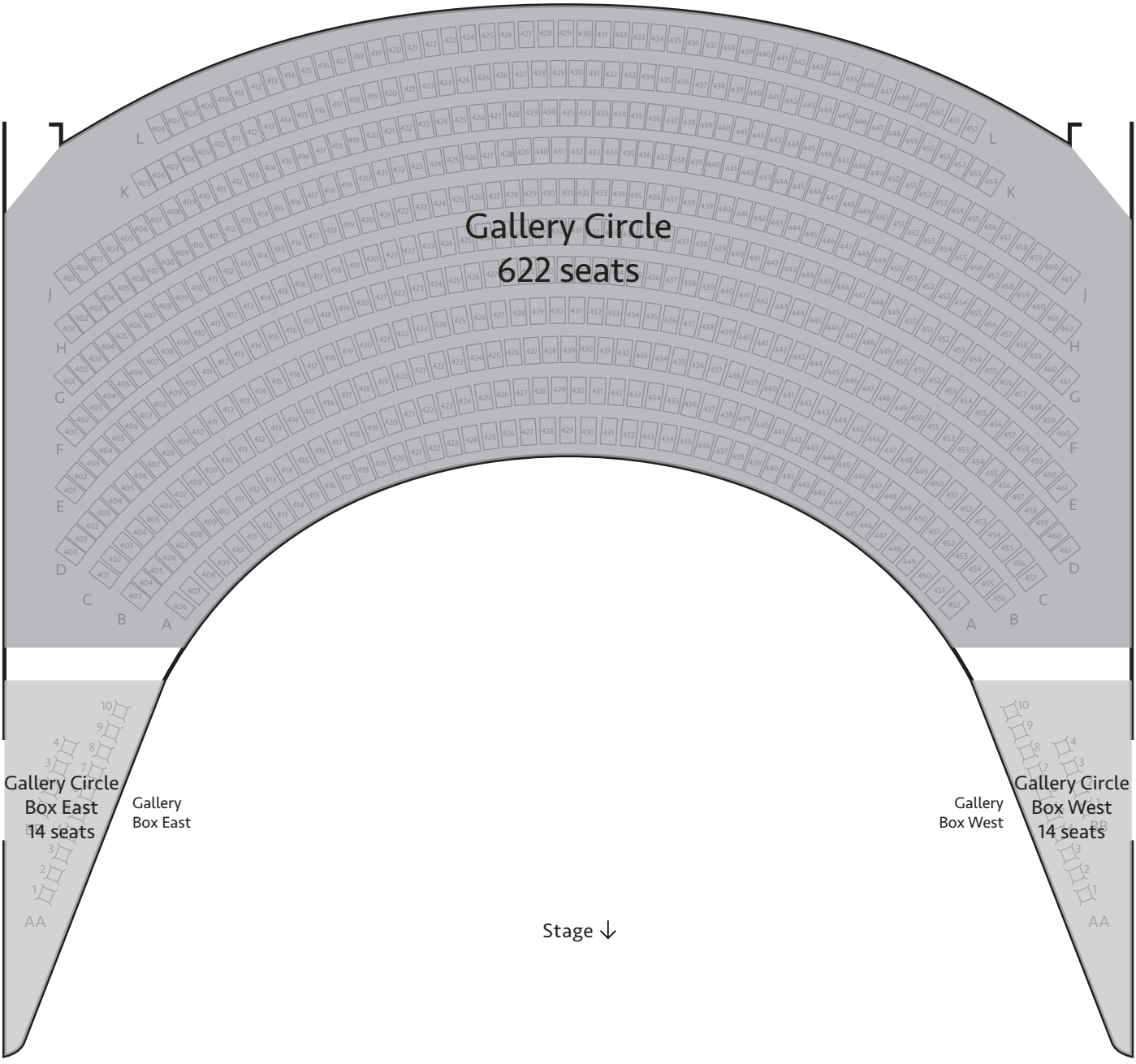
GALLERY CIRCLE (4)

Total Capacity: 650 seats



⌑ = Loose chair

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STAGE SPECIFICATIONS

STAGE & PROSCENIUM

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

ORCHESTRA PIT
(Small)

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

ORCHESTRA PIT
(Large)

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

LOADING DOCK

Truck Access	2 bays with levelers & seals at stage level (Nominal 40' travel distance to stage door, 90' to center of stage)
Stage Loading Door	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)

Mace
27" h, 42" w, 18" d (69 cm h, 107 cm w, 46 cm d)

PIANOS

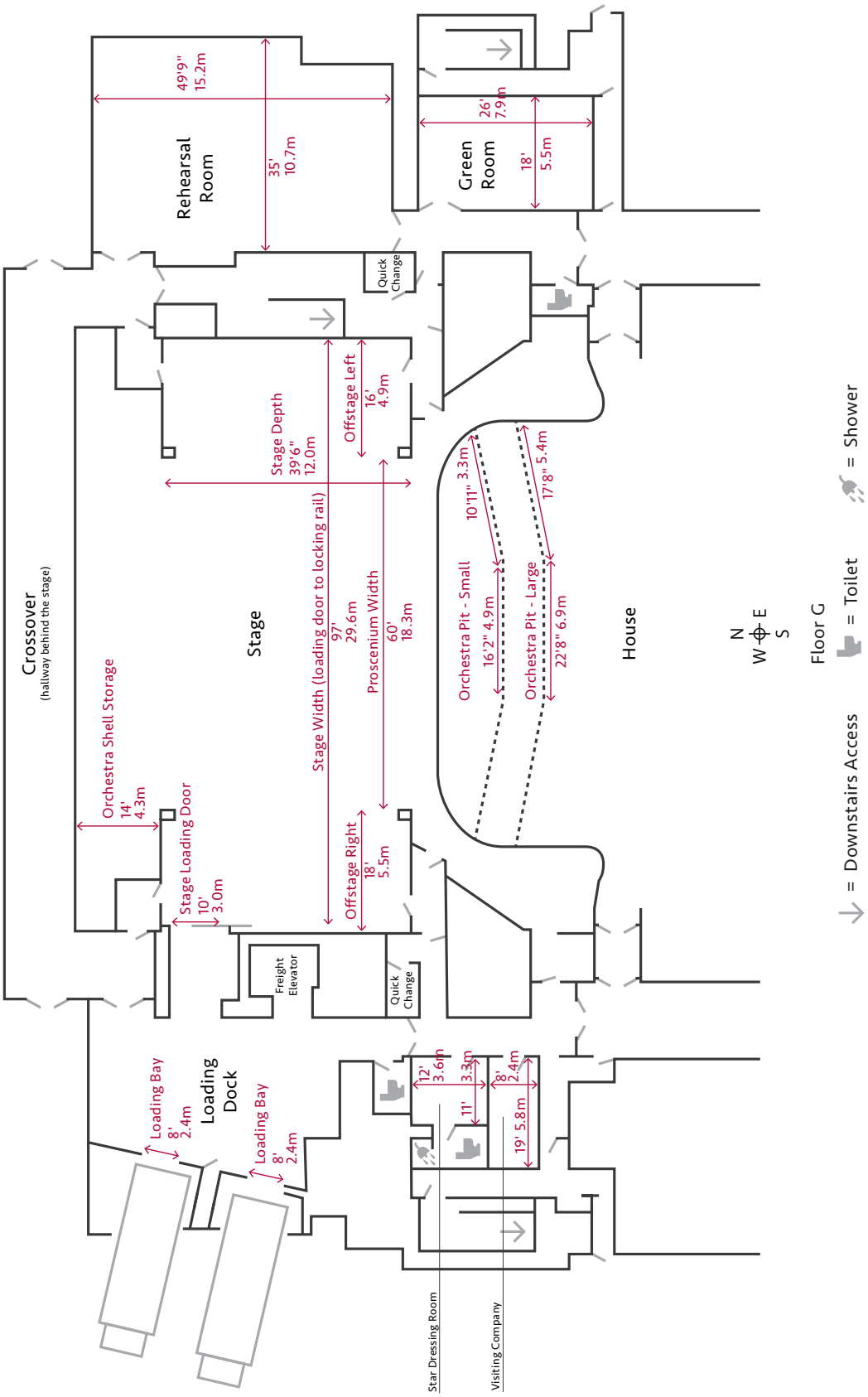
Essex Upright	1
Steinway Grand Model D	1

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		Makeup Stations	Showers
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		
Quick Change Room (Stage Right)	8' x 5'	2.4 m x 1.5 m		
Quick Change Room (Stage Left)	7' x 5'	2.1 m x 1.5 m		
Star Dressing Room	12' x 11'	3.7 m x 3.4 m	1	1

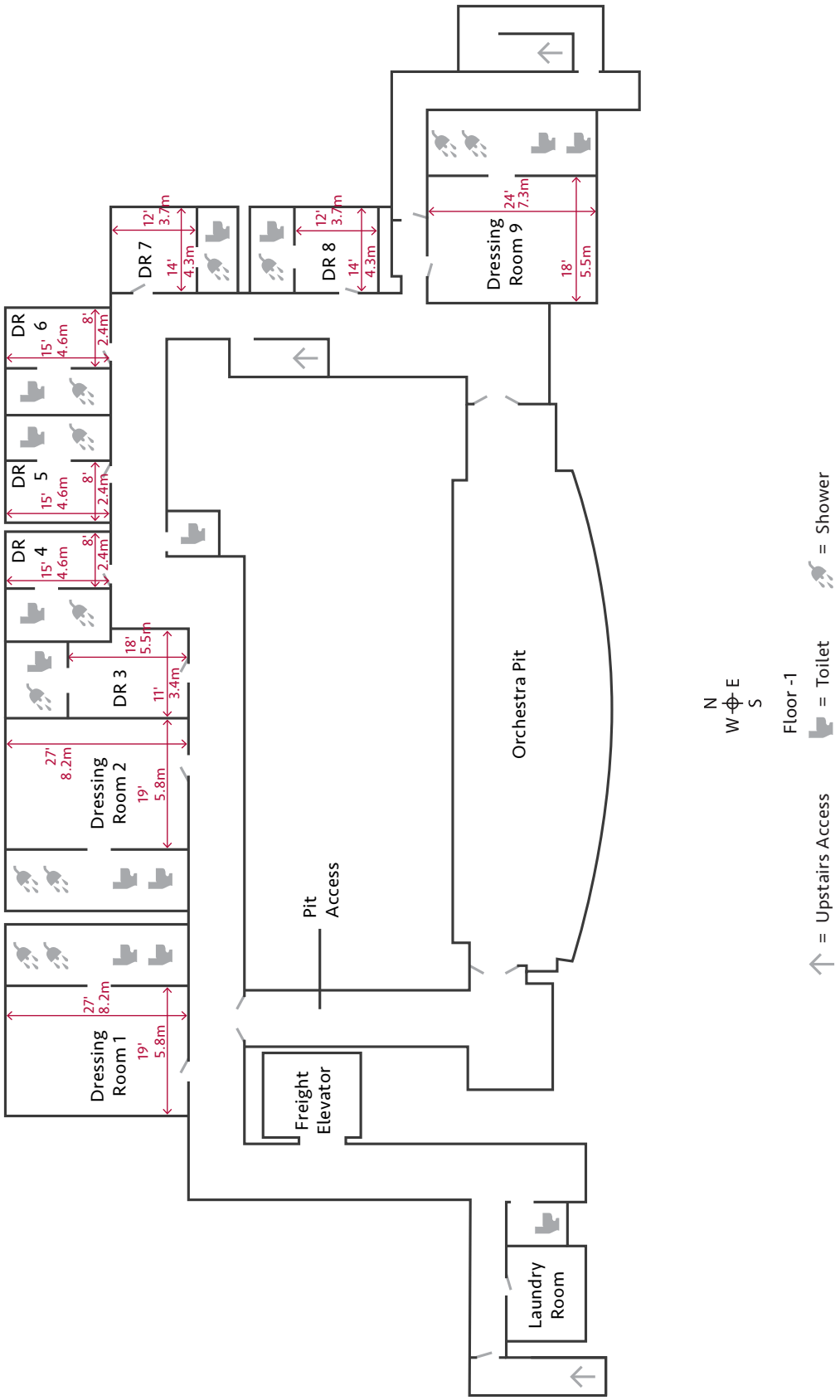
LOWER LEVEL

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

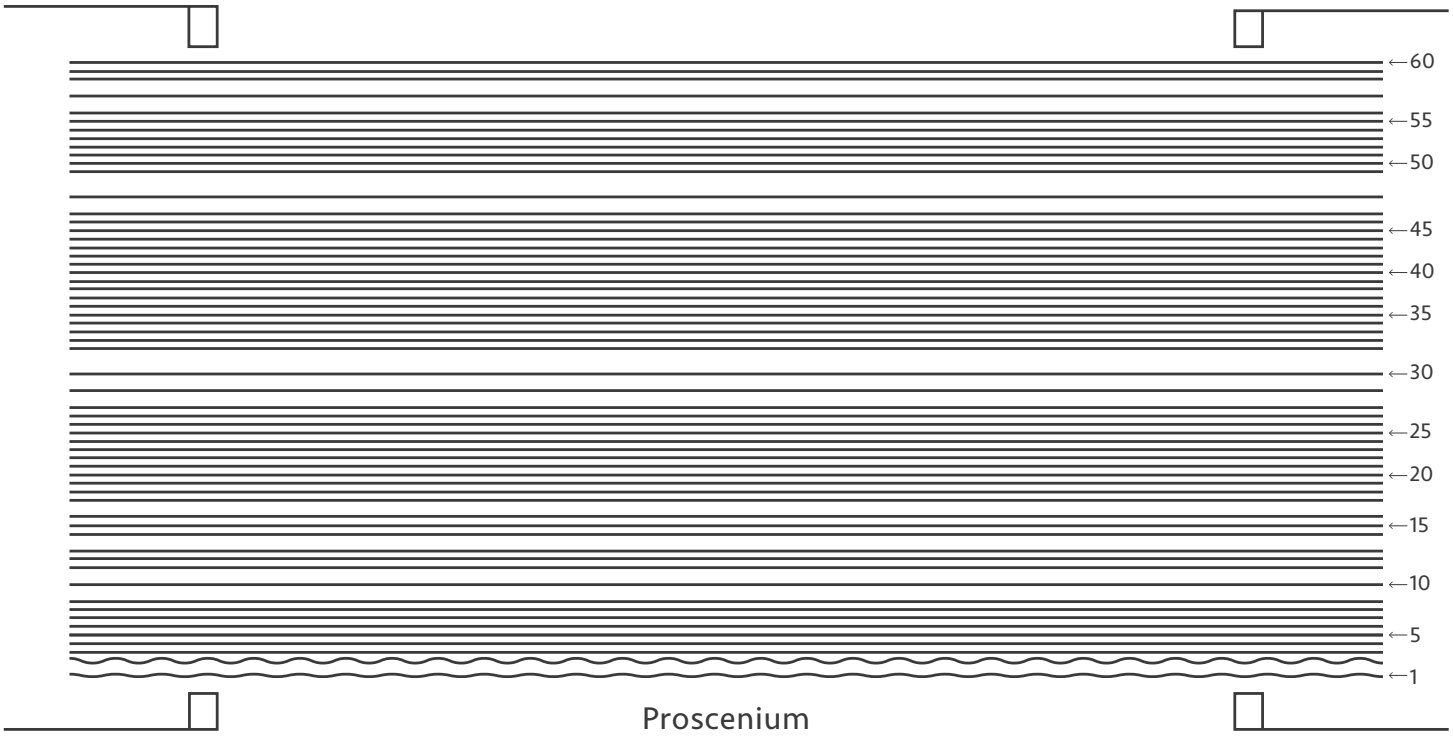


LINESET SCHEDULE

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

Proscenium Opening	60' (18.3 m)
High Trim	68'7" (20.9 m)
Arbor Cap	2,380 lbs (1,079 kg)
Pipe Length	78' (23.7 m)

LINESET SCHEDULE



SOFT GOODS

	QUANTITY	WIDTH x HEIGHT	
House Curtain (Maroon)	1 pair	40' x 33'2"	12.2 m x 10.1 m
Valance (Maroon)	1	78' x 26'2"	23.8 m x 8.0 m
Legs	5 pairs	20' x 30'	6.1 m x 9.1 m
Borders	6	78' x 12'	23.8 m x 3.7 m
Scrim (Black & White)	2	78' x 25'	23.8 m x 7.6 m
Mid-Stage Traveler	1 pair	78' x 24'5"	23.8 m x 7.4 m
Side Tabs (Stage Right)	3	12' x 20'	3.7 m x 6.1 m
Side Tabs (Stage Left)	3	12' x 30'	3.7 m x 9.1 m
Plastic Cyc	1	78' x 25'	23.8 m x 7.6 m
Fabric Cyc	1	78' x 25'	23.8 m x 7.6 m
Full Blackout	1	78' x 30'	23.8 m x 9.1 m

RIGGING

Battens	58 (Ladder battens)
Batten Length	78'
In Trim	3'10"
Out Trim	68'7"
Batten Locations	75 (17 obstructed/not installed)
Clearance between Battens	6"
Lineset Live Capacity	2,070 lbs
Grid Height (From Stage)	71'

Rear stage allows for dead hang rigging from 6 rigging beams 10' on center.
Rear stage rigging height is 32'.

PROSCENIUM ARCH

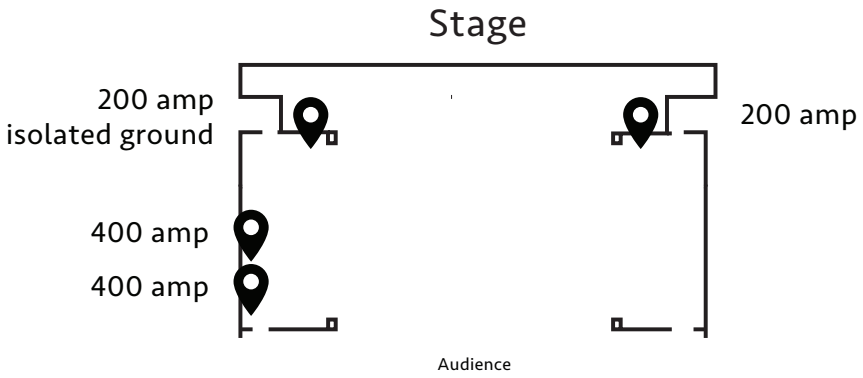
There are 25 rigging points, each 38.5 inches apart.

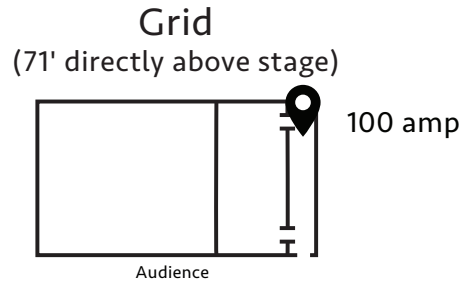
Photo by Patrick O'Leary

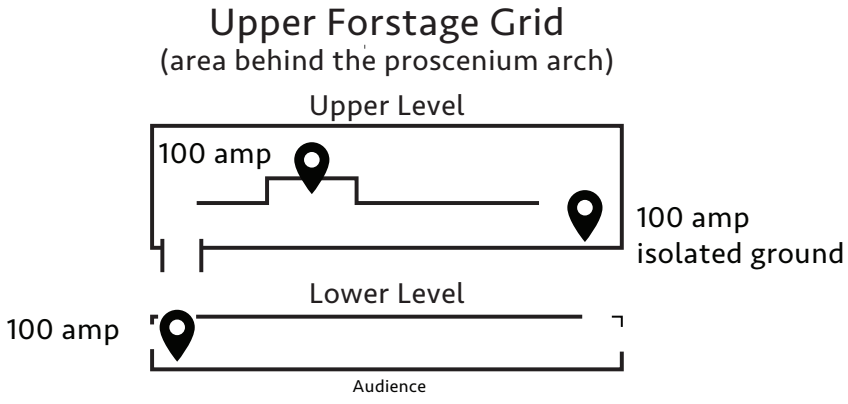
DISCONNECTS

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

DISCONNECT LOCATIONS

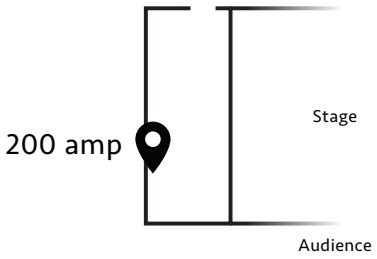




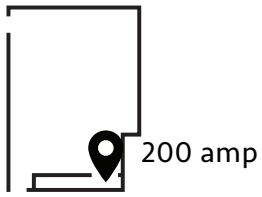


DISCONNECT LOCATIONS

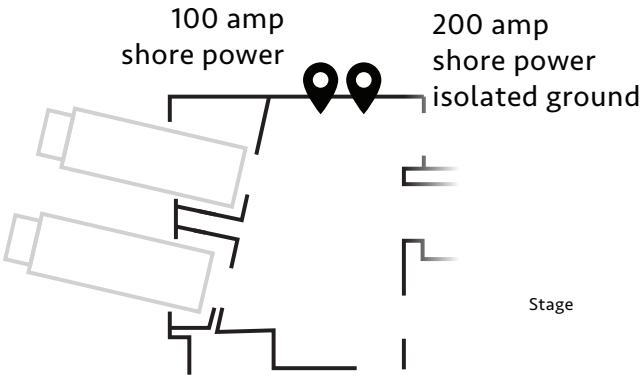
Stage Right Gallery
(above stage right)



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

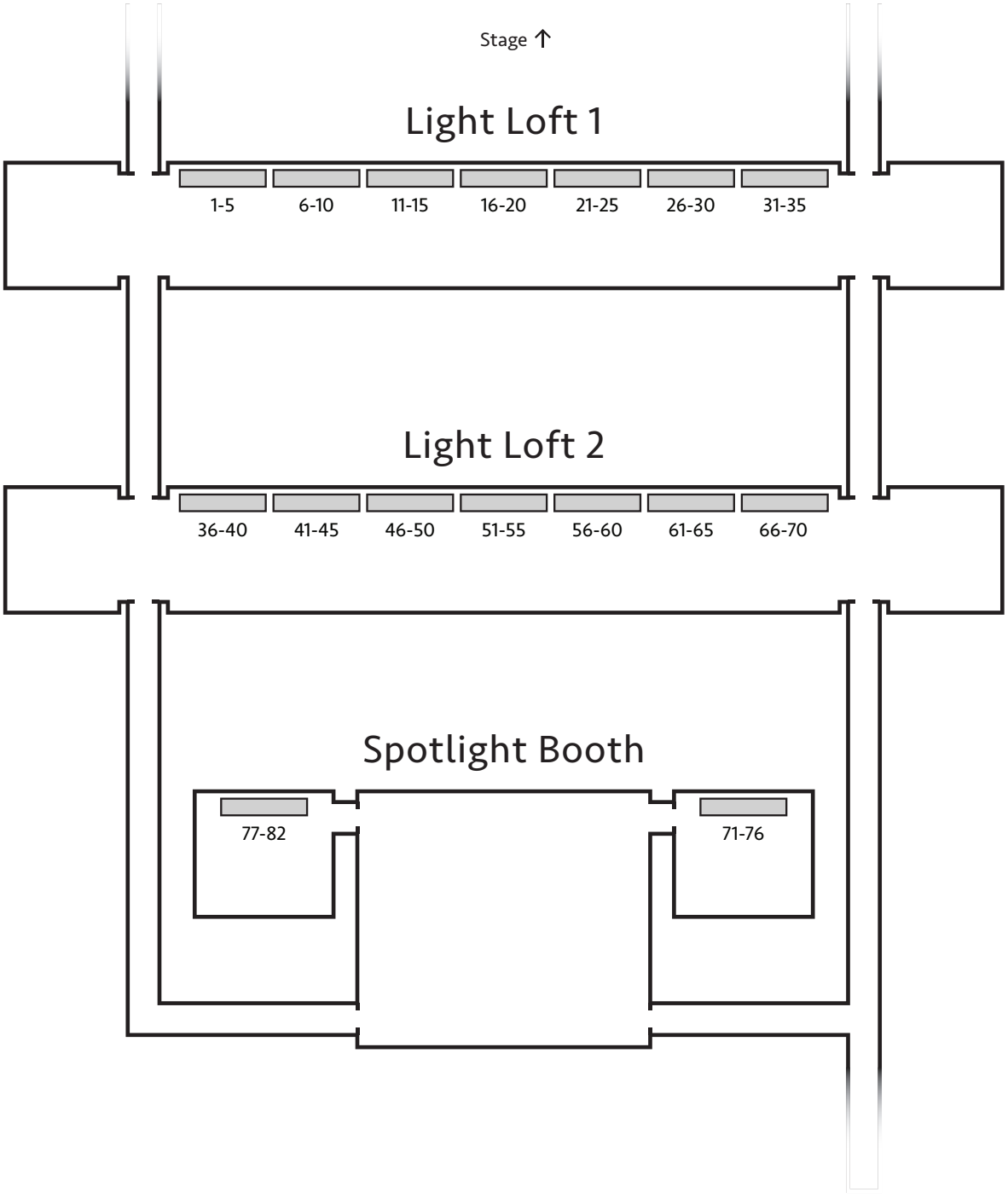
LIGHTING INVENTORY

TYPE	QUANTITY
Source Four 5° 750 Watt	36
Source Four 10° 750 Watt	34
Source Four 14° 750 Watt	6
Source Four 19° 750 Watt	84
Source Four 26° 750 Watt	72
Source Four 36° 750 Watt	60
Source Four 50° 750 Watt	24
Source Four PAR 575 Watt	8
Birdies	12
Cyc Lights, 3 cell (Aurora, 1000 watts per cell)	12
Ground Row, 3 cell (Aurora, 1000 watts per cell)	12
8" Selecon Fresnel 2KW	42
PAR 64 1k	60
Followspots (3K Lycian)	4

Some additional Source Four barrels available upon request.

STAGE PIN CONNECTIONS

82 circuits available



Floor 5 (Ceiling of the House)

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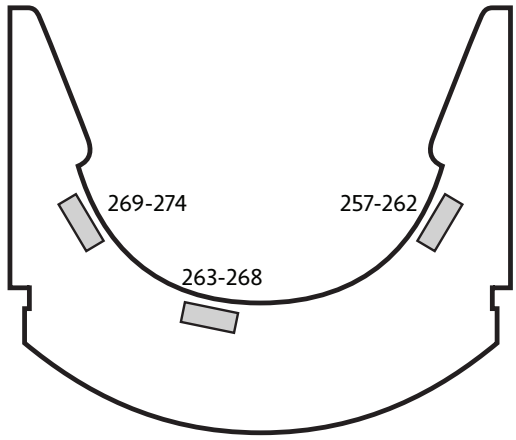
STAGE PIN CONNECTIONS

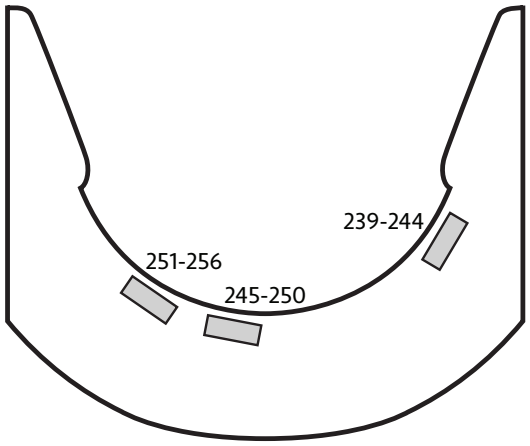
PRESIDENTS CIRCLE (2)

18 circuits available



SCHOLARS CIRCLE (3)

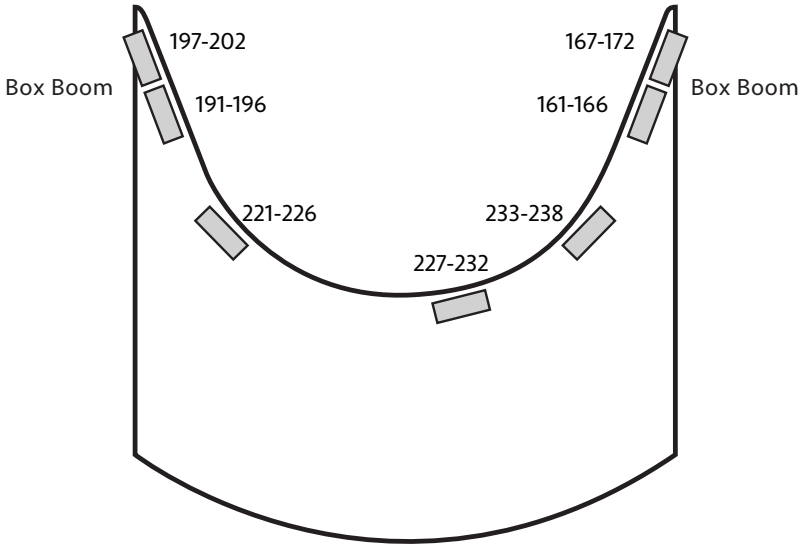
18 circuits available



GALLERY CIRCLE (4)

18 circuits available

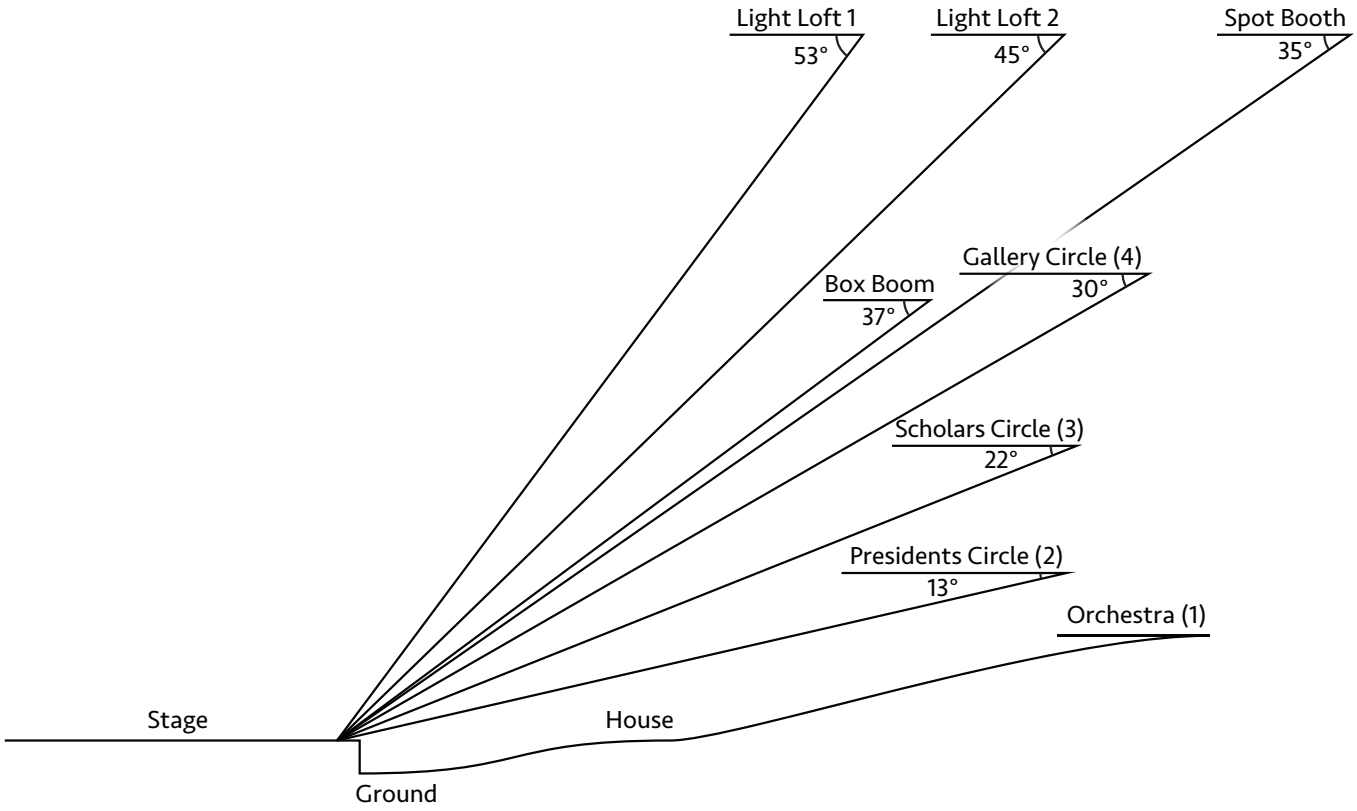
12 circuits per Box Boom



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
Box Boom	82'	25.0 m
Gallery Circle (4)	104'	31.7 m
Scholars Circle (3)	89'	27.1 m
Presidents Circle (2)	84'	25.6 m



SOUND

FRONT OF HOUSE SOUND CONSOLE

Digico SD9 48x24

LOUDSPEAKER SYSTEM

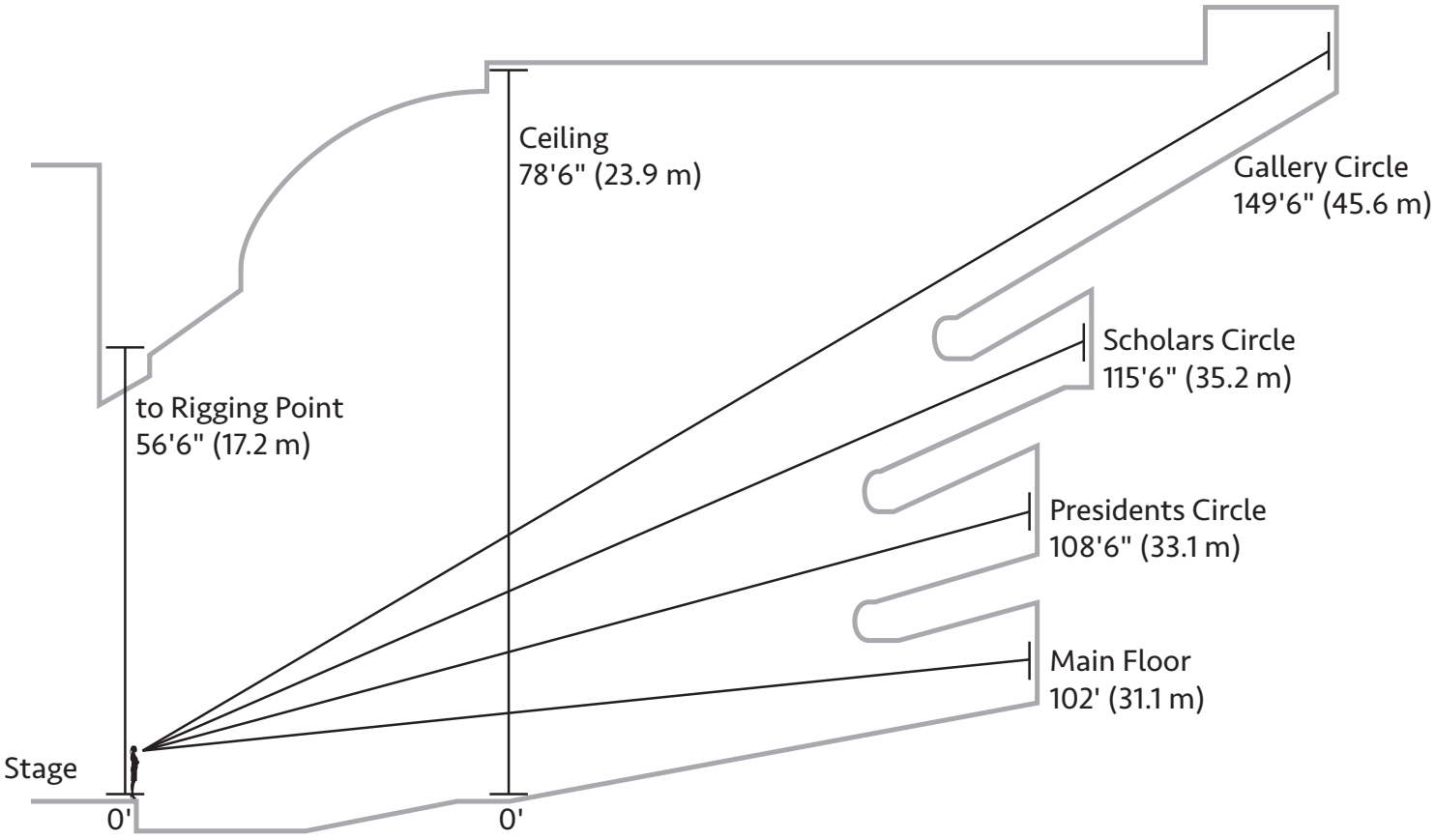
Type	Quantity
JBL Vertec 4888	18 (9 down per side)
JBL Vertec 4880 Subs	8 (4 per side, on ground)
JBL Vertec 4886 (main center array)	10
JBL Vertec 4886 (balconies L/R/C)	15
Meyer UPQ-2P (front and side fill)	6
Renkus Heinz TRX 61 (main floor front fill)	7
JBL PRX 715 (active monitors)	4
Electro Voice SXA 250 (active monitors)	8
Meyer UPA 1P (active speakers)	8
Meyer UP Junior (under balcony speakers)	2

AMPLIFIERS, PROCESSING, CONTROL

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

SOUND

THROW DISTANCES



VIDEO

PROJECTION

Barco HDX-W20 Flex 20,000 Lumen WUXGA DLP Projector
Barco TLD+(4.17-6.95: 1 WVXGA)(4.5-7.5: 1 SXGA+) Zoom Lens
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
Magenta Multiview VGA Transmitter/Reciever x2
Extron HDMI Extender x1

HOUSE FEATURES

STAGE & PROSCENIUM

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

HOUSE MIX POSITION

Depth	9'6"	2.9 m
Width	18'10"	5.7 m
Distance to Proscenium	68'	20.7 m
Cable Pass **(Limited Access)**	2 stage left, 1 stage right, 2 control booth	

FOLLOW SPOT BOOTH

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

CONTROL BOOTH

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

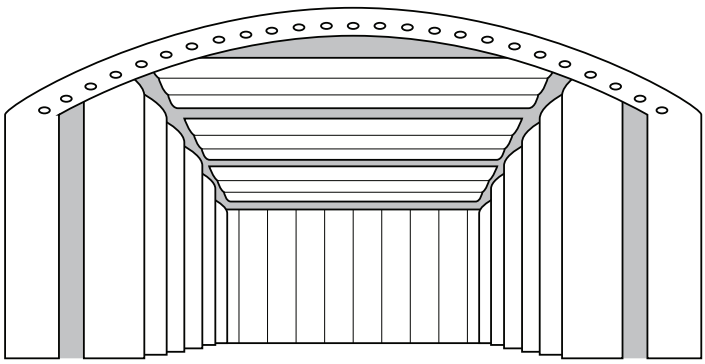
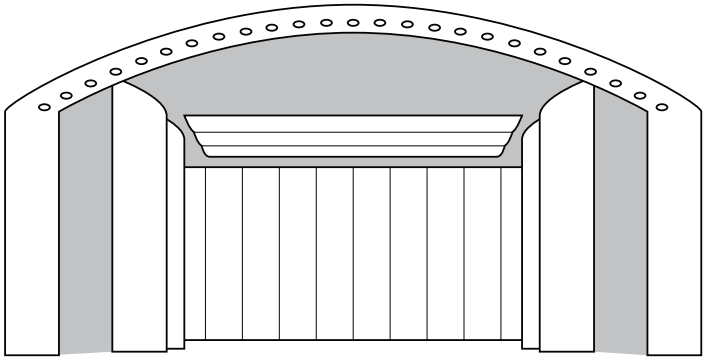
PROJECTION BOOTH

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

ORCHESTRA SHELL

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

Large



Small