



**CARLSON FAMILY STAGE
TECHNICAL & PRODUCTION SPECS**

Last Updated Aug 18, 2022

TABLE OF CONTENTS

CONTACTS	3
-----------------	---

CARLSON FAMILY STAGE AT NORTHROP

Seating	4-12
Stage Specifications	13-17
Lineset Schedule	18-19
Soft Goods	20
Rigging	21
Disconnects	22-24
Lighting	25-28
Sound	29-30
Video & Streaming	31
Mics. Services	32
House Features	33
Orchestra Shell	34

CONTACTS

NORTHROP

Executive Director	Kari Schloner Director of Northrop 612-625-0796 kschlone@umn.edu
Production & Stage	Justin Burke Technical Director 612-626-8245 burke018@umn.edu
Audience Services	David Russell Audience Services Manager 612-301-1960 dwrussel@umn.edu
Business Development & Customer Support	Cari Hatcher Director of Business Development and Customer Support 612-625-6003 chatcher@umn.edu
Artistic & Community Programs	Kristen Brogdon Director of Artistic and Community Programs 612-626-8711 kbrogdon@umn.edu
Phone	612-625-6600
Email	northrop@umn.edu
Web	northrop.umn.edu
Mailing Address	84 Church Street SE Suite 90 Minneapolis, MN 55455
Social	Facebook, Twitter, Instagram, YouTube: @northropumn
Northrop Loading Dock Delivery Address	73 Pleasant Street SE Minneapolis, MN 55455

TICKET OFFICE

Ticketing	Eli Halterman Box Office Manager 612-301-1962 halte033@umn.edu
Box Office Phone	612-624-2345
Fax	612-625-4008
Email	umntix@umn.edu

FOOD SERVICE

Sky Lakes Catering at Northrop, The Bistro at Northrop, & Concessions	Jackie LeMay Catering Manager 612-248-5676 lemay091@umn.edu
--	--

UNIVERSITY CONTACTS

First Aid	EMS 612-626-1312 umems@umn.edu dem.umn.edu/umems
Motorist Assistance Program (MAP)	612-626-7275
Campus Security Monitor Escort Service	612-624-WALK
University Parking and Transportation Services	612-626-7275 umn.edu/pts parking@umn.edu

SEATING

Carlson Family Stage at Northrop can seat a maximum total of 2,687 people.

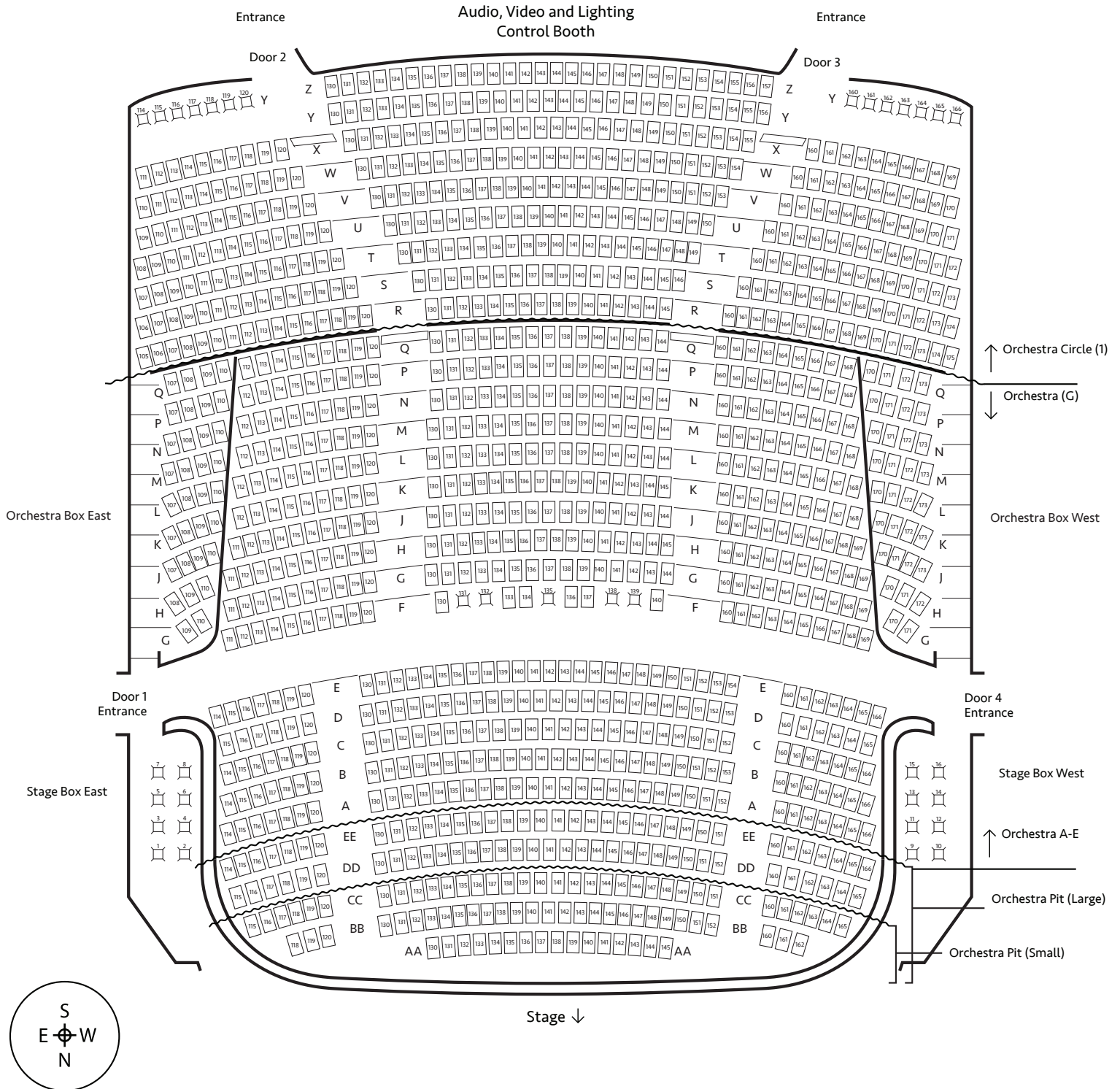
Orchestra (G)	734 fixed + 21 loose (10 possible wheelchair)	755 seats
Orchestra Circle (1)	386 fixed + 14 loose (14 possible wheelchair)	400 seats
Presidents Circle (2)	357 fixed + 46 loose (0 possible wheelchair)	403 seats
Scholars Circle (3)	433 fixed + 46 loose (10 possible wheelchair)	479 seats
Gallery Circle (4)	622 fixed + 28 loose (8 possible wheelchair)	650 seats

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

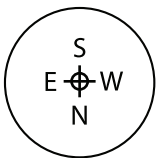
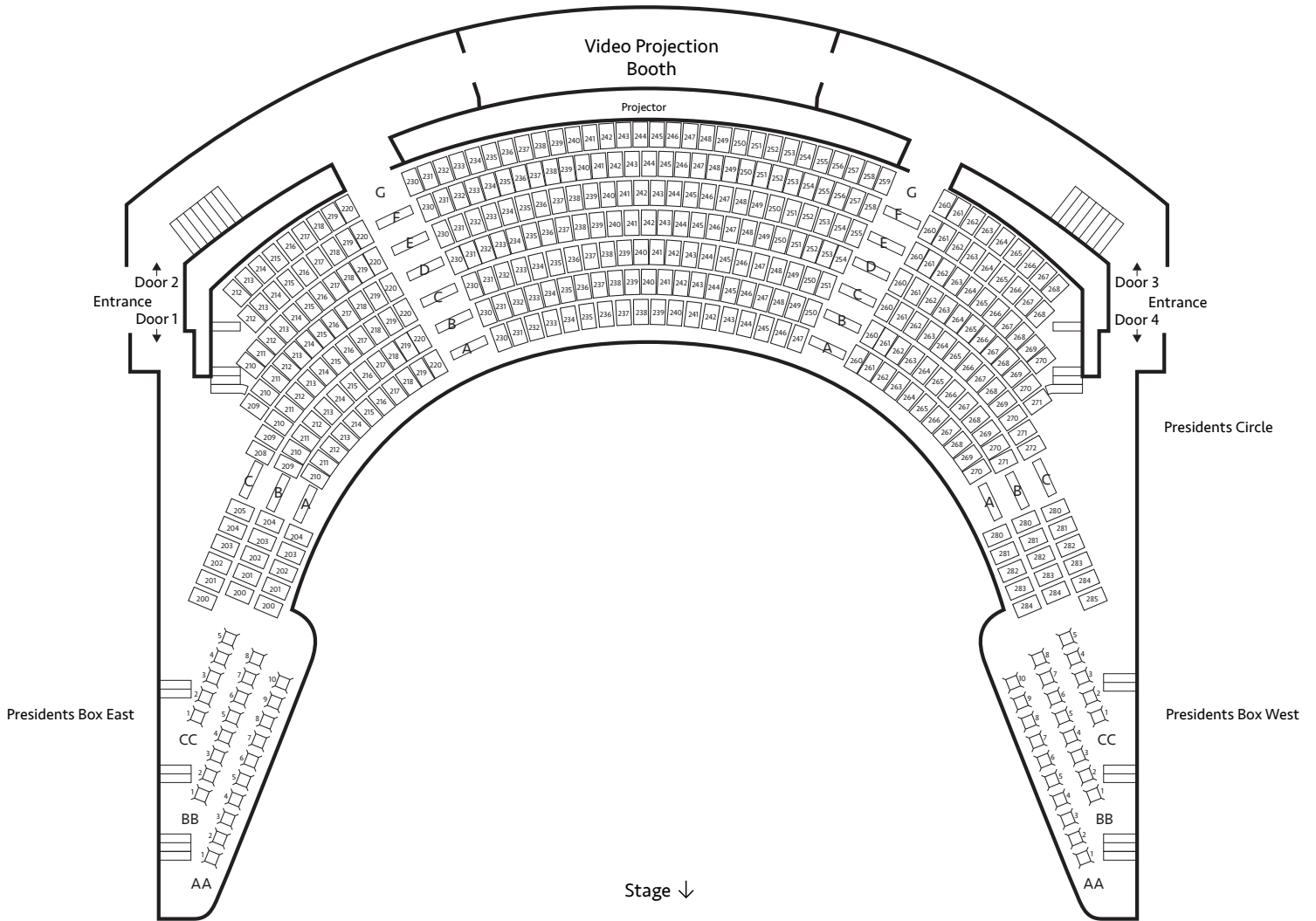
Orchestra Pit (Large/Full)	Accommodates up to 68 musicians	150 seats
Orchestra Pit (Small)	Accommodates up to 36 musicians	79 seats
Mixing/Sound Position		30-40 seats

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)

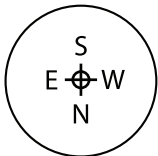
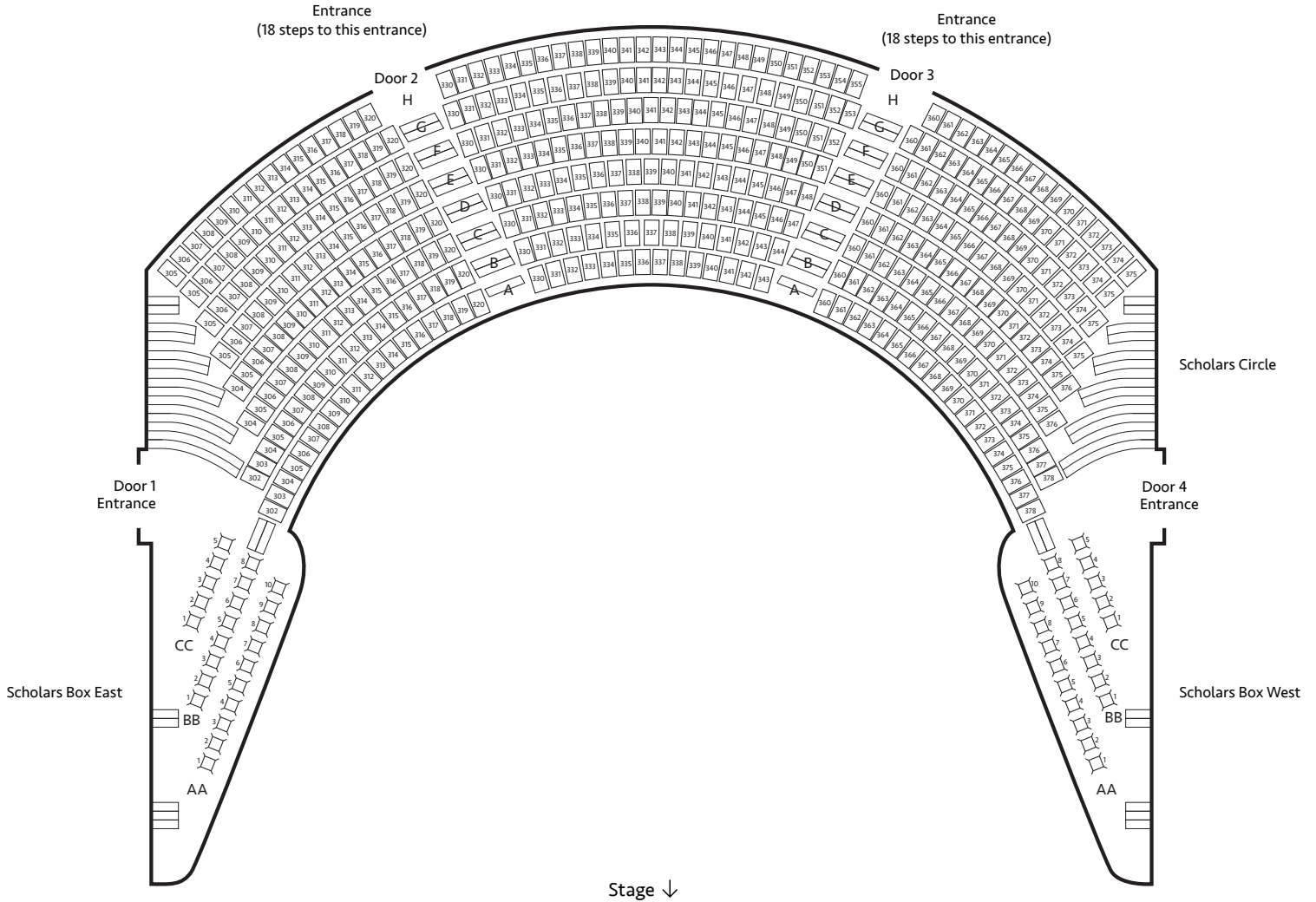


PRESIDENTS CIRCLE (2)



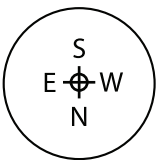
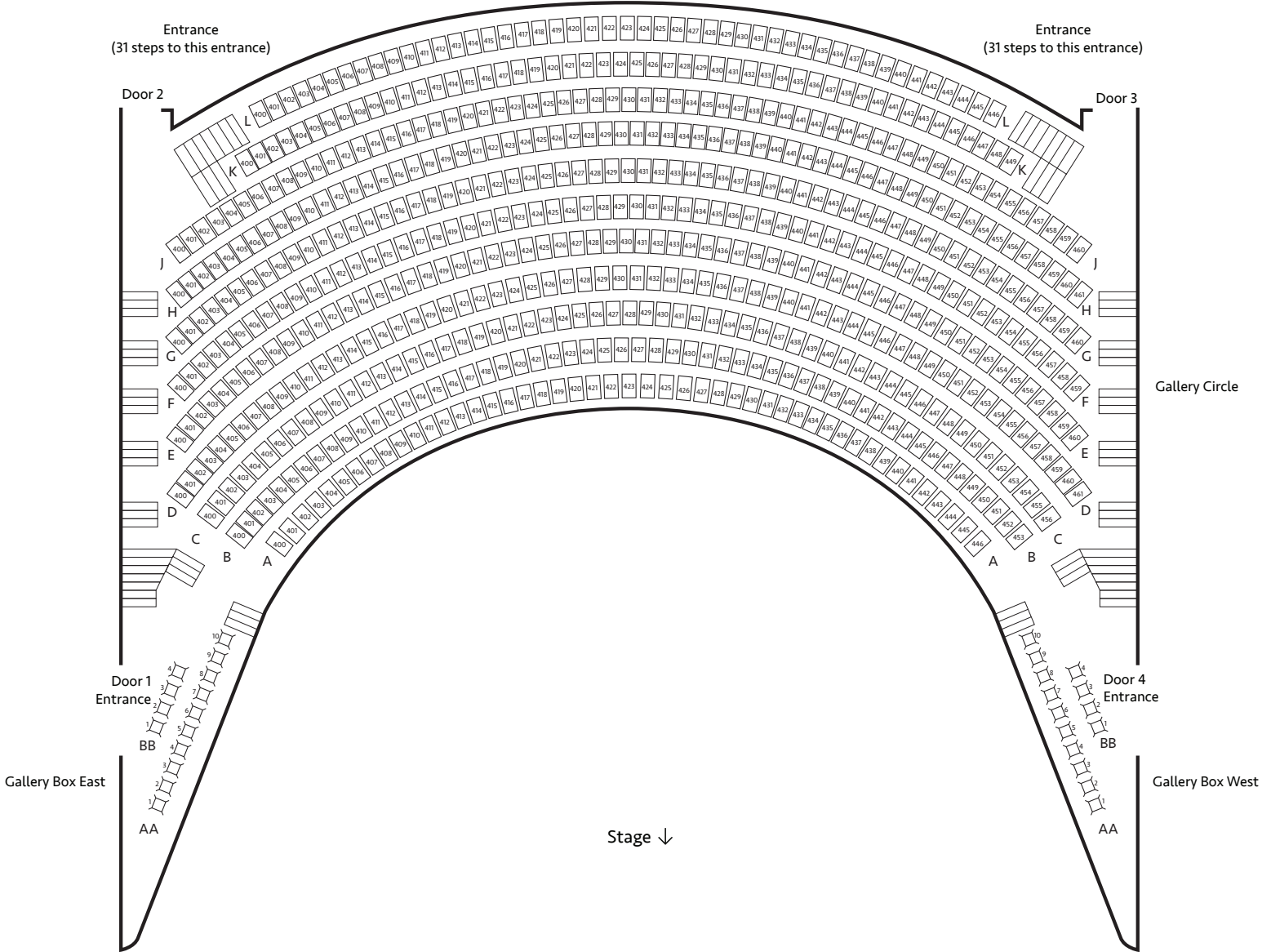
	Steps
	Loose chair

SCHOLARS CIRCLE (3)



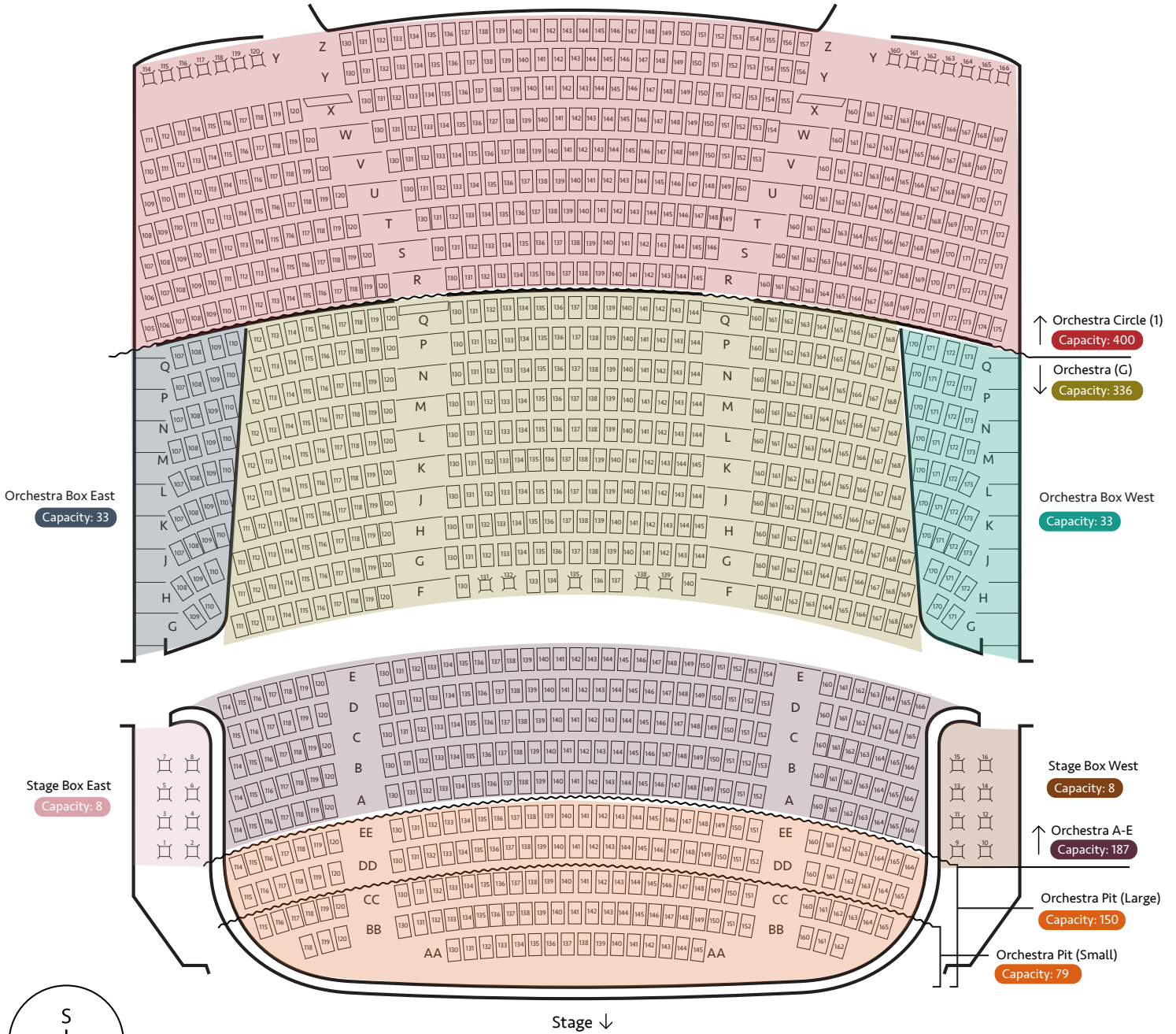
	Steps
	Loose chair

GALLERY CIRCLE (4)



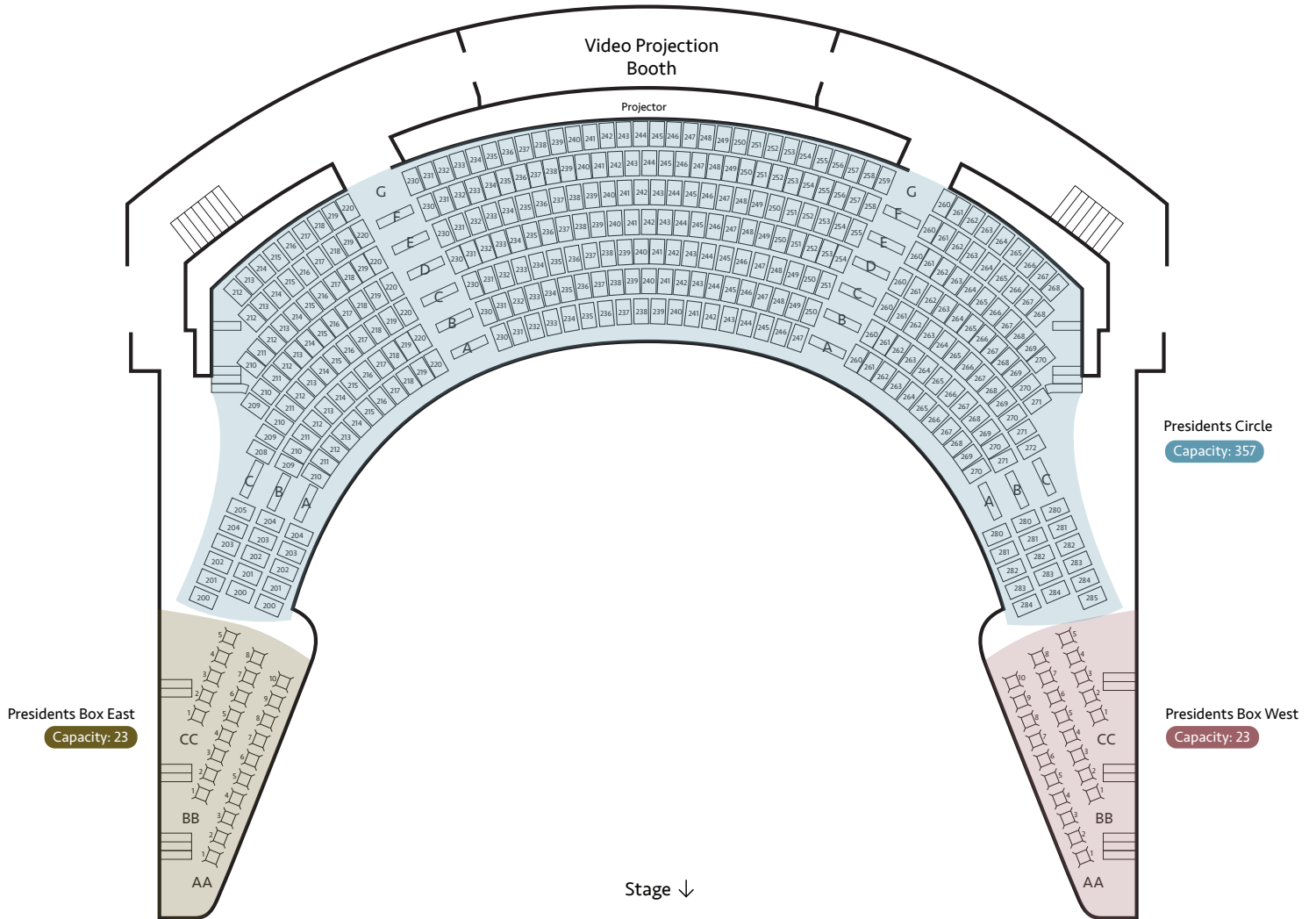
ORCHESTRA (G) & ORCHESTRA CIRCLE (1)

Audio, Video and Lighting
Control Booth



Total Capacity:	1,155
Orchestra Circle R-Z	400
Orchestra F-Q	336
Orchestra Box East	33
Orchestra Box West	33
Orchestra A-E	187
Pit (Large)	150
Pit (Small) (Part of Large Pit)	79
Stage Box East	8
Stage Box West	8

PRESIDENTS CIRCLE (2)

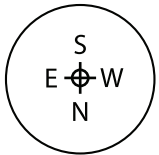


Presidents Box East
Capacity: 23

Presidents Circle
Capacity: 357

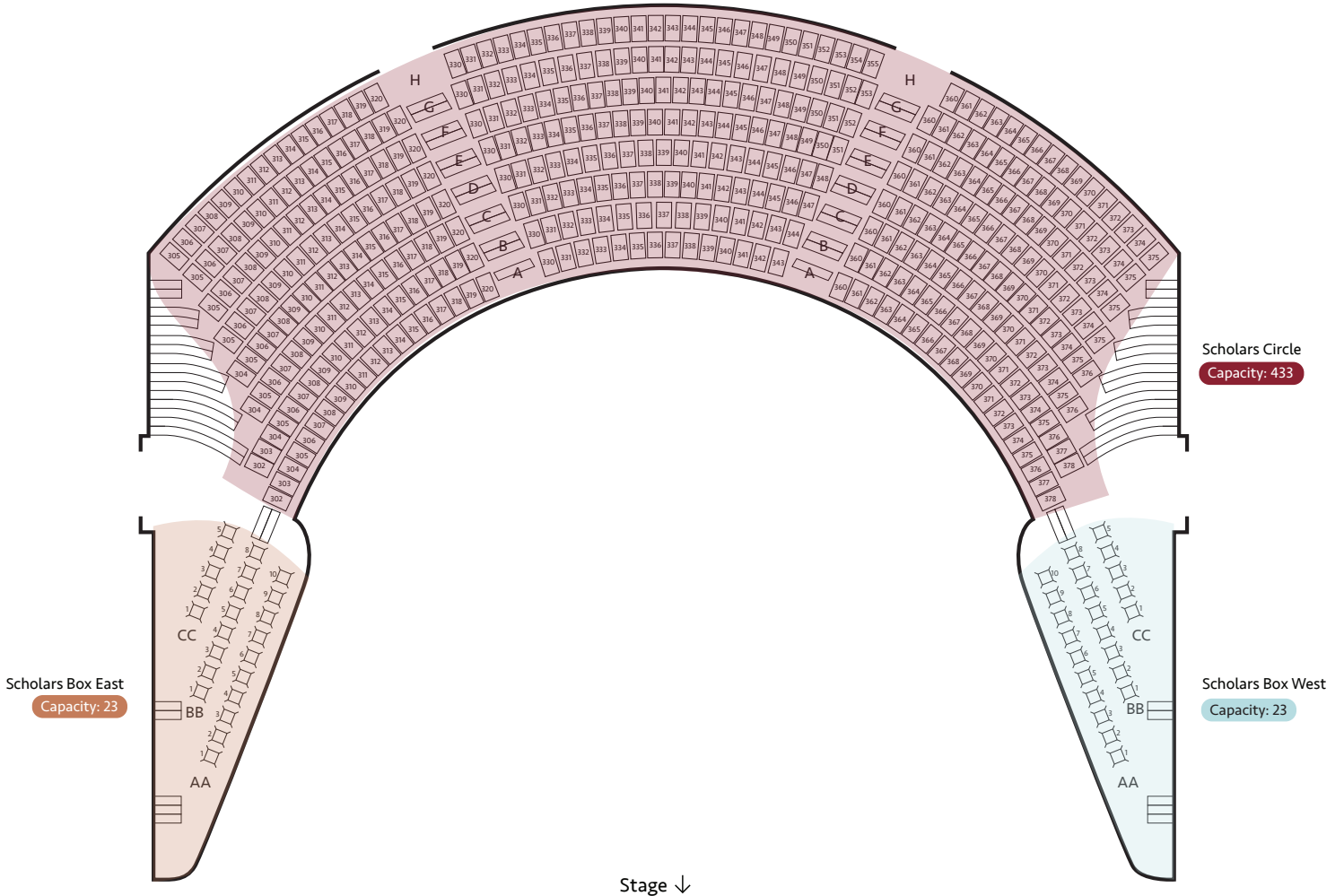
Presidents Box West
Capacity: 23

Stage ↓



Total Capacity:	403
Presidents Circle	357
Presidents Circle Box East	23
Presidents Circle Box West	23

SCHOLARS CIRCLE (3)



Scholars Box East
Capacity: 23

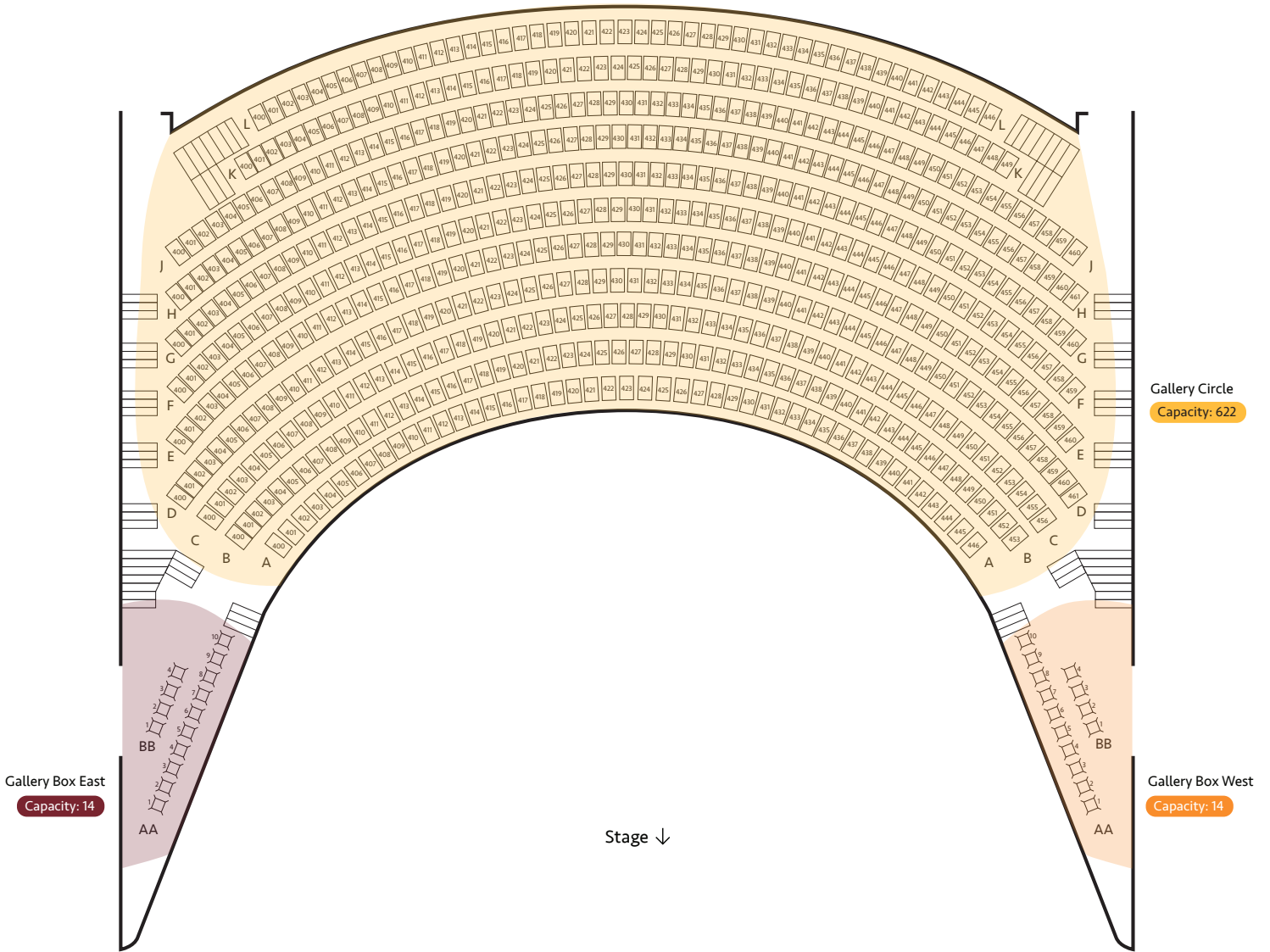
Scholars Circle
Capacity: 433

Scholars Box West
Capacity: 23



Total Capacity:	479
Scholars Circle	433
Scholars Circle Box East	23
Scholars Circle Box West	23

GALLERY CIRCLE (4)



Gallery Circle
Capacity: 622

Gallery Box East
Capacity: 14

Gallery Box West
Capacity: 14

Stage ↓



Total Capacity:	650
Gallery Circle	622
Gallery Circle Box East	14
Gallery Circle Box West	14

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)

PIANOS

Essex Upright 1

Steinway Grand 1
Model D

LAUNDRY

Washers 2

Dryers 2

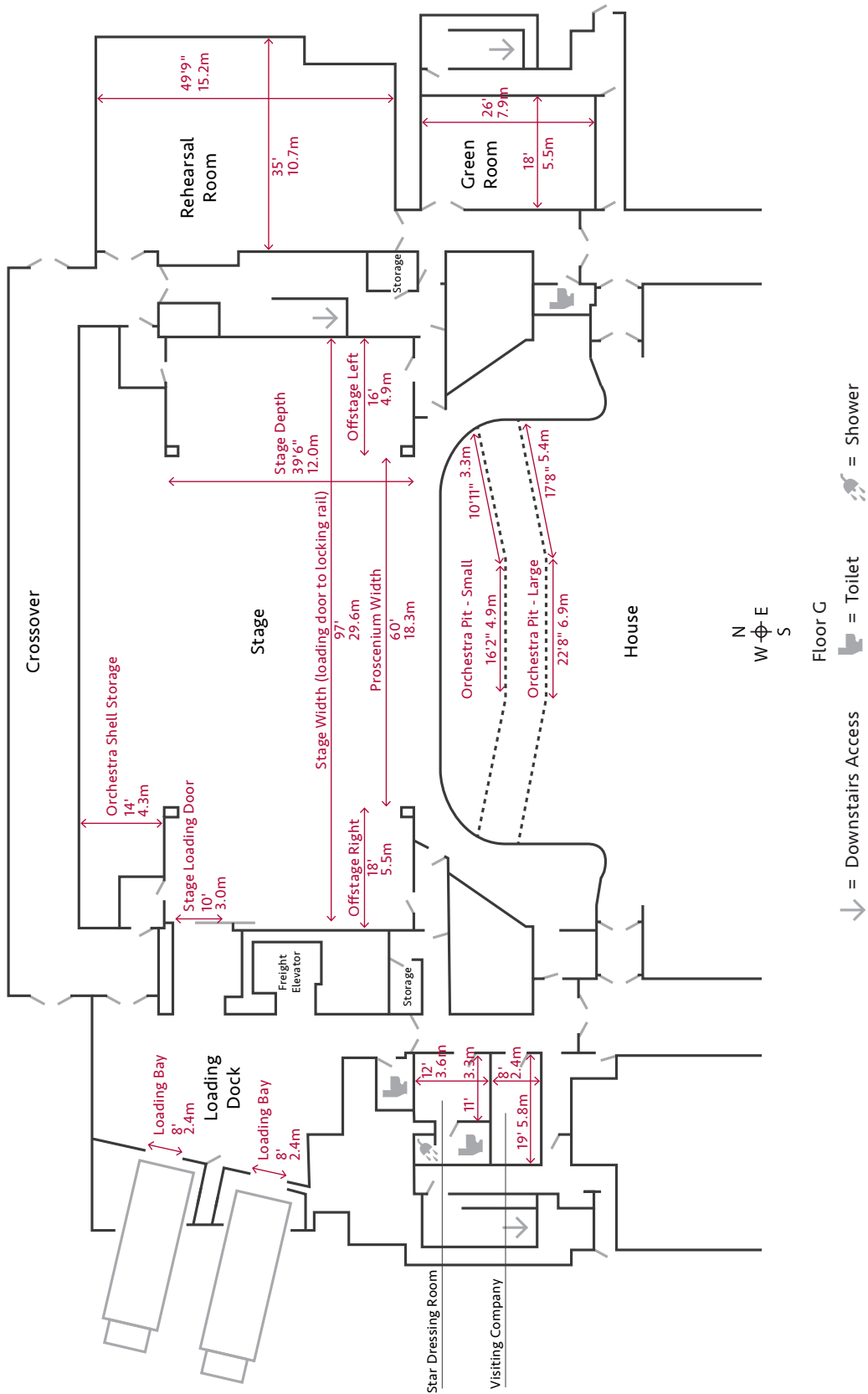
Garment Racks 12

Steamers 2

Irons 4

Ironing Boards 4

NORTHROP BACKSTAGE GROUND LEVEL



BACKSTAGE ARTIST FACILITIES

GROUND LEVEL

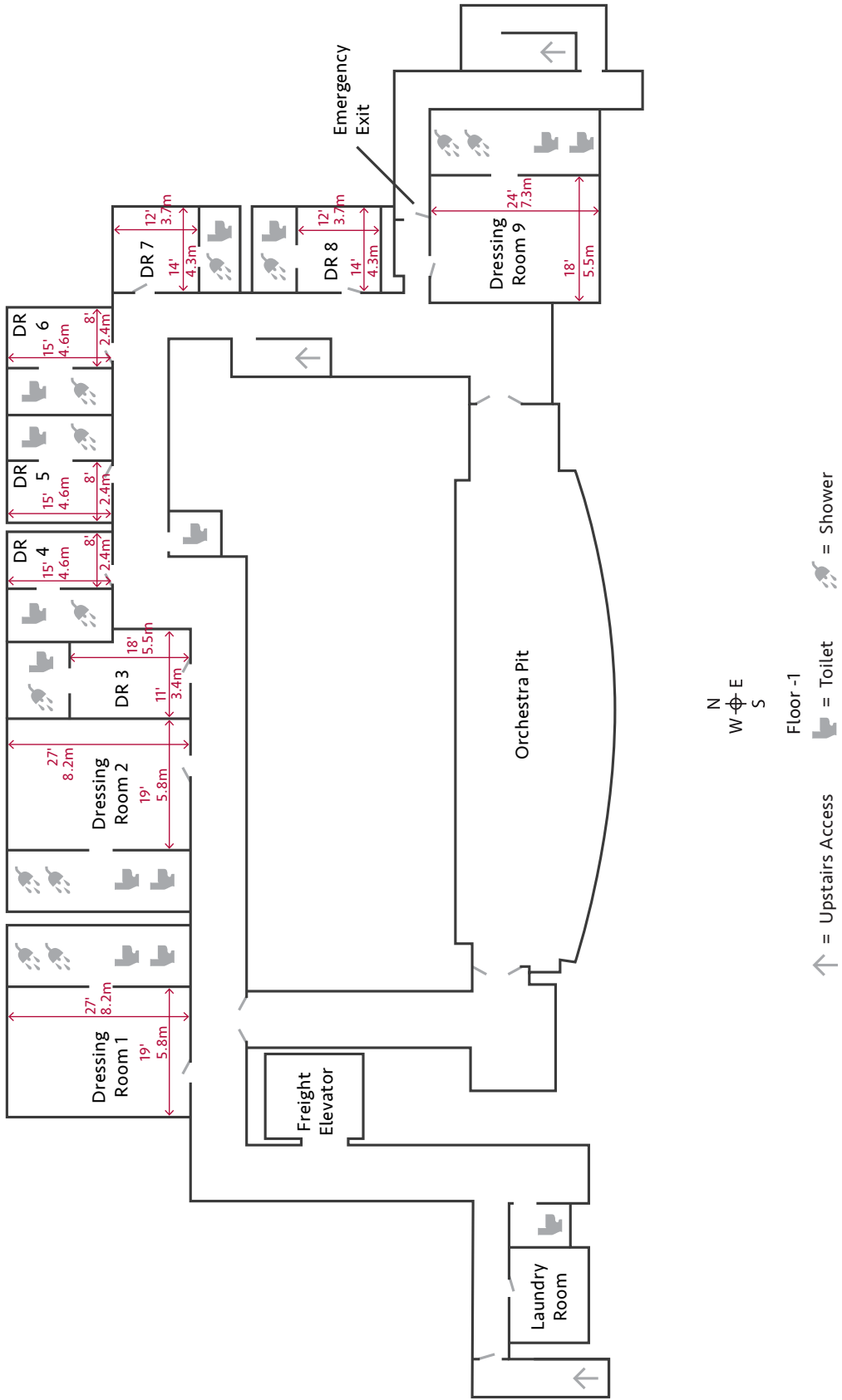
	Dimensions		Makeup Stations	Showers
Rehearsal Room	49'9" x 35'	15.2 m x 10.7 m	-	-
Green Room	26' x 18'	7.9 m x 5.5 m	-	-
Star Dressing Room	12' x 11'	3.7 m x 3.4 m	1	1

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

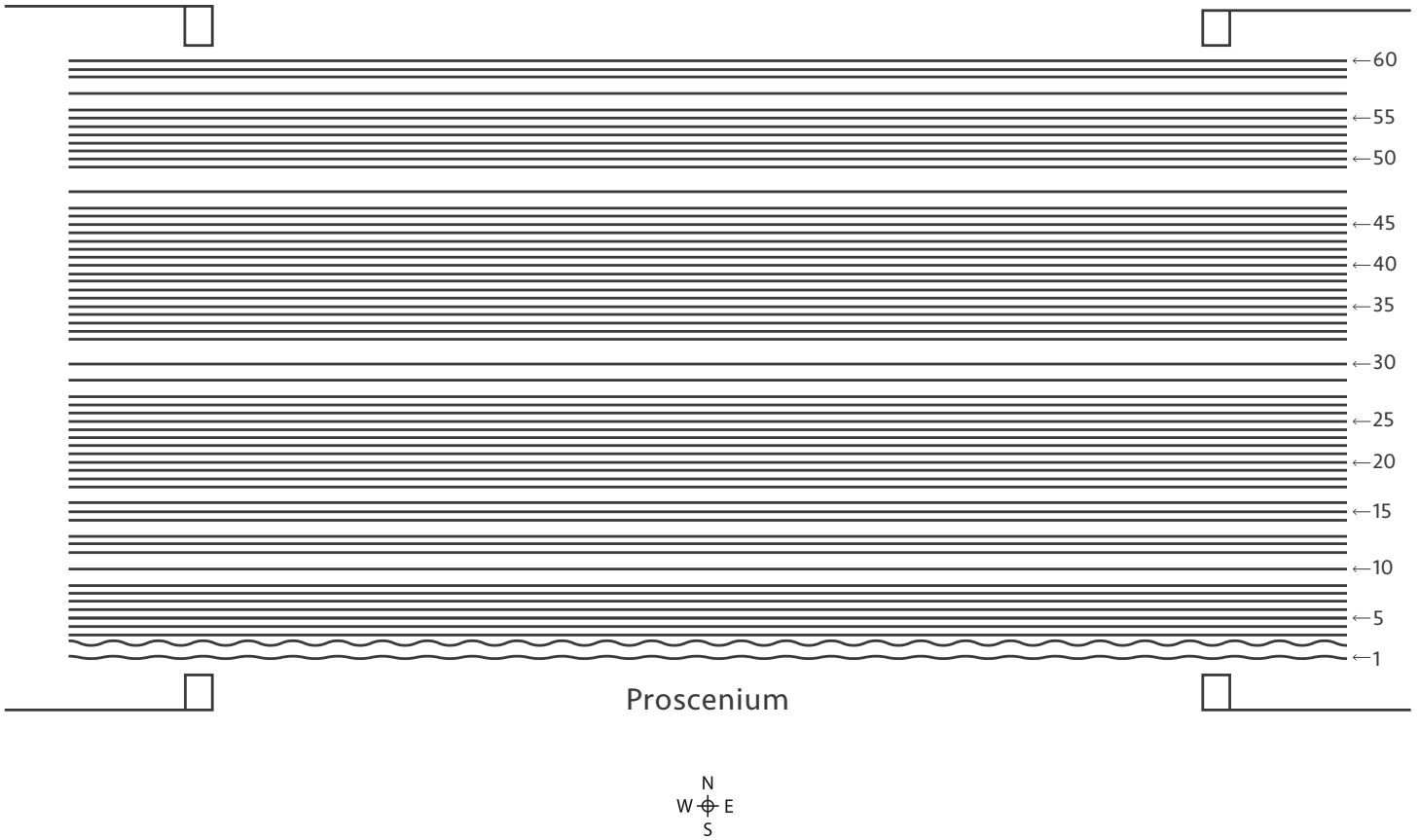


LINESET SCHEDULE

	40'	12.19 m	Back Wall	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	Orch. Ceiling N/A	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	Orch. Ceiling N/A
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	1st G.P. Lineset (limited use)
37	24'10"	7.56 m		2	3'4"	1.01 m	Main Curtain
36	24'4"	7.41 m	Mid-Stage Traveler N/A	1	2'4"	0.71 m	Teaser
35	23'10"	7.26 m					Fire Curtain
34	23'4"	7.11 m		0	0'	0 m	Plaster Line
33	22'10"	6.95 m					
32	22'4"	6.80 m	Projection Screen (moveable)				
31	21'10"	6.65 m	Screen Surround (moveable)				
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					

Proscenium Opening	60' (18.3 m)
High Trim	68'7" (20.9 m)
Arbor Cap	2,070 lbs (939 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)	4	12' x 20'	3.7 m x 6.1 m
Side Tabs (Stage Left)	4	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
Split Blackout	1	78' x 30'	23.8 m x 9.1 m

RIGGING

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

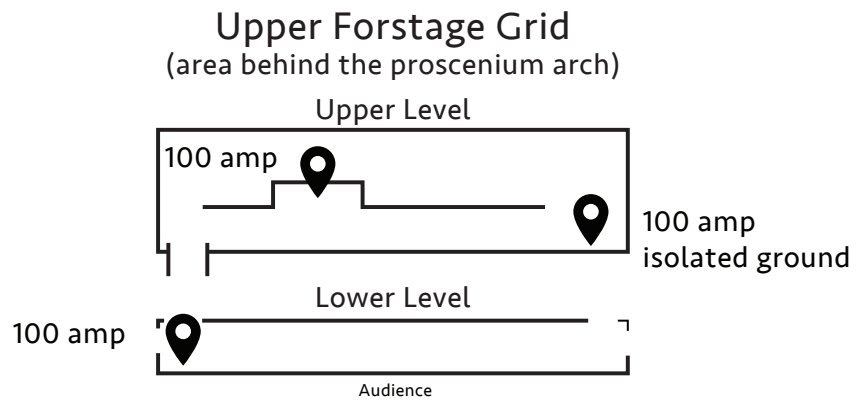
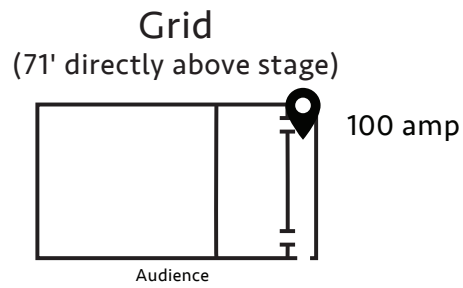
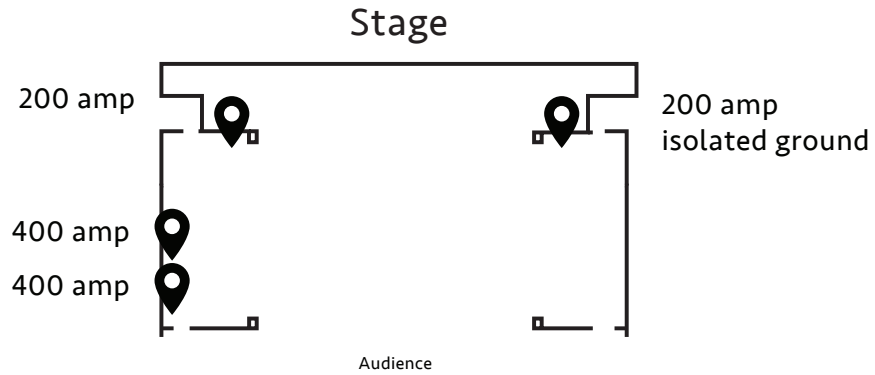
There are 25 rigging points, each 35-38.5 inches (88.9-97.8 cm) apart.



DISCONNECTS

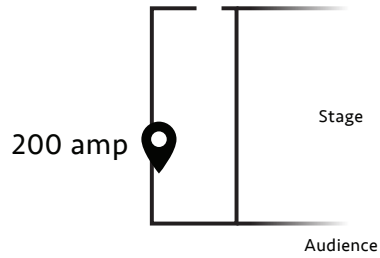
Upstage Left (isolated ground)	200 amp 208 volt 3 phase
Upstage Right	200 amp 208 volt 3 phase
Downstage Right	400 amp 208 volt 3 phase
Downstage Right	400 amp 208 volt 3 phase
Stage Left Gallery	200 amp 208 volt 3 phase
Rehearsal Room	200 amp 208 volt 3 phase
Loading Dock (shore power isolated ground)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

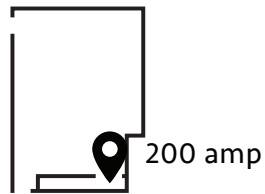


DISCONNECT LOCATIONS

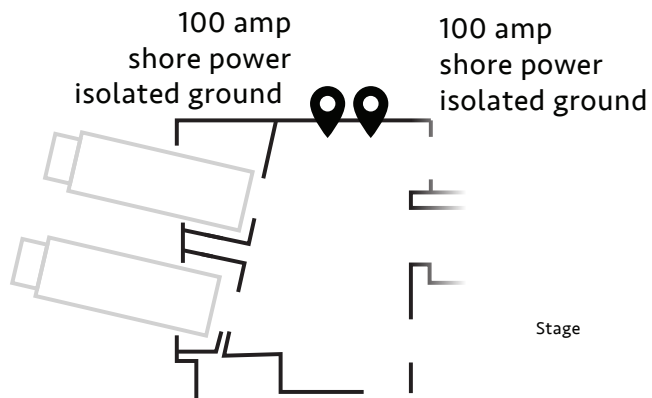
Stage Right Gallery
(above stage right)



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

Some additional Source Four barrels available upon request.

TYPE	QUANTITY
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 (Focusing, 1000 or 1500 watts)	16
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 (75 lamps each of VN5P, NSP, MFL, and WFL)	80
MAC Encore Performance, CLD (Fixed installation mid balcony rail)	8
Elation Fuze Profile (Fixed installation)	2
Followspots (3K Lycian)	4

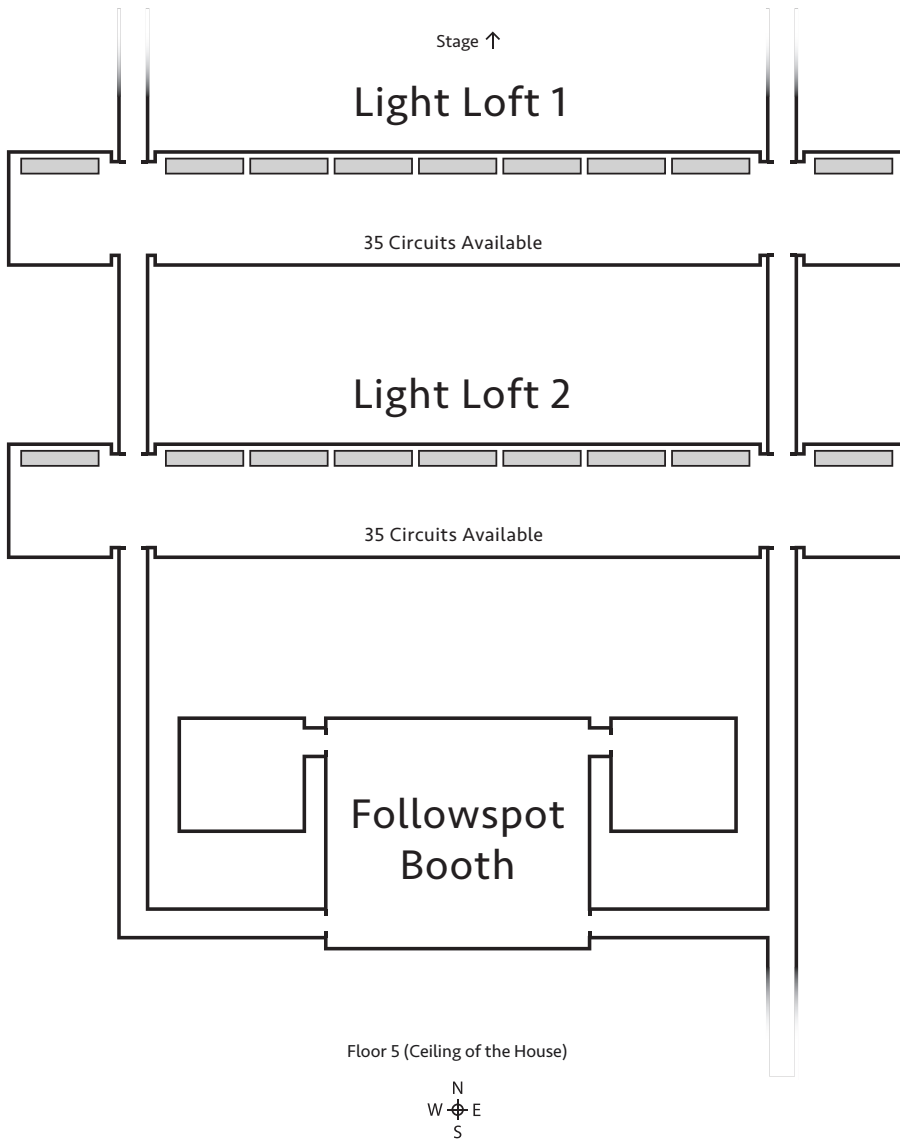
ACCESSORIES

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)

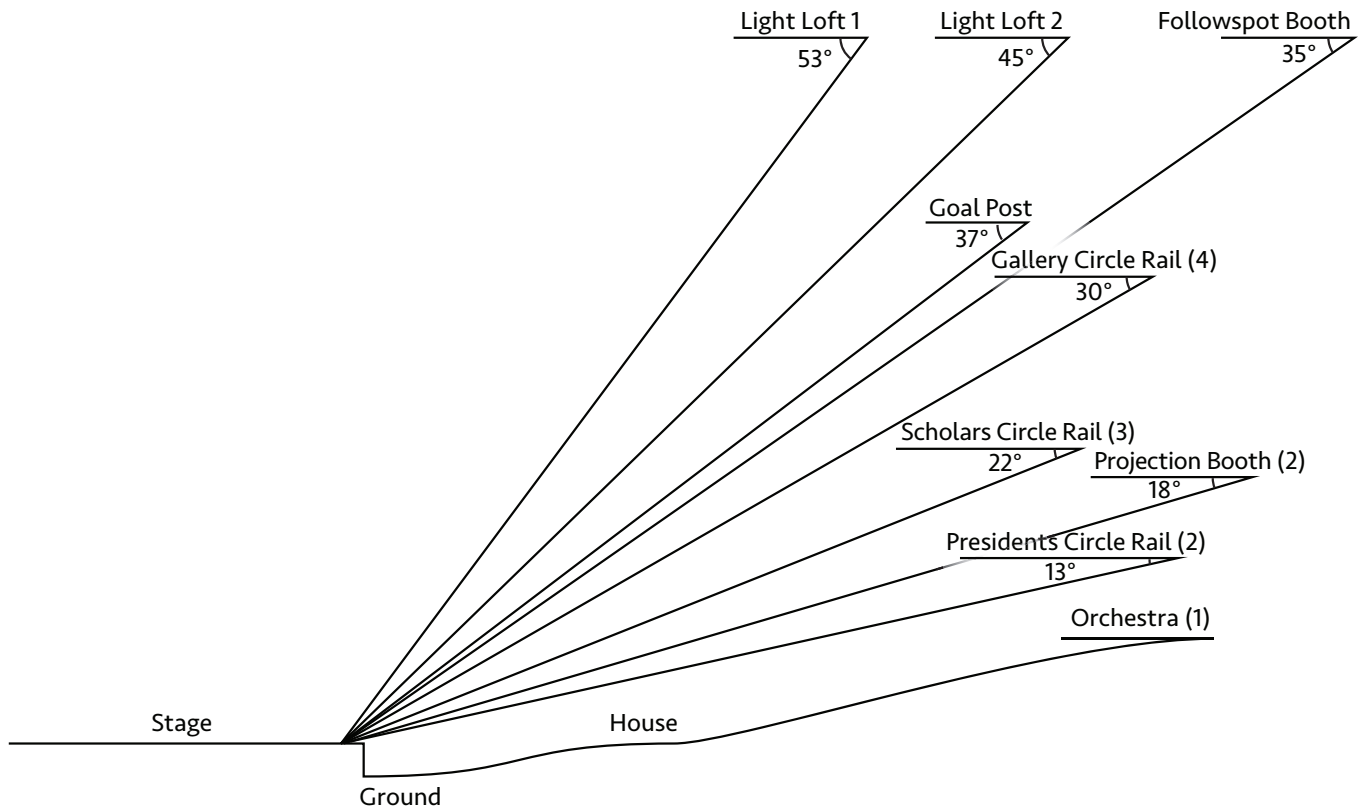
18 circuits available

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

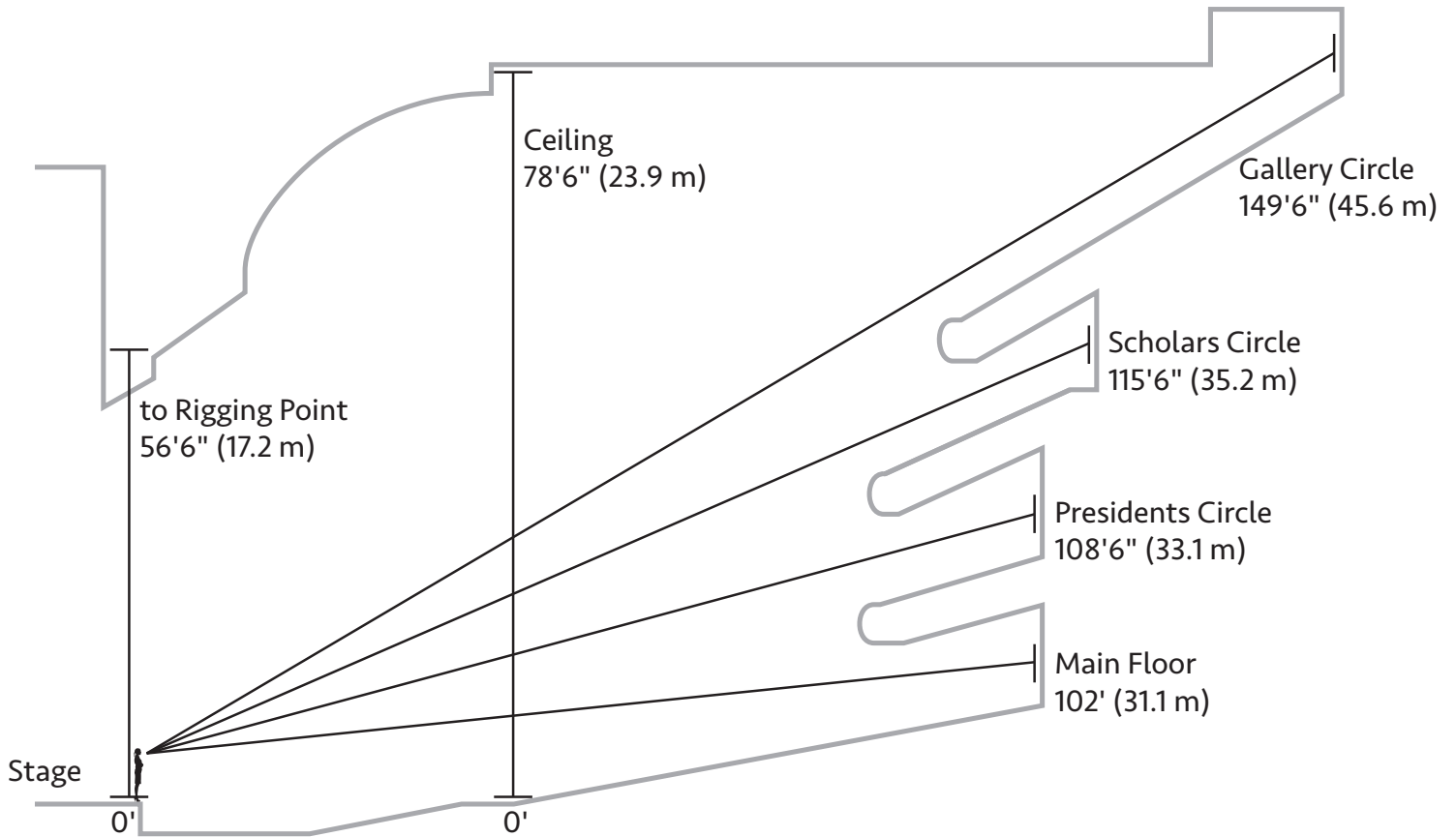
Type	Quantity
D&B Audiotechnik Vi8	20 (10 per side)
D&B Audiotechnik Vi12	4 (2 per side)
D&B Audiotechnik V Subs	8 (4 per side, flown)
D&B SL-GSUB	4 (2 per side)
D&B Yi12 (Center Array)	8
Meyer UPQ-2P (Side fill)	4
D&B Audiotechnik E5 (main floor front fill)	8

AMPLIFIERS, PROCESSING, CONTROL

Type	Quantity
D&B Audiotechnik D20	9
D&B Audiotechnik D80	4
Clear Com System	

SOUND

THROW DISTANCES



VIDEO & STREAMING

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 or Rear Projection

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

CAMERA / VIDEO SERVICES

We can arrange for an outside vendor to provide camera(s) and switchers for projection onto Northrop's screen or for livestreaming. Rates are quoted at the time of booking.

LIVESTREAM FORMAT

<https://z.umn.edu/northrop>

The details section contains viewer info and the event schedule.
 Northrop will not livestream to other platforms.

RECORDING

A recording of the livestream is available.
 When livestream services are not being used, an archival recording using the house camera is available.
 The livestream or archival footage is sent via Google drive within one day of the event.

MISCELLANEOUS SERVICES

CAPTIONING

We can arrange for an outside vendor to provide captioning services.

Rates are quoted at the time of booking.

ASL (AMERICAN SIGN LANGUAGE)

We can arrange for an ASL interpreter. This service is usually booked through the Interpreting Captioning Unit of the UMN Disability Resource Center (DRC).

We place the interpreters in Row BB in seats 007, 008 and 009 (East Side) close to the stage on the Orchestra Level floor.

Students or guests using this service need to be seated within that sightline.

We provide a special light that illuminates the interpreter.

If an ASL interpreter is being provided for a student, there is no charge. For general audience requests (non-UMN student requests), the service will be quoted at the time of booking.

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 Cable Pass to control booth only	68'	20.7 m

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

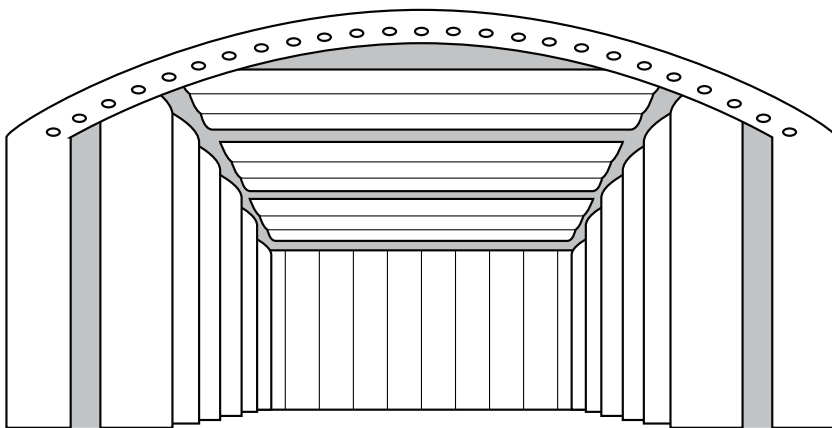
FOLLOW SPOT BOOTH

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	

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

