

# The Adrienne Arsht Center for the Performing Arts of Miami-Dade County

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## *Sanford and Dolores Ziff Ballet Opera House* Technical Specifications



Photo By Robin Hill

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Head Audio	Rafael Cambon	786-468-2313

## Ziff Ballet Opera House Loading Dock

The entrance to the loading dock is located on 14<sup>th</sup> Street between Biscayne Boulevard and N.E. 2<sup>nd</sup> Ave. Trucks should approach the docks East bound on 14<sup>th</sup> street coming from NE 2<sup>nd</sup> Ave. The dock has four bays and can accommodate three full size trailers. The full area of the dock is sheltered from weather.

## Stage Door Entrance

The stage door is located at the intersection of North East 2<sup>nd</sup> avenue and 14<sup>th</sup> Street. For safety and security of guest and staff, anyone working or visiting the Ballet Opera House stage, Studio Theatre or Rehearsal Hall is required to check in with security at this entrance, without exception. Those not having proper identification and authorization will be denied entry and ask to leave.

## **ZBOH Seating Capacity**

The Sanford and Dolores Ziff Ballet Opera House auditorium will have a capacity of 2,454 seats distributed throughout five levels:

Orchestra level:	Pit:	68
	Orchestra	772
	Orchestra Cir	204
	Orchestra Total:	(1044)
	Box Tier Level:	98
	Second Tier Level:	356
	Third Tier Level:	390
	Fourth Tier Level:	<u>566</u>
	Grand Total:	2,454

## **Ziff Ballet Opera House Dimensions**

*NOTE: All measurements are approximate until actual survey.*

The [proscenium](#) arch is 50' wide by 38' high. The main stage is 127' by 70' (8,400 nsf), the rear stage is 58' by 84' (4,872 nsf) by 35' tall. The left side stage is 61' by 67' (4,148 nsf). The stage will be equipped with 90 counterweight line sets, the gridiron is 110 feet high while the rear stage and the left side stage clears a height of 35'.

The stage is equipped with four stage scenery wagons and three compensating lifts which live center stage. Of the four wagons, the single 48'deep x 60'wide x 12"tall wagon travels upstage while three individual 14'deep x 60'wide x 12"tall wagons travel stage left when not on their three individual compensating lifts.

**Please see link for reference: [ZBOH - STAGE PLAN. PDF](#)**

**Stage Floor:**

- Surface is ¼" masonite over 2- ¾" tongue and groove plywood attached to 2x4 sleepers over 2" resilient pads and insulation.

**Stage Wagons and Traps:**

- Up Stage Wagon 60'x48' with 72 traps.
- Stage Left Wagons 60'W x 16'D. each with 24 traps.
- Each wagon has 3 areas 11'W x 13'4"D for traps. Each trap is 3'5"W x 5'6"D.
- The area that is trapped on each wagon starts approximately 12' from the off stage edge. There is approximately 1' between the two areas ¼ L & R.

**Compensating Lifts:**

- 3 lifts 16'D x 60'W they start at 12' upstage of plaster line.
- Each lift has 6' normal travel.
- Each lift has 24 traps for a total of 72 traps.

**Dressing Rooms**

Please refer to [Dressing Room Schedule](#) for assignment.

There are:

- 7- Principal Dressing Rooms with private sinks, toilets and showers.
- 6- Two person dressing rooms with private sinks, toilets and showers.
- 6- Chorus dressing rooms with sinks, toilets and showers.
- 2- Visiting company offices.
- 2- Performers lounges.

over three floors.

- [Pit Level](#)
- [Stage Level](#)
- [2<sup>nd</sup> floor](#)

**Ziff Ballet Opera House Other Spaces**

- ZBOH Green Room: Dimensions: 38' 3" W x 29' 3"L
- ZBOH Donor's Lounge: Dimension: 32' W x 21'L
- Rehearsal Hall: 53'7" x 79'9" Pipe grid at 33'9"

Ballet Opera House Meeting Rooms	Sq. Ft.	Capacity	Ceiling Height
Green Room	1030	68	
Upper & Lower Lobby	2335	155	
Banquet Room	1900	126	
Donor's Lounge	690	46	
Box Tier Terrace	3200	214	

## ZBOH Stage information

*NOTE: All measurements are approximate until actual survey. Please reference Stage Plan PDF above.*

- Proscenium opening width: 50' 0"
- Proscenium opening height: min 34' 0"; max 38' 0"
- Stage depth: 68'3"
- Main Stage width: fly rail to wall pocket 126' 0"
- Stage Grid height 110'
- Apron from curtain: 4'
- Inner pit up: 8' deep x 38' wide
- Outer Pit: 6.6'deep x 60' wide
- Pit size small configuration: 8'x38' up to 25 musicians
- Pit size large configuration: 14'6"x60' up to 96 musicians
- Locking Rail: Deck (0'-0")
- Pin Rail: 50'
- Fly Rail to edge of compensating lift (SR wing): 33'4"
- Fly Rail to Stage Left Wall: 192'
- Lower Weight Bridge: 99'
- Upper Weight Bridge: 106'
- Light Gallery: 79'
- Up stage storage: 84'W x 54'D x 35'H
- Stage left stage storage: 68'W x 60'D x 35'H

## ZBOH Lighting Information:

- Curtain line center to center of balcony rail: 95'
- Curtain line center to follow spot booth: 168'
- Curtain line center to near catwalk: 41'3"
- Curtain line center to far catwalk: 98'11"
- Curtain line center to House mix position: 84'
- Curtain line center to Lighting & Sound Booth: 109'
- Curtain line center to Box Far Booms: 49'11"
- Curtain line center to Mid Box Boom: 44'7"
- Curtain line center to Near Box Boom: 42'11"
- Curtain line center to 2<sup>nd</sup> Tier balcony rail: 99'8"
- Curtain line center to 3<sup>rd</sup> Tier balcony rail: 105'7"
- On Stage Lighting Ladders to center stage: 40'

Please reference [ZBOH Long Section](#)

## Forestage Rigging

From Center Line, left and right: 4'6", 13'6" and 22'6" there are no center points.

Points are arranged in a semicircle starting 13'8" down stage of plaster line.

First points useable for rigging across the width of the proscenium opening are approximately 17' down stage of plaster line.

## ZBOH Fly System

*NOTE: All measurements and weights are approximate until actual survey.*

- Fire curtain, steel framed motorized counterweighted.
- House Curtain motorized counterweighted variable speed winch, maximum speed 300fpm.
- 2- Motorized counterweighted line sets for portal and border.
- Light bridge, **distance upstage from plasters line** motorized counterweight. Capacity dead load of bridge, plus 8,000lbs live load.
- 90- 2,000lbs capacity, 6 line, single purchase, undedicated, manual counterweight sets.
- 14' arbors, max capacity 2000lbs.
- Battens are truss type consisting of two 1-1/2" normal diameter schedule 40 pipes held 10" apart by 2- 1/4" welded steel plates spaced 4' apart.
- Batten length is 74' Maximum travel is 108'
- Capstan Winch: 2000 lbs capacity, 10 fpm
- SL and SR Tab Rigging: counterweight
- Total amount of counter weight: 100,000 lbs
- 5- 21' tracked light ladders stage left and right on motorized rigging.

Please reference [Pipe Schedule](#).

## ZBOH Soft Goods

Quantity	Description	Height	Width
18	Velour Legs	40'	16'
9	Velour Borders	12'	73'
18	Velour Tabs	40'	8'
2	Velour bi-part Traveler	40'	73'
1	White Muslin Cyclorama	40'	73'
1	Sharkstooth scrim (black)	35'	73'
1	Sharkstooth scrim (white)	35'	73'

Legs, Borders, Tabs and Travelers are Black 25 ounce, 100% cotton sewn flat.

White Muslin Cyc: 100% Cotton seamless

## ZBOH Audio Information

### Power Distribution:

Isolated ground A/C power

- Down stage left: 1- 200amp
- Up stage left 1- 100amp
- Down stage left storage 1- 200amp

### Mix Positions:

House Mix Position: The FOH sound mix position is 9' deep x 17' wide and located 84' from plaster line.

**If production requires FOH to be mixed from the house, advance notice must be given in writing to allow for seat removal and adjustment in ticket sales.**

**Sound Control Room:**

Acoustically isolated room containing recording, playback, audio console, loudspeaker array signal processing equipment, patching equipment for routing microphone and line level lines and a microphone signal splitting system. Large window will be capable of opening.

**ZBOH Sound Specification****FOH :**

1x Yamaha M7CL console  
 1x Denon DN C680 CD player  
 1x Tascam DV-RA1000 DVD-R Audio Recorder  
 2x Yamaha DME64N DSP (FOH Processing: System EQ, Distribution, Dynamics)  
 7x XTA DS-800 modular mic split system

**Main PA:**

7x Meyer MSL-4 Powered Speaker  
 3x Meyer DF4 Powered Speaker  
 4x Meyer CQ-1 Powered Speaker  
 4x Meyer 650 P Powered Sub-bass Speaker  
 4<sup>th</sup> Tier Delay: 3x Meyer UPM-1P Powered Speaker  
 Front fill: 18 x Meyer UPM-1P Powered Speaker

**Monitors:**

4 discrete mixes from FOH:  
 4x EAW SM200 2-way stage monitor  
 4x EAW NT26 speakers (side fill)  
 3x Klark-technik DN-360 1/3 octave Graphic Equalizer  
 1x Klark-technik DN-410 Parametric Equalizer  
 4x Crown 2402 power amplifier

**Mic + Di:**

1x Earthworks DK25L Drum mic System  
 1x Earthworks DK25L Condenser mic  
 2x Earthworks SR30mp Condenser mics (4 Total)  
 1x Shure Beta 57 dynamic mic  
 2x Shure KSM 44 condenser  
 2x Shure SM 57 dynamic mic  
 4x Shure Beta 58A dynamic mic  
 2x Shure UR124D/BETA 58 wireless mic (4 channels total)  
 2x AKG 414 B/XLS condenser mic  
 3x Sennheiser MD 421 II dynamic mic  
 3x Crown PCC 160 boundary condenser mic  
 2x earthworks FM500 podium condenser mic  
 4x BSS AC133 active direct box  
 1x Radial JD 6 6 ch passive direct box  
 Asst mic cables and stands

## Communication System:

2x Telex RadioCom BTR-800 w 4 TR-800 Beltpacks  
 9x Clear-com RS601 single channel beltpack  
 4x Clear-com RS-602 2 channel beltpak

## ZBOH Electrical Information

### Show Power Distribution:

- Loading Dock: 3 disconnects; 1- 400amp, 1-200amp and 1-100amp.
- Light Gallery Stage Left 80' high: 8- 400amp disconnects.  
 Serviced by a \_ chain motor on trolley suspended from upper steel.
- DSL Proscenium Wall: 2- 400A, 5-wire disconnect
- DSL Proscenium Wall: 1- 100A, 5-wire disconnect
- DSR Proscenium Wall: 1- 100A, 5-wire disconnect
- Mid-Stage Left Wall: 1- 100A, 5-wire disconnect
- Mid-Stage Right Wall: 1- 100A, 5-wire disconnect
- USL Wall Rear Stage: 1- 100A, 5-wire disconnect
- USR Wall Rear Stage: 1- 100A, 5-wire disconnect
- Basement: 1- 100A, 5-wire disconnect

### ZBOH Lighting Information:

- The Lighting Console is a [ETC Eos 4k](#) (4000 Outputs/Parameters)
- Full tracking backup via EOS RPU 4k rack mount processor.
- Designers remote via ETC Net3 RVI.
- Wireless hand-held remote via Apple iPad & ETC iRFR application.
- House lights, work lights, non dims & curtain warmers are controlled separately by Strand [Vision.Net](#) system with local button stations & touch screens on stage and in the FOH lighting booth.
- DMX transfer/tie-in for road consoles is available in the FOH lighting booth and on stage. Control of the front of house lighting positions requires 1 DMX universe. Control of the FOH and over stage dimmers requires 2 DMX universes.
- Dimmers: 948 Strand CD80 2.4k dimmers + 19 CD 80 6k dimmers. [Please see circuit distribution for locations and totals.](#)
- All 6 Circuit Socapex Multicables are mounted on the grid: each junction box has two multi's with the lowest numbered set being 120'; high numbers are 140'. All multi cables terminate with female Veam VSC 19P connectors.  
 All breakouts are staggered. Circuit 1's tail is 1'6", Circuit 6 is 9'.  
 5- 21' light ladders each on stage left and right on motorized rigging and tracks to travel US/DS.
- There is a dedicated [FOH lighting plot](#). Please discuss any changes with the Technical Director and the Head Electrician.
- Please see lighting inventory below. The lighting instrument inventory subject to change, please contact the Technical Director or the Head Electrician for updated information of available equipment for your show.

**Lighting Fixtures:****Followspots:**

- 4 Lycian 1293 3k Xenon Followspots located in the followspot booth.

**Front of House Fixtures:**

- 27 ETC Source 4 5° @ 750w  
 69 ETC Source 4 10° @ 750w  
 28 ETC Source 4 14° @ 750w  
 52 ETC Source 4 19° @ 750w  
 16 ETC Source 4 26° @ 750w  
 12 Ocean Optics SeaChanger Color Engine (see plot for locations)  
 4 VariLite VL1000 TS (in near boxes)

**Available in storage:**

- 8 ETC Source 4 5° @ 750w  
 11 ETC Source 4 10° @ 750w  
 3 ETC Source 4 14° @ 750w  
 60 ETC Source 4 19° @ 750w  
 192 ETC Source 4 26° @ 750w  
 60 ETC Source 4 36° @ 750w  
 10 ETC Source 4 50° @ 750w  
 12 ETC Source 4 15°/30° Zoom @ 750w  
 6 ETC Source 4 25°/50° Zoom @ 750w  
 95 ETC S4 PAR MFL @ 750w (w/ WFL, NSP, & VNSP lenses available)  
 10 ETC S4 MultiPAR MFL 12 cell 4 Circuit @ 750w per cell  
 (w/ WFL, NSP, & VNSP lenses available)  
 18 L&E 65-60 MR16 Ministrip @ 750w (EYC lamps)  
 24 Altman GC-6 Ground Cyc @ 1kw (2kw per circuit)  
 10 Altman Sky Cyc 03 @ 1kw  
 4 Wybron BP-2 Beam Projector @ 750w  
 6 DeSisti Leonardo Fresnel @ 2kw

**ZBOH Lighting Accessories:**

- 30 ETC Source 4 19° Lens Tube  
 29 ETC Source 4 26° Lens Tube  
 18 ETC Source 4 36° Lens Tube  
 18 ETC Source 4 50° Lens Tube  
 6 ETC Source 4 90° Lens Tube  
 36 Drop In Iris for ETC Source 4  
 75 "A" Size Pattern Holder  
 75 "B" Size Pattern Holder  
 60 Wybron #7110 Coloram II W/ Universal Plate  
 60 Custom 25 Color Gelstring (see below for details)  
 6 Wybron #1900 24-Way Power Supply  
 36 14" Top Hat for ETC S4 05°  
 36 12" Top Hat for ETC S4 10° (10 in use FOH, 26 in storage)  
 6 10" Top Hat for Wybron Coloram II Scroller Accessory slot  
 76 7.5" Top Hat for ETC S4 Par  
 38 6.25" Top Hat for ETC S4 19°-50°  
 80 6.25" Half Hat for ETC S4 19°-50°  
 50 6.25" Donut for ETC S4 19°-50°  
 24 12" Donut for ETC S4 10°  
 24 14" Donut for ETC S4 05°  
 6 12" Barn doors for 2k Fresnel (4 leaf)  
 50 7.5" Barn door For ETC S4 Par

**Moving Lights:**

4	Martin MAC 2K Performance w/ 2 ea. 2 Unit Flight case
4	Martin MAC 2K Wash w/ 2 ea. 2 Unit Flight case
6	VariLite VL1000 TS
4	VariLite VL1000 TX
2	LEX 208v Moving Light Power Distro Box

**Custom Color String for Coloram II Color Scrollers:**

Frame #	Color	Description
0	R00	Clear
1	R02	Bastard Amber
2	R08	Pale Gold
3	R09	Pale Amber Gold
4	R14	Medium Straw
5	R317	Apricot
6	R318	Mayan Sun
7	R22	Deep Amber
8	R26	Light Red
9	R27	Medium Red
10	R36	Medium Pink
11	R44	Middle Rose
12	R53	Pale Lavender
13	R54	Special Lavender
14	R57	Lavender
15	R357	Royal Lavender
16	R58	Deep Lavender
17	L142	Pale Violet
18	R65	Daylight Blue
19	L161	Slate Blue
20	R76	Light Green Blue
21	R80	Primary Blue
22	R83	Medium Blue
23	L124	Dark Green
24	R91	Primary Green

\*-Other color strings in limited quantities are available. Please contact the Head Electrician for details.