

THE CAROLINA THEATRE

OF DURHAM, NC

TECHNICAL INFORMATION PACKAGE

As of August 8th, 2017

Compiled by Carl Wetter, Senior Technical Manager

Thank you for considering The Carolina Theatre of Durham for your next event. We are a full service performing arts center serving the Durham/Raleigh/Chapel Hill market. The entire facility can hold up to 1700 people between the 5 event spaces, and our professional staff can provide support for your event in all areas. In-house rental equipment is available at competitive rates.

Contacts:

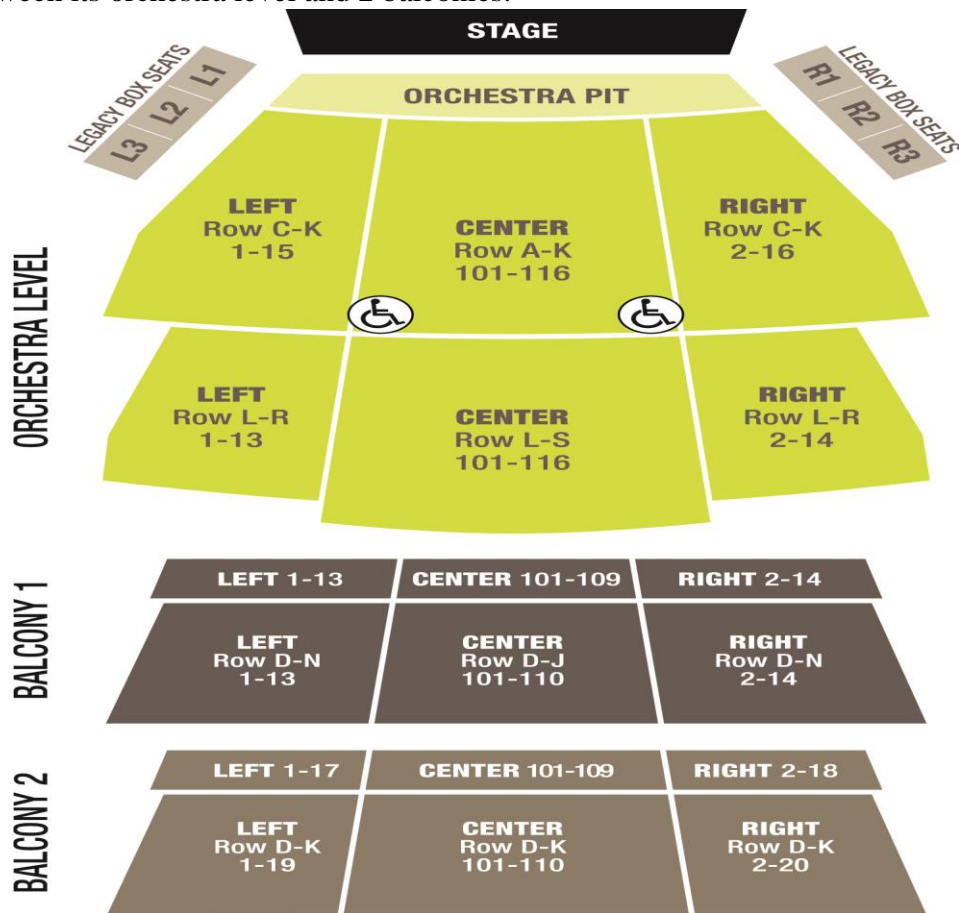
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FLETCHER HALL

Fletcher Hall is the main event space of the Carolina Theatre. It can seat up to 1055 people between its orchestra level and 2 balconies.



LOADING DOCK

Truck access is provided by a single driveway off of Morgan Street leading to a one-bay loading dock. Trucks load directly into enclosed dock with concrete floor, which is 9' deep by 20' wide (Trucks are not under cover). Access from dock onto stage is by roll-up door in direct alignment with exterior dock door; door opens onto mid-stage left.

- Distance from dock bumpers to sidewalk = 40 feet.
- Distance from dock bumpers to street = 48 feet.
- Dock height above driveway = 36 inches.
- Door opening (roll-up) into loading dock = 11'-10" H x 9'-0" W.
- Door opening (roll-up) from dock onto stage = 11'-10" H x 9'-0" W.

DISTANCES AND MEASUREMENTS

Proscenium opening:

31'-6" wide

Height: 20'-0" from floor to fixed valance.

Depth: 30'-0" plaster line to back wall.

Apron measures 2'-5" from plaster line to the pit line.

Wing Space:

16' wide SR; SR height restricted (9'-4") first 6' from wall.

16' wide SL; no height restrictions.

Offstage right, there is an anteroom that can be utilized as an extension of stage right. **PLEASE NOTE THIS SPACE IS SEVERELY HEIGHT RESTRICTED, ONLY 7'-4" HEIGHT!** Access from the stage right wing is via 2 roll-up doors, each 7'-4" H x 7'-6" W. This adds roughly an additional 400 sq. ft of storage or gathering space. Note: this space also serves as the only access from the dressing rooms and green room to the stage via a separate "man" door!

Vertical Measurements:

{All vertical heights are plumb lines above finished floor. All angles and distance measurements are scaled from building blueprints. All measurements for the stage are scaled from the centerline of the building at the appropriate elevation lines on the floor at the proscenium opening.}

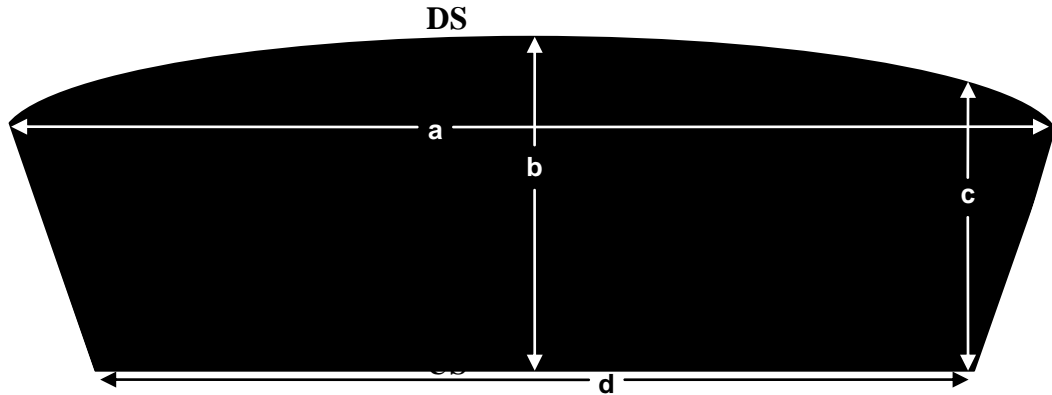
Measurements (average) from Deck to:

- Grid 48'-10"
- Pipe full out/working height 48'-0"
- Pipe travel 44'-0"
- Pipe at normal trim (goods) 24'-0"
- Bottom soft goods full out 23'-4"
- Electrics at normal trim 21'-10"
- Bottom of border at trim 18'-0"

- Pipe all the way in 4' - 0"
- Bottom Fixed Valence 18' - 8"
- Bottom Main Curtain full out 20' - 8"

Orchestra Pit:

Our orchestra pit is mobile vertically via hydraulic motorized screw jacks. It may be positioned at basement level, orchestra level or stage level. **The pit at stage level will create line of sight issues for the first two rows of seats.**



Measurements:

- a-** 33' - 8"
- b-** 12' from apron, 14' - 5" from plaster line
- c-** 10' - 10" from apron, 12' - 15" from plaster line
- d-** 22' - 7"

Apron measures 2' - 5" from plaster line to pit line (**d**).
 Basement level shelf measures 5' from back wall to pit line (**d**).

Seating Distances:

- Back of orchestra to stage is 72'.
- Back of first balcony to stage is 82'.
- Back of second balcony to stage is 117'.

Lighting Instrument Throw:

House positions (electrics) are available on both balcony rails and the cove position.

Position	Distance to DC/ Plaster Line	Throw Angle	Distance to Front of Pit (Raised)	Height above Orchestra Floor
1 st Balcony	46' - 0"	28 degree	32' - 0"	13' - 6"
2 nd Balcony	66' - 0"	40 degree	55' - 6"	33' - 2"
FOH Cove	64' - 0"	60 degree		51' - 5"

PROJECTION

Fletcher Hall is equipped for 35mm and digital HD projection:

- 35mm Strong International Ultra 80 projector with Strong Platter System
- 2 Digital Projection Titan HD700 (1080p), 1st balcony rail and projection booth
- Sanyo Pro XtraX Multiverse LCD Projector (420p)

HD projector inputs can include DVI, HDMI, RGB, S-Video and SDI connections

Projection Throw:

- Digital Projection Titan (1st Balcony) to House Screen: 49' (10k lumens long throw lens)
- Projection Booth (35MM and digital HD) to House Screen: 87'

Movie Screen:

There is one (1) permanent movie screen for Fletcher Hall; the actual screen is 15'-2" by 31'-6" stretched on a metal frame flown on lineset 2. The batten trims out at 22'-6". The screen has frame border surrounding it, visible portion is 15'-2"H by 31'-0"W. The bottom of screen sits 48½" above deck.

The top and bottom of the masking are fixed, details as follows are:

Type	Aspect Ratio	Height	Width
Maximum		15'- 2" fixed	31'- 0"
Scope	2.35	15'- 2" fixed	27'- 6"
Beta/Video		15'- 2" fixed	21'- 8"
Flat	1.85	15'- 2" fixed	
Academy	1.37	15'- 2" fixed	20'- 2"
TV	1.33	15'- 2" fixed	
Minimum		15'- 2" fixed	19'- 0"

Fletcher Cinema Audio:

Audio for digital projection needs can be routed through the house PA system, or through the cinematic system, depending on performance needs. 35mm is routed through the cinematic system only.

Fletcher Hall's cinematic audio system consists of 3 JBL 4638TH two way speakers, 2 JBL 4642A dual 18" subwoofers and a number of surround speakers utilizing University Sound MC12a coaxial speakers. All the Fletcher Hall JBL cinematic speakers and subwoofers are powered by QSC PLX series amplifiers, processed by a United Sound Labs JSD-80 and located behind the main movie screen. The surround speakers are powered by a QSC PLX series amplifier, processed by the United Sound Labs JSD-80 and located in key spaces inside Fletcher Hall.

In the booth, cinematic audio is monitored using a Smart Cinema Showman 4.

HOUSE ELECTRICS

The Carolina has a house plot that can be adapted to your needs. Onstage are five overhead electrics, the fifth dedicated for cyc lighting. A house plot is included in this package.

Lighting:

The Control Booth is located in the rear of the orchestra level.

- ETC ION console, with fader wing and 2 Monitors.
- System is configured dimmer per circuit.
- House lights are operable by UNISON architectural system, or can be programmed into the house console.

Circuit No.	Location	Rated	No. of Circuits
1 – 33	FOH ceiling cove	20-amp ea.	33
34 - 37	First Balcony rail (dimmable edisons/6-plexes)	20-amp ea. 50 amp (stage pin)	4
38 – 49	Second Balcony rail	20-amp ea.	12
50-73	House Right Box Booms	20-amp ea.	23
74-97	House Left Box Booms	20-amp ea.	23
98-124	First Electric	20-amp ea.	24
125-151	Second Electric	20-amp ea.	28
152-178	Third Electric	20-amp ea.	28
179-205	Fourth Electric	20-amp ea.	25
206-223, 265-267	Fifth Electric	20-amp ea.	12

<u>Circuits:</u>	<u>location</u>	<u># of</u>	<u>rated</u>
	Box Boom SR	12	20 amp each
	Box Boom SL	12	20 amp each
	SL Fly Gallery	50	20 amp
	SR Fly Gallery	40	20 amp
	SL Proscenium	4	20 amp
	SR Proscenium	4	20 amp
	US Right	6	20 amp 1-50 amp
	US Center	6	20 amp 1-50 amp
	US Left	6	20 amp 1-50 amp
	Orchestra Pit	2	20 amp

Light Instruments:

Normal house plot includes all in house instruments and cyc lights. Default plot configured to accommodate a two-color front, down and high side wash.

No.	Type of Unit	Brand	Watts	Lamp	Frame size
45	10 Degree ellipsoidal	Colortran	1000	FEL	10 x 10
24	15 Degree ellipsoidal	Colortran	1000	FEL	7.5 x 7.5
24	20 Degree ellipsoidal	Colortran	1000	FEL	7.5 x 7.5
48	6x9 axial ellipsoidal	Altman	575	FLK	7.5 x 7.5
16	6x12 axial ellipsoidal	Altman	575	FLK	7.5 x 7.5
40	PAR 64		1000		10 x 10
7	3 Circuit cyc strips, 2 cells per circuit	LEE Colortran	1000	FCM	10 x 14
6	4 Circuit cyc strips, 1 cell per circuit	LEE Colortran	1000	FCM	10 x 14

Two (2) - 2000 Watt Xenon Super Trouper Followspots – shoot from bubble in ceiling above 2nd balcony, center position.

Miscellaneous Equipment:

- 24 12” Double side arms
- 10 10’ Booms and bases
- 8 Clip lights
- 2 50’ Stage pin cables
- 8 25’ Stage pin cables
- 10 10’ Stage pin jumpers

Power:

- (2x) 400A 3Y/208VAC disconnects located stage left adjoining each other. These are fed separately from the 100A & 200A power listed below, and are on the same power grid as the dimmers.
- (1x) 100A 3Y/208VAC disconnect located stage left, downstage of above. (On facility power grid)
- (1x) 200A 3Y/208VAC disconnect located outside near stage entrance and loading dock. (bus/truck shore power, on facility power grid)

There are also 2 220v/20amp single phase circuits on the 1st balcony. L620 connectors.

GOODS & RIGGING

- 37 double purchase line sets on T-Track.
- Locking rail is located SR, 12' above deck.
- Maximum working height of battens is 48' - 2"
- 42'-0" Battens (x29) rated for 1000 lbs. capacity with 5 lift lines.
- Arbors rated for 2000 lbs. each.
- 8 Battens are extended 2'-0" per side (46'-0" overall length).
- Pin Rail galleries SL and SR 29' - 6" above deck for spot rigging.
- Loading bridge SR 34' - 4" above deck.
- Main Curtain flies and travels.
- Midstage traveler permanently located LS 20, 16' upstage of the proscenium.
- Movie screen permanently located LS 2, 2'-8" upstage of the proscenium.
- See attached line schedule for details.

Soft Goods:

Qty.	Description	Height	Width	Weight	Comments
1	Main Curtain	2 x 23'	26'		Flies & travels Majestic – burgundy
1	Midstage Traveller	2 x 25'	24'		Flies & travels Majestic- black
1	Blackout	24'	42'		
1	Black Scrim – Sharkstooth	24'	42'		
1	White Scrim – Sharkstooth	24'	42'		
1	Seamless Cyclorama	24'	42'		
1	Bounce	24'	42'		
5 pr.	Legs	23'	12'		
5	Borders	6'	42'		

CAROLINA THEATRE -- LINESET SCHEDULE

LINE		DISTANCE FROM	BATTEN	
SET#	DESIGNATED USE	Proscenium	LENGTH	NOTES
FC	FIRE CURTAIN	0'-0"		PERMANENT
HC	HOUSE CURTAIN	1'-1"		PERMANENT
1	BLACK BORDER/LEGS	1'-8"	48' ladder	
2	MOVIE SCREEN	2'-7"	44'-0"	PERMANENT
3		3'-3"	44'-0"	
4	FIRST ELECTRIC	4'-0"	48' ladder	Semi-permanent
5		4'-11"	44'-0"	
6		5'-6"	44'-0"	
7	BLACK BORDER	6'-0"	44'-0"	
8	BLACK LEGS	6'-6"	48' ladder	
9		7'-1"	44'-0"	
10		7'-9"	44'-0"	
11	SECOND ELECTRIC	8'-9"	48' ladder	Semi-permanent
12	NEW BLACKOUT	9'-7"	44'-0"	
13	BLACK BORDER	10'-3"	44'-0"	
14	BLACK LEGS	11'-0"	48' ladder	
15	16x9 PROJECTION SCREEN	11'-8"	44'-0"	
16		12'-8"	44'-0"	
17	THIRD ELECTRIC	13'-6"	48' ladder	Semi-permanent
18		14'-3"	44'-0"	
19		15'-0"	44'-0"	
20	MIDSTAGE TRAVELER	15'-10"	48' ladder	PERMANENT
21	BLACK BORDER	16'-3"	44'-0"	
22	BLACK LEGS	16'-8"	48' ladder	
23		17'-7"	44'-0"	
24		18'-8"	44'-0"	
25	FOURTH ELECTRIC	19'-7"	48' ladder	Semi-permanent
26		20'-1"	44'-0"	
27		20'-10"	44'-0"	
28	BLACK BORDER	21'-5"	44'-0"	
29	BLACK LEGS	22'-3"	48' ladder	
30	OLD BLACKOUT DROP	23'-3"	44'-0"	
31	BLACK SCRIM	24'-0"	44'-0"	
32	CYC	24'-9"	44'-0"	
33	FIFTH ELECTRIC	25'-3"	48' ladder	Semi-permanent
34		26'-1"	44'-0"	
35		27'-5"	44'-0"	
36	WHITE SCRIM	27'-9"	44'-0"	
37	BOUNCE	28'-1"	44'-0"	

Ladders:

- 1 - 4' Fiberglass
- 1 - 6' Fiberglass
- 1 - 8' Fiberglass
- 1 - 12' wood
- 1 - 14' Fiberglass
- 1 - 24' Genie lift

SOUND SYSTEM

The sound system has five components:

- Sound reinforcement/playback
- Intercommunications
- Paging and signal
- Assisted listening via RF (Telex)
- Film

Sound Reinforcement:

The sound reinforcement capability of our system is partially appropriate for amplified concerts. Additional equipment can be provided or rented depending on the needs of the performance. Mix position is located in a booth in the back of the house, orchestra level. Road/production mixing position can be located rear of orchestra, house right, under balcony. These positions cannot be moved. A decibel meter may be provided to ensure a level of 94db in house at mix position.

Processing and Rack Gear:

- 1 Yamaha M7CL Digital Mixer, 48 inputs. (Input/ Output patch in sound booth)
- Meyer Galileo DSP
- 1 third-octave graphic equalizers (Ashley Protea 4.24g in stereo)
- 4 Altec 1431a 31 band 1/3 octave eq, patchable
- 1 Denon dual cassette deck for playback
- 1 Denon CD player

Microphones:

- 1 Shure wireless lavalier microphones
- 1 Shure wireless handheld microphone
- 1 Shure ULX wireless microphone system, handheld OR lavalier
- 6 Shure SM57 cardioid microphones
- 1 Shure SM58 cardioid microphones
- 3 Shure Beta SM58A microphones
- 6 Shure SM63 omni-directional microphones
- 3 Shure SM102B condenser microphones
- 3 Shure MX202B condenser microphones
- 3 Crown PCC 160 floor-mounting microphones

- 3 Audio Technica Pro 37 condenser microphones
- 2 Shure KSM 32 large diaphragm condenser microphones
- 2 AKG 414 XLS large diaphragm condenser microphones
- 4 Whirlwind DI boxes

Microphone Stands:

- 9 Adjustable floor mic stands
- 12 tripod mic stands w/boom
- 4 tripod short mic stands w/boom
- 3 Table mic stands
- 28 mic inputs located on stage and in house

Speakers:

FOH:

- Meyer M'elodie Line Array, 20 boxes, 10 per side, permanently hung
- 2 18inch subwoofers

Monitors:

- 2 Yamaha S155h-II speakers monitor sidefills, flown
 - 2 Yamaha S155h-II speakers (sidefill monitors)
- Speakers are powered by QSC amplifiers*

Intercom System:

- Telex US-2000 headset system w/8 belt packs and single muff headsets.

Paging and Program Feeds:

- Selectable to dressing rooms, lobbies and ballrooms

Assisted Listening:

- Telex Sound Mate AAT-2, on channel A

Film Projection:

Fletcher Hall's cinematic audio system consists of 3 JBL 4638TH two way speakers and 2 JBL 4642A dual 18 subwoofers, powered by QSC PLX amplifiers and processed by a United Sound Labs JSD-80.

DRESSING ROOMS AND WARDROBE

There are 5 dressing rooms backstage of Fletcher Hall. All dressing rooms have vanity mirrors, lights and showers. Each dressing room is wheelchair accessible. In addition, there is a Green Room with kitchenette available for use during events.

2 Principal/Star	1 - 4 people
1 Quad	4 - 6 people
2 Chorus	20 - 25 people
Green Room	15 people

The wardrobe/costume room contains a washing machine and a dryer, 2 ironing boards, irons, 2 steamers and 2 mobile clothing racks.

KIRBY LOBBY

Kirby Lobby is the primary entranceway and egress for the Carolina Theatre. It contains a concessions stand, a merchandise area and several spaces for booth style advertising and presentation.

CONNIE MOSES BALLROOM

CMB is located one floor above Kirby Lobby adjacent to the 1st balcony seating in Fletcher Hall, and during most live events is used as lobby space for concession sales. It is large enough to accommodate meet and greets, meetings or breakout sessions. The room is not rented separately during an event in Fletcher Hall. The space is 22' by 48' (1056 sq. ft) and has a beverage/concessions area. Capacity is up to 125 persons depending on room setup.

DONOR LOUNGE (UPPER BALLROOM LOBBY)

The Donor Lounge is located on the top floor, above Kirby lobby and Connie Moses Ballroom, and is adjacent to the 2nd balcony seating in Fletcher Hall. During most live events it is used as private area for donors and VIP's. The space is 22' by 48' (1056 sq. ft) and has a beverage/concessions area. Capacity is up to 125 depending on room setup.

CINEMA 1 AND CINEMA 2

Though the cinemas are primarily used as movie theaters, they may be utilized to host other events. Both venues have a stage forward of their projection screen, and a small built in PA system. Cinema 1 also has a small theatrical lighting package.

Seating:

Cinema 1 has 226 seats including 8 next to the 7 handicaps spaces.

Cinema 2 has 49 seats including 4 next to the 4 handicap seats.

Lighting:

Lighting for both venues is controlled via an ETC Unison system. If necessary, we can provide a lighting console for more control of the theatrical lighting in Cinema 1.

Sound:

Cinemas 1 and 2 each use 3 JBL 3732 three-way cinema speakers, a single JBL 4642a dual 18” subwoofer, several JBL 8320 cinema surround speakers and are processed by USL, Inc. JSD-80 processors. Speakers are crossed over with USL, Inc. XTA-300’s and powered with QSC PLX series amplifiers while the surrounds are powered with Crown CTs 8200 amplifiers.

Speakers in both cinemas (except for the surrounds) are mounted behind the movie screens.

Both Cinema 1 and 2 utilize Dolby Model DA-20 Digital Film Sound Processors. Cinema 1 audio is monitored in the booth using a Smart MN586 and Cinema 2 utilizes a Smart Cinema Showman 4.

Projection:

Cinema 1 is equipped with a 35mm Kni-Tron L-2000 projector and a Strong Platter System. Cinemas 1 and 2 also have NEC DCP Projectors (NC2000C and NC1200C, respectively) as well as a server to play DCP files.

Non-Film or DCP content can be shown using in house Sony and/or Panasonic Bluray players, which run through either an Extron DXP Matrix Switcher and a Kramer FC-46xl audio de-embedder (Cin 2) or a Kramer VS-42HN Matrix Switcher and an Extron HAE audio de-embedder (Cin 1). Other content and media players can be utilized using spare HDMI inputs on the matrix switchers.

Screen dimensions:

The screens are perforated to be acoustically transparent

Cinema 1:

Visible screen at full open position (2.35:1) 35’ W x 15’ H

Visible screen fully masked (1.33:1) 21’ W x 15’ H

Throw Distance: 67’

Cinema 2:

Visible screen at full open position (2.35:1) 18'-6" W x 8'-7" H

Visible screen fully masked (1.33:1) 12' W x 8'-7" H

Throw Distance: 46'

As stated above, **Fletcher Hall** also has similar projection and cinematic audio equipment:

Visible screen at full open position (2.35:1) 31' W x 15'-2" H

Visible screen fully masked (1.33:1) 19' W x 15'-2" H

Throw Distance: 87'

CINEMA LOBBY

The Cinema Lobby is directly adjacent to a second floor exterior door as well as the main hallway of the Durham Civic Center, providing easy access to both locations. It contains its own box office and concession stand. The lobby is split into 2 sections, separated by our "Carolina" arch. The entrance section can be set up for merchandise, convention style booth space or even extra concessions. The cinema entrances side also has some space available for potential booth or merchandise.

PLAZA

The plaza in front of the Carolina Theatre is operated by the Durham Civic Center through Global Spectrum.

SECURITY

Security can be administered through the Carolina Theatre as needed for any event, and is provided by Staff One, Inc. Rental fees may apply.