

McCallum Theatre Electrical as of 9/2016

The stage lighting system provides accessible and strategically placed stage lighting positions and stage circuit receptacles.

<u>POSITION</u>	<u>X</u> *	<u>Y</u> **	<u>Z</u> ***
FOH apron (wire grid)	7'	33'	34'
1st FOH Beam	40'	42'	59'
2nd FOH Beam	57'	42'	72'
Mezzanine Rail	62'	14'	65'
Balcony Rail	62'	27'	69'
Projection booth window	83'	27'	87'
Spotlight booth window	83'	44'	93'
Box Booms	24'	24'-36'	44'

* "X" = Horizontal distance to pipe from set line (at center stage)

** "Y" = Height above stage level

*** "Z" = Throw distance to set line (center stage)

NOTE: Scaleable Stage Ground Plans and FOH section drawings are available on request.

A. AUXILIARY POWER HOOKUPS

All auxiliary power disconnects are outfitted with 15', 4-O tails and female camlocks (turn-arounds and "T"s are available if needed.)

1. STAGE AUXILIARY POWER SERVICE

Two (2) 400 amp, 3-phase, five-wire disconnect panels are available at stage level, DSL. These are pre-wired with camlock tails.

2. REMOTE TRUCK POWER SERVICE

Two (2) 200 amp, 3-phase, five-wire disconnect panels are available at the technical service entrance adjacent to the loading dock for use of special equipment that needs to be located in the loading dock area. One of the truck services is transformer isolated. These can also be used to provide shore power for buses.

3. MEZZANINE CENTER BOOTH

One (1) 100 amp, 3-phase, five-wire disconnect panel is located in the center booth, Mezzanine level, and is available for projection and video equipment.

4. 100 AMP POWER BUSS DUCT

10-foot sections of Buss Duct are located in the tech service area, backstage USL, and in the Trap Room to provide single phase and 3-phase power up to 100 amps for hookup of electrical equipment requiring power other than a convenience outlet.

B. DIMMERS

All 490 stage dimmers are ETC Sensor Net2 dimmers.

<u>QUANTITY</u>	<u>CAPACITY</u>
(464)	2.4K
(26)	6.0K

C. DIMMER CONTROL

There are two (4) dimmer control consoles that control all stage dimmer circuits:

- (1) - ETC Gio
- (1) - Avolites Diamond IV
- (1) - Hog 4

There are five (5) DMX data line locations where consoles can be operated;

- Light Control Booth (HL) behind the Mezzanine
- Center Control Booth (CNT) behind the Mezzanine
- Center of the Auditorium,
- DSL
- DSR

D. ROAD SHOW TRANSFER PANEL

There is a front-of-house circuit (Road Show) transfer panel in the SL Alcove, that allows access to all odd numbered (110 in quantity) circuits in the FOH group.

<u>CIRCUIT</u>		<u>LOCATION</u>
001-039	(ODD)	2ND BEAM
041-079	(ODD)	1ST BEAM
081-099	(ODD)	APRON (MESH GRID)
101-123	(ODD)	BALCONY
125-140	(ALL)	MEZZANINE (LOWEBALCONY)
141-153	(ODD)	SL BOX BOOM
155-165	(ODD)	SR BOX BOOM
167-171	(ODD)	SL PORTAL
173-177	(ODD)	SR PORTAL
179		FOLLOWSPOT BOOTH
181		CENTER (MEZZANINE) BOOTH
183		DS ORCHESTRA PIT
185,187		US ORCHESTRA PIT
188-190	(ALL)	FOOTLIGHT
191		TRAP ROOM
207, 209, 211 & 219		SR PROSCENIUM WALL

E. DIMMER CIRCUITRY

All branch load circuits have a female stage pin connector on a cable pigtail or panel mounted receptacle and originate at the dimmer indicated. There is dimmer-per-circuit wiring throughout the lighting system.

All overhead stage circuits are supplied to battens by single circuit cables and 8-circuit multi-cables dropped from the grid. 8-circuit multi-cables are fanned-out, spaced on 2' centers.

LIGHTING CIRCUIT LOCATIONS

<u>POSITION</u>	<u>2.4K</u>	<u>CIRCUITS</u>	<u>6K</u>	<u>CIRCUITS</u>	<u>REMARKS</u>
FOH 2ND BEAM	40	001-040			001 is House Right
FOH 1ST BEAM	40	041-080	2	465-466	041 is House Right
FOH APRON (MESH)	20	081-100			
FOH BALCONY RAIL	16	101-124			Two Receptacles/Cir
FOH MEZZANINE RAIL	24	125-140			Two Receptacles/Cir
FOH BOX BOOM SL	13	141-153			
FOH BOX BOOM SR	13	154-166			
PORTAL SL	6	167-172			
PORTAL SR	6	173-178			
FOLLOWSPOT BOOTH	2	179-180			
MEZ. CONTROL BOOTH	2	181-182	4	467-470	
DS ORCHESTRA PIT	2	183-184			
US ORCHESTRA PIT	3	185-187			
FOOTLIGHTS	3	188-190			
TRAP ROOM	2	191-192			
ALCOVE SL	8	193-200			
PROSCENIUM WALL SL	6	201-206			
PROSCENIUM WALL SR	6	207-212			
DSL	6	213-218	2	471-472	
DSR	6	219-224	2	473-474	
USL	3	225-227	3	475-477	
USR	3	228-230	3	478-480	
CATWALK SL	8	231-238	2	481-482	
CATWALK SR	8	239-246	2	483-484	
CATWALK UC	2	247-248			
GRID SL	160	249-408	3	485-487	
<u>GRID SR</u>	<u>56</u>	<u>409-464</u>	<u>3</u>	<u>488-490</u>	
TOTAL	464		26		<u>490</u> circuits

Grid circuits are assigned to seven (7) electric pipes. Request current Hang Plot for present configuration.

F. LIGHTING EQUIPMENT

<u>QTY - ITEM</u>	<u>LAMP TYPES</u>	<u>WATTAGE</u>
(10) 5D ETC Source Four Leko	HPL	750W
(50) 10D ETC Source Four Leko	HPL	750W
(130) 19D ETC Source Four Leko	HPL	750/575W
(140) 26D ETC Source Four Leko	HPL	575W
(70) 36D ETC Source Four Leko	HPL	575W
(20) 50D ETC Source Four Leko	HPL	575W
(250) Source Four Par	HPL	575W
(60) Par 64	28V ACL	250W
(30) 6" FRESNELITE, STRAND 3301	BTR	1K
(40) 8" FRESNELITE, STRAND 3480	BVW	2K
(12) 3-CELL SKY CYCS, STRAND "IRIS-3"	FFT	1K
(12) 3-CELL GROUND CYCS, STRAND "IRIS-3"	FFT	1K
(20) PHILIPS COLOR BLAZE TRX 6'	LED	
(20) 6' LOW VOLTAGE STRIPS, 3-circuit units,	EYC MR16 (FLOOD)	75W
	EYF MR16 (SPOT)	75W
(4) FOLLOWSPOTS - XENON SUPER TROUPERS		2K
(2) FOLLOWSPOTS - LYCIAN MIDGET HP	HMI	575W
(8) THOMAS PAR 36 8-LITE UNIT		
(14) VL 4000 SPOT	MSR	1200W
(14) VL 4000 BEAM	MSR	1200W

H. CABLE

Various lengths of 20 amp & 60 amp stage pin cable are available.

Multi-cable extensions in 15' and 30' lengths

(2) - 50' lengths of 4/0 cable (five-wire) with camlocks

I. LIGHTING ACCESSORIES

Limited lighting gel and templates are available.

(30) - 7.5" High Hats

(30) - 10" High Hats

(12) - 7.5" 4-way Barndoors

(12) - 10" 8-way Barndoors

J. EFFECTS

(1) - DX-50 Haze Machine

(2) - Diversatronics Strobes with controller

(3) - Mirror Balls with motors (12", 16", 20")

(2) - 250W Mercury Vapor Black Light Projectors

- (20) - Pin Spots
- (2) – Wybron Coloram II 8-LITE Color Changer
- (6) – Wybron Coloram CXI 8-LITE Color Changer
- (24) – Wybron Coloram CXI Color Changer

K. HOUSE LIGHT SYSTEM

There is a four-preset push button control in the Light Control Booth, DSR and DSL. There is a fixed 5 second fade between presets. Presets are:

- FULL
- HALF
- GLOW
- OUT

L. LOBBY LIGHT SYSTEM

The Master Control for the Lobby dimmers is located in the Box Office. The Lobby dimmers are manually controlled in nine (9) groups that can be also pre-recorded in as many as eight (8) designated memory presets. The Stage Dimmer Consoles do not control the Lobby Light System.

M. STAGE MANAGER CUE LIGHT SYSTEM

The system enables the Stage Manager to visually cue conductors, performers' entrances and fly rail and set cues, and enables control of stage effects.

1. CUE LIGHT SYSTEM CONTROL

There are three (3) locations for parallel control of the cue lights: SR, center of the Auditorium and the Mezzanine Center Control Booth. There are fourteen (14) circuits. There is a switching panel with a master switch and individual three-position toggle switches for each circuit.

- UP = "ON" (mastered)
- CENTER = "OFF"
- DOWN = "MOMENTARY ON" (not mastered.)

There is a pilot light for each switch.

There are two (2) control panels. One is permanently installed in the Stage Manager's console, SR. The second is portable.

2. CUE LIGHT SYSTEM CIRCUITRY

Each circuit is controlled by an industrial grade 20-amp relay. All circuits terminate with 120VAC, 20 amp stage pin receptacles. The Road Show FOH transfer panel circuits may be used to extend cue lights.

<u>CIRCUIT</u>	<u>LOCATION</u>
Q1-Q4	SL BY FOH TRANSFER PANEL
Q5-Q6	TRAP ROOM
Q7-Q8	SL PROSCENIUM WALL
Q9-Q10	SR PROSCENIUM WALL
Q11-Q14	UC CATWALK

N. SAFETY RUNNING LIGHTS

This system consists of louvered fixtures around the stage. They are normally "ON", but may be turned "OFF" for a Blackout Cue. The controls for the Safety Lights are at the Production Control Panels. This system has been augmented by four (4) lekos, located in the corners of the stage. They are controlled by the Cue Light System.

O. REHEARSAL/WORK LIGHT SYSTEM

Work Lights can be controlled from each of the four lighting console locations.

REHEARSAL/WORK LIGHT CIRCUIT LAYOUT

<u>CONTROL</u>	<u>LOCATION</u>	<u>CIRCUITS</u>	<u>DEVICE</u>
1 FOH	Beam #2	5	10 Receptacles
2 APRON	Wire Mesh Grid	3	6 Receptacles
3 STAGE	SL Grid Drop Lines	10	(5 Two-circuit 85' lines)
4 SLA	SL Alcove	2	Incandescent Fixtures
5 SL	SL	1	2 Receptacles
6 US	US	2	4 Receptacles
7 SR	SR	1	2 Receptacles
8 GRID			Grid/Loading Bridge 1 Fluorescent Fixtures
9 CAT	Stage Catwalks	2	Incandescent Fixtures
10 CAT	FOH Catwalks	2	Incandescent Fixtures

P. ROLLING BOOMS

There are (10) rolling boom bases, which can be weighted up to 600 lbs.
Vertical pipes up to 20' can be used to make light trees, etc.

Q. ROAD LIGHT BOARD POSITION

FOH Road light boards are placed in the Mezzanine Center Control Booth. 300 feet of control cable is required to reach SL Alcove.