



ADVANCE INFORMATION FOR TECHNICAL CREWS THE GREAT HALL

The following information is to aid technical crews loading in or out of Mechanics Hall. Enclosed you will find:

1. Directions
2. Great Hall Diagram
3. Audio Visual Information
4. Light and Sound Specifications

Please note that Mechanics Hall is not a proscenium theater. It is an acoustically perfect concert hall located on the third floor of a historic building. Due to the location, your normal load-in and load-out times and the number of personnel required may have to deviate from your normal production schedule.

1. **TRUCK ARRIVAL:** The loading dock to Mechanics Hall is located off a narrow downtown street (Waldo Street). To get to the loading dock, tractor trailers must back down Waldo Street approximately 200', then blindside into the loading dock. During normal business hours this can be extremely difficult due to traffic and parked cars. It is therefore recommended that the tractor trailers arrive at 7:00AM (Monday – Friday) regardless of scheduled load-in time. Straight trucks generally have no problem backing into the loading dock in the normal manner.
2. **LOAD-IN TIME/STAGEHAND REQUIREMENTS:** Equipment delivered to our dock is loaded onto a 9' x 9' elevator for transport to the third floor. Mechanics Hall does not provide equipment for load-in or out. Stage-bound equipment must then be carried up the stage stairs or lifted into the 4' high stage. Dressing rooms are on the 2A level for the building, and serviced by the freight elevator. Wardrobe trunks are typically left there. Please note: Mechanics Hall does not provide any labor for the handling of equipment during the load-in, the performance, or the load-out. Load-in, load-out, and stagehand crews may be hired through Mechanics Hall, if needed.
3. **SOUND CHECK/DOOR OPENING:** All sound checks/rehearsals must be completed at least one hour prior to scheduled performance times (e.g. 7:00PM or an 8:00PM performance). House opens at 7:15PM.

Upon arrival, the technical crew should report to the Administrative Office, located on the first floor of the building. A representative of Mechanics Hall will provide a brief tour of the venue to help facilitate the load-in and familiarize you with the dressing room, bathroom, and storage area locations as well as emergency exits.

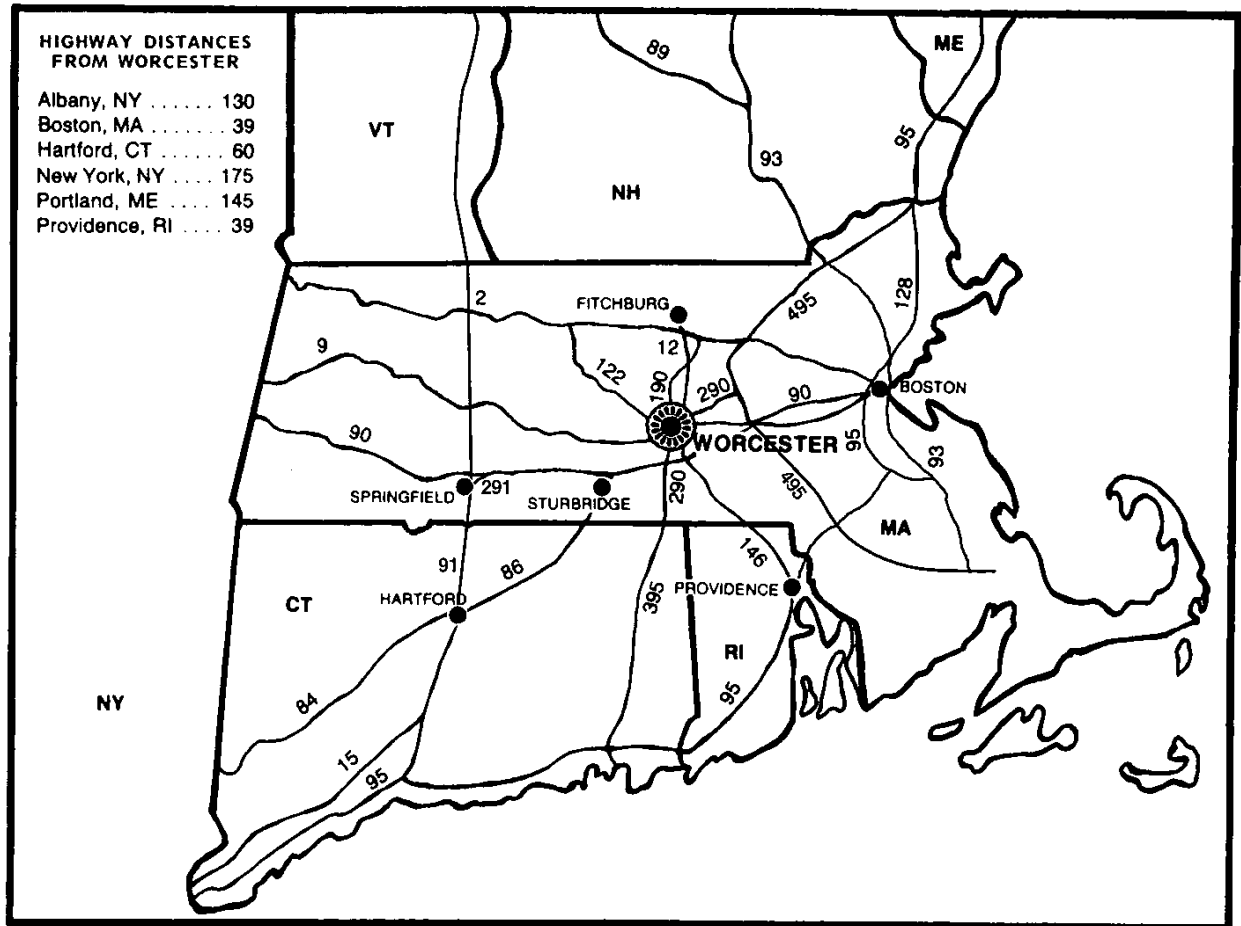
For specific questions regarding sound, lighting, and A/V equipment please contact Joseph Chilorio, Mechanics Hall's Technical Director at 508-752-5608 x249.

We thank you in advance for your cooperation. I look forward to working with you.

ADVANCE INFORMATION FOR TECHNICAL CREWS
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LOCATOR MAP FOR MECHANICS HALL



FROM BOSTON

Massachusetts Turnpike (Route 90) West to Exit 10 to Auburn to Route 290 East.

FROM SPRINGFIELD/NEW YORK

Massachusetts Turnpike (Route 90) East to Exit 10 to Auburn to Route 290 East.

FROM RHODE ISLAND

Route 95 North to Route 146 North to Route 290 East.

FROM HARTFORD

Route 91 North to Massachusetts Turnpike (Route 90) East to Exit 10 to Auburn to Route 290 East.

FROM NEW HAMPSHIRE

Route 93 or Route 3 South to Route 495 South to Route 290 West.

FROM MAINE/NEW HAMPSHIRE

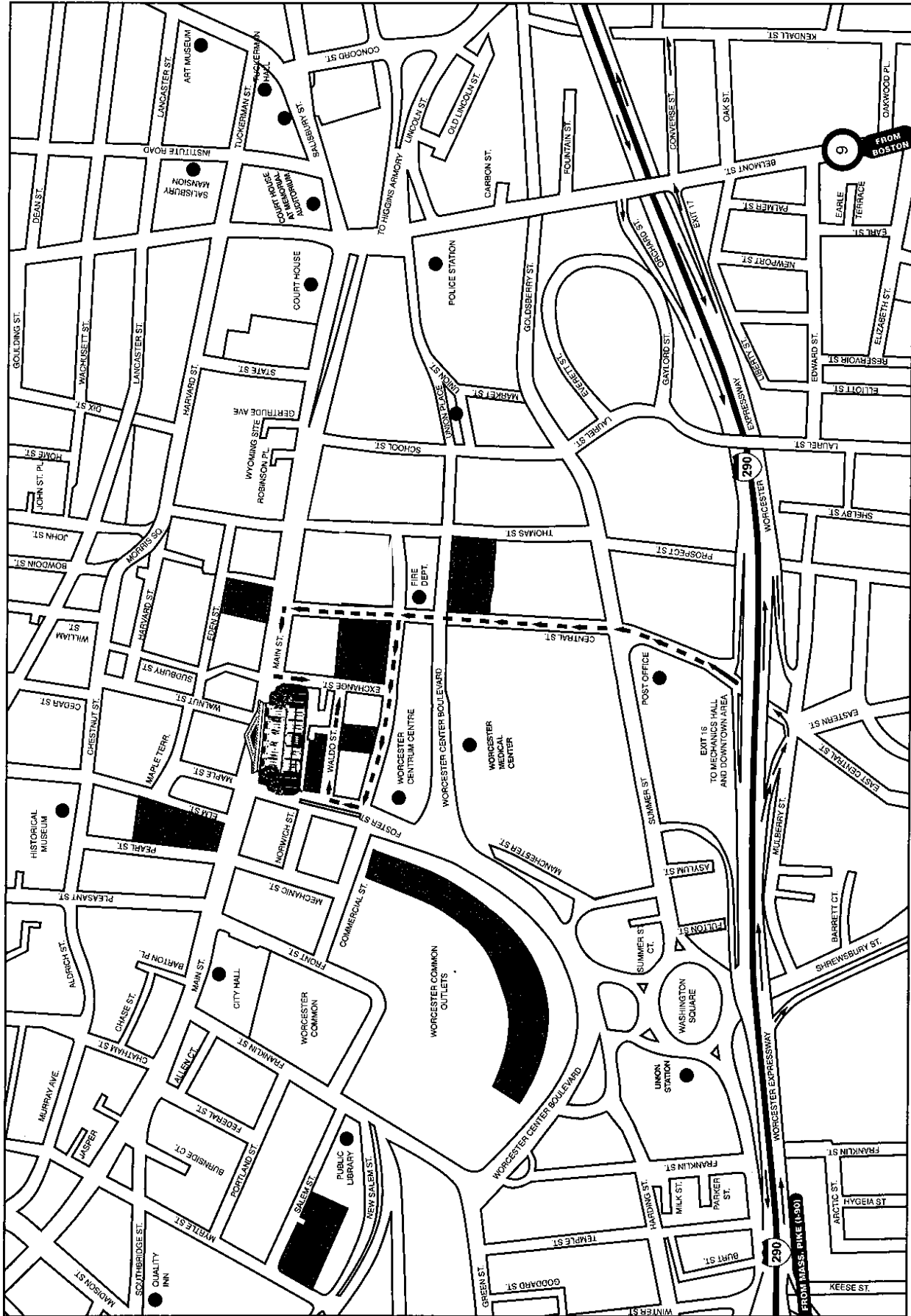
Route 95 South to Massachusetts Turnpike (Route 90) West to Exit 10 to Auburn to Route 290 East.

FROM VERMONT

Route 91 North to Massachusetts Turnpike (Route 90) East to Exit 10 to Auburn to Route 290 East.

FROM ROUTE 290

Route 290 to Exit 16, MLK Blvd. From 290E, turn left onto MLK Blvd; from 290W, turn right. At Main Street, turn left. Mechanics Hall is at 321 Main Street, on the left.



Downtown Worcester

Parking

Great Hall Theater Style Seating

G	26	24	22	20	18	16	14	12	10	8	6	4	2	G	113	112	111	110	109	108	107	106	105	104	103	102	101	G	1	3	5	7	9	11	13	15	17	19	21	23	25	G
F	26	24	22	20	18	16	14	12	10	8	6	4	2	F	113	112	111	110	109	108	107	106	105	104	103	102	101	F	1	3	5	7	9	11	13	15	17	19	21	23	25	F
E	26	24	22	20	18	16	14	12	10	8	6	4	2	E	113	112	111	110	109	108	107	106	105	104	103	102	101	E	1	3	5	7	9	11	13	15	17	19	21	23	25	E
D	26	24	22	20	18	16	14	12	10	8	6	4	2	D	113	112	111	110	109	108	107	106	105	104	103	102	101	D	1	3	5	7	9	11	13	15	17	19	21	23	25	D
C	26	24	22	20	18	16	14	12	10	8	6	4	2	C	113	112	111	110	109	108	107	106	105	104	103	102	101	C	1	3	5	7	9	11	13	15	17	19	21	23	25	C
B	26	24	22	20	18	16	14	12	10	8	6	4	2	B	113	112	111	110	109	108	107	106	105	104	103	102	101	B	1	3	5	7	9	11	13	15	17	19	21	23	25	B
A	26	24	22	20	18	16	14	12	10	8	6	4	2	A	113	112	111	110	109	108	107	106	105	104	103	102	101	A	1	3	5	7	9	11	13	15	17	19	21	23	25	A

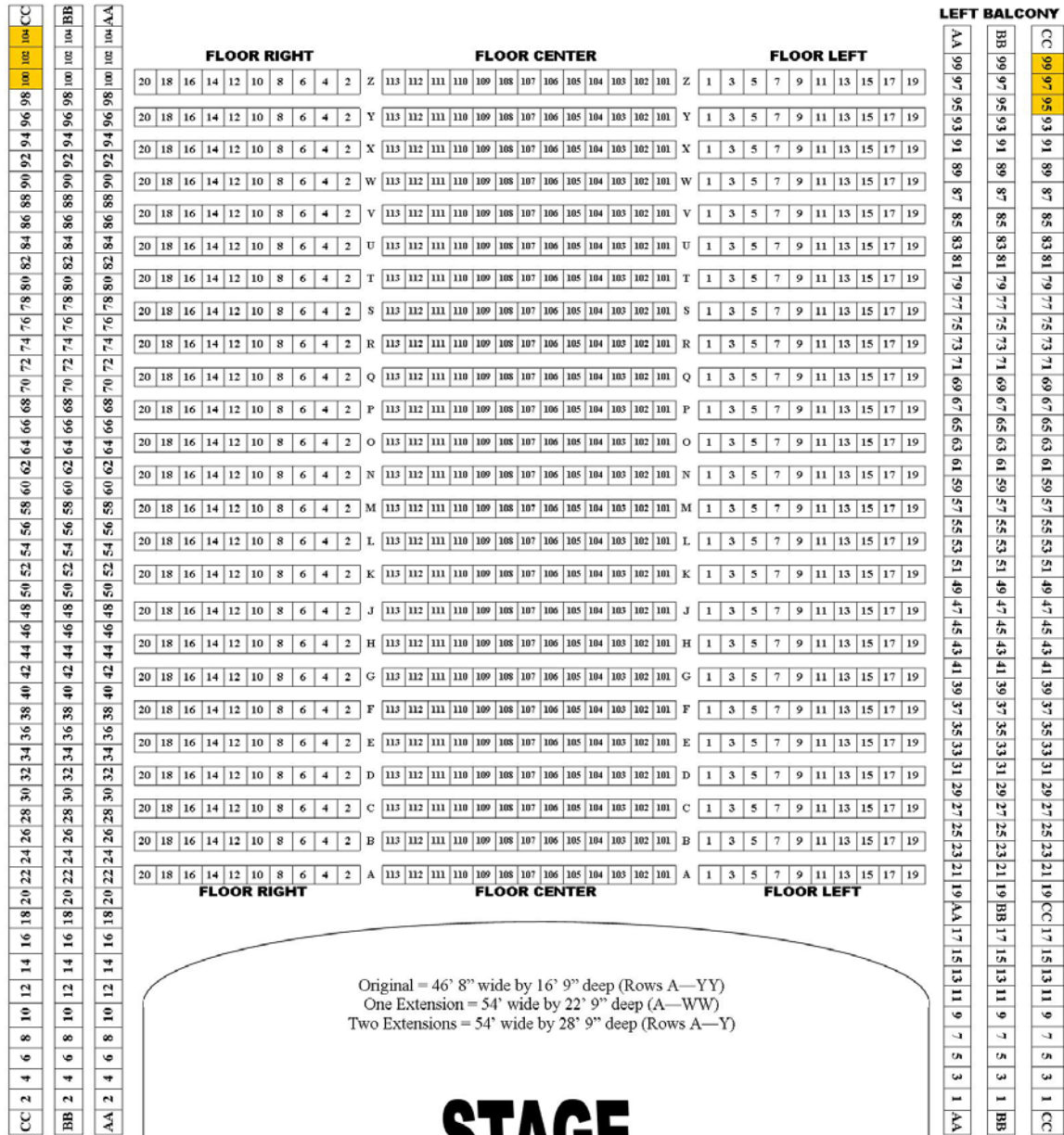
REAR RIGHT BALCONY

REAR CENTER BALCONY

REAR LEFT BALCONY

RIGHT BALCONY

LEFT BALCONY

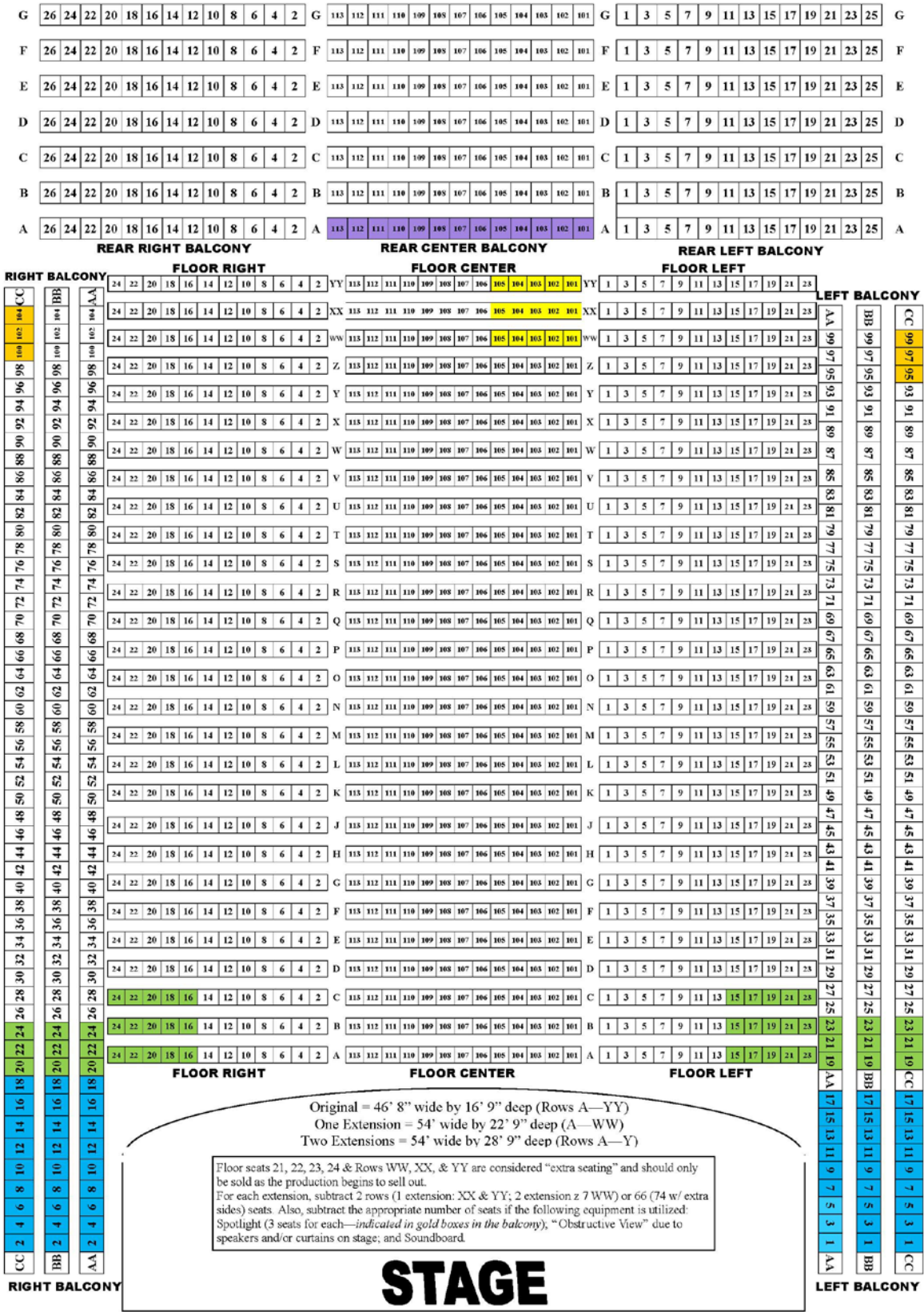


Full Seating Capacity
 (Rows A—YY, seats out to 23 & 24)
 Balcony..... 579 chairs
 Main Floor..... 1036 chairs
 Capacity..... 1615

Current Floor Plan Seating Capacity
 (Rows A—Z, seats out to 19 & 20)
 Balcony..... 579 chairs
 Main Floor..... 825 chairs
 Capacity..... 1404

Floor seats 21, 22, 23, 24 & Rows WW, XX, & YY are considered "extra seating" and should only be sold as the production begins to sell out. For each extension, subtract 2 rows (Y & Z or XX & YY) or 66 (74 w/ extra sides) seats. Also, subtract the appropriate number of seats if the following equipment is utilized: Spotlight (3 seats for each—indicated in yellow boxes in the balcony); "Obstructive View" due to speakers and/or curtains on stage; and Soundboard.

Great Hall Sound Equipment and Obstructed Views Seat Pulls



Sound Equipment and Obstructed Views Seat Pulls

- Blue seats Obstructed seats if using the screen
 - Green Seats Obstructed seats if using front stage speaker clusters. Please note: Seats in the balcony may move depending on stage extension.
 - Yellow Seats Removed seats for soundboard (always in the last 3 rows)
 - Gold Seats Removed if using follow spots
 - Purple Seats Removed if using the video projector
- Please note: Some of these seats might be added back into inventory on the day of the concert after the sound equipment has been set up.

Full Seating Capacity
(Rows A-YY, seats out to 23 & 24)

Balcony	579 chairs
Main Floor	1036 chairs
Capacity	1615

SOUND SYSTEM DESCRIPTION

The Great Hall sound system is designed to provide uniform sound reinforcement to ALL seating areas of the hall and balconies. This is accomplished with a permanently installed, full-range, 4-way central loudspeaker cluster suspended over the Great Hall's stage, and 32 time-delayed recessed loudspeakers distributed under the hall's side balconies. Also, concealed in the ceiling over the rear balcony, are three time-delayed high frequency horns to improve coverage in the rear balcony seating area.

The sound system's acoustical frequency response has been carefully measured and averaged, and using 1/3 octave equalizers, adjusted for nearly flat frequency response over the system's operating range of 40Hz to 16,000Hz. Average level at any seat does not vary more than 4dB from 40Hz to 8000Hz, thus assuring uniform coverage at any seat in the Hall.

Backstage and dressing room monitoring of the output of the Great Hall sound system is possible with loudspeakers installed in these areas. Also, the output of the Great Hall sound system may be heard over the Washburn Hall and Boyden Salon sound systems.

Hearing-impaired listeners are assisted with an inductive loop system installed under the Great Hall floor. The listener may use his or her own hearing aid (switched to the "telecoil" position) or may use portable receivers and headsets that are available.

LOUDSPEAKERS:

The central cluster consists of one JBL 4645 18" subwoofer cabinet (concealed at the top of the pipe organ), three JBL 4646 low frequency cabinets with JBL 2206 12" drivers, six JBL 2380 bi-radial high frequency horns with JBL 2450 drivers, and four JBL 2404 super tweeters.

Four front-fill stage edge loudspeakers (EAW-UB52) are provided for improved coverage of the front row seats. These loudspeakers are driven by a Crown CTs-600 amplifier with separate equalization and time delay.

Six EV Force 1 slant-type stage monitors and four Galaxy "hot-spot" monitors are available. Monitors are mixed from the front of house console, and four separate mixes are available. Each monitor mix has a third octave equalizer and 300 watt Crown CTs-600 power amplifier.

POWER AMPLIFIERS:

One Crown Cts-1200 for subwoofer, six Crown CTs-600 for central cluster, two Crown CTs-300 for over & under-balcony time-delayed loudspeakers, with a combined total power of 6000 watts. For monitors and front-fill, two Crown CTs-600 amplifiers are used, with a combined total power of 1200 watts.

MIXING CONSOLE:

The mixing control board (Allen & Heath GL2400-24) is located at the rear of the hall in the sound booth, which is just under the center of the rear balcony. The mixing console will mix up to 24 microphones simultaneously and provides phantom power to each input. Four separate mixes for stage monitors is provided at the console and can be either pre or post-fader.

SNAKE:

18 built-in microphone receptacles located in both upstage and downstage locations on the stage are permanently connected to the sound system rack in the sound booth at the rear of the Hall. These receptacles can be patched into the Allen & Health mixing console as needed.

MICROPHONES:**Shure:**

SM-58's

SM-57's

SM-81's

SM-85

SM-87

Wireless microphones include 6 Shure ULX systems, with 6 hand-held or 6 body-pack lavalier microphones.

Electro-Voice:

RE-16's

RE-18

RE-20's

Sennheiser:

MD-421's

AKG:

C-414B-TL II

MISCELLANEOUS:

CD and cassette playback decks, limiters, reverb, compressors, and recording equipment.

AUDIO-VISUAL FACILITIES

The Great Hall is equipped with complete facilities for films, video, and power-point presentations from its projection booth at the rear of the Hall. A Sanyo 12,000 lumen LCD data/video projector is available in-house. They are furnished with the proper lenses to assure that the projected image will fill the screen. The screen measures 20 x 20 feet and drops from the Great Hall ceiling via motorized winches, which are controlled from the projection booth. The booth has ample counter space with plenty of electrical outlets and a clear view of the stage and screen. Control of all of the Hall's lighting is accomplished with dimmer units, which are adjusted from the control booth. Sound system controls are also located in this booth. Since the Hall has no windows, outdoor light is never a problem, and excellent contrast can be attained even in dark scenes on video or powerpoint presentations.

We also have available in-house the following A/V equipment for use in any room:

- 32" & 40" LCD Flat Panel TV/Monitor
- DVD Recorders And Players
- Laptop Computers
- Video Switcher
- 2500 Lumen LCD Projector and 3000 lumen short-throw LCD projector
- Portable 60" X 60" Screens
- Laser Pointer
- Intercom Headsets
- Wireless Lavalier and Hand-Held Microphones
- Follow Spotlights
- Video Cameras
- Video and Audio Taping Facilities
- I-Mag
- Closed Circuit TV Transmission to TV Monitors In Other Rooms
- LCD Confidence Monitors
- Video Teleconferencing Capabilities
- Wired and Wireless High-Speed Internet Connections
- Private Telephone Lines
- Wireless remote controls for power-point presentations

STAGE LIGHTING SYSTEM DESCRIPTION

The Great Hall stage lighting system consists of fixed orchestra down lighting and adjustable theatrical lighting. The orchestra down lighting consists of twenty two 575 watt quartz down lights concealed in the ceiling coffers above the stage. These clear down lights are connected to 4 separate dimming circuits to light the stage, stage extensions, chorus, and organ.

The adjustable theatrical lighting consists of eight Vari-Lite VL-1000TS moving lights located in 4 ceiling ports above the stage. These lights can be adjusted by remote control with a NSI ML-16 moving light controller, which is located next to the lighting board in the sound booth at the rear of the hall. It is possible to adjust positioning, focus, zoom, and diffusion of each light, and change the color of each light's beam with CYM color mixing. Four adjustable framing shutters are also employed to control beam spread. Several stock gobos are installed in the fixtures for special effects.

A total of 8 1000 watt par cans are mounted on pipes on each side of the stage for side-fill lighting.

Along the side walls of the hall are an additional 4 fixture mounting pipes, two on each side. Mounted on these pipes are another 16 adjustable 575 watt Source Four ellipsoidal spotlights.

In the two rear ceiling coves of the hall there are a total of 6 adjustable source four 19° and 26° ellipsoidal spotlights for front-fill lighting.

Provisions for "tree" backlighting effects and balcony-face front lighting are installed and available for use on an as-needed basis.

All lighting receptacles are Hubbell #2310, which are 20 Amp 3 prong twist-lok type.

The Dimming system consists of 48- 2.4KW dimmers controlled by an EDI "Minstrel" 48 channel, two-scene preset lighting control board. Located next to the dimmer board is the NSI moving light controller to adjust the positioning of the moving lights. All lighting is under DMX control. House lighting is also controlled with another 6 dimming circuits on the "Minstrel" board.

Clear-comm intercom facilities are provided to side-stage and backstage locations, the sound board, lighting board, and to the follow spotlight locations in the balcony.

Two Lycian 1266 Super Arc 400 follow spotlights are provided, and two Strong "Troupette III" follow spotlights are available for low-noise applications.

If additional power is needed, two "Cam-Lok" power connection panels have been installed in the backstage area. One is rated at 200 amps 120-208 volts 3 phase, and the other is rated at 100 amps, 120-208 volts 3 phase. Both panels are designed to accept a male Cam-Lok E-1016 plug.

Two upstage rigging motors with a total lift capacity of 1000 pounds are installed in the attic above the stage to enable the hanging of a 50 foot long truss for backdrops or additional lighting instruments.

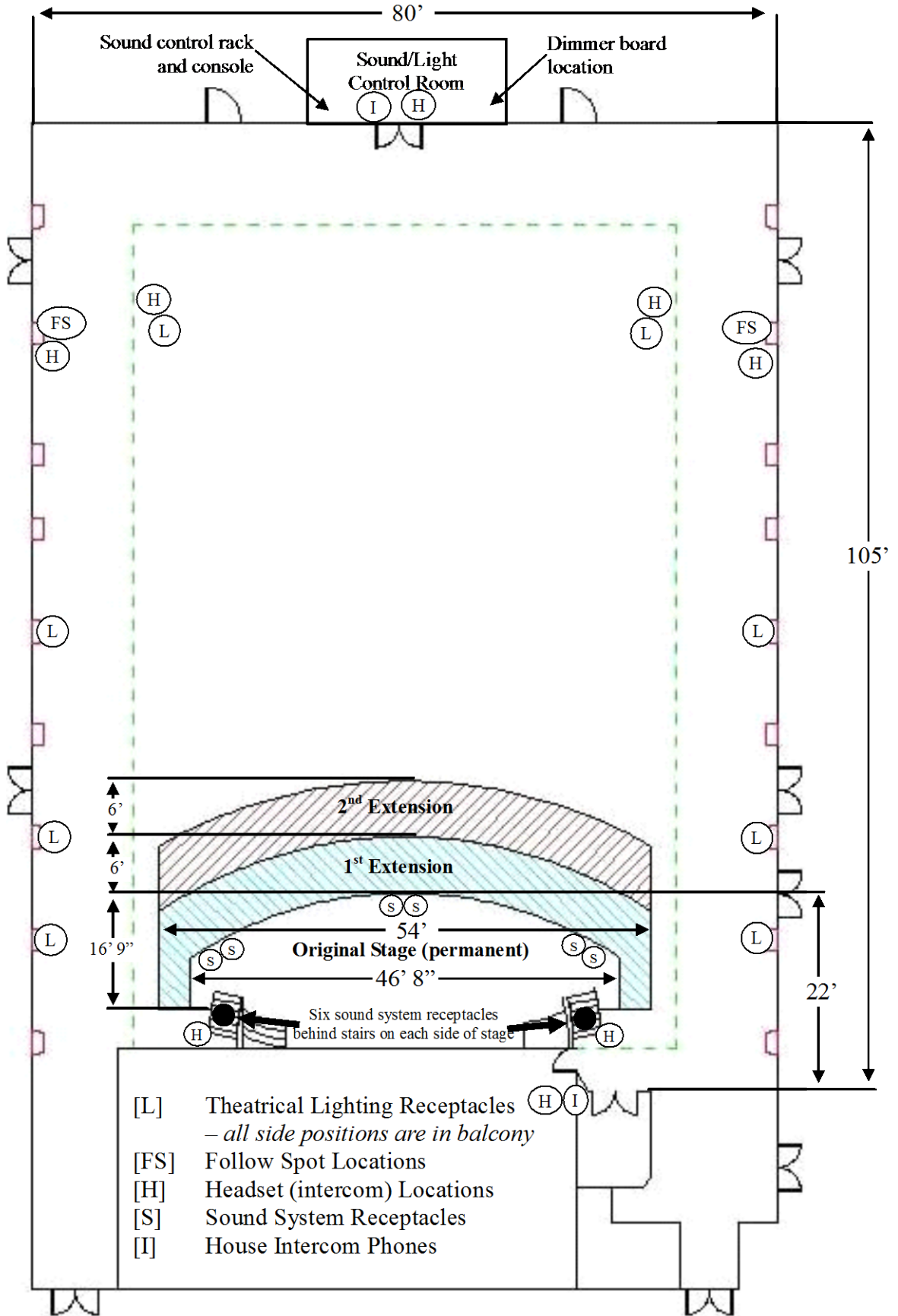
More than 60 wireless LED RGBAW "Uplights" are available for accent lighting of the stage and organ wall, or for use to accent the columns under or over the balconies. These uplights can be set to project nearly any color of light.

One ETC source 4 gobo projection fixture is located in the ceiling of the Great Hall for the projection of size A or B gobos on the center of the dance floor.

Up to 36 "pin spots" are available to highlight centerpieces in table setups in the Great Hall.

Multi-colored and moving dance flooring lighting is available for disco lighting effect.

Sound & Lighting Diagram



Great Hall Dimmer Patch Assignments

Please see Page 13 for location diagram

<u>DIMMER</u>	<u>CHAN. ASSNM.</u>	<u>LOAD DESCRIPTION</u>	<u>LOAD WATTAGE</u>
1	1	Vari-Lite #1	1 - 1000W
2	2	Vari-Lite #2	1 - 1000W
3	3	Vari-Lite #3	1 - 1000W
4	4	Vari-Lite #4	1 - 1000W
5	9	Down Lights, upstage center section	3 - 575W.
6	9	Down Lights, upstage center section	3 - 575W.
7	10	Down Lights, upstage L & R sides	2 - 575 W.
8	10	Down Lights, upstage L & R far sides	2 - 575 W.
9	10	Down Lights, chorus risers, center	2 - 575 W.
10	10	Down Lights, chorus risers, L & R sides	2 - 575 W.
11	8	Vari-Lite #8	1 - 1000 W
12	11	Down Lights, downstage center section	2 - 575 W.
13	12	Down Lights, downstage left	2 - 575 W.
14	12	Down Lights, downstage right	2 - 575 W.
15	13	North Cove spot #1	1 - 575 W.
16	14	North Cove spot #2	1 - 575 W.
17	15	North Cove spot #3	1 - 575 W.
18	16	South Cove spot #1	1 - 575 W.
19	17	South Cove spot #2	1 - 575 W.
20	18	South Cove spot #3	1 - 575 W.
21	19	N. E. Tree light receptacle #1	2 - 750 W
22	20	N. E. Tree light receptacle #2	2 - 750 W
23	21	S. E. Tree light receptacle #1	2 - 750 W
24	22	S. E. Tree light receptacle #2	2 - 750 W
25	23	Stage Tree light receptacle #1	2 - 750 W
26	24	Stage Tree light receptacle #2	2 - 750 W
27	25	N. W. & S.W. Side Balcony receptacle # 1	2 - 750 W
28	26	N. W. & S.W. Side Balcony receptacle # 2	2 - 750 W
29	27	N. W. & S.W. Side Balcony receptacle # 3	2 - 750 W
30	5	Vari-Lite #5	1 - 1000W
31	6	Vari-Lite #6	1 - 1000W
32	7	Vari-Lite #7	1 - 1000W
33	31	Side Pipe, N. E. & S. E. receptacle	2 - 1000 W.
34	32	Side Pipe, N. E. & S. E. receptacle	2 - 1000 W.
35	33	Side Pipe, N. E. receptacle	1 - 1000 W.
36	34	Side Pipe, N. E. receptacle	1 - 1000 W.
37	35	Side Pipe, S. E. receptacle	1 - 1000 W.
38	36	Side Pipe, S. E. receptacle	1 - 1000 W.
39	37	Side Pipe, middle, North side	1 - 575 W.
40	38	Side Pipe, middle, North side	1 - 575 W.

41	39	Side Pipe, middle, North side	1 - 575 W.
42	40	Side Pipe, middle, South side	1 - 575 W.
43	41	Side Pipe, middle, South side	1 - 575 W.
44	42	Side Pipe, middle, South side	1 - 575 W.
45	43	Side Pipes, N.W. & S.W. receptacle	2 - 575 W.
46	44	Side Pipes, N.W. & S.W. receptacle	2 - 575 W.
47	45	Side Pipes, N.W. receptacle	1 - 575 W.
48	46	Side Pipes, S.W. receptacle	1 - 575 W.

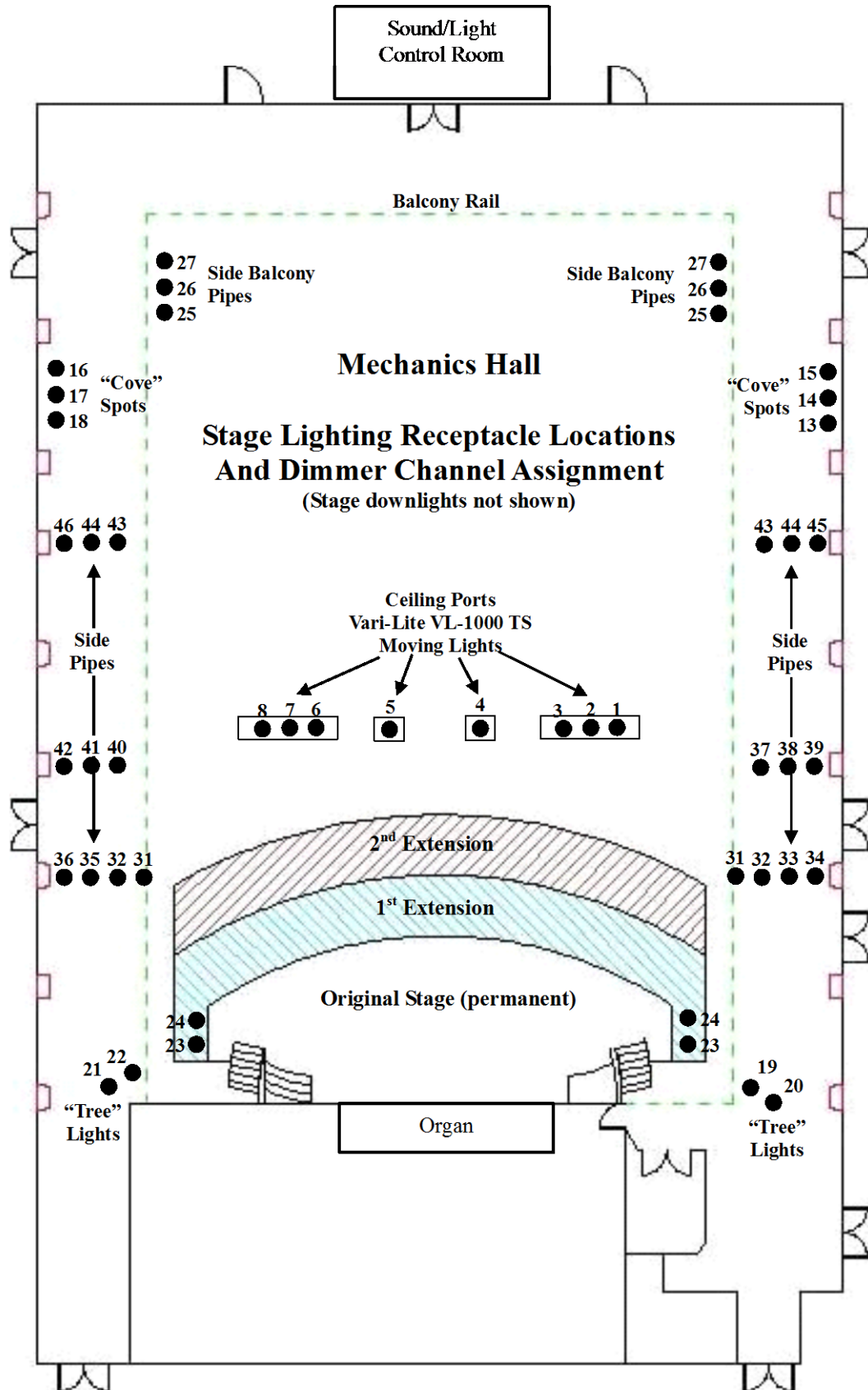
EDI DIMMER HOUSE LIGHT PANEL:

53	H 1	Chandelier, N.E.	42 - 40 W.
54	H 1	Chandelier, N.E.	42 - 40 W.
55	H 1	Chandelier, N.E.	42 - 40 W.
56	H 1	Chandelier, S.E.	42 - 40 W.
57	H 1	Chandelier, S.E.	42 - 40 W.
58	H 1	Chandelier, S.E.	42 - 40 W.
59	H 2	Chandelier, N.W.	42 - 40 W.
60	H 2	Chandelier, N.W.	42 - 40 W.
61	H 2	Chandelier, N.W.	42 - 40 W.
62	H 2	Chandelier, S.W.	42 - 40 W.
63	H 2	Chandelier, S.W.	42 - 40 W.
64	H 2	Chandelier, S.W.	42 - 40 W.
65	H 3	N. W. Cove wash	20 - 75 W.
66	H 3	N. E. Cove wash	20 - 75 W.
67	H 3	S. W. Cove wash	20 - 75 W.
68	H 3	S. E. Cove wash	20 - 75 W.
69	H 3	West Cove wash	16 - 75 W.
70	H 4	Side Balcony Sconces	21 - 80 W.
71	H 5	Over rear balcony floods	3 - 150 W.
72	H 6	Organ Pipe Wash	5 - 150 W.

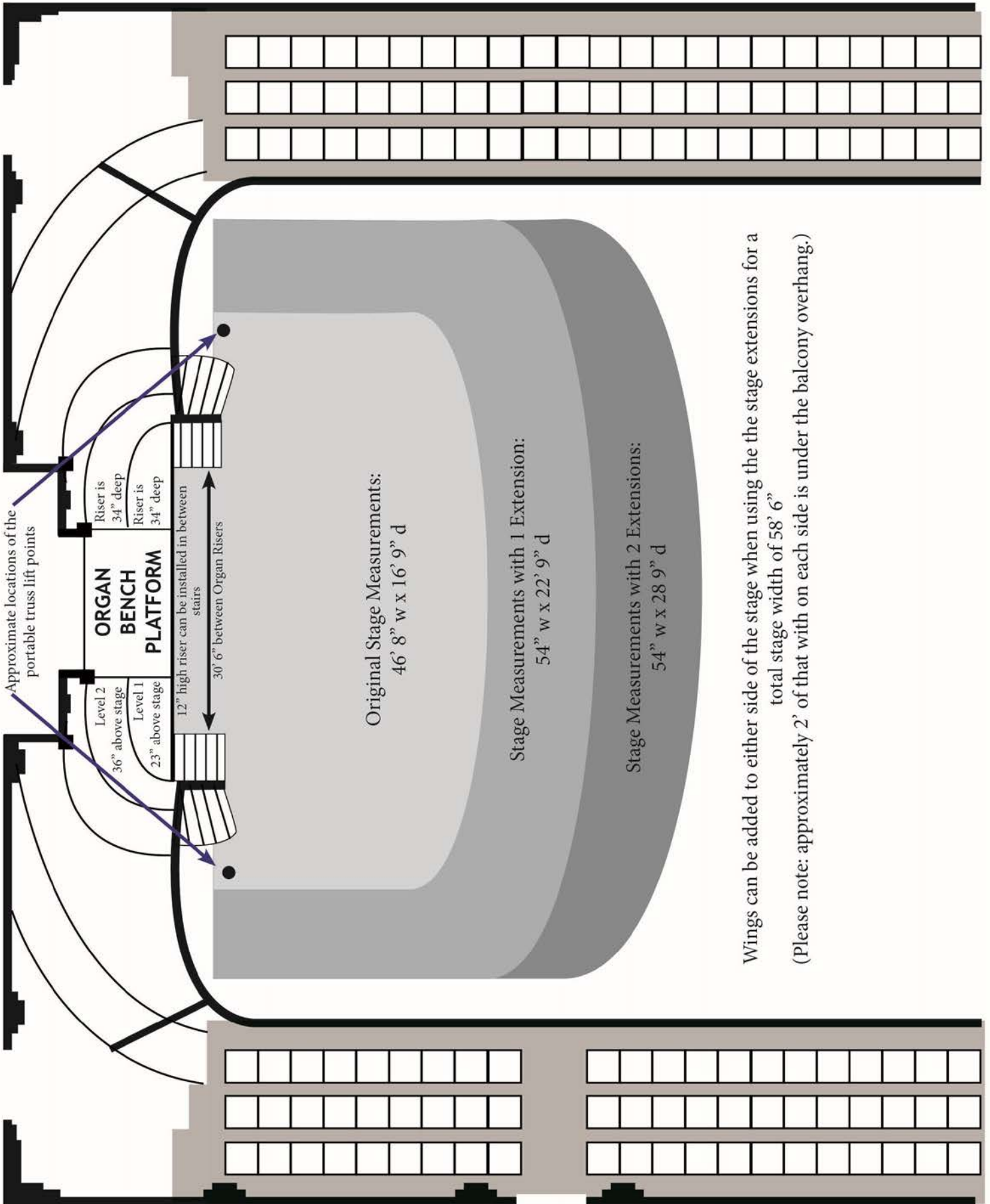
Notes:

Houselight dimmers 53-72 are permanently assigned to houselight channels H-1 through H-6.

Dimmer Patch Assignment Diagram

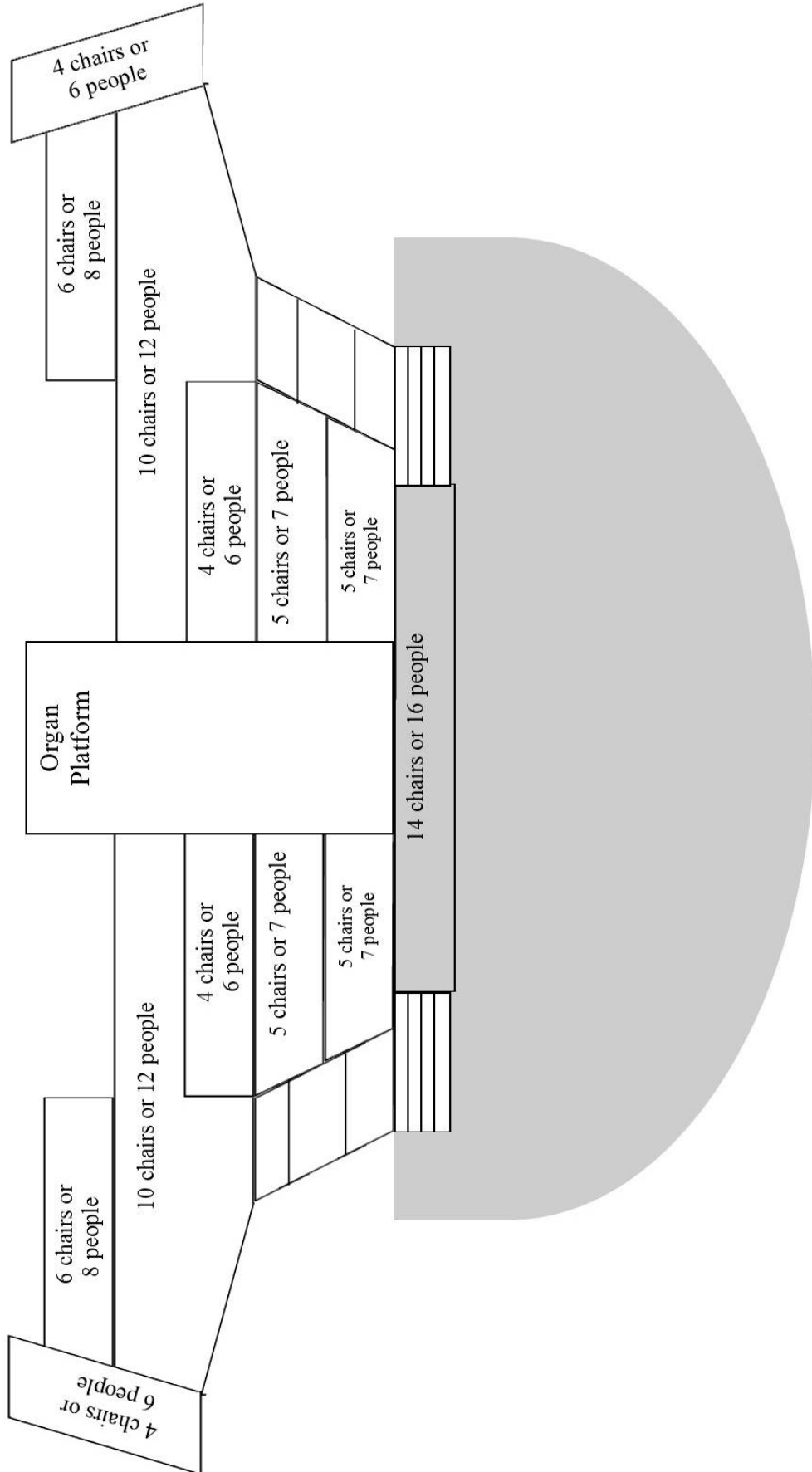


Updated 10/14/09



Wings can be added to either side of the stage when using the the stage extensions for a total stage width of 58' 6"
 (Please note: approximately 2' of that with on each side is under the balcony overhang.)

Diagram for Organ Riser Seating



Great Hall Stage: Showing number & placement of chairs or people on stage risers for chorus, etc.

Total Chairs: 83
Total People: 92

Original Stage: 16' 9" deep x 48' wide
1 Extension: 22' 9" deep x 58' wide—includes wing width
2 Extensions: 28' 9" deep x 58' wide—includes wing width