DRAMA 394

“Sound Paperwork” Sections 1-3

1. Plan, Section & Elevation Views

"Communication Through Precision"

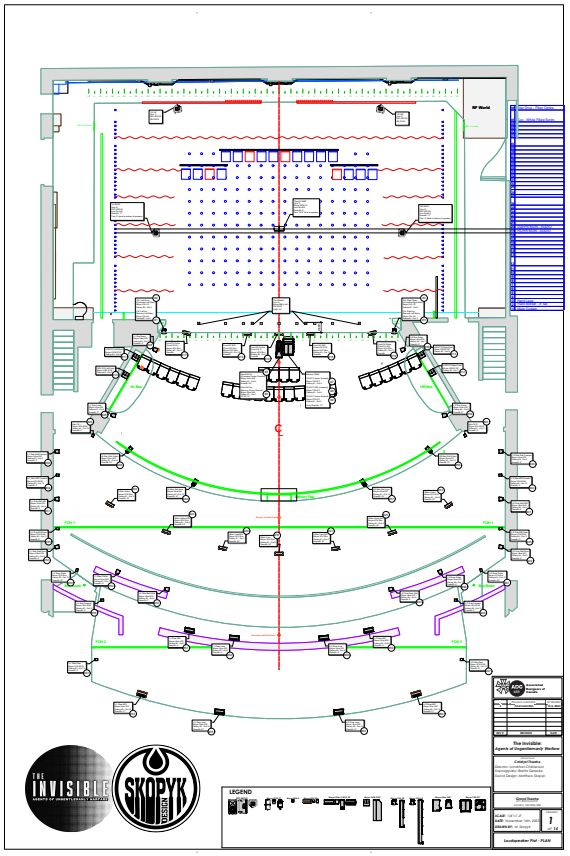
Purpose of These Drawings

Key Objective:

- Communicate the **physical layout** and **spatial relationships** of sound system components within the venue.

What We're Trying to Communicate:

- Locations of speakers, microphones, and hardware.
- Integration with scenic, lighting, and projection designs.
- Audio coverage areas and potential physical or visual conflicts with other departments.



Section 1 - Best Practices for Clear Drawings

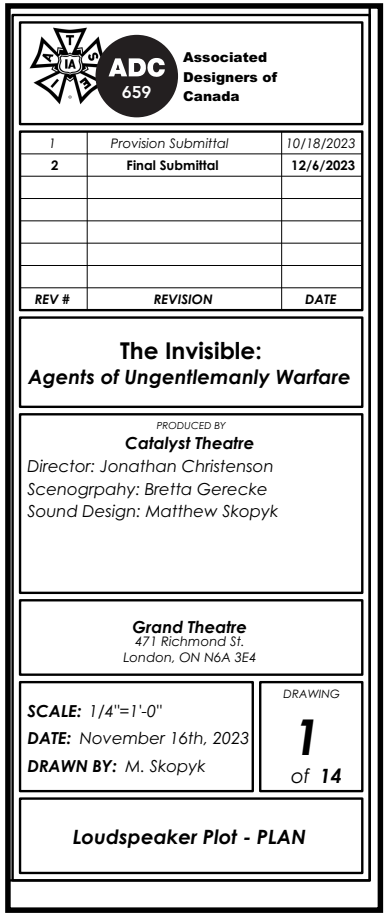
1. Title Blocks

What to Include:

- Project name and production title.
- Designer's name and draftsperson's name.
- Date of drawing, revision number, and scale (e.g., 1/4" = 1').
- Disclaimers, such as "Not for Construction" or "Design Intent Only."

Placement: Bottom-right corner, full bottom edge, or right side of the drawing.

Why It's Important: Provides essential metadata, ensuring clarity for all team members.

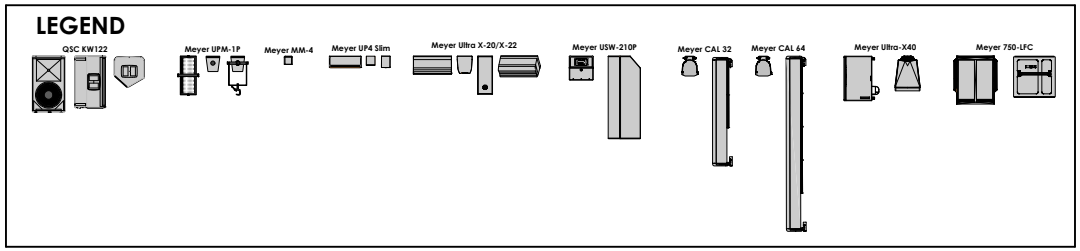


Section 1 - Best Practices for Clear Drawings

2. Legends

What to Include:

- Symbols for speakers, microphones, and racks.
- Line styles for scenic, lighting, and sound-specific elements
- Abbreviations (e.g., FOH for Front of House, DSP for Digital Signal Processor).



Placement: On the cover sheet or within the drawing if space allows.

Why It's Important: Ensures consistent interpretation across teams.

Section 1 - Best Practices for Clear Drawings

3. Clarity Through Labeling:

- Use consistent labels for all elements across drawings (e.g., "Speaker #6").
- Include speaker type, model, and intended usage (e.g., "MAINS: Meyer Sound UPJ-1P").
- Clearly label critical equipment locations (e.g., floor pockets, racks).

Section 1 - Best Practices for Clear Drawings

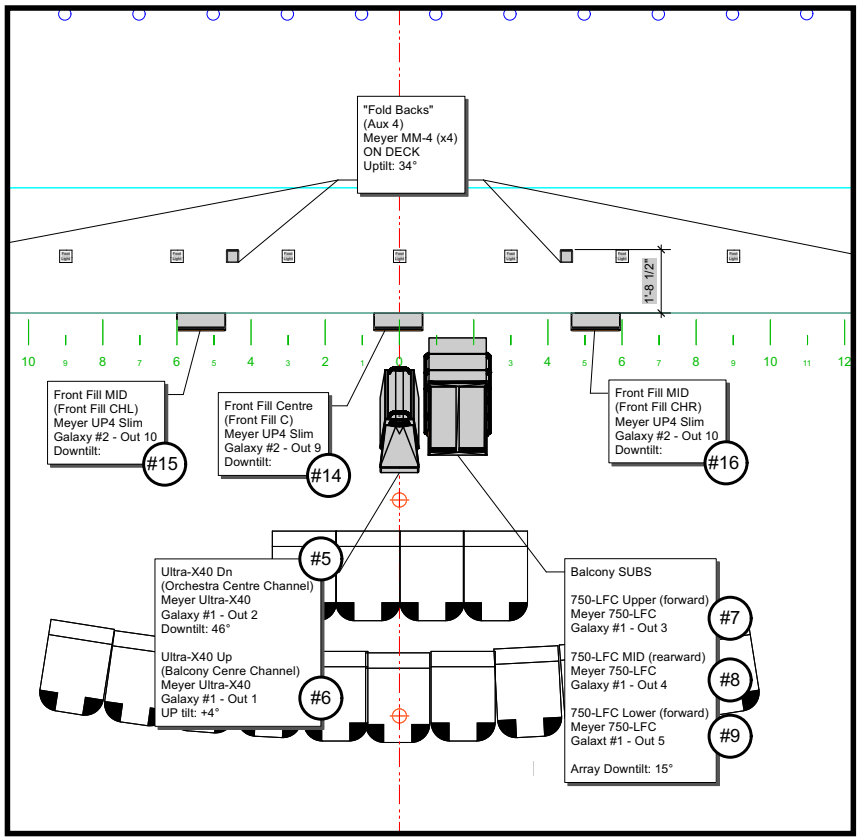
4. Callouts in Drawings:

Provide short descriptions for each component, connected by lines or arrows.

Examples:

- "Flown with XYZ Rigging Bracket."
- "Subwoofer on stage deck at 30° angle."

Place callouts outside critical areas to avoid clutter.



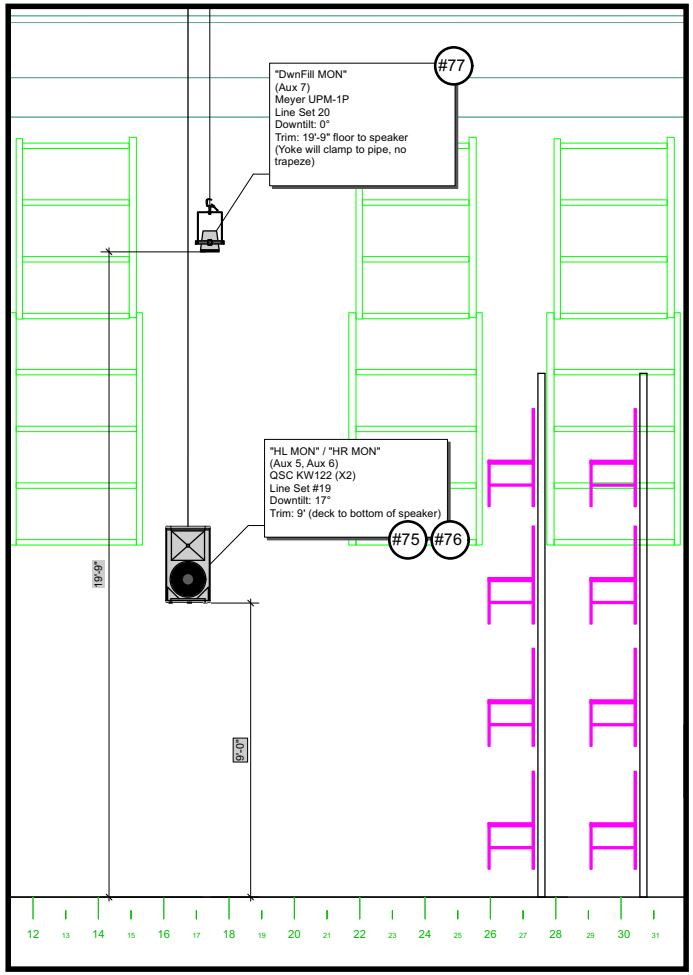
Section 1 - Best Practices for Clear Drawings

5. Placement of Dimensions:

- **Horizontal dimensions** in plan views (e.g., distance from stage edge to speaker).

- **Vertical dimensions** in section or elevation views (e.g., speaker height above stage deck).

- Include coverage details such as throw distances or angles where applicable.



Section 1 - Best Practices for Clear Drawings

Cable Runs - *What the Guidelines Recommend*

General Rule: Cable runs are **not typically included** in plan, section, or elevation views.

When to Include Cable Runs:

Only if a cable's path involves:

- Scenic integration (e.g., running through a set piece).
- Rigging or safety-critical zones (e.g., trusses or under-audience pathways).

Clearly show **only the critical paths** to avoid cluttering.

Preferred Documentation for Cable Runs:

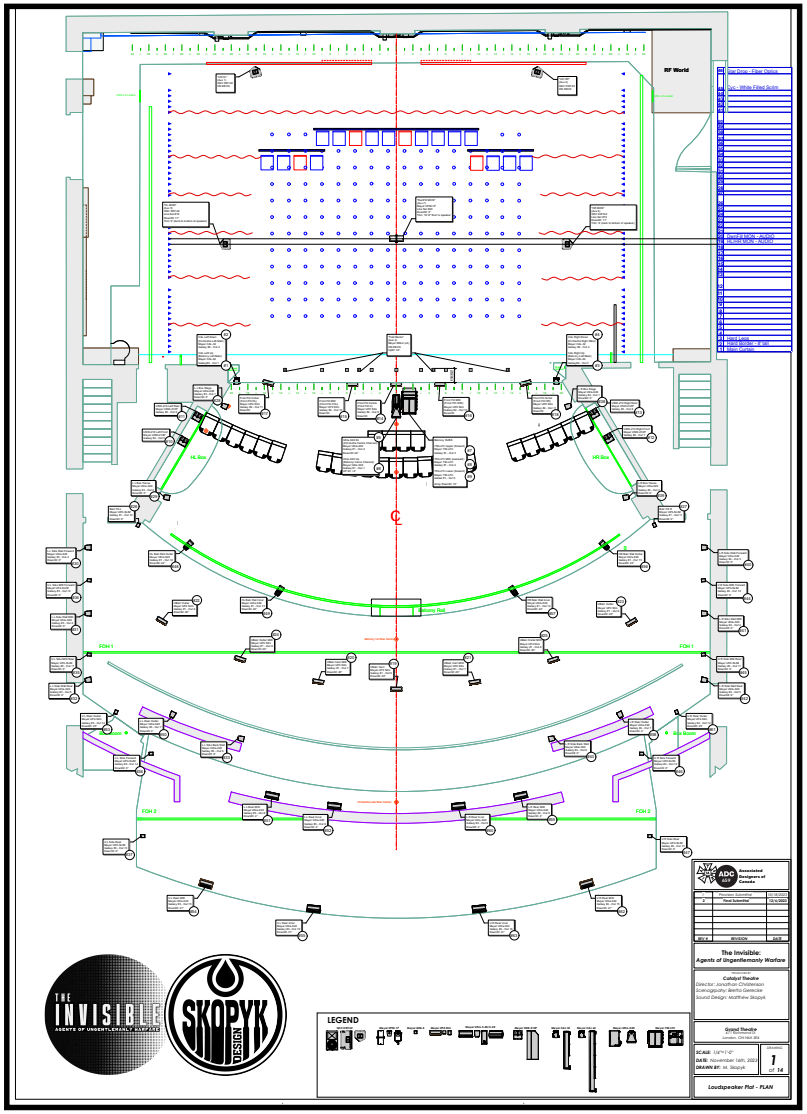
- **Routing Diagrams:** For detailed cable pathways.

Hookup Charts: To document source, destination, and cable specifications.

Specific Drawing Styles

1. **Plan Views (Overhead Perspective):**
   - **Focus:** Horizontal placement of speakers, racks, and relevant sound elements.
   - Key details: Speaker positions, audience areas, and floor pockets.

Note: Avoid showing full cable runs unless necessary for scenic or safety coordination.

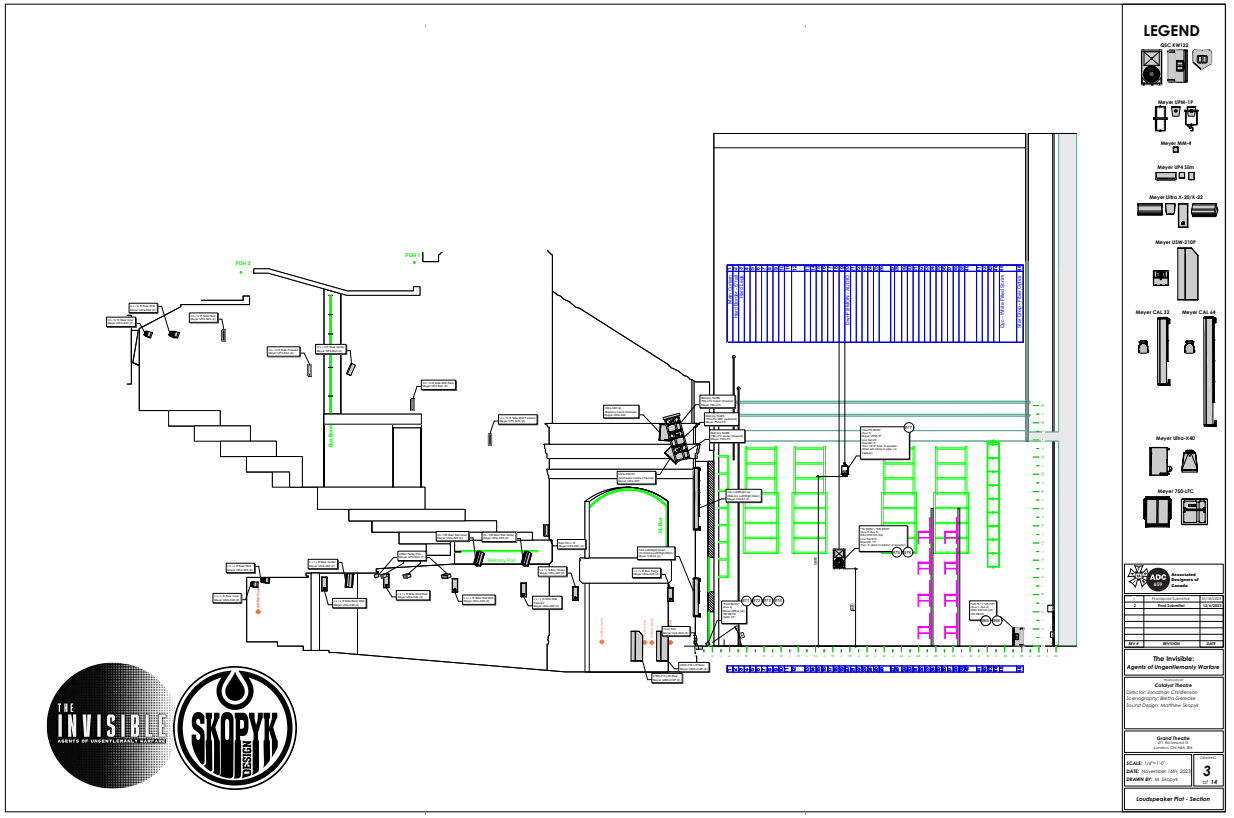


Specific Drawing Styles

2. Section Views (Side Perspective):

- **Focus:** Vertical placement and angles of speakers or flown hardware.
- Key details: Heights, throw angles, and rigging points.

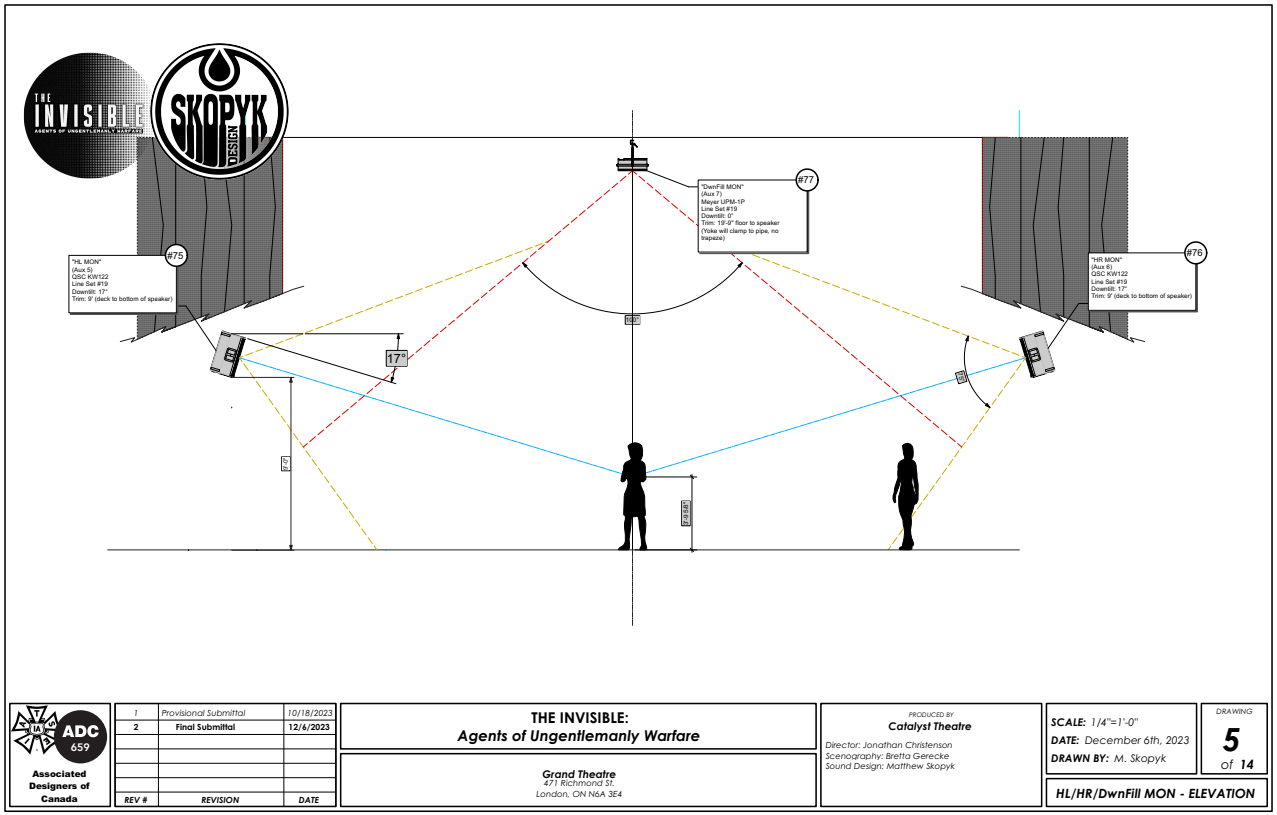
Tip: Add sightlines to confirm no obstructions for the audience.



Specific Drawing Styles

3. Elevation Views (Frontal Perspective):

- **Focus:** Spacing and alignment of sound elements across the venue.
- Key details: Horizontal alignment, speaker spacing, and coverage zones.
- **Note:** Emphasize aesthetic and practical placement rather than signal paths.



SECTION 1: Final Key Points

- Plan, section, and elevation views should focus on **physical placement and spatial relationships**.
- Leave cable runs for routing diagrams or hookup charts unless their inclusion is critical for collaboration.
- "Clarity in documentation ensures seamless integration across technical departments."

2. System Block Diagrams

"Breaking Down Block Diagrams"

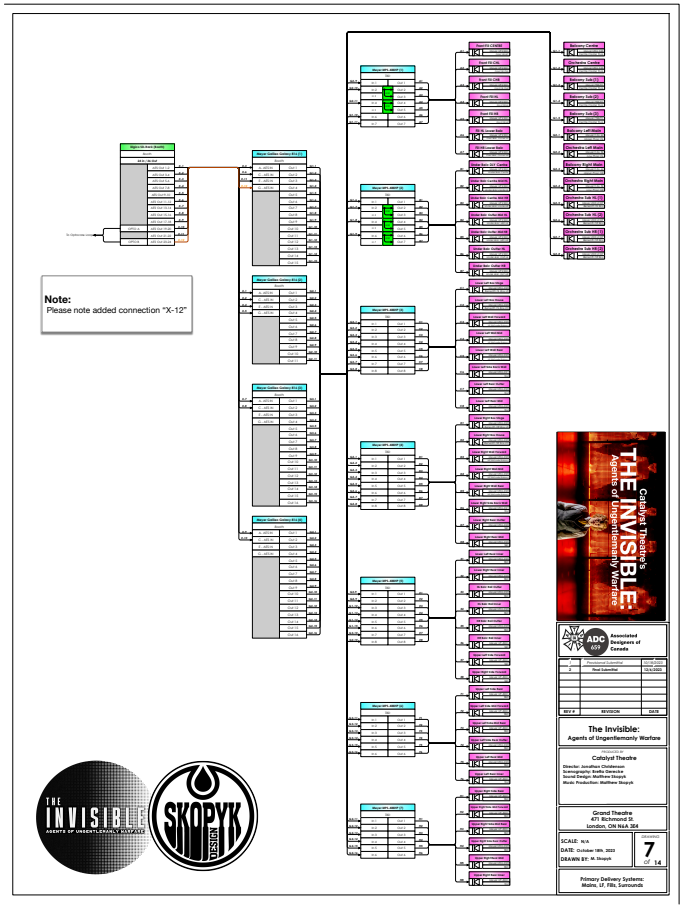
Purpose of System Block Diagrams

Key Objective:

- Illustrate the **signal flow** between components in the sound system.

What We're Trying to Communicate:

- How sound sources, processors and outputs are interconnected.
- The logical order of signal processing and distribution.
- Clarity for installation, troubleshooting and system programming.



Section 2 - Breaking Down Block Diagrams

1. Subsystem-Specific Diagrams:

Why?

- A single master diagram can become cluttered and overwhelming.
- Subsystem diagrams focus on specific areas, tailored to individual team needs, or create an “easier to focus/comprehend detailed view.

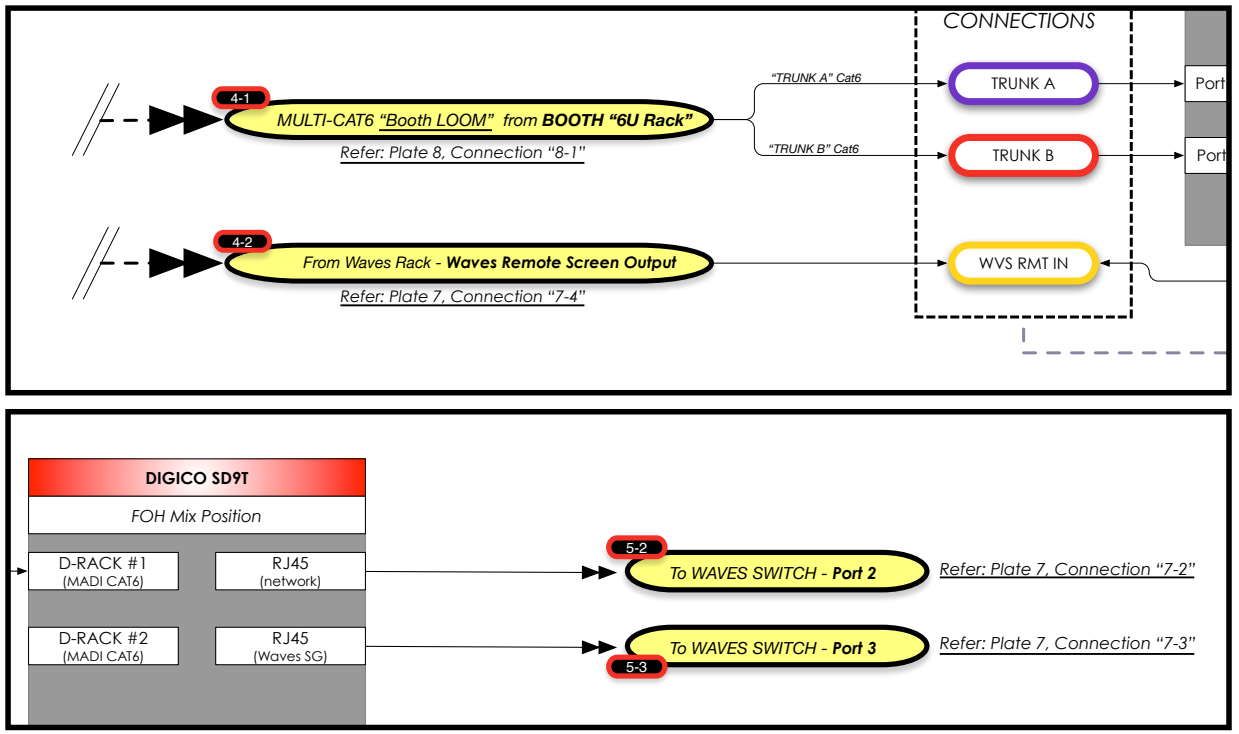
Examples:

- FOH, Monitor, Wireless/RF, Playback, Recording/Broadcast Systems.

Section 2 - Breaking Down Block Diagrams

1. Subsystem-Specific Diagrams:

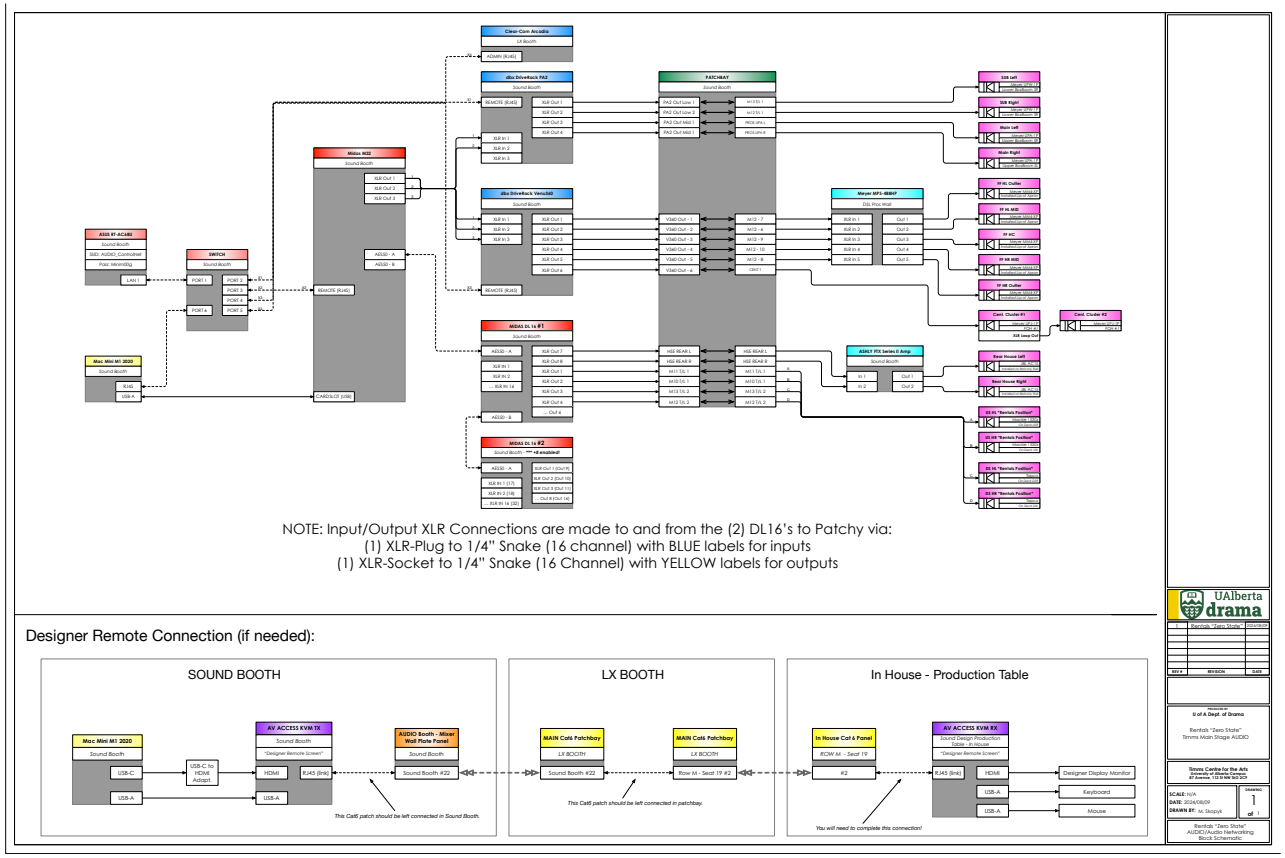
PRO TIP: Include cross-references between subsystems to show connectivity (e.g., “See HOW Block Diagram for output routing to monitors”).



Section 2 - Breaking Down Block Diagrams

2. When to Use a Master Diagram:

- Summarizes high-level system interactions.
- Useful for quick reference or introducing the system.



Best Practices for Clear System Block Diagrams

- Title blocks and legends for clarity.
- Organized signal flow (left-to-right or top-to-bottom).
- Consistent layouts and callouts for critical details.
- Simplification for complex systems (layered or modular diagrams).

Section 2: Final Key Points

- Subsystem block diagrams provide clarity and focus for specific tasks and teams.
- Master diagrams give a high-level overview but are best supplemented by detailed subsystem diagrams.
- Consistent formatting, clear labeling, and organized layouts ensure diagrams are usable and professional.

3. Hookup Documents

"Connecting the Dots"

Purpose of Hookup Documents

Key Objective:

- Provide a clear and detailed roadmap for all signal connections in the sound system.

What We're Trying to Communicate:

- How each device is physically and electronically connected.
- Ensure precise and error-free installation, troubleshooting and operation.

Inputs

I/P		Source	Format	Input ID	Direct Out
1	God Mic 1	Local In #1			
2	God Mic 2	Local In #2			
3	SM VOG	3224 #1 In 1			
4					
5					
6					
7					
8					
I/P		**Source**	**Format**	**Input ID**	**Direct Out**
9	Bar Mic	3224 #1 In 2			
10	Floor Mic #1	3224 #1 In 3			
11	Floor Mic #2	3224 #1 In 4			
12	Floor Mic #3	3224 #1 In 5			
13	Floor Mic #4	3224 #1 In 6			
14					
15	Reverb Return Left	Local In #7			
16	Reverb Return Right	Local In #8			
I/P		**Source**	**Format**	**Input ID**	**Direct Out**
17	QLab 1	Card 1 In 1			
18	QLab 2	Card 1 In 2			
19	QLab 3	Card 1 In 3			
20	QLab 4	Card 1 In 4			
21	QLab 5	Card 1 In 5			
22	QLab 6	Card 1 In 6			
23	QLab 7	Card 1 In 7			
24	QLab 8	Card 1 In 8			
I/P		**Source**	**Format**	**Input ID**	**Direct Out**
25	QLab 9	Card 2 In 1			
26	QLab 10	Card 2 In 2			
27	QLab 11	Card 2 In 3			
28	QLab 12	Card 2 In 4			
29	QLab 13	Card 2 In 5			
30	QLab 14	Card 2 In 6			
31	QLab 15	Card 2 In 7			
32	QLab 16	Card 2 In 8			

Outputs

Groups		Output ID	Destination
1	System Left	Subgroup	
2	System Right	Subgroup	
3	System Center	Subgroup	
4	Front Fills	Subgroup	
5	HL Surround 1	3224 #1 Out 7	Galileo 2-A
6	HL Surround 2	3224 #1 Out 8	Galileo 2-B
7	HL Surround 3	3224 #1 Out 9	Galileo 2-C
8	HR Surround 1	3224 #1 Out 10	Galileo 2-D
9	HR Surround 2	3224 #1 Out 11	Galileo 2-E
10	HR Surround 3	3224 #1 Out 12	Galileo 2-F
11	House Left Rear	3224 #1 Out 13	Galileo 3-A
12	House Right Rear	3224 #1 Out 14	Galileo 3-B
13	Overstage DSL	3224 #1 Out 15	Galileo 3-C
14	Overstage DSR	3224 #1 Out 16	Galileo 3-D
15	Overstage USL	3224 #2 Out 1	Galileo 3-E
16	Overstage USR	3224 #2 Out 2	Galileo 3-F
17	Toilet Speaker	3224 #2 Out 3	Galileo 4-A
18	TV Speaker	3224 #2 Out 4	Galileo 4-B
19	Jukebox	3224 #2 Out 5	Galileo 4-C
20	Sub Left	3224 #2 Out 6	Galileo 1-E
21	Sub Right	3224 #2 Out 7	Galileo 1-F
22			
23	Reverb Send Left	Local Out #7	Verb L In
24	Reverb Send Right	Local Out #8	Verb R In
Matrixes		**Output ID**	**Destination**
1	House Mains Left	3224 #1 Out 1	Galileo 1-A
2	House Mains Right	3224 #1 Out 2	Galileo 1-B
3	Center Upper	3224 #1 Out 3	Galileo 1-C
4	Center Lower	3224 #1 Out 4	Galileo 1-D
5	Front Fill Inner	3224 #1 Out 5	Galileo 4-F
6	Front Fill Outer	3224 #1 Out 6	Galileo 4-G
7			
8	Program	3224 #2 Out 8	Program Mixer

Figure 3.2.1 Example of a console hookup

Who Creates Hookup Documents in Canada?

Sound Designer's Role: High-level system design and specs.

Head of Audio's Role: Detailed hookup spreadsheets based on the designer's intent.

Section 3 - Connecting the Dots

How Hookups Are Presented

- Spreadsheets: Clear tables with source, destination, cable type, labels and notes.

- Annotated Diagrams: For small-scale setups where visual clarity matters.

Inputs					
I/P		Source	Format	Input ID	Direct Out
1	God Mic 1	Local In #1			
2	God Mic 2	Local In #2			
3	SM VOG	3224 #1 In 1			
4					
5					
6					
7					
8					
I/P		Source	Format	Input ID	Direct Out
9	Bar Mic	3224 #1 In 2			
10	Floor Mic #1	3224 #1 In 3			
11	Floor Mic #2	3224 #1 In 4			
12	Floor Mic #3	3224 #1 In 5			
13	Floor Mic #4	3224 #1 In 6			
14					
15	Reverb Return Left	Local In #7			
16	Reverb Return Right	Local In #8			
I/P		Source	Format	Input ID	Direct Out
17	QLab 1	Card 1 In 1			
18	QLab 2	Card 1 In 2			
19	QLab 3	Card 1 In 3			
20	QLab 4	Card 1 In 4			
21	QLab 5	Card 1 In 5			
22	QLab 6	Card 1 In 6			
23	QLab 7	Card 1 In 7			
24	QLab 8	Card 1 In 8			
I/P		Source	Format	Input ID	Direct Out
25	QLab 9	Card 2 In 1			
26	QLab 10	Card 2 In 2			
27	QLab 11	Card 2 In 3			
28	QLab 12	Card 2 In 4			
29	QLab 13	Card 2 In 5			
30	QLab 14	Card 2 In 6			
31	QLab 15	Card 2 In 7			
32	QLab 16	Card 2 In 8			

Outputs			
Groups		Output ID	Destination
1	System Left	Subgroup	
2	System Right	Subgroup	
3	System Center	Subgroup	
4	Front Fills	Subgroup	
5	HL Surround 1	3224 #1 Out 7	Galileo 2-A
6	HL Surround 2	3224 #1 Out 8	Galileo 2-B
7	HL Surround 3	3224 #1 Out 9	Galileo 2-C
8	HR Surround 1	3224 #1 Out 10	Galileo 2-D
9	HR Surround 2	3224 #1 Out 11	Galileo 2-E
10	HR Surround 3	3224 #1 Out 12	Galileo 2-F
11	House Left Rear	3224 #1 Out 13	Galileo 3-A
12	House Right Rear	3224 #1 Out 14	Galileo 3-B
13	Overstage DSL	3224 #1 Out 15	Galileo 3-C
14	Overstage DSR	3224 #1 Out 16	Galileo 3-D
15	Overstage USL	3224 #2 Out 1	Galileo 3-E
16	Overstage USR	3224 #2 Out 2	Galileo 3-F
17	Toilet Speaker	3224 #2 Out 3	Galileo 4-A
18	TV Speaker	3224 #2 Out 4	Galileo 4-B
19	Jukebox	3224 #2 Out 5	Galileo 4-C
20	Sub Left	3224 #2 Out 6	Galileo 1-E
21	Sub Right	3224 #2 Out 7	Galileo 1-F
22			
23	Reverb Send Left	Local Out #7	Verb L In
24	Reverb Send Right	Local Out #8	Verb R In
Matrixes		Output ID	Destination
1	House Mains Left	3224 #1 Out 1	Galileo 1-A
2	House Mains Right	3224 #1 Out 2	Galileo 1-B
3	Center Upper	3224 #1 Out 3	Galileo 1-C
4	Center Lower	3224 #1 Out 4	Galileo 1-D
5	Front Fill Inner	3224 #1 Out 5	Galileo 4-F
6	Front Fill Outer	3224 #1 Out 6	Galileo 4-G
7			
8	Program	3224 #2 Out 8	Program Mixer

Figure 3.2.1 Example of a console hookup

Final Key Points

- In Canadian productions, the **head of audio** typically takes responsibility for hookup spreadsheets.

- Clear hookups ensure that all connections are as seamless as the show itself.