

Florida Pre-Wire and Technology Spec Guide

What to plan, and when, so the home theater, smart home, network and studio rooms in a Florida residence are built right the first time. From David Frangioni, Frangioni Media.

Technology problems in luxury homes are rarely about equipment. They come from decisions made too late: a rack closet with no cooling, a theater with no isolation, shades with no power at the window head, or a waterfront home with the network below flood elevation. This guide is the checklist I use with project teams across South Florida. It is a planning tool, not a substitute for engineered drawings, manufacturer requirements or local code.

1. When to Bring Technology Design In

- Schematic design: room list, theater and studio locations, rack room location and size, and any structural needs such as screen walls, risers or ceiling height for projection.
- Design development: lighting control approach, shade types and pockets, speaker locations coordinated with the ceiling plan and the interior designer, and HVAC noise targets for media rooms.
- Before rough-in: low-voltage drawings, conduit and backbox schedule, dedicated circuits and the network plan.
- Before drywall: pre-wire walkthrough with the builder and photo documentation of every wall and ceiling.

2. The Equipment Room

- Locate it centrally, inside conditioned space and above flood elevation, never in a garage or attic in Florida heat.
- Plan dedicated cooling and exhaust sized for the equipment heat load, with temperature and humidity monitoring.
- Provide dedicated circuits for the racks, with surge protection and power conditioning. Plan battery backup for network, control and security.
- Leave clear space at the front and back of each rack for service, and a conduit path to the electrical panel, utility entrance and attic or roof.

3. Cabling and Pathways

- Home-run structured cabling from every TV, touchscreen, access point, camera and keypad location back to the equipment room.
- Run conduit, not just cable, to every display, the theater front wall, the projector location, outdoor zones and the dock. Conduit is what lets the house accept the next generation of equipment.
- In concrete block and tower construction, plan pathways in the drawings. Core drilling after the fact is slow and expensive.

- Label both ends of every run and keep an as-built record for the owner and estate manager.

4. Network and Wi-Fi

- Design the network first. Every system in the house depends on it.
- Plan wired ceiling locations for wireless access points in every major room, the garage, outdoor living areas and the pool and dock.
- Plan for a second internet connection, typically cellular failover, so remote access and alerts survive an outage.

5. Lighting Control and Shades

- Choose the lighting control system early, such as Lutron HomeWorks, because it changes the electrical plan, keypad locations and panel space.
- For tunable lighting such as Ketra, coordinate fixtures with the lighting designer and interior designer before the ceiling plan is final.
- Provide power and control wiring at every motorized shade head, and coordinate pockets and fascias with the architect.
- Florida sun drives glare, heat and fading. Plan shades and lighting together.

6. Home Theater and Media Rooms

- Size the room for the screen and seating first, then confirm ceiling height for risers and overhead Atmos speakers.
- Plan isolation in walls, ceiling and doors, with quiet, dedicated HVAC.
- Provide conduit to the screen wall, projector location and equipment location, plus dedicated circuits.
- Coordinate acoustic treatment and finishes with the interior designer so the room performs and looks finished.

7. Recording Studios and Listening Rooms

- Decide early whether the room is for listening, production or full recording. Isolation and HVAC needs are very different.
- Plan room dimensions, floating floors where needed, door and window seals, and quiet ductwork before framing.
- Provide humidity control to protect instruments and gear.

8. Outdoor, Pool and Dock

- Specify marine-grade speakers, enclosures and hardware for salt air.
- Run conduit to every outdoor display, speaker zone, camera and landscape lighting location.
- Coordinate outdoor equipment with storm preparation. Plan what gets removed or secured before a named storm.

9. Security, Cameras and Access

- Plan camera, intercom, gate and door station locations with wired connections.
- Plan leak sensors at the equipment room, water heaters and air handlers, tied into the control system for alerts.

10. Hurricane-Ready Power and Monitoring

- Whole-home surge protection at the panel plus protection at each rack.
- Generator integration tested with technology running, with protection from transfer voltage swings.
- Remote monitoring of network status, rack temperature, humidity and leaks so the owner or estate manager knows what the house is doing while it is closed.
- A documented shutdown and restart order for the estate team.

Pre-Drywall Checklist

- Low-voltage drawings issued and coordinated with electrical and HVAC
- Equipment room cooling, circuits and conduit in place
- Conduit to every display, the theater, outdoor zones and the dock
- Shade power and control at every motorized window
- Speaker, keypad and access point locations confirmed with the ceiling plan
- Theater and studio isolation and HVAC installed and inspected
- Every run labeled and photographed

About Frangioni Media

Frangioni Media designs luxury home theaters, smart home systems, Dolby Atmos rooms and recording studios for homes in Miami, Fort Lauderdale, Boca Raton, Palm Beach, Jupiter and Naples. I lead every design personally. My studio and theater work includes projects for Aerosmith, Ozzy Osbourne and Shakira, and a private theater for Simon Cowell, and my design work earned Audio One a record run of CEDIA awards. We work with architects, interior designers, builders and estate managers from early design through service.

To review a set of drawings or plan a project, visit frangionimedia.com/trade or call (786) 295-9674.

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This guide is general planning guidance. Follow manufacturer installation requirements, engineered drawings and the Florida Building Code and local codes for every project.