

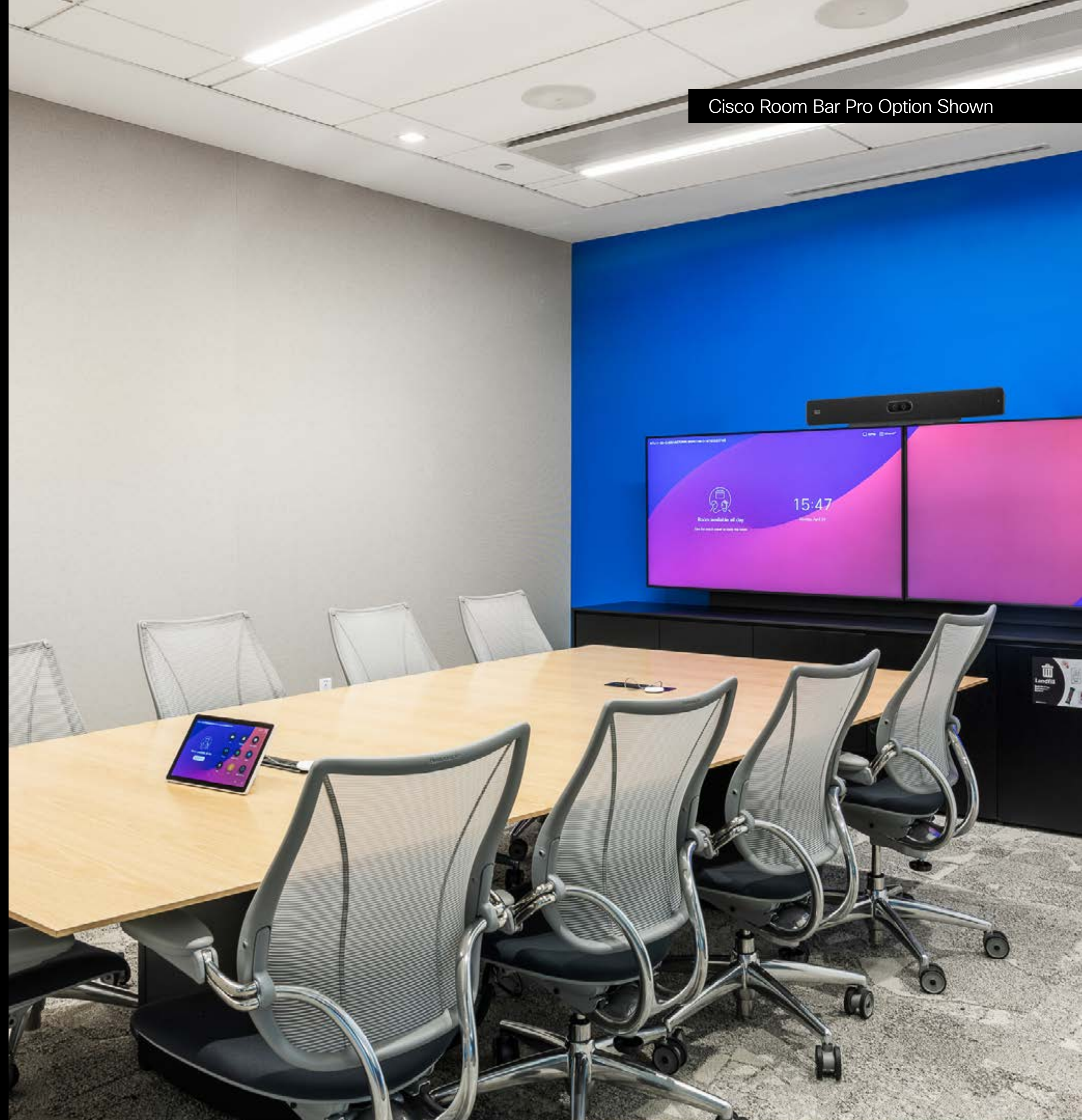


Smart Building Technology  
and Hybrid Work Solutions

# Cisco Talent and Collaboration Centers

Medium Collaboration Room - Dual Display Design Guide

Cisco Room Bar Pro Option Shown







# Design Guide

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# Introduction

## Overview and Intent

This document provides guidance on how to effectively design a Medium Collaboration Room - Dual Display.

This design brings space layout, technology, and furnishings together to create an optimal experience for those present locally and for remote attendees.

Each project is unique; thus, it is important to involve internal facilities and IT teams, as well as an architect and/or space designer, furniture providers, and a Cisco-certified integrator, as early as possible. The goal is to thoroughly understand the needs of the end users and address any local concerns, including physical layout, wall, floor, and ceiling composition, electrical/mechanical integration, network and cabling considerations, and external environmental issues (lighting/noise/temperature) before the design is finalized.



Note: Links to key Cisco documentation, including product data sheets, room preparation guides and installation materials can be found at the last page of this Design Guide.

## Room Description

The perfect space to bring people together for knowledge sharing or decision making, optimally seating 8-9 individuals. When dual displays are used, you see content and remote participants simultaneously.

### Supported Collaboration Activities

- Information Sharing ✓
- Brainstorming
- Team Building
- Decision Making ✓



# Visualization of Key Cisco Elements



Cisco Room Navigator  
for Wall



Cisco Room Navigator  
for Table



Dual 65" displays  
LG / Panasonic / Samsung / Sony

Option 1

Cisco Room Bar Pro  
with Cisco Table Microphones



Cisco Room Bar Pro



Cisco Table Microphone (x 2)



Option 2

Cisco Room Kit EQX  
with Cisco Table Microphone Pros



Cisco Room Kit EQX



Cisco Table Microphone Pro (x 2)



# Certified Third Party Displays



Webex certified displays have been tested for compatibility and robustness of their video interfaces, optical characteristics, and basic security practices.

When connected to a Cisco collaboration device they will automatically reconfigure to the optimal configuration already tested and verified.

For up to date information on certified and compatible Cisco collaboration device partner offers, click on the link below.

Vendor	Product	Firmware version
Samsung	QPR-8K	1110.2
Samsung	QMR	2151.0
Samsung	QBR	2151.0
Samsung	QMB	1040.7
Samsung	QBB	1040.7
Panasonic	EQ1	1.50 Cu
Panasonic	EQ2	2.40
LG	UH5F-H	03.02.00
LG	UL3G	03.12.80
LG	UL3J	03.08.41
LG	UH5J	03.24.01
LG	UR640S	03.14.23
Sony	BZ30J, BU30J, BZ35J, BU35J, BZ40H, BU40H, BZ40J, BU40J	6.5929
Sharp/NEC	M751, M861, M981	1.200
Sharp/NEC	MA431, MA491, MA551, P435, P495, P555	3.203



# Option 1: Cisco Room Bar Pro



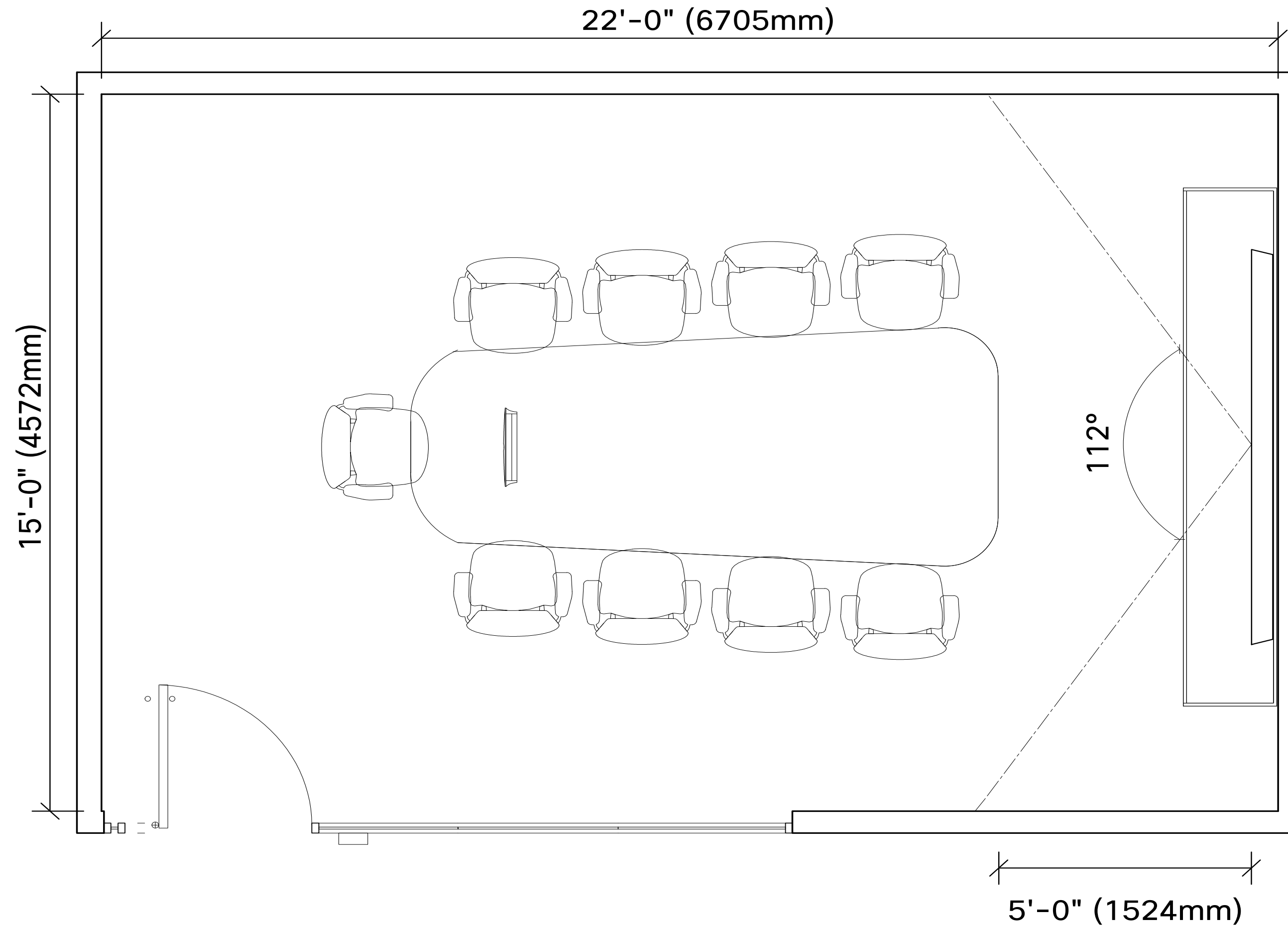


# Room Layout



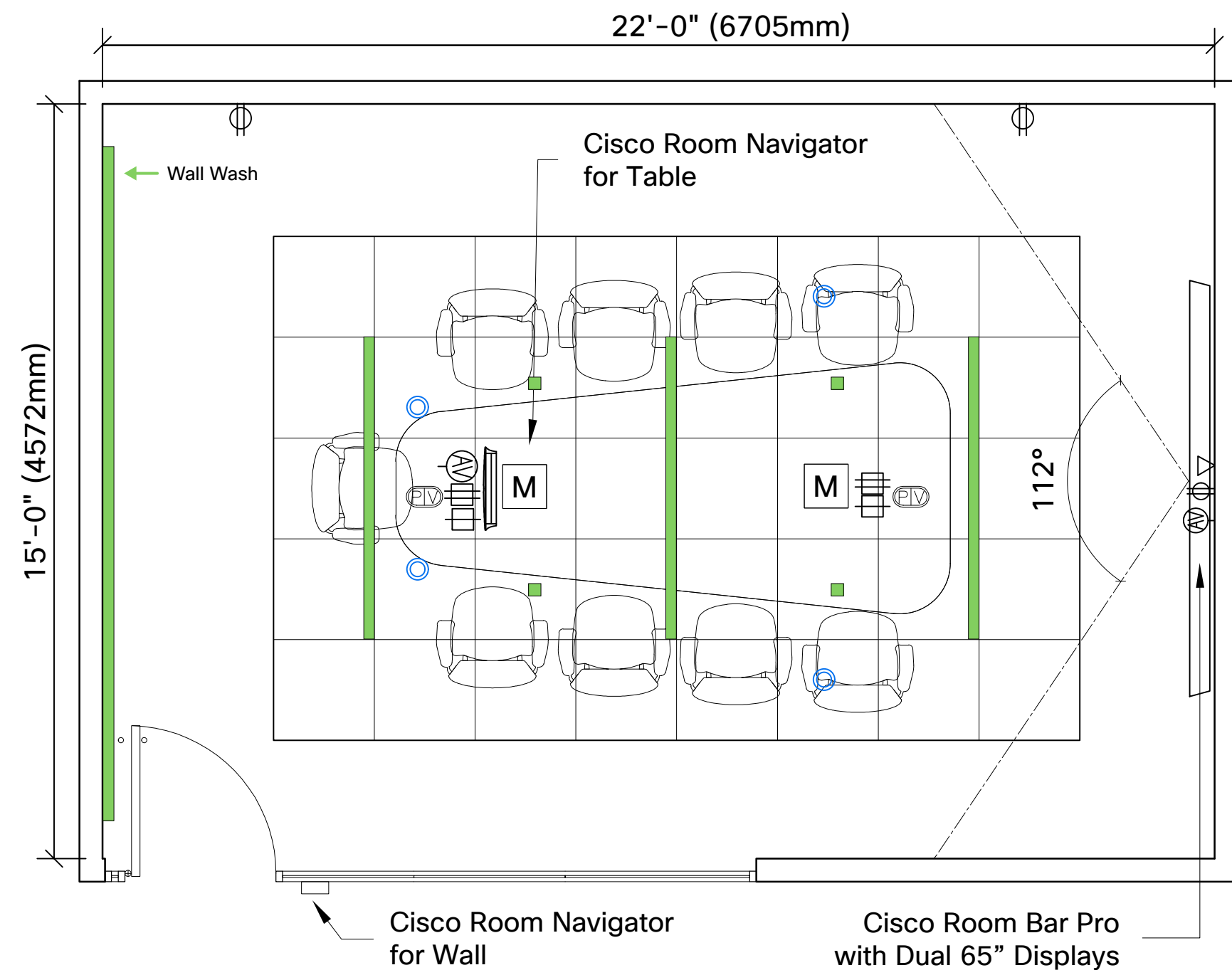
Room dimensions shown are the minimal size, based on the technology and furniture options shown.

With the 112 degree field of view (FoV) of the Cisco Room Bar Pro, the table setback from display can be reduced to 4'-0" (1219 mm), this would reduce overall room length to 21'-0" (6400 mm).

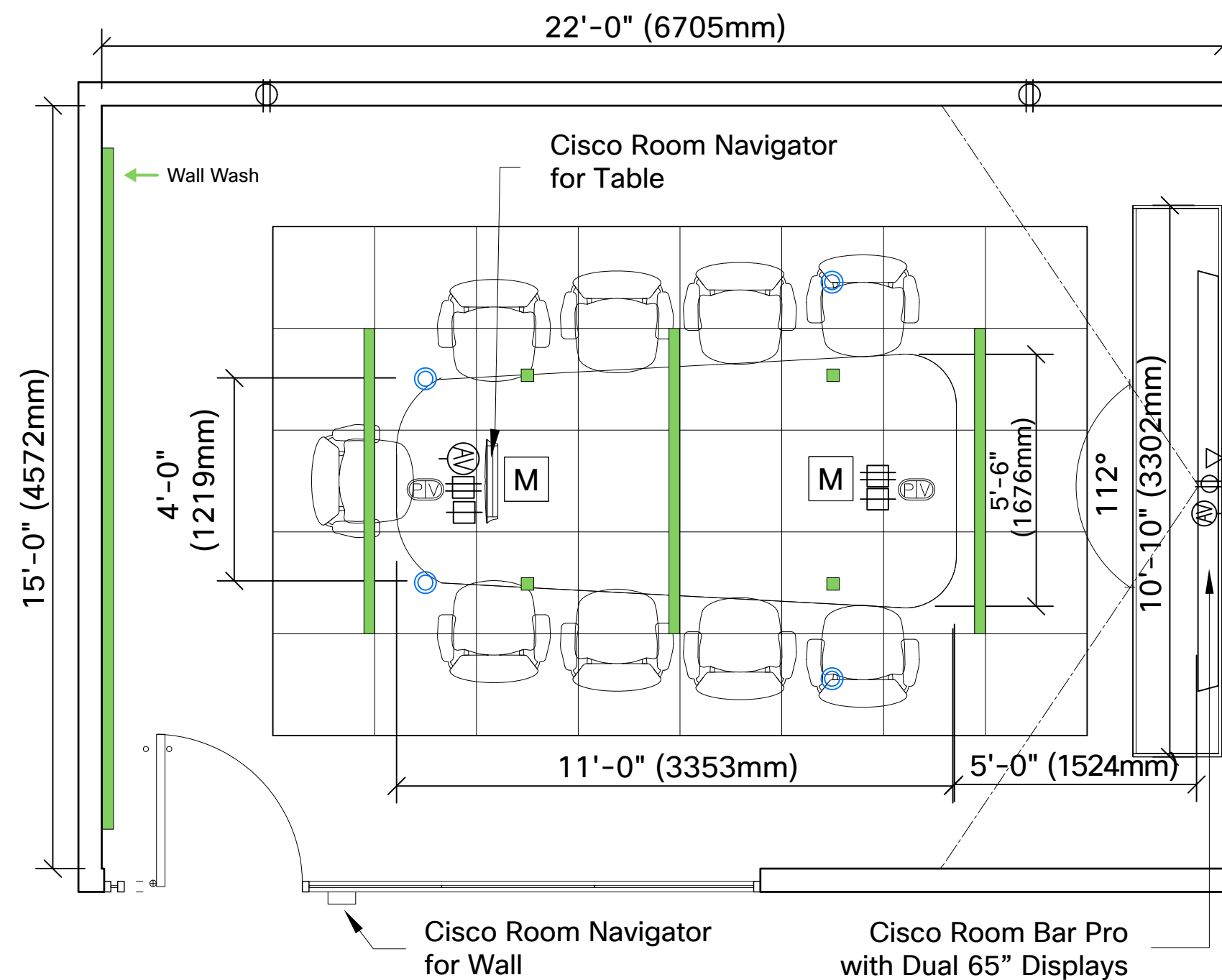


# Composite Plan

## Option 1: Wall Mount



## Option 2: Credenza Option



## Graphics Symbols

- Acoustical Ceiling & Grid
- HVAC Diffusers (T.B.D.)  
Shown as Example Only
- Light Fixtures
- Acoustical Wall
- Furniture Systems Version Devices**
  - Duplex Receptacle & Grid
  - Data Receptacle
- Power and Communication**
- WALL / CEILING / FLOOR VERSION DEVICES**
  - Third Party Speakers (Optional)
  - Duplex Receptacle
  - Data Receptacle
  - Light Switch
  - AV Receptacle
  - Table Version Microphone
  - Combination Power & Voice / Data Infeed



# Video Device Mounting Options

## Option 1 Cisco Room Bar Pro

There are two mounting options for the device when deploying the Cisco Room Bar Pro. Several factors will go into determining which option is best.

## Option 1a Wall Mount

Wall Mounted – Requires wall to be blocked and electrical and data to be elevated. Specific wall mount hardware must be determined based on the weight of the displays that are selected.



## Option 1b Credenza

A/V compatible credenza – Freestanding and fully integrated cabinets available from a number of specialized vendors eliminate the requirement for the wall to be blocked and electrical moved. Perfect for new and retrofit installations, allowing for quick and efficient installation.



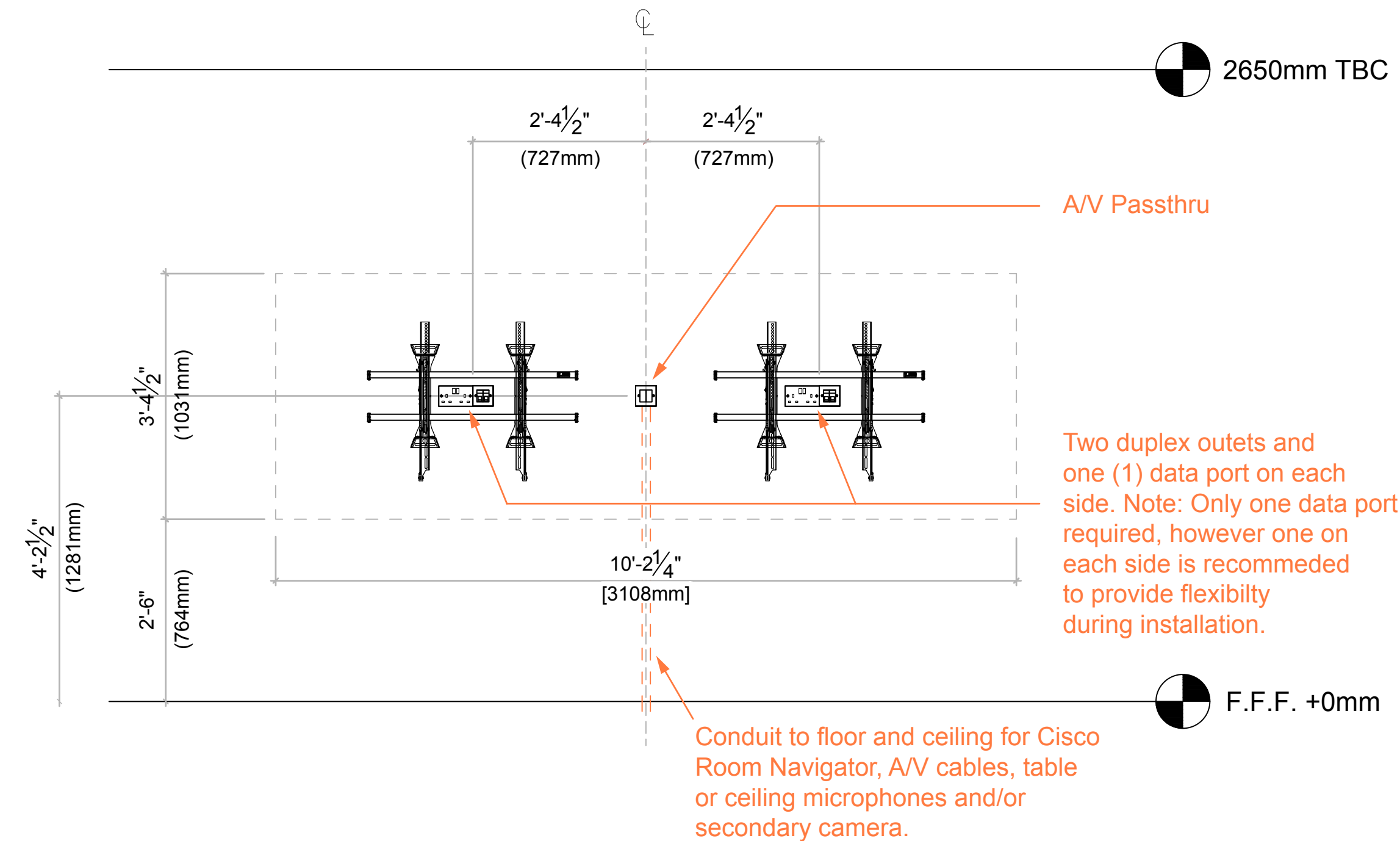


# Room Elevations

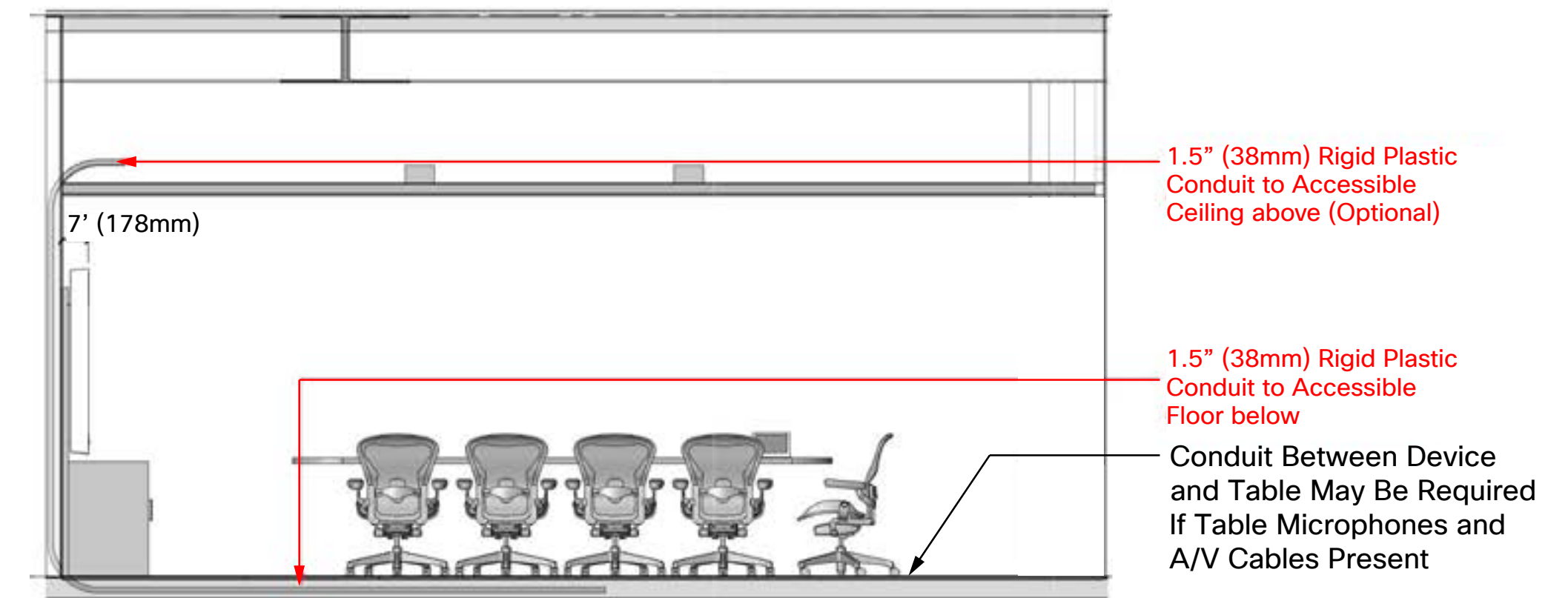


## Cisco Room Bar Pro - Wall Mount

### Electrical Elevation



### Side Elevation



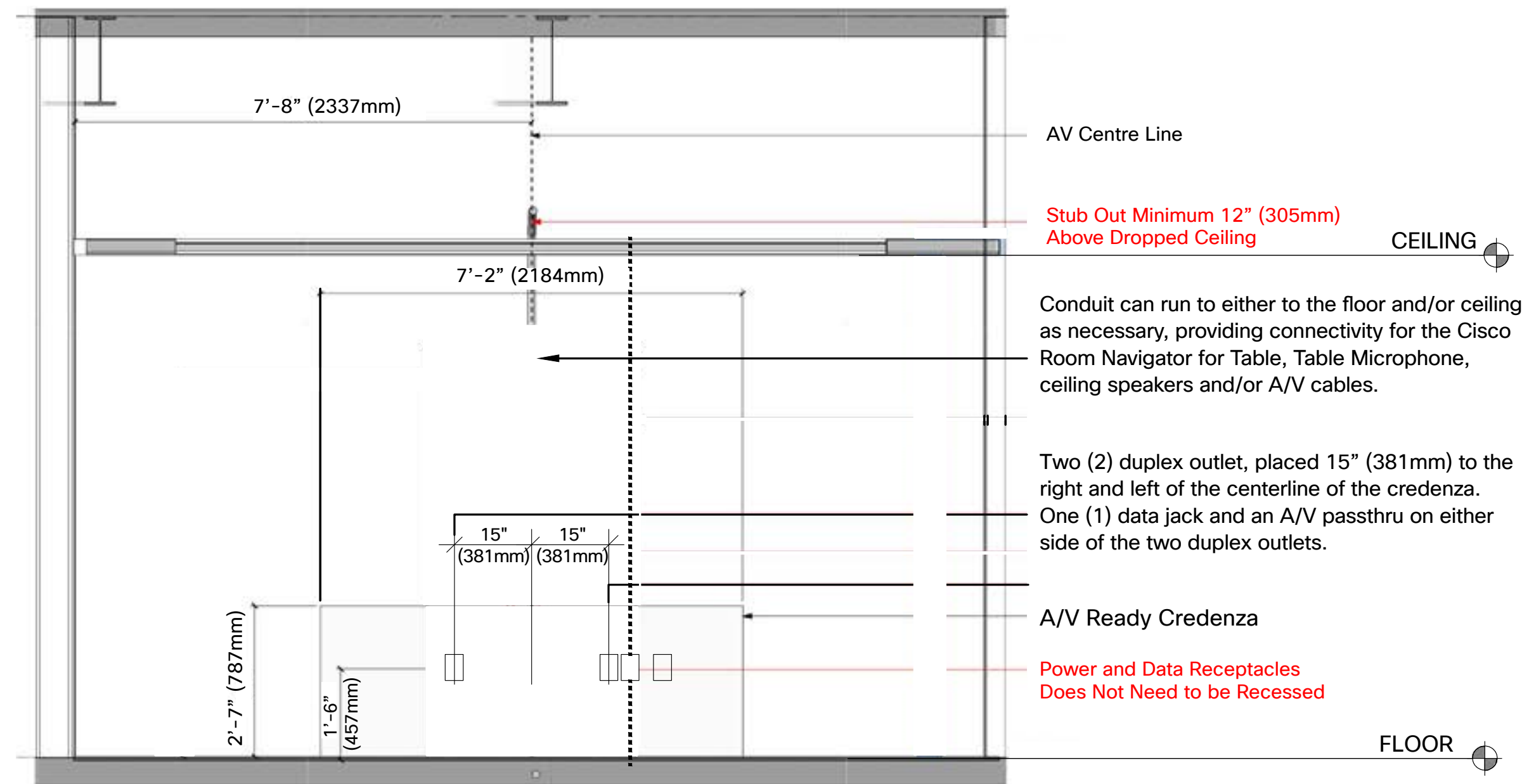


# Room Elevations

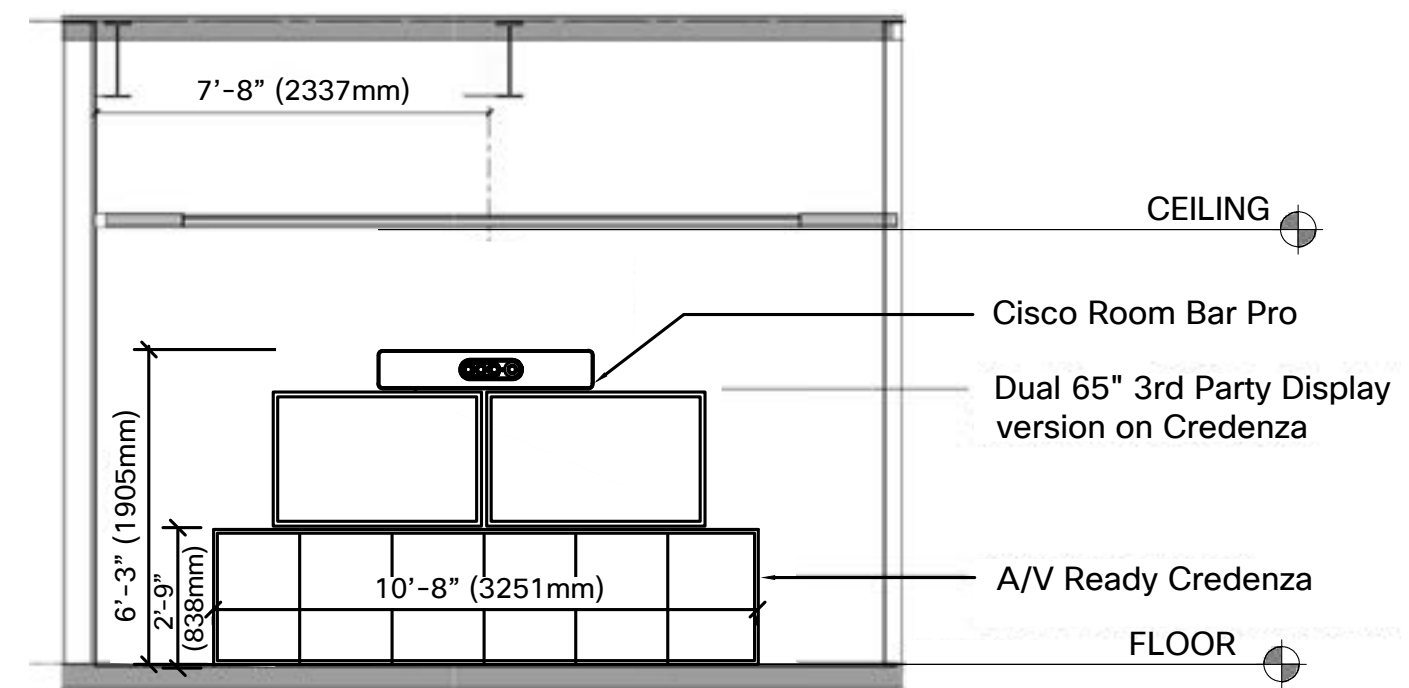


## Cisco Room Bar Pro - A/V Credenza

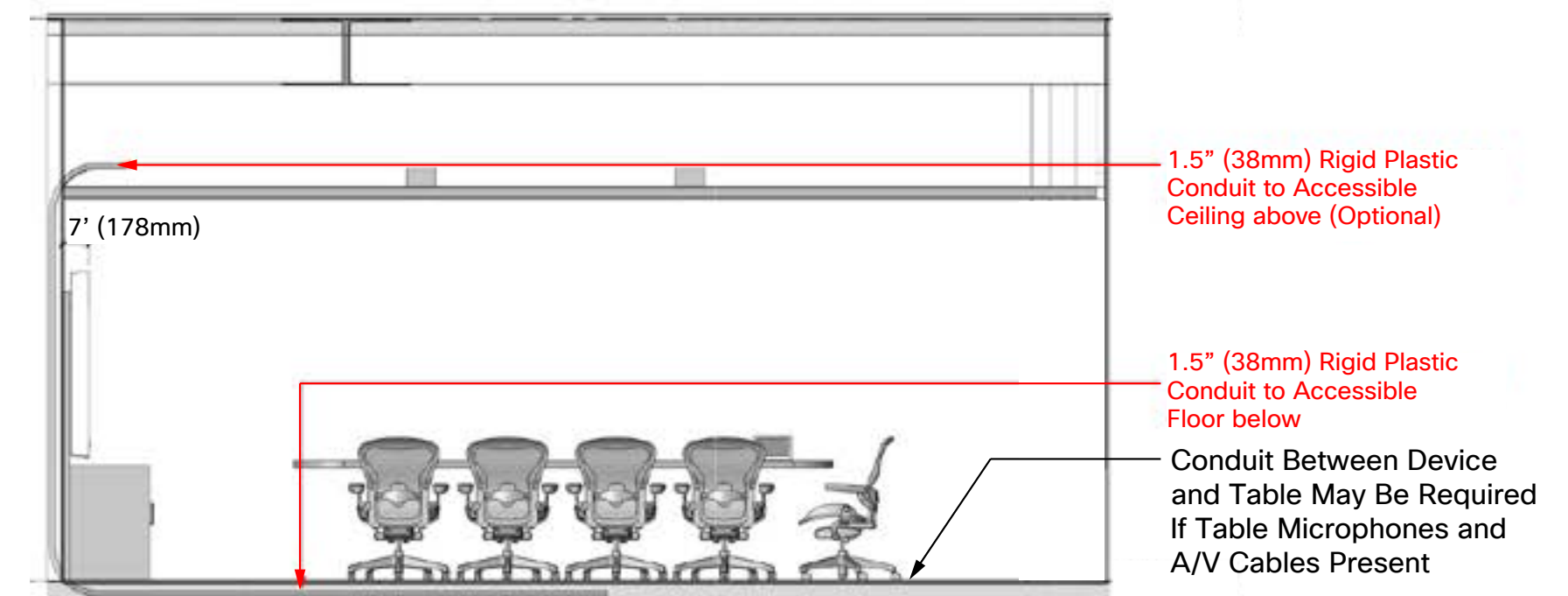
### Conduit Elevation



### Front Elevation



### Side Elevation

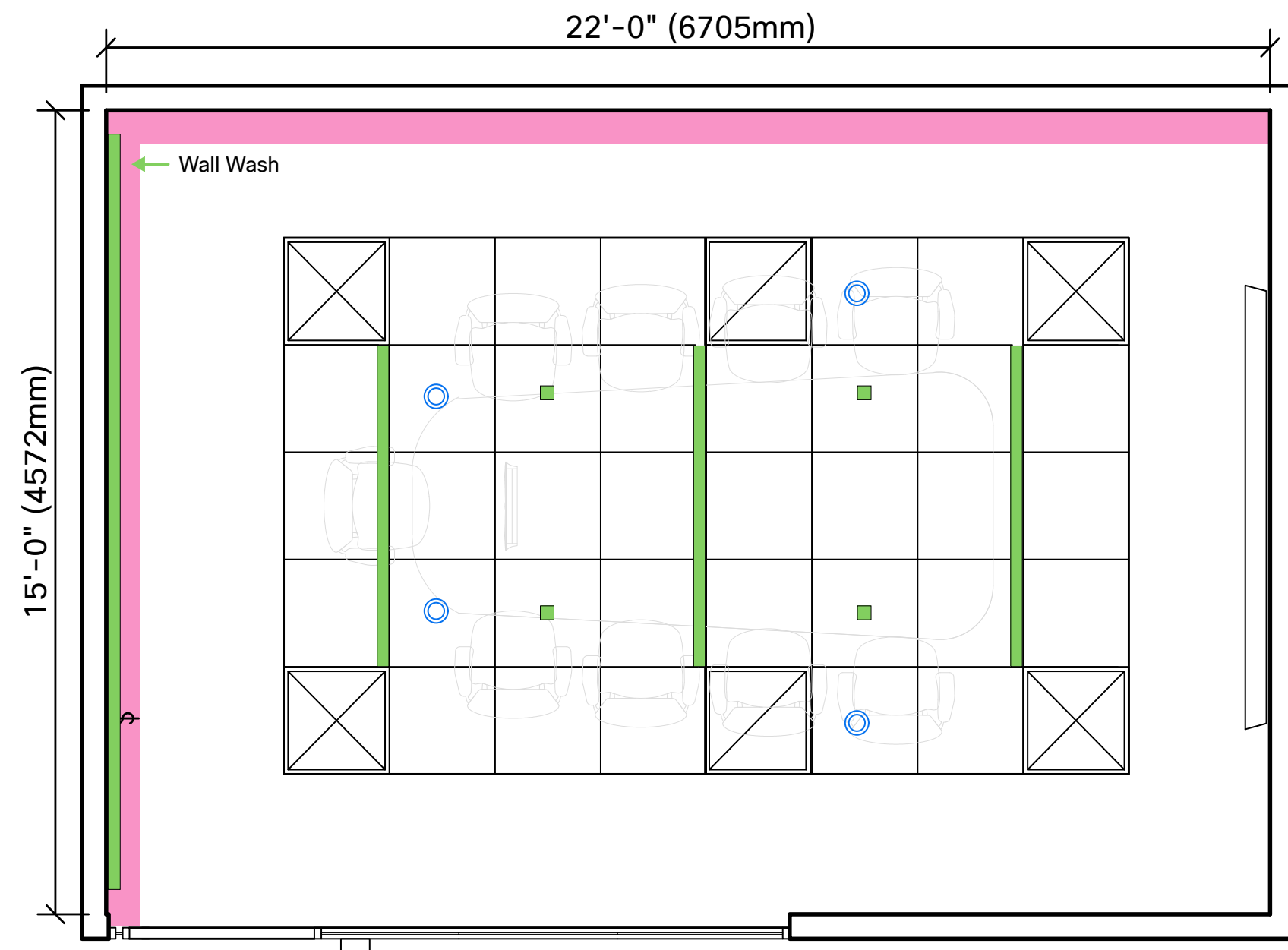


Note: Configuration shown mounts video device and displays directly on an AV ready credenza. If wall version, the location of the power, data and AV passthru would need to be modified.

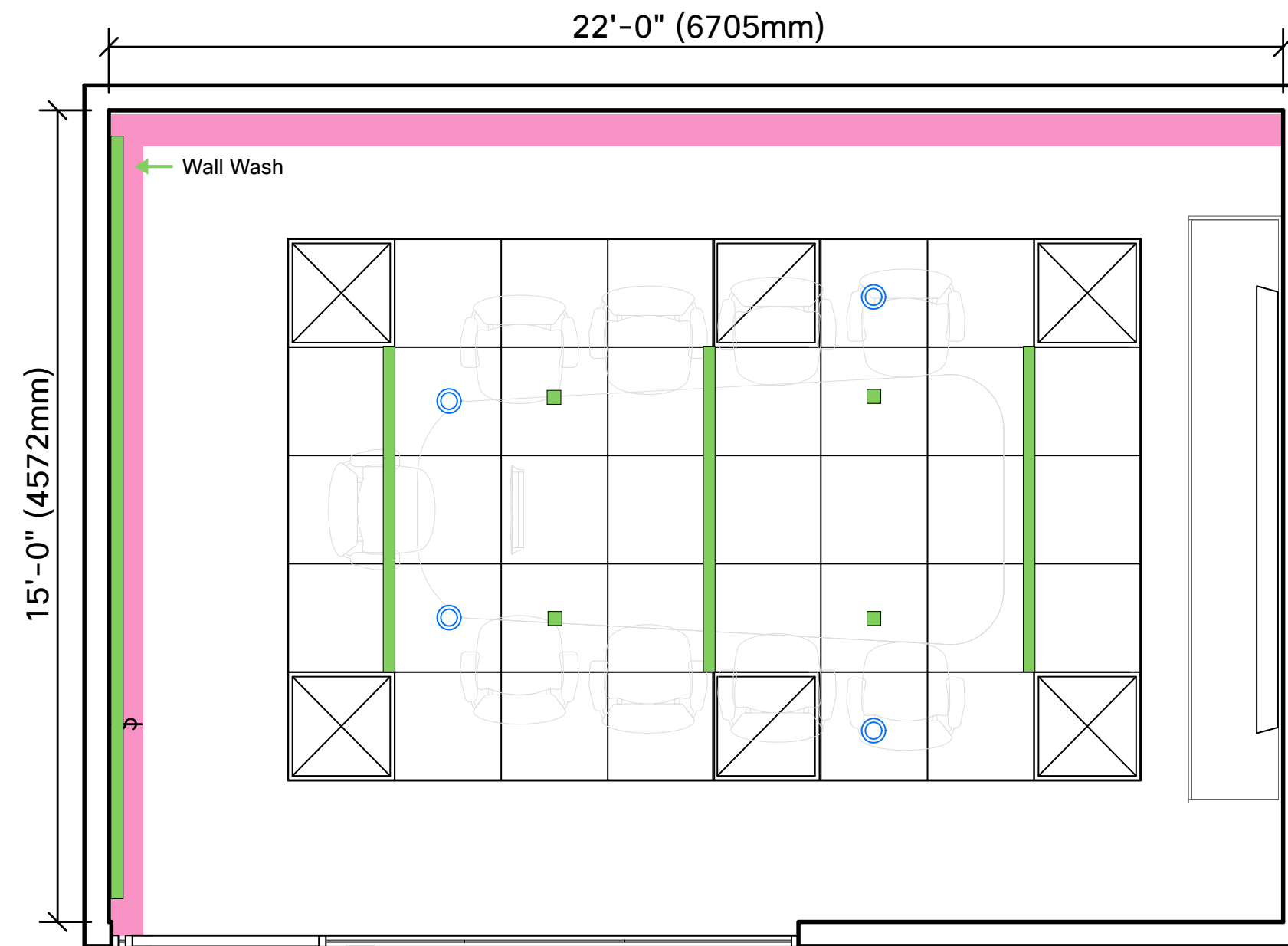


# Reflective Ceiling Plan & Acoustical Treatment

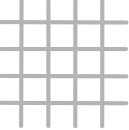







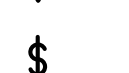

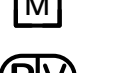


## Option 1: Wall Mount



## Option 2: Credenza Option



## Graphics Symbols

-  Acoustical Ceiling & Grid
-  HVAC Diffusers (T.B.D.)  
Shown as Example Only
-  Light Fixtures
-  Acoustical Wall
- Furniture Systems Version Devices**
-  Duplex Receptacle & Grid
-  Data Receptacle
- Power and Communication**
- WALL / CEILING / FLOOR VERSION DEVICES**
-  Third Party Speakers (Optional)
-  Duplex Receptacle
-  Data Receptacle
-  Light Switch
-  AV Receptacle
-  Table Version Microphone
-  Combination Power & Voice / Data Infeed

● We recommend glare-free luminary with a beam angle of 90° or wider as it serves as both key and fill light, with a color temperature ~4000K and color rendering index (CRI) of 85 or better.

● Two walls of acoustical wall treatment is optimal, preferred location is wall opposite device and then adjoining, away from entry location.



# Power & Data

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## General Specifications

Power/data requirements need to be verified for each project. Provide video device power/data even if the project plan does not include it on day one. Based on the design of this space, core drills and floor boxes will be required.

## Power & Data

Provide one (1) LAN/Ethernet jack and two (2) duplex outlets on the wall behind the Cisco Room Bar Pro (a second ethernet port can be added for redundancy/future use). Exact location for both will depend on the mounting option chosen. Suggested locations can be found in the elevations section of this document, but exact location should be verified with the mount manufacturer or the A/V partner doing the install.

## Power in Tabletop

User power should be surface mounted in the tabletop. If pop-ups or table wells are used, it is important to verify that they can accommodate all laptop power supplies. Provide shared power – 1 power port for every two seats.



# Exploded IT Diagram



### Cisco Room Navigator for Table (required)

The recommended approach is to connect the table stand Cisco Room Navigator directly to the Cisco Room Bar Pro using a network cable. The two can also be connected over the IT network if an ethernet port is available under the table.

### Cisco Room Navigator for Wall

It is recommended to run the cable inside the wall or through the door frame directly back to a network switch.

### Cisco Table Microphones

Although not technically required for a room of this size, they are highly recommended. Microphone extension cables may be needed if the run between table and device exceeds length of the cable that is provided with each microphone.

### Third-party Speakers

Although not typically required for this space, they can be used if local conditions warrant. (Requires conduit behind device to ceiling.)

### Table Top Charging

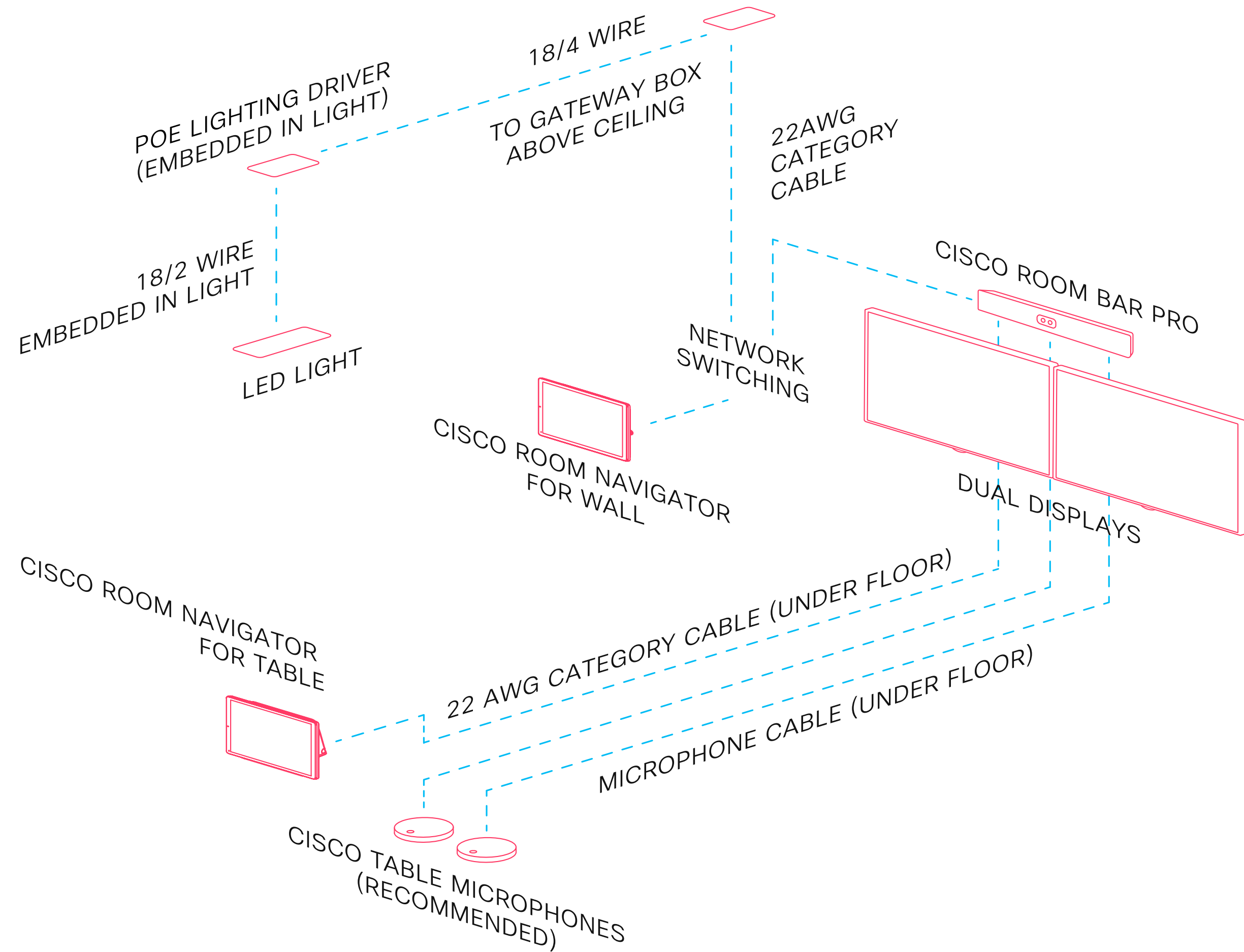
USB-C charging and convenience outlets on table top. Ensure the size of the trough and layout can accommodate a variety of laptop power supplies.

### Wall Blocking

Required when the device is wall-mounted. The size and composition of blocking materials should be determined based on the overall weight of the solution deployed.

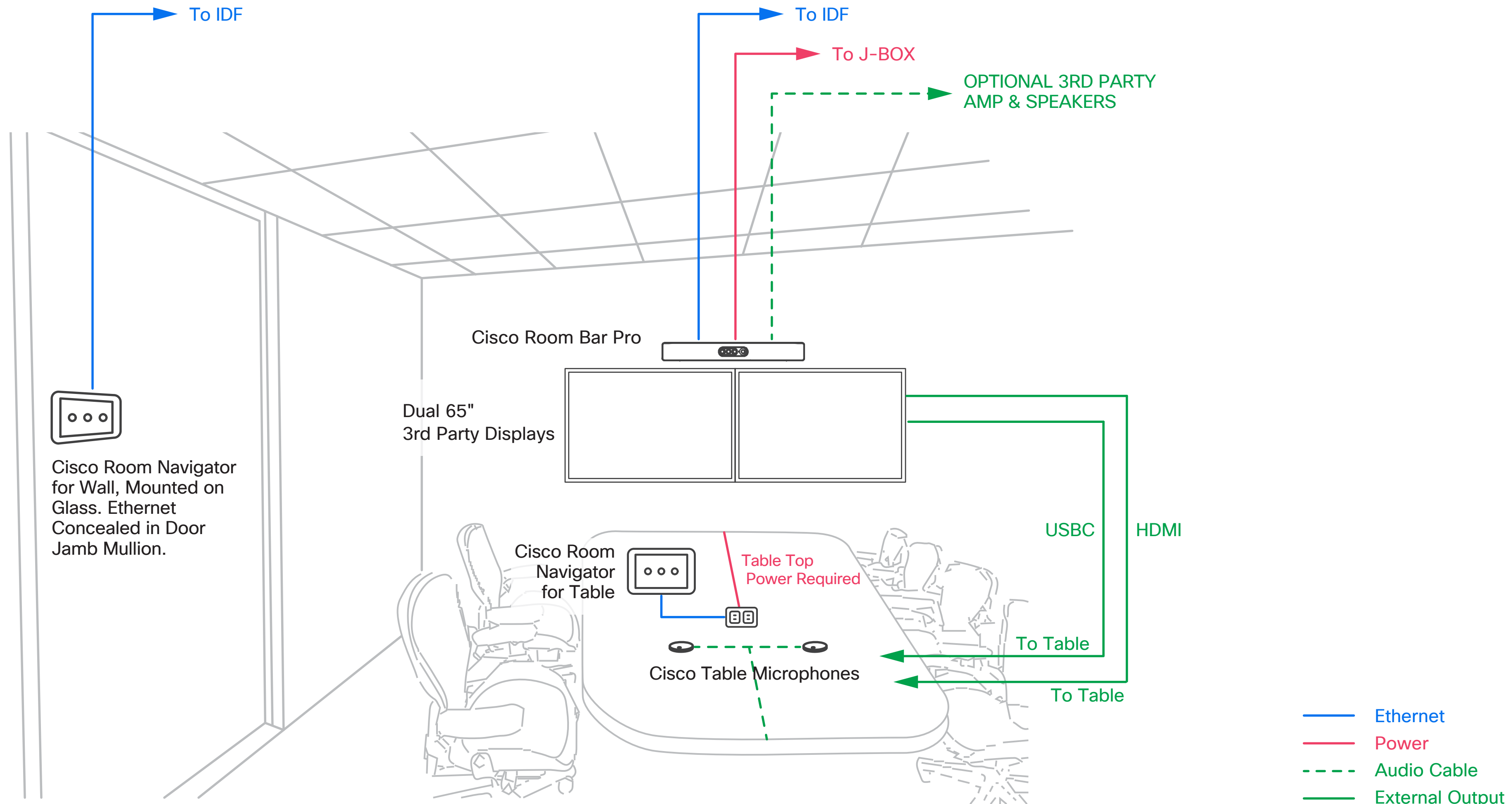
### Core Drilling

Core Drill-Preferred method for providing connectivity between the table and the Cisco Room Bar Pro for the Cisco Room Navigator for Table, Cisco Table Microphones and/or A/V cables. If core drilling is not an option, a floor cable cover or wire concealer can be used.





# Connectivity View



# IT/OT Bill of Material

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## Cisco Products

### Cisco Room Bar Pro Option:

- **CS-BARPRO-C-K9.** Cisco Room Bar Pro - Carbon Black (with Cisco Room Navigator for Table, mounting kit and accessories)
  - **CS-MIC-TABLE-J** Cisco Table Microphone (Qty 2)
  - **CS-T10-WM-K9=** Cisco Room Navigator for Wall
- 

## Non-Cisco peripherals

- Dual 65" Video Displays
  - Third-party wall mount or AV-ready credenza
- 

## IOT Devices

- IAQ coming from the Cisco Room Navigator, No additional IoT IAQ
  - Occupancy sensing is coming from the Cisco Endpoints
  - Suggested lighting specifications: 220LPW raw, 140LPW delivered
  - Each Medium Collaboration room POE lights being power by 4 ports on the ceiling
  - Traditional DC Wall Switch
  - Ensure device is not connected to ASHRAE 90.1 outlet
- 

## External microphones and speakers

- The Cisco Room Bar Pro is equipped with an internal microphone array and is optimized for small to medium sized collaboration spaces, thus external microphones are not technically required if people are seated within 13 feet (4 meters) from the device. That said, we do recommend adding two (2) table microphones to this space to ensure the best audio experience.
  - The Cisco Room Bar Pro has a 3-channel loudspeakers embedded within, third-party external speakers are typically not needed unless room acoustic conditions warrant their use.
-



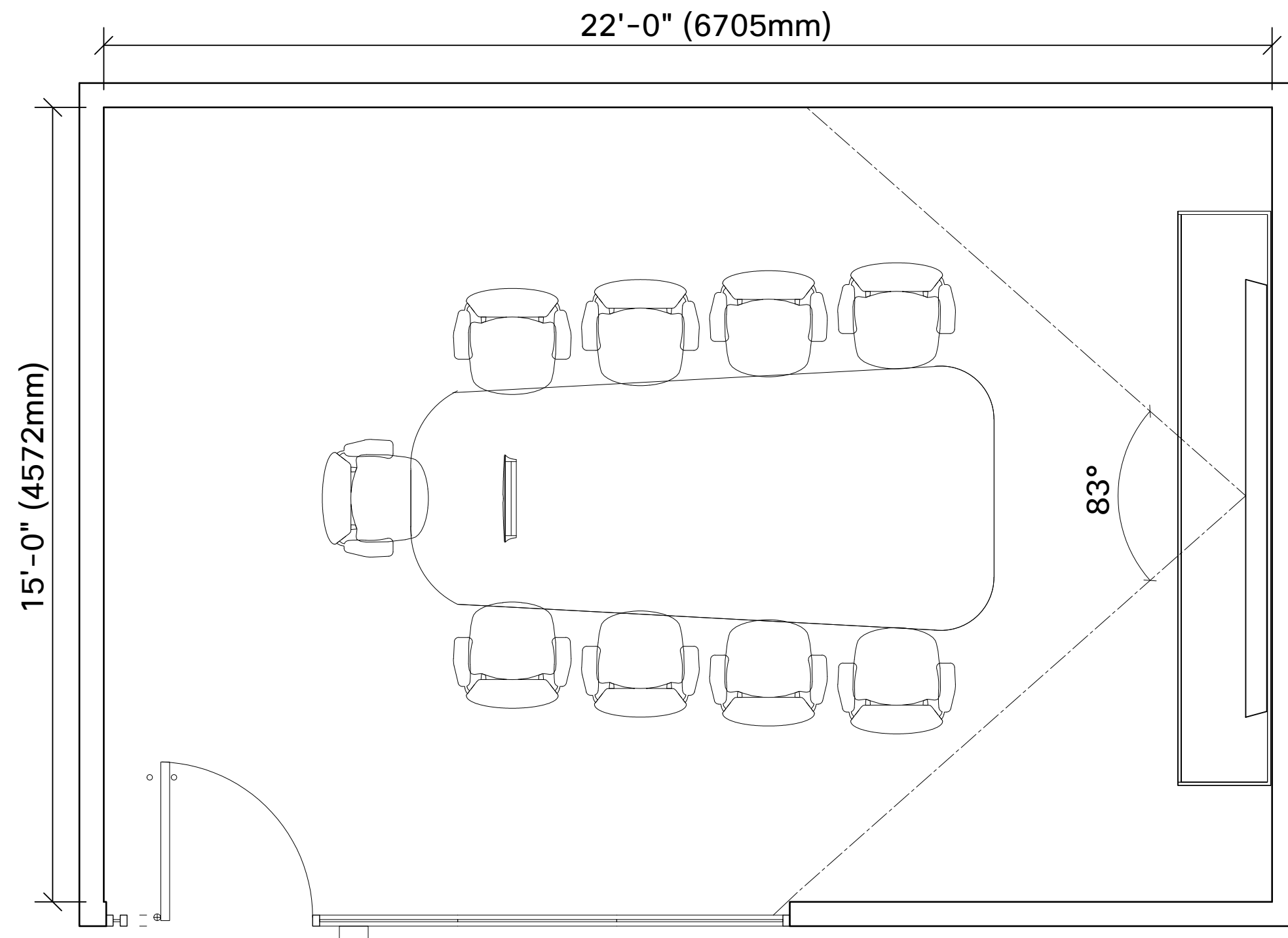
# Option 2: Cisco Room Kit EQX



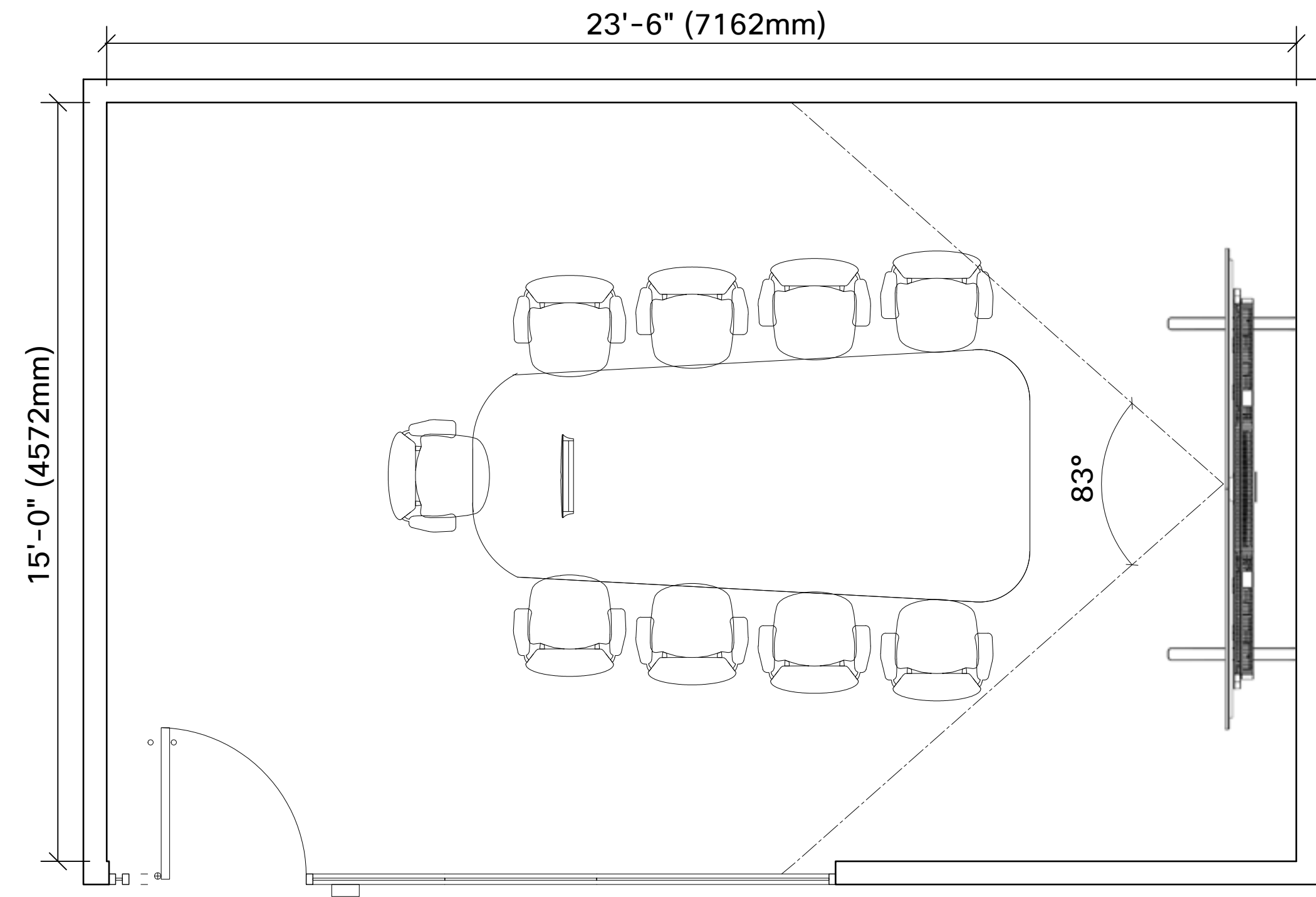


# Room Layout

## Layout Using Wall Mount, Wall Stand, or A/V Credenza



## Layout Using the Cisco EQX Floor Stand



**i** Note: Room dimensions show are the minimal size, based on the technology and furniture options shown.

**i** Note: Room dimensions shown are the minimal size, based on the technology and furniture options shown. The length of this space is slightly larger than what is shown for the Wall Mount, Credenza, and Wall Stand options due to the width of the legs on the Cisco EQX Floor Stand.

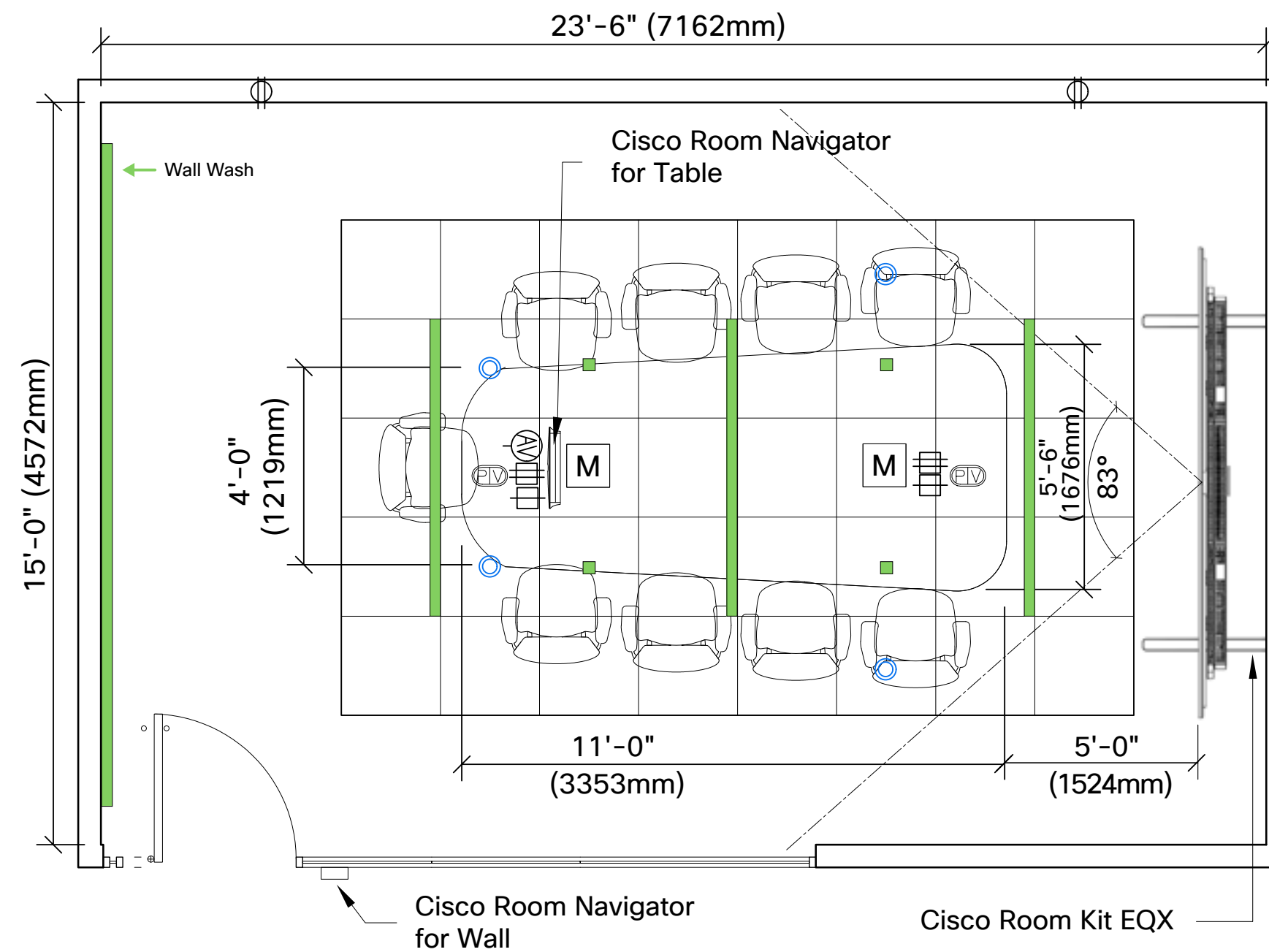
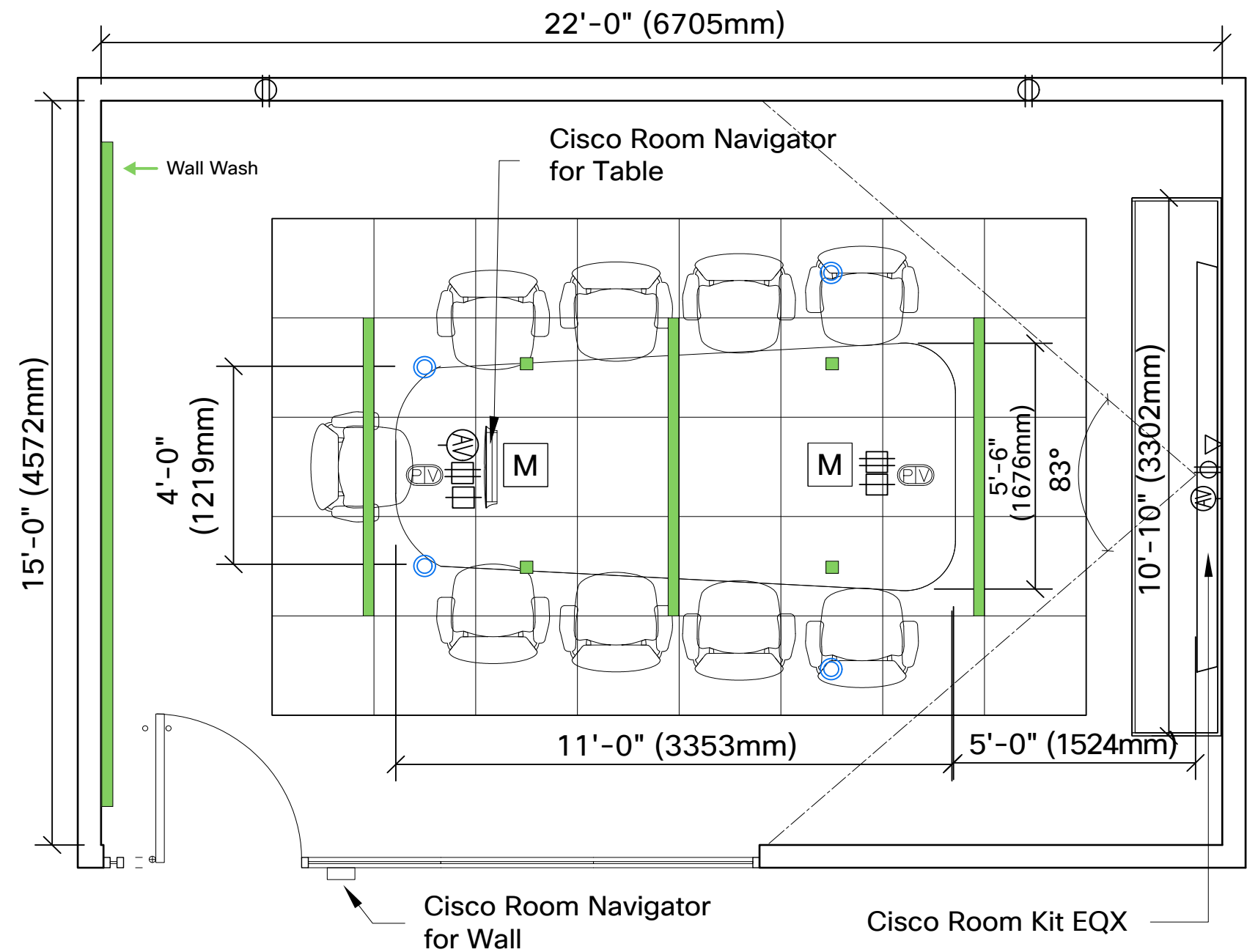


# Composite Plan

## Layout Using Wall Mount, Wall Stand, or A/V Credenza

## Layout Using the Cisco EQX Floor Stand

## Graphics Symbols



- Acoustical Ceiling & Grid
- HVAC Diffusers (T.B.D.)  
Shown as Example Only
- Light Fixtures
- Acoustical Wall
- Furniture Systems Version Devices**
- Duplex Receptacle & Grid
- Data Receptacle
- Power and Communication**
- WALL / CEILING / FLOOR VERSION DEVICES**
- Third Party Speakers (Optional)
- Duplex Receptacle
- Data Receptacle
- Light Switch
- AV Receptacle
- Table Version Microphone
- Combination Power & Voice / Data Infeed

Note: Room dimensions show are the minimal size, based on the technology and furniture options shown.

Note: Room dimensions shown are the minimal size, based on the technology and furniture options shown. The length of this space is slightly larger than what is shown for the Wall Mount, Credenza, and Wall Stand options due to the width of the legs on the Cisco EQX Floor Stand.

# Video Device Mounting Options



## Cisco Room Kit EQX

There are four mounting options for the device when using the Cisco Room Kit EQX in the Medium Collaboration Room - Dual Display. The physical conditions of the space, desired aesthetics, and required amenities will define which solution is most appropriate.



## Wall Mount

Wall Mounted – Requires wall to be blocked and electrical and data to be elevated.



## A/V Credenza

Freestanding – Does not require wall blocking. Perfect for retrofit installations, or when trash, recycling and/or extra storage is required.



## Wall Stand

Wall tethered – An effective solution when the wall is not blocked, but still may require power and data to be relocated.



## Floor Stand

Freestanding – A perfect for retrofits, open area deployments, or when video needs to be installed quickly.



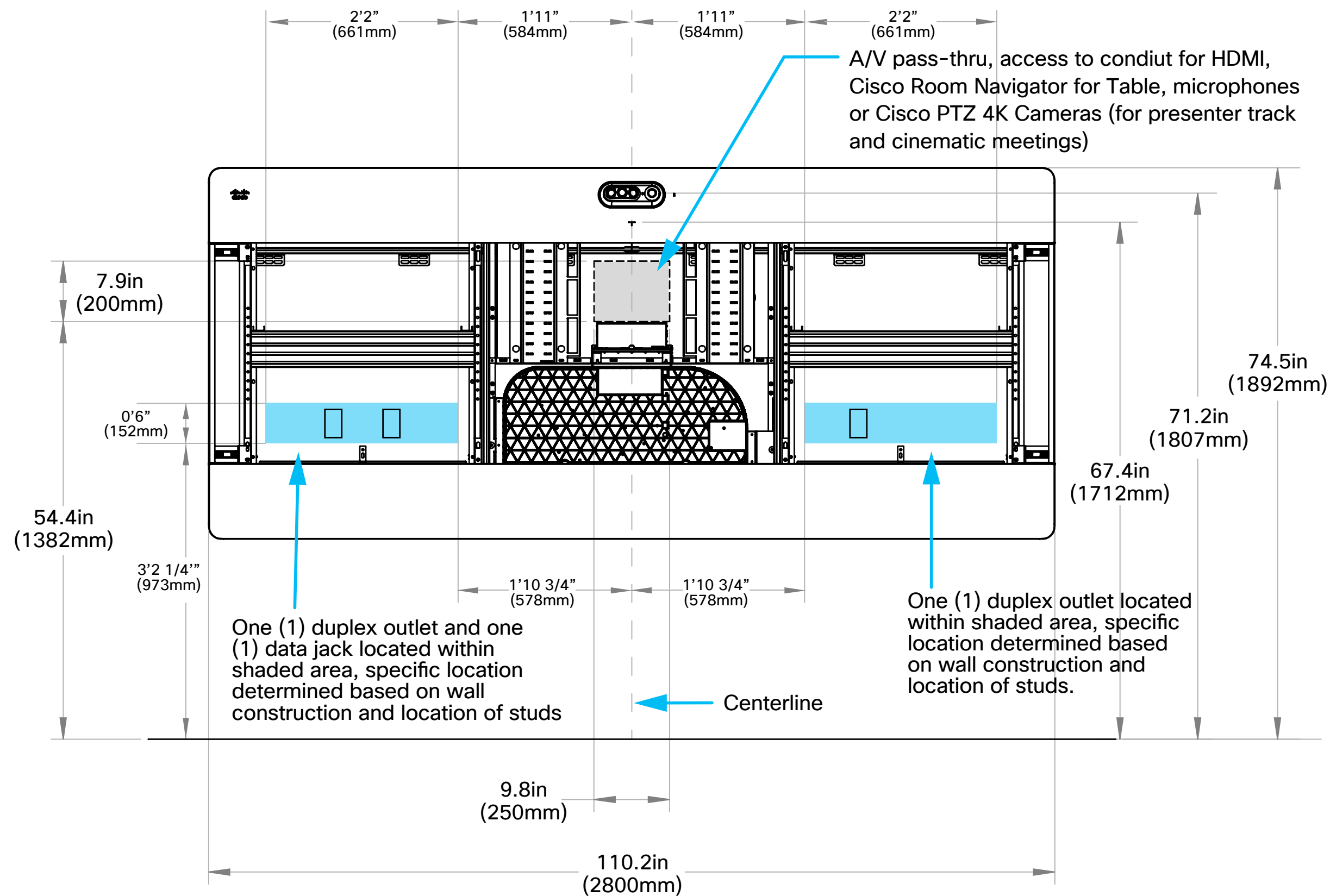


# Room Elevations

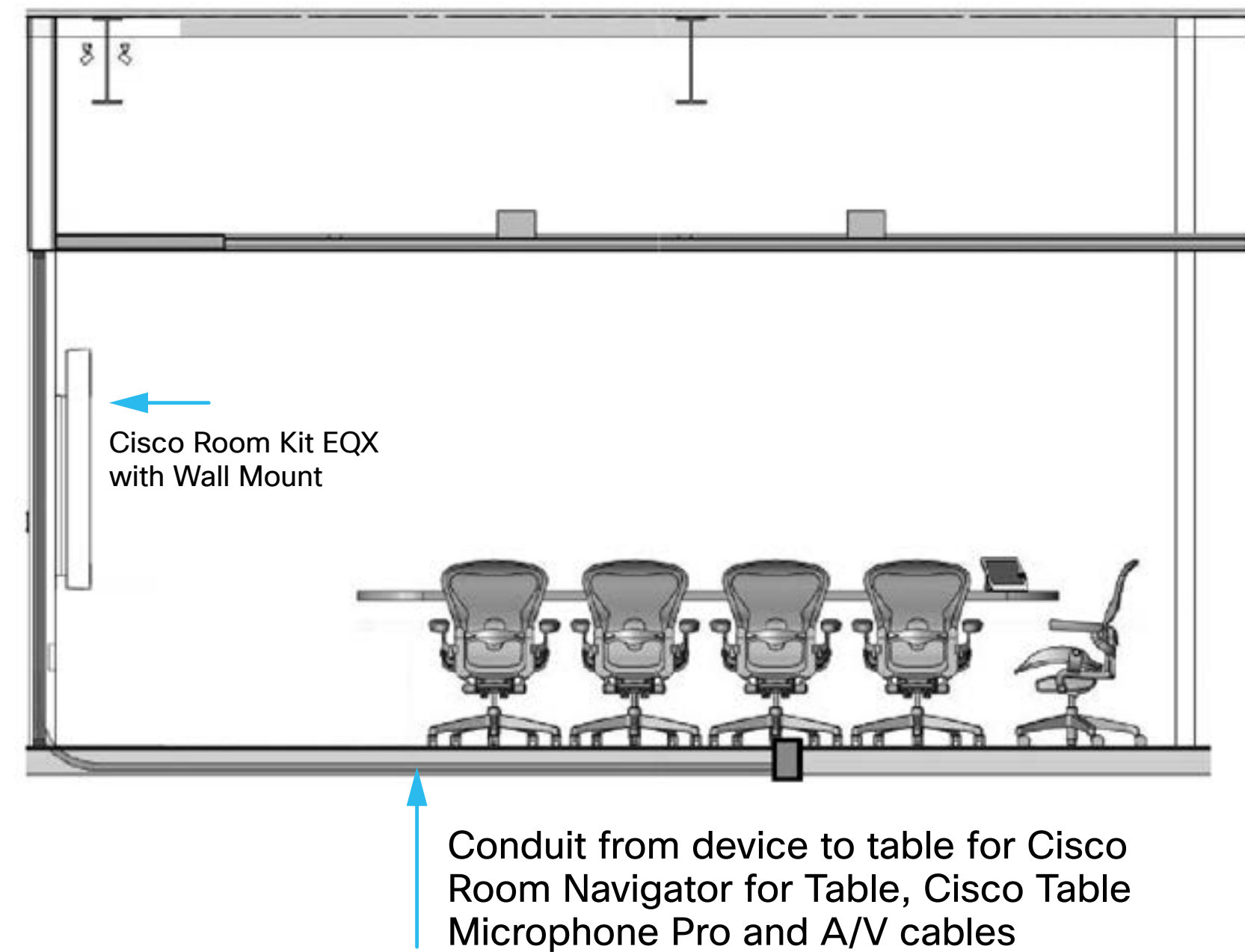


## Cisco Room Kit EQX with Wall Mount

### Front Elevation

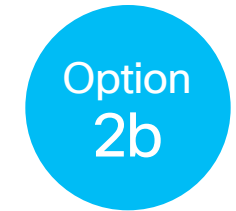


### Side Elevation



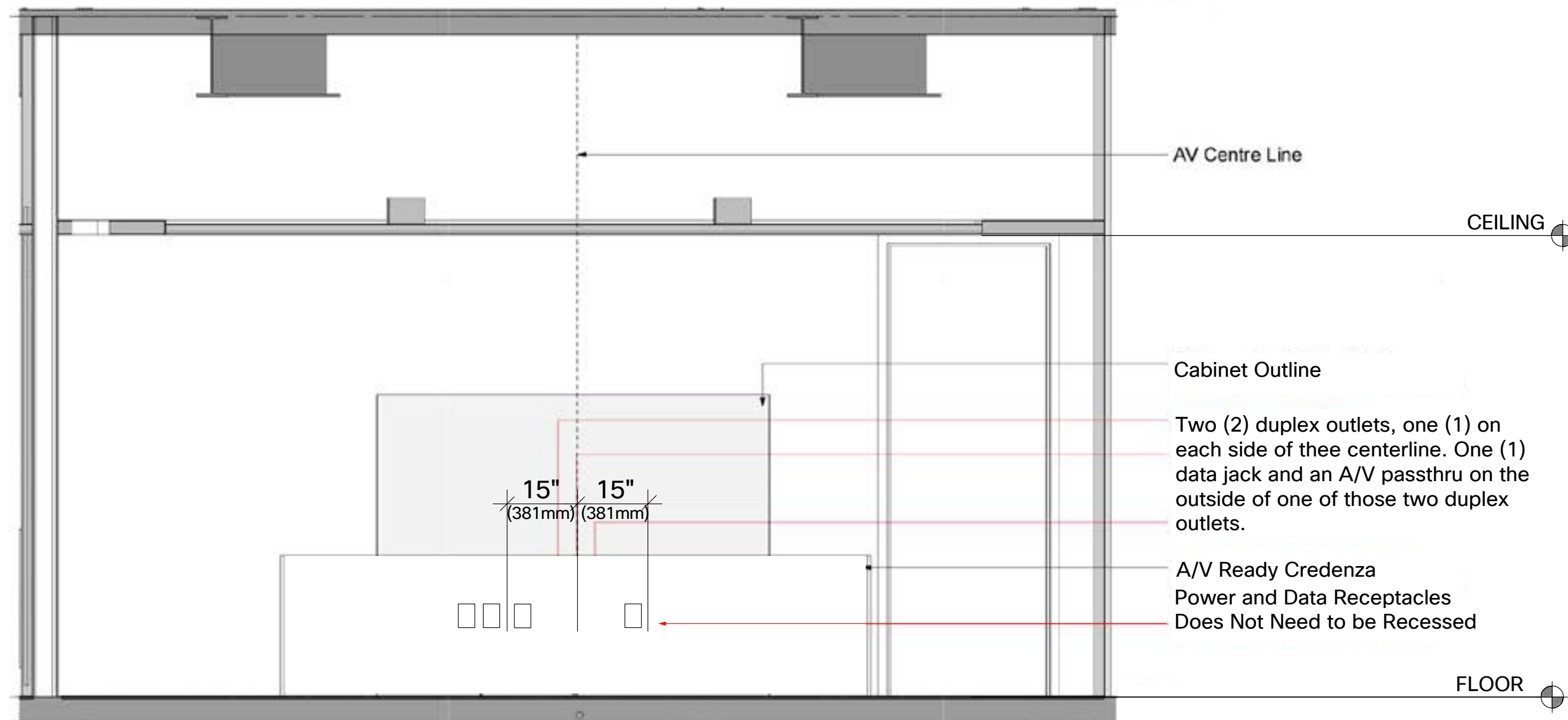
**i** Due to the depth of EQX, furniture, millwork or a cane rail may be required to meet local accessibility codes.

# Room Elevations

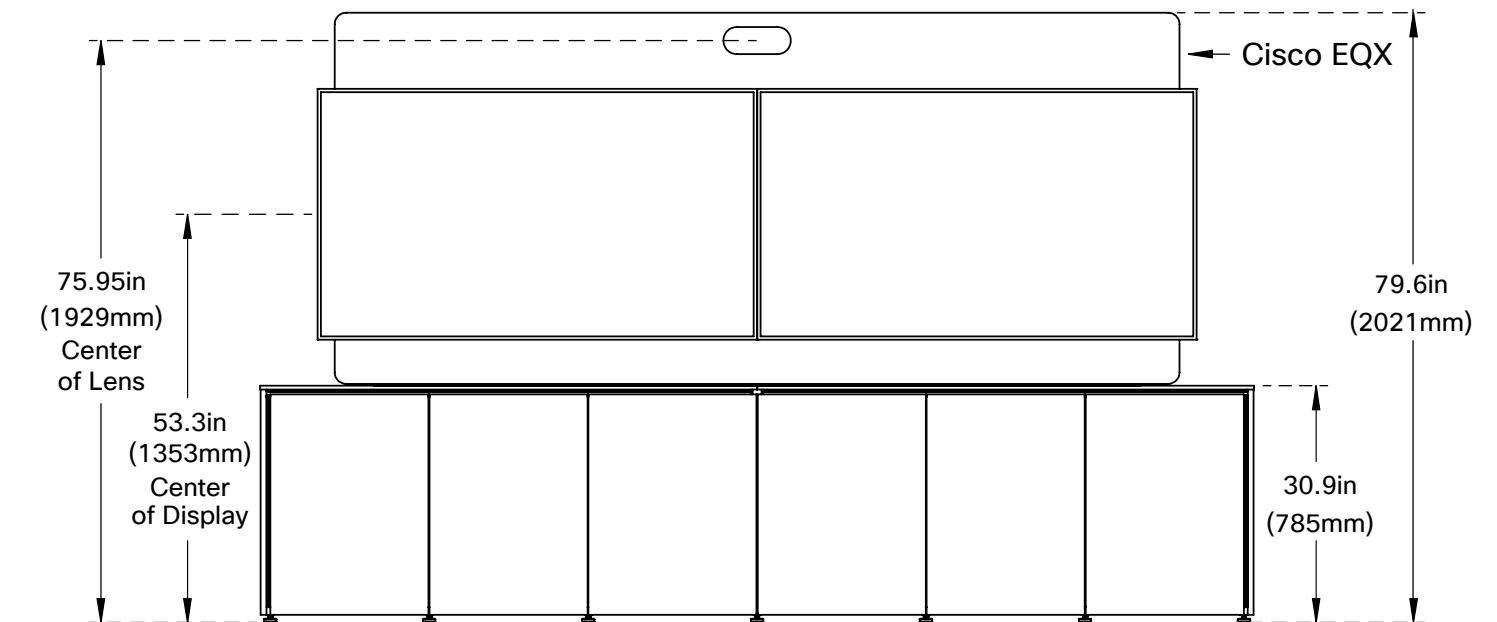


## Cisco Room Kit EQX with A/V Credenza

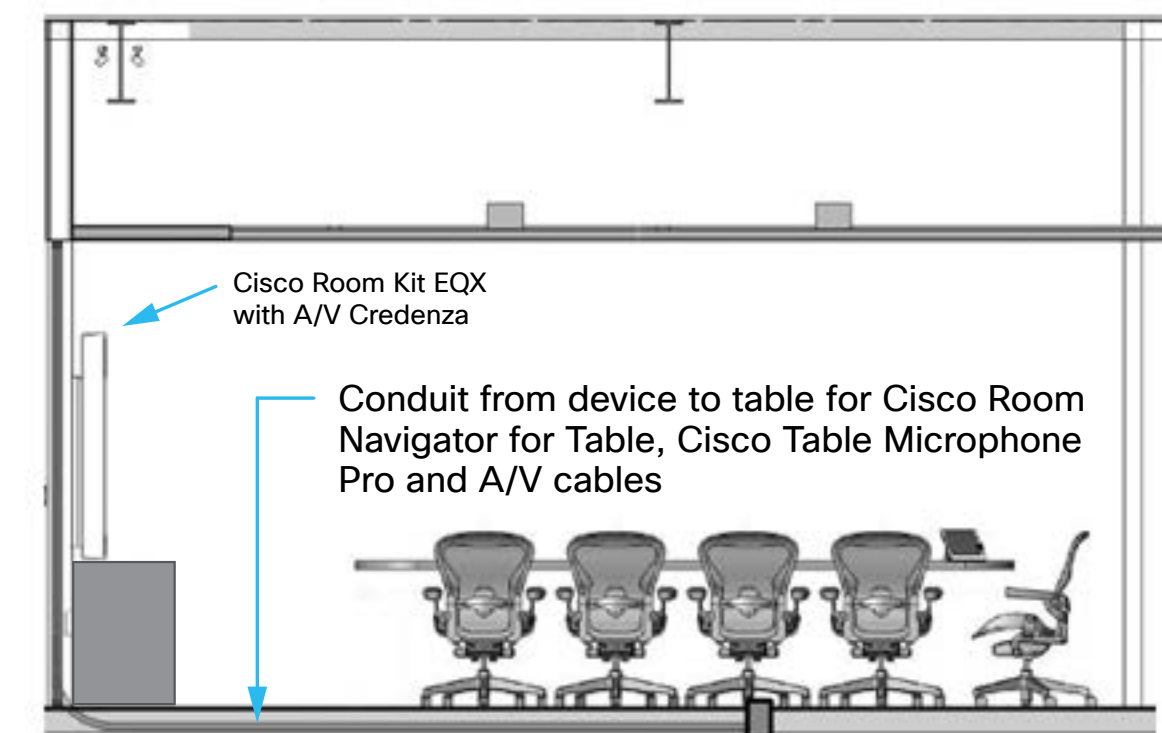
### Conduit Elevation



### Front Elevation



### Side Elevation



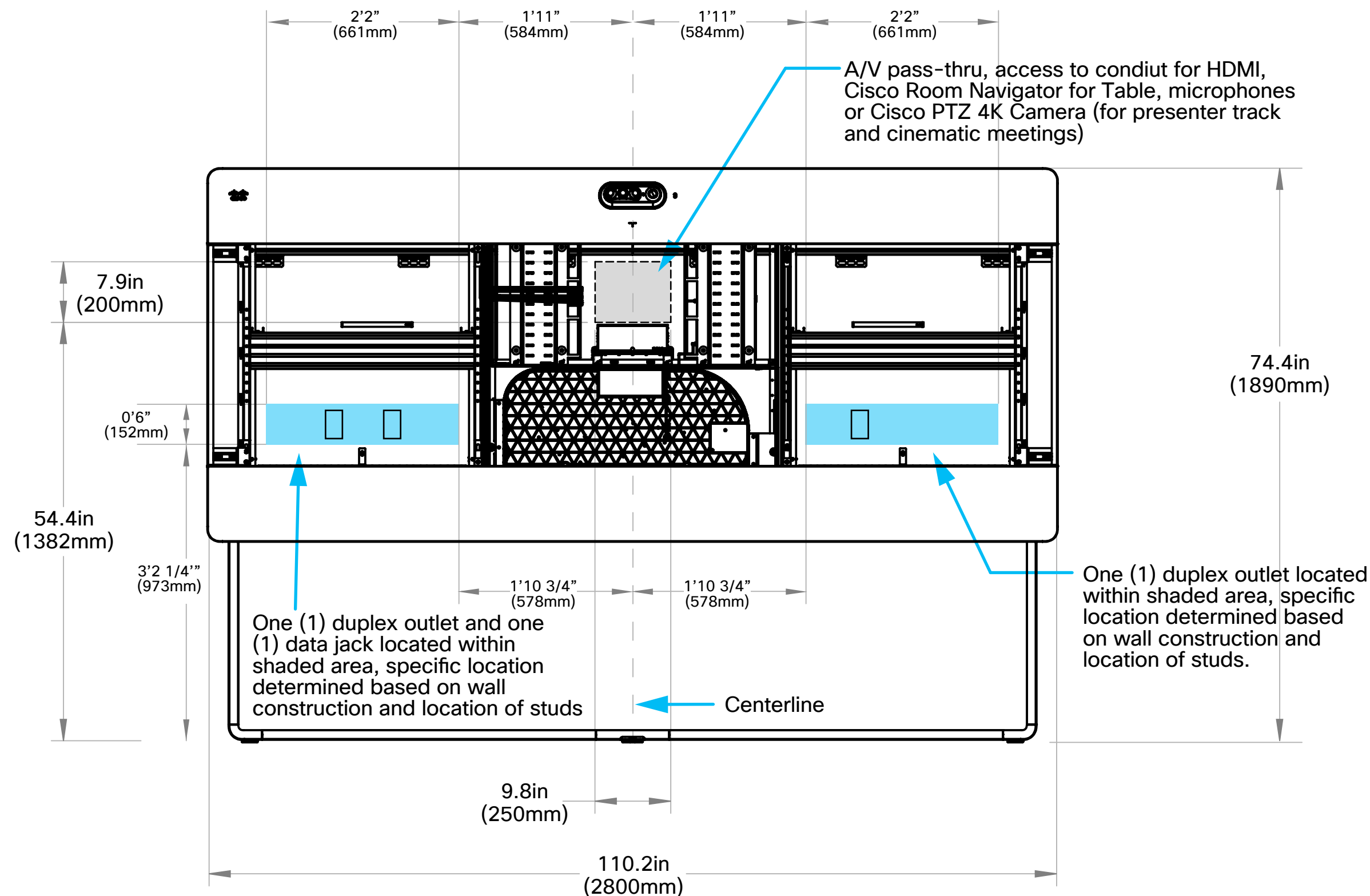


# Room Elevations

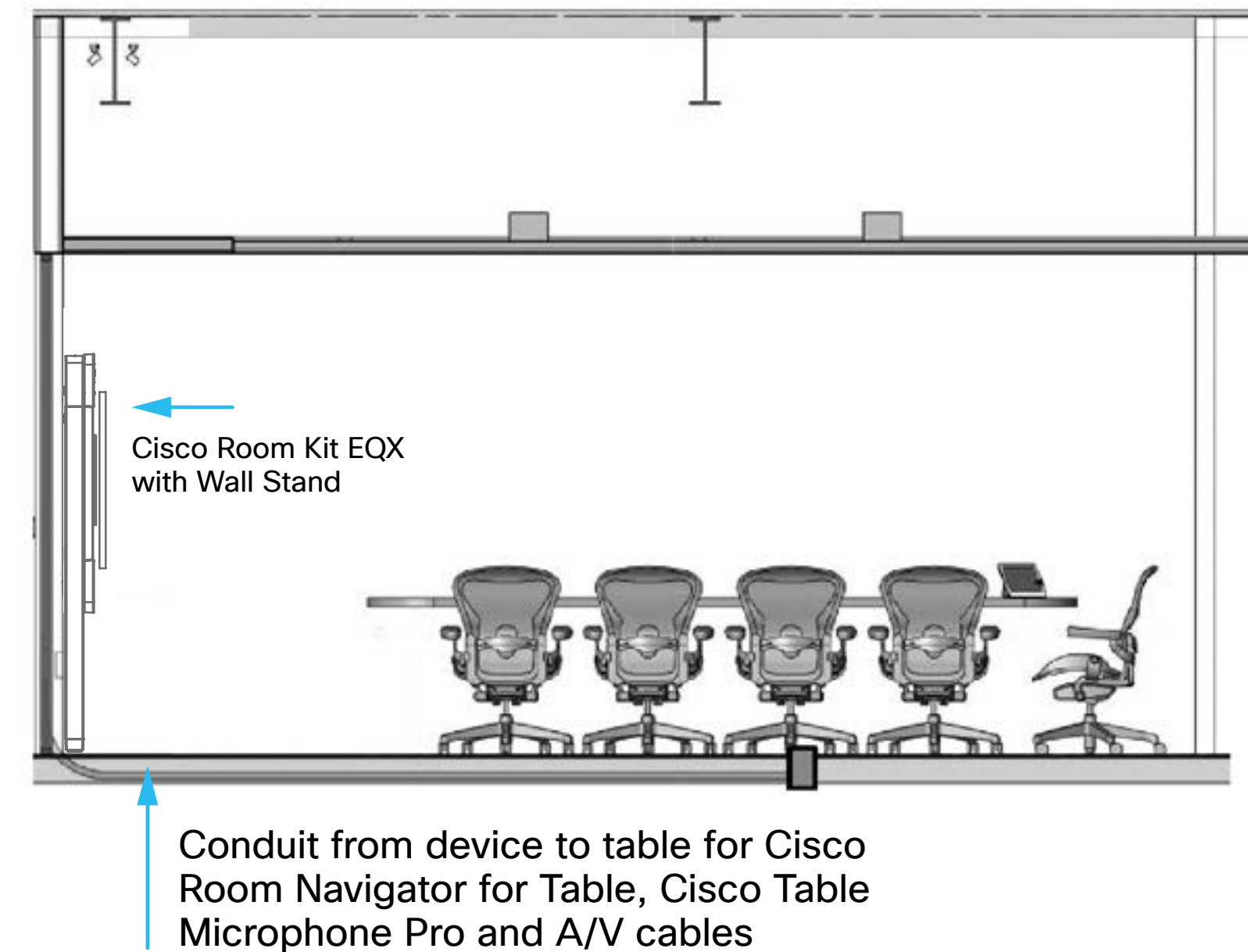


## Cisco Room Kit EQX with Wall Stand

### Front Elevation



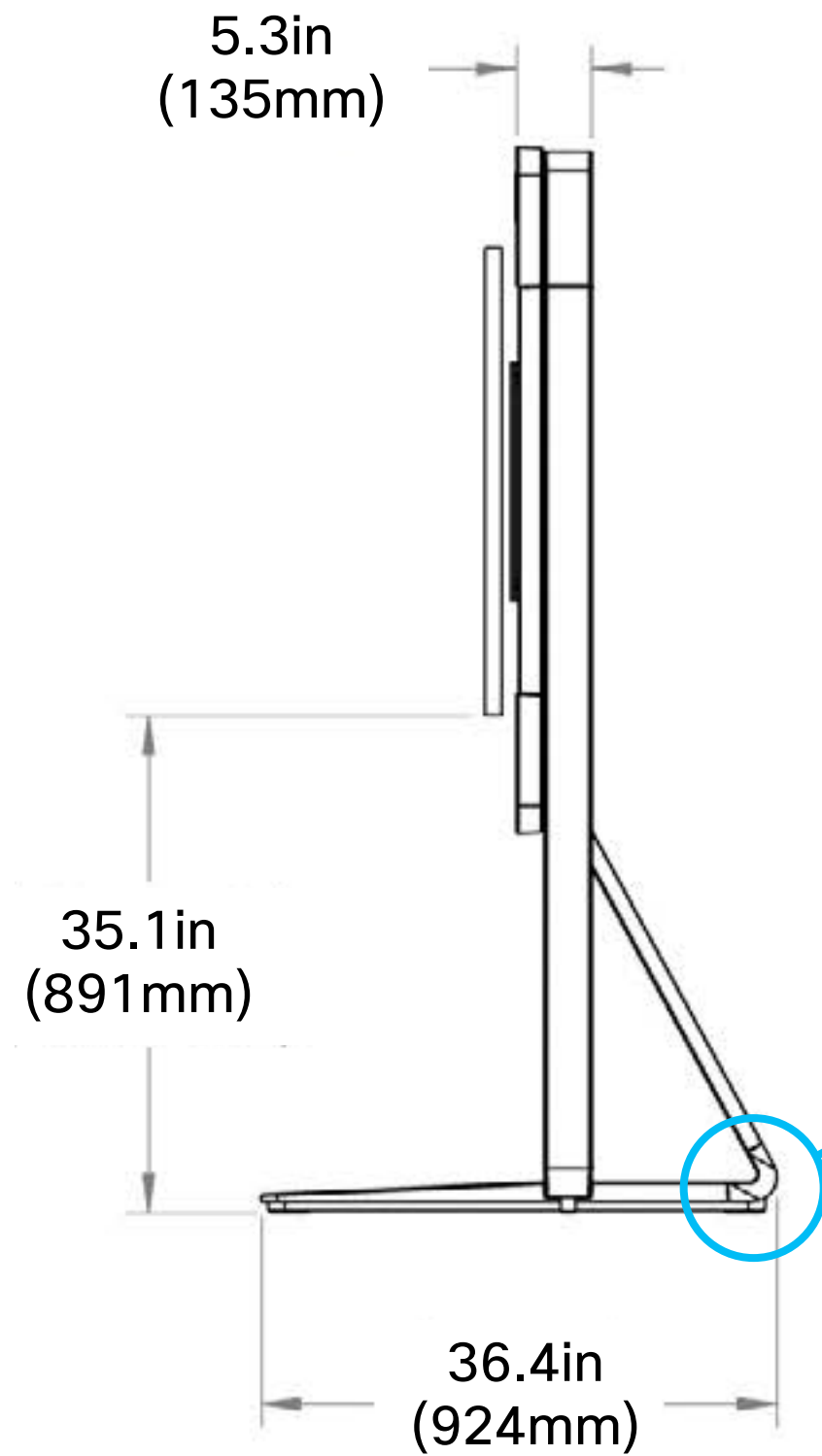
### Side Elevation



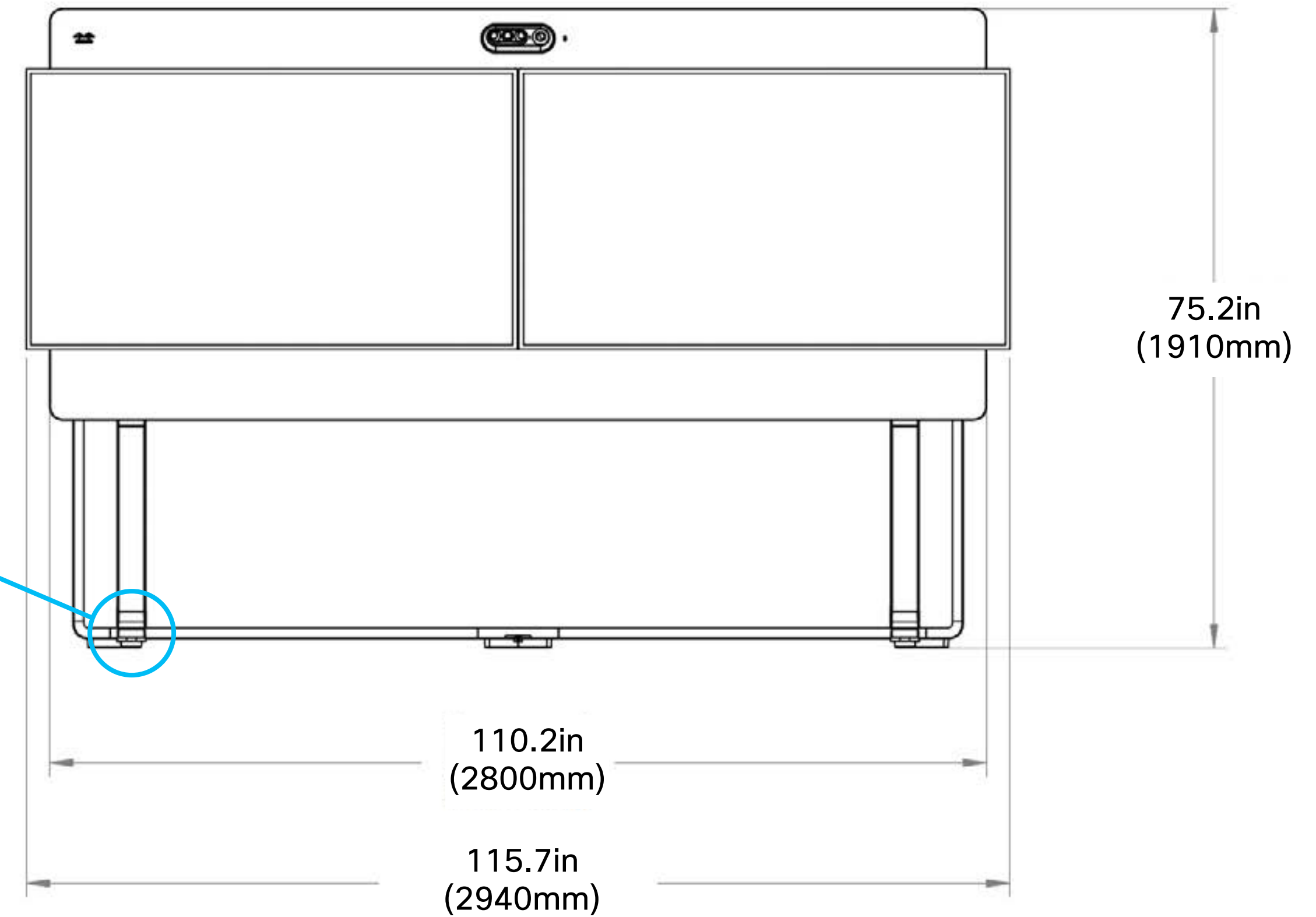
# Room Elevations

Option  
2d

## Cisco Room Kit EQX with Floor Stand



Location where power, data and microphone cables exit the floor stand

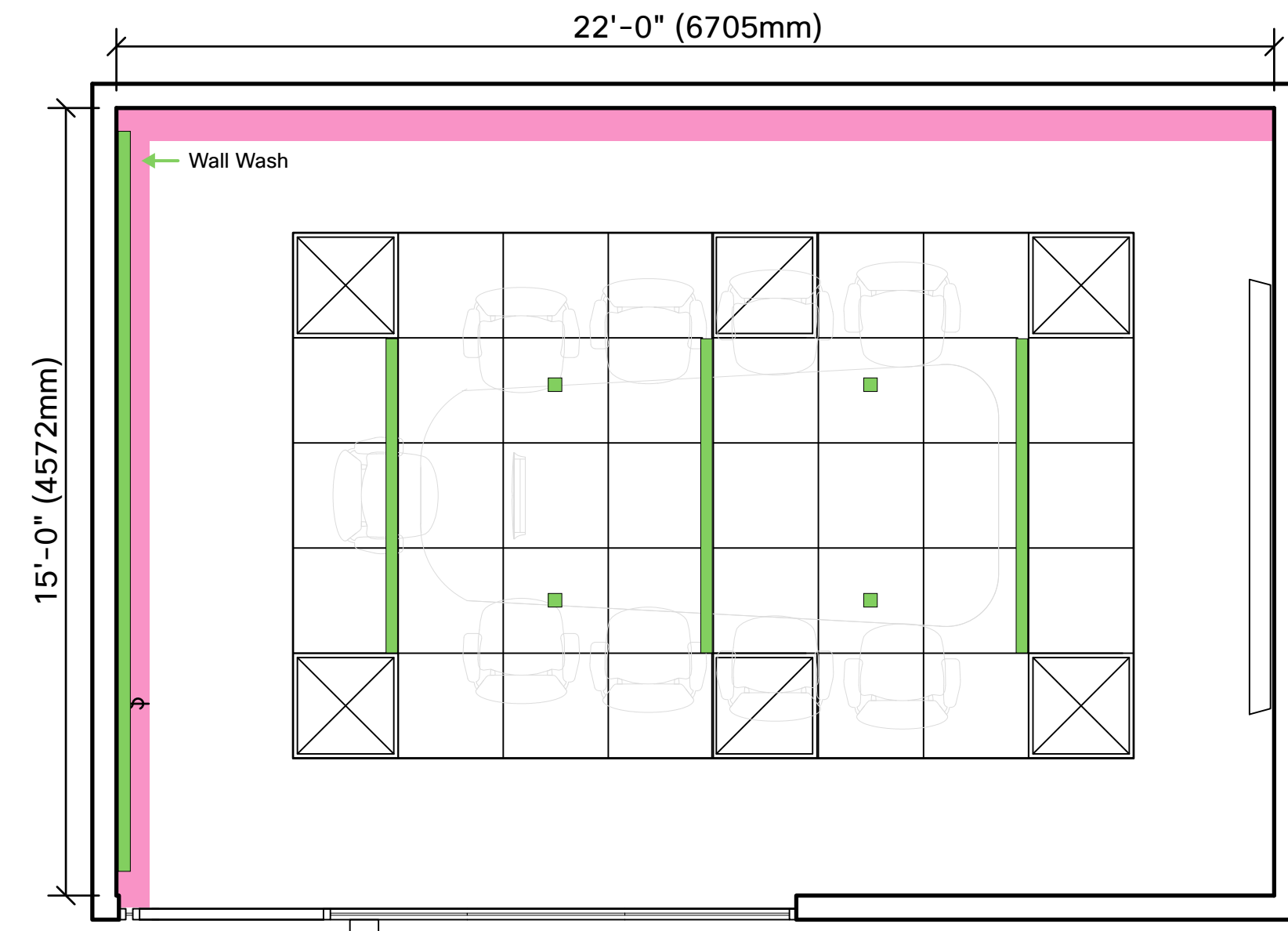


Note: For aesthetics purposes, the optimal location for power, data and A/V passthru is in floor boxes. Wall mounted outlets, either standard or elevated, can also be used.



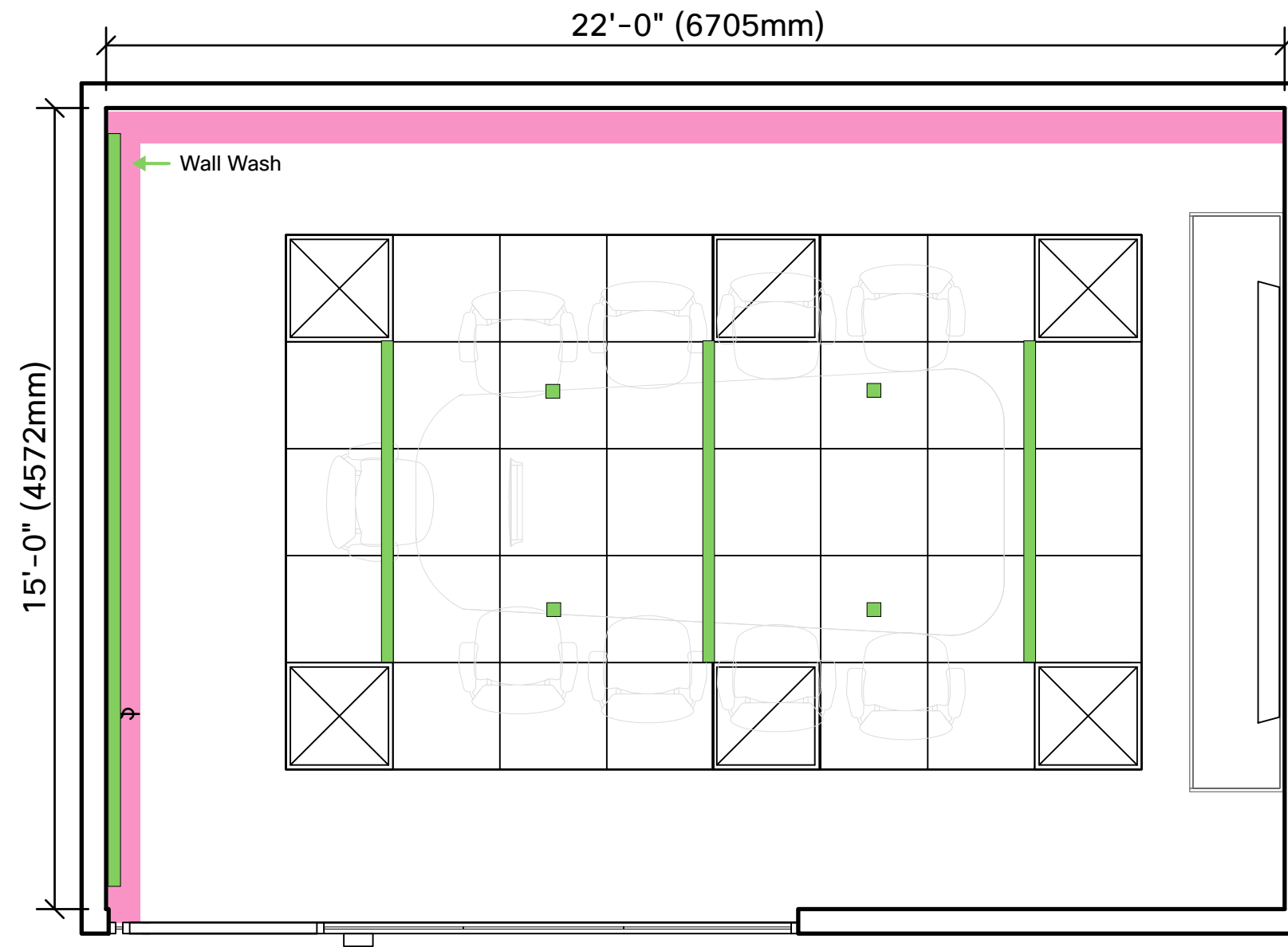
# Reflective Ceiling Plan & Acoustical Treatment

## Option 1: Wall Mount



● A glare-free luminary with a beam angle of 90° or wider is recommended. In addition, fixtures selected should have a color temperature of ~4000K and color rendering index (CRI) of 85 or better.

## Option 2: Credenza Option



● Two walls of acoustical wall treatment is optimal, preferred location is wall opposite device and then adjoining, away from entry location.

## Graphics Symbols

- Acoustical Ceiling & Grid
- HVAC Diffusers (T.B.D.)  
Shown as Example Only
- Light Fixtures
- Acoustical Wall
- Furniture Systems Version Devices**
- Duplex Receptacle & Grid
- Data Receptacle
- Power and Communication**
- WALL / CEILING / FLOOR VERSION DEVICES**
- Third Party Speakers (Optional)
- Duplex Receptacle
- Data Receptacle
- Light Switch
- AV Receptacle
- Table Version Microphone
- Combination Power & Voice / Data Infeed

# Power & Data

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## General Specifications

Power/data requirements need to be verified for each project. Provide video device power/data even if the project plan does not include it on day one. Based on the design of this space, core drills and floor boxes will be required.

## Power & Data

The Cisco Room Kit EQX requires two (2) duplex outlets and one (1) LAN/Ethernet jack, located on the wall behind the device (a second Ethernet jack can also be added for redundancy/future use). Suggested locations for these services can be found in the “Elevations” section of this document. Exact location, however, should be verified with A/V consultants and installation personnel. In addition, power (1 outlet) must be available under the table for the network switch supporting the Cisco Microphone Pros.

## Power in Tabletop

User power should be surface mounted in the tabletop. If pop-ups or table wells are used, it is important to verify that they can accommodate all laptop power supplies. Provide shared power – 1 power port for every two seats.



# Exploded IT Diagram



### Cisco Room Navigator for Table (required)

The recommended approach is to connect the table stand Cisco Room Navigator directly to the Cisco Room Kit EQX using a network cable. The two can also be connected over the IT network if an ethernet port is available under the table.

### Cisco Room Navigator for Wall

It is recommended to run the cable inside the wall or through the door frame directly back to a network switch.

### Cisco Table Microphone Pro (required)

Individual microphones connect to a PoE switch mounted under the table, with a single network cable connecting the switch to the Room Kit EQX. The PoE switch will require power under the table.

### Third-party Speakers

Not required for a room of this size.

### Table Top Charging

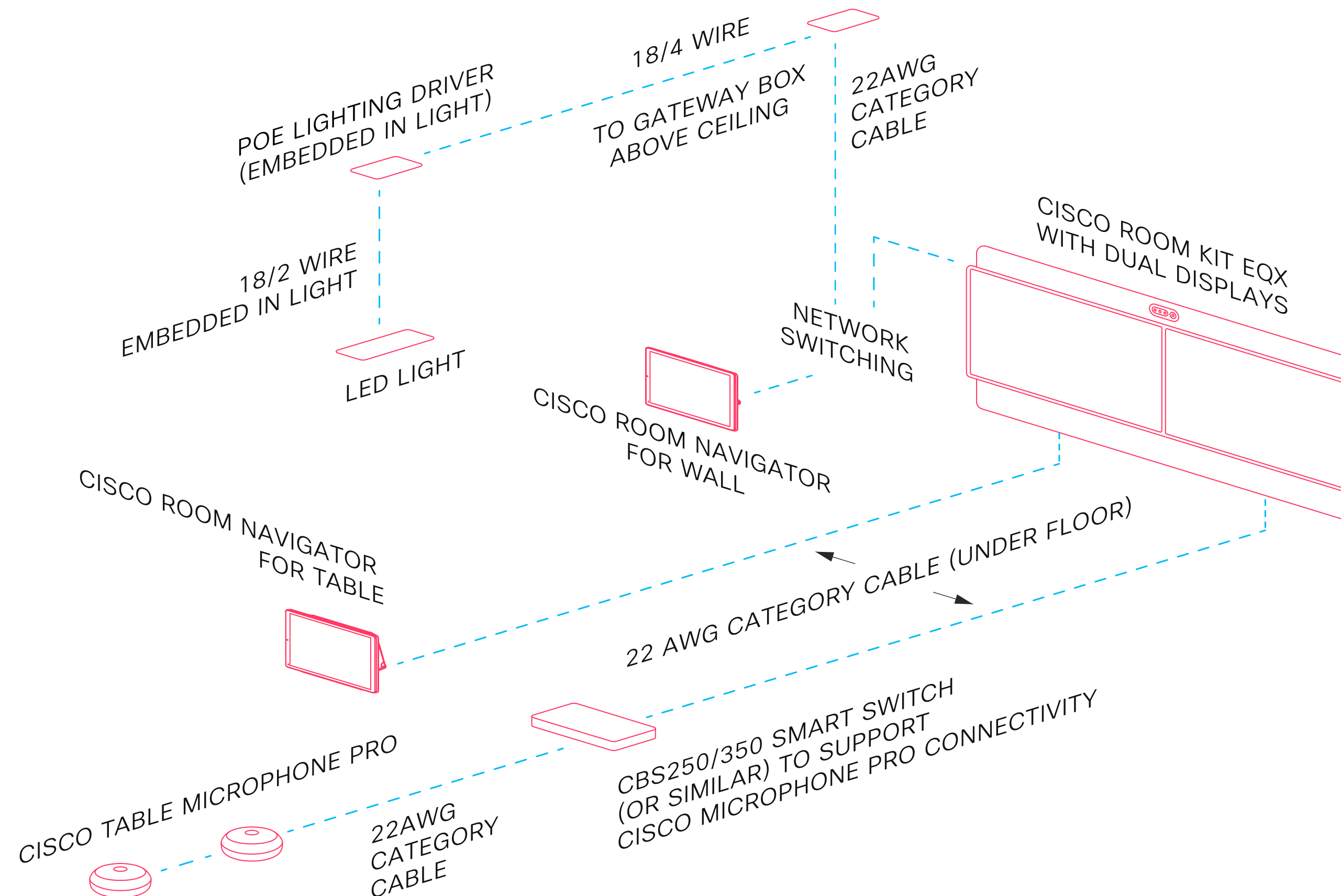
USB-C charging and convenience outlets on table top. Ensure the size of the trough and layout can accommodate a variety of laptop power supplies.

### Wall Blocking

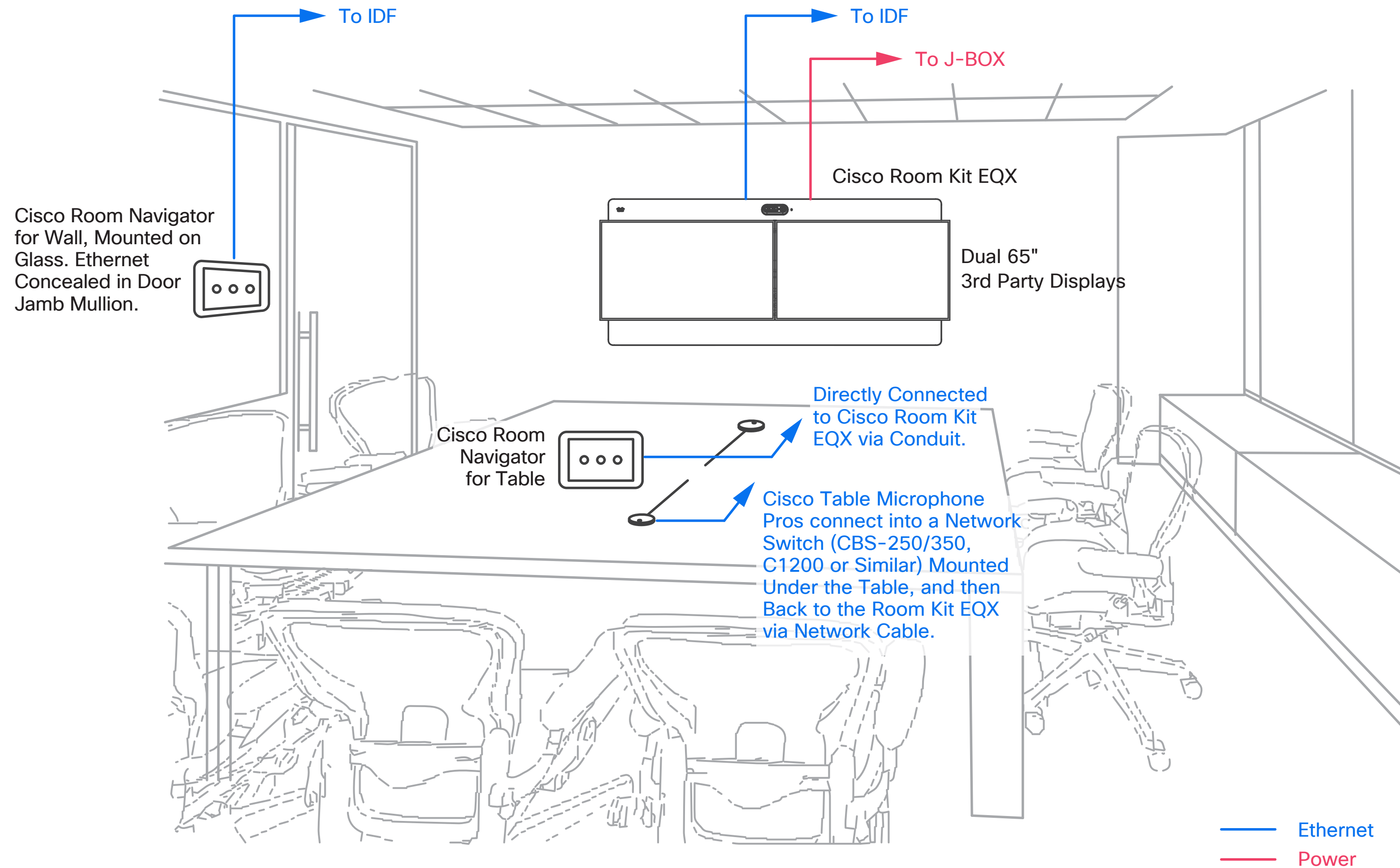
Required when the device is wall-mounted. The size and composition of blocking materials should be determined based on the overall weight of the solution deployed.

### Core Drilling

Core Drill-Preferred method for providing connectivity between the table and the Cisco Room Kit EQX for the Cisco Room Navigator for Table, Cisco Table Microphone Pros and/or A/V cables. If core drilling is not an option, a floor cable cover or wire concealer can be used.



# Connectivity View





# IT/OT Bill of Material

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## Cisco Products

### Cisco Room Kit EQX Option:

- **CS-KIT-EQZX-C-K9.** Cisco Room Kit EQX, Carbon Black
- **CS-KIT-EQX-WMK-C** Cisco Room Kit EQX Wall Mount Carbon Black (Optional)
- **CS-KIT-EQX-WSK-C** Cisco Room Kit EQX Wall Stand Carbon Black (Optional)
- **CS-KIT-EQX-FSK-C** Cisco Room Kit EQX Floor Stand Carbon Black (Optional)
- **CS-MIC-ARRAY-T** Cisco Table Microphone Pro (Qty 2)
- **CBS250-8T-D-xx.** Cisco Business Series Smart Switch (model CBS250-8T-D)
- **CS-T10-WM-K9=** Cisco Room Navigator for Wall

## Non-Cisco peripherals

- Dual 65" Video Displays
- Cisco Wall Mount, Wall Stand, Floor Stand or 3rd party AV-ready credenza

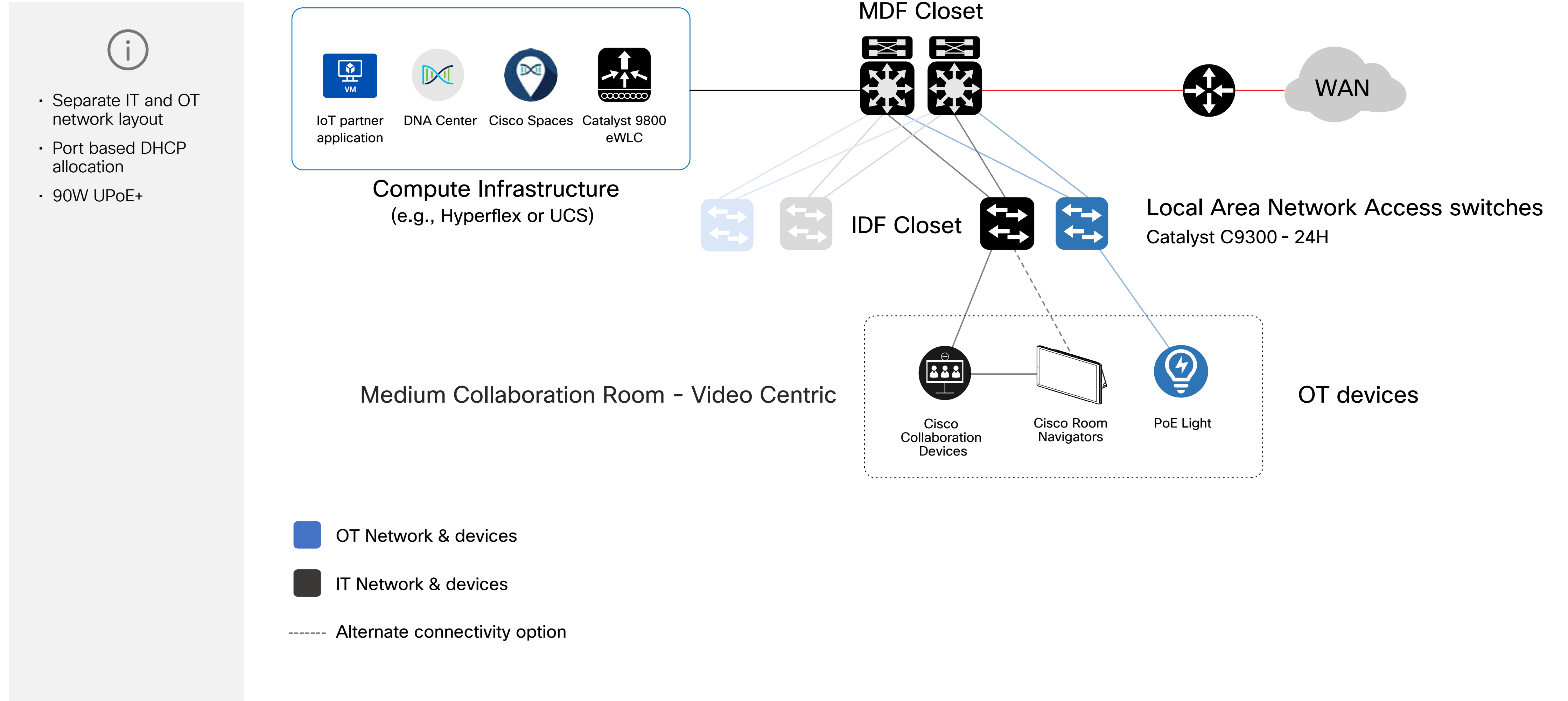
## IOT Devices

- IAQ coming from the Cisco Room Navigator, No additional IoT IAQ
- Occupancy sensing is coming from the Cisco Endpoints
- Suggested lighting specifications: 220LPW raw, 140LPW delivered
- Each Medium Collaboration room POE lights being power by 4 ports on the ceiling
- Traditional DC Wall Switch
- Ensure device is not connected to ASHRAE 90.1 outlet

## External microphones and speakers

- External microphones are required for the Cisco Room Kit EQX installation. Third-party speakers are not typically required in a space of this size unless environmental conditions warrant their use.

# IT/OT Reference Architectures



- Separate IT and OT network layout
- Port based DHCP allocation
- 90W UPoE+



# Commissioning-User Acceptance Testing (UAT) Criteria

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## OT/Space Testing

- Verify manual adjustment of lights, shades and environmental controls are operational from wall controls.
- Confirm lighting occupancy sensor is functional.
- Check any tabletop power and data functionality.
- Verify any smart buildings integrations are working properly.

## IT Testing

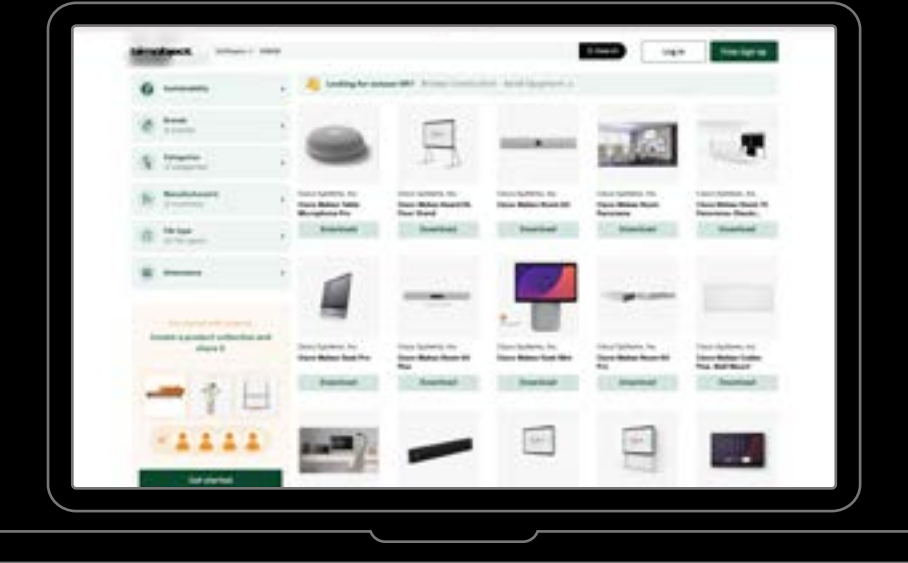
- Internet connectivity of Cisco Collaboration device.
- Initiate test calls on video endpoint (via Room Navigator, Webex app and voice controls).
- Validate environmental metrics are being displayed on collaboration device and Room Navigator.
- Confirm help videos are loaded.
- Confirm that Room Navigator for Wall is powered and that booking function is working properly. Check that booking function is also available within the room via the Room Navigator for Table.
- Verify the Cisco Smart Workspaces display is showing proper presence status.





## Design Files

Design files (Revit, AutoCAD, Sketch up, Rhino3D, etc.) for Cisco's collaboration devices, network switches, wireless access points and Meraki security cameras can be found at [www.bimobjects.com](http://www.bimobjects.com), search "Cisco."



## Resources

Guide: Best Practices for Creating Effective Video-enabled Rooms

Cisco Room Bar Pro Data Sheet

Cisco Room Kit EQX Data Sheet

Cisco Room Kit EQX Room Preparations Guide

Cisco Room Kit EQX Installation Guide

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The intent of this document is to highlight the details, components and partners used in the creation of a Medium Collaboration Room - Dual Display. Any reference herein to any specific commercial products or service does not necessarily constitute or imply its endorsement or recommendation.

