

**CQUNIVERSITY**

**LEARNING SPACES AND MEETING ROOMS**

**DESIGN CATALOGUE**

**STANDARD SPECIFICATIONS**

**&**

**AUDIO-VISUAL DESIGN STANDARDS**

V1.9 UPDATED 11-06-2019

# VERSION HISTORY

Version No	Issue Date	Nature of Amendment	By
0.1	28/10/2013	Initial Draft	Shaune Sinclair Dave Patterson Mike Quinlan Michael Gregory Alison Payne
0.2 – 0.6	26/11/2013	Minor edits: AV Design Standards	Shaune Sinclair
0.7	10/01/2014	Add designs Student Space and Computer Learning Space	Mike Quinlan
0.8	15/01/2014	Add design 5.13, refine design 5.11 & 5.12	Shaune Sinclair
1.0	10/02/2014	V1.0 For approval	Shaune Sinclair
1.1	05/03/2014	Correct numbering for Digital Signage Point	Shaune Sinclair
1.2	31/03/2014	Add 5.16 & 5.17 (Videoconference Retrofit Specifications)	Shaune Sinclair
1.3	26/05/2014	Added Design 5.19: Basic Projector Only Added Design 5.20: Mobile Video Collaboration Screen (MOCOW) Added Design 5.21 Single Screen Videoconference Unit - Small Meeting Room (max 10 persons) Added Design 5.22 Personal Videoconference Unit (1-3 persons) Added Design 5.23 Basic Dual Screen Videoconference Unit – Wall Mounted	Shaune Sinclair
1.4	17/07/2014	Refined description of design 5.8 <i>Flexible Collaborative Learning Space</i> to clarify cost differences between Option A (with video) and Option B (no video)	Shaune Sinclair
1.5	28/10/2014	Costs removed – to be moved to a separate spreadsheet All reference to security, monitoring, building access control	M. Quinlan
1.6	05/05/2017	Updated room descriptions to reflect for model changes and design refinements Remove descriptions and added Deleted to heading from no longer used designs	D. Patterson
1.7	24/7/2018	Added Zoom Room Descriptions 5.24, 5.25, 5.26	D. Patterson
1.8	10/5/2019	Added C-Space 5.27	L. Hull
1.9	11/6/2019	Added Zoom-Cow	L. Hull

## Approvals

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Endorsed ICT Oversight Committee 13/02/2014 Approved

Vice Chancellor 13/02/2014

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## 1 Purpose

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This document is aimed at ensuring that learning spaces, meeting rooms and audio-visual technologies are implemented that support the University's organisational-wide learning and teaching delivery strategy, and operational imperatives.

The document:

- Articulates the *General Design and Technical Standards* that apply to all learning spaces and meeting rooms at CQUniversity to enable connectivity, interoperability and standardised user interface across the entire University footprint, and to enable similar spaces to "talk to each other" for simultaneous teaching and conferencing events.
- Provides a *Standard Specification* for each 'type' of space/fitout, and annexes detailed technical specifications for each Standard to provide template design specifications to builders and integrators to ensure a common technical design standard is implemented.
- Annexes a *User Interface Design Standard & Style Guide* which will provide a standard, consistent design/style guide for user interface (touch panel) design.

The standards articulated in this document are derived from approved CQUniversity Policy:

- *CQUniversity Learning Environments - Strategy and Design Principles* (V1.0 - APPROVED ACADEMIC BOARD 13-11-2013)
- *CQUniversity Learning Spaces - Technology Principles and Architectural Standards* (V1.0 - APPROVED VICE CHANCELLOR 23-10-2013)

This is a 'living' document:

- From time to time new *Standard Specifications* (new space 'types') will be added to this document
- As new, better information becomes available (e.g. as-built photographs etc) this document will be updated

## 2 Application

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Once approved, all learning space and meeting room implementations must use these *General Design and Technical Standards* and *Standard Specifications*, unless a new or specialised room-design is required that is not covered by these standard specifications: in which case:

- ITD and DFM will undertake or oversee the detailed design;
- Chief Information Officer and Director Facilities Management must sign off on the design;
- the *General Audio-Visual Design Standards* (below) will apply;
- if practical, the approved new design will be standardised and added to the set of *Standard Specifications*.

These *General Design and Technical Standards* and *Standard Specifications* will be used as attachments to Tender documents when seeking Offers for building/refurbishment of learning spaces and meeting rooms.

### **3 How the Standard Specifications are Organised**

This document provides a *Standard Specification*, at a summary level, for each space/fit-out 'type', including:

- A High Level Functional Description (what the space/fit-out does)
- A High Level Technical Description (technical details, list of equipment)

Each *Standard Specification* will be accompanied by separate detailed documentation, covering:

- Detailed Functional Description
- Detailed Technical Description
- Detailed AV/ICT schematics
- Detailed typical plan/elevations

These more detailed documents will be produced when the design process is completed for each space 'type' (typically contracted out to a specialist ICT/AV Designer)

## 4 General Audio-Visual Design Standards

The following minimum standards apply to all new installations, or refurbishments/upgrades.

### User Interface:

No remote controls will be allowed.

All installations will have, as a minimum, and AMX Button Panel for turning the system/screens on/off etc.

For more complex learning spaces, an AMX Touch-Panel interface will be installed. The touch-panel user interface will be standardised, and will comply with the approved *User Interface Design Standard & Style Guide*.

### Warranties:

Wherever possible, AV equipment models will be selected/purchased to provide a 3-year warranty.

### Equipment Standards:

All videoconference equipment (including cameras) will be Cisco brand, and the specified model as per ICT standards

All control equipment will be AMX brand, and the specified model as per ICT standards

All digital signage players/devices will be AMX brand, and the specified model as per ICT standards

### Remote Support:

More complex technology-equipped learning space designs will have Remote Support capability as follows:

- Remote Video Monitoring (low-cost IP Camera)
- AMX-RMS remote monitoring

### AV Design Principles:

The general AV design principles articulated in AETM Design Guidelines for Tertiary Spaces (2nd Ed) Sections 4 & 6 (Screens, Specifications, Sightlines; Acoustics) will apply to all learning space and meeting room designs.

[http://www.aetm.org/uploads/media/AETM\\_Audio\\_Visual\\_Design\\_Guidelines\\_2nd\\_Edition.PDF](http://www.aetm.org/uploads/media/AETM_Audio_Visual_Design_Guidelines_2nd_Edition.PDF)

### Wireless

All learning spaces (formal and informal), and all meeting rooms will have wireless coverage appropriate to the maximum seating capacity of the space. Rooms with capacity of more than 25 require a dedicated High Density wireless access point. Installation to CQUniversity Wireless Installation Standard.

### Digital Video (HDMI/DP)

Support for Analogue Video (VGA) will be discontinued in 2015. Accordingly, all AV systems must now provide for digital video (HDMI/Display Port) as a minimum.

Where practical, AV systems will include provide a low-cost adapter cables/device to provide backward compatibility for VGA-only devices.

AV systems will include two (2) extra digital video/audio inputs into the AV switcher for future expansion

## 5 Standard Space Specifications

### 5.1 Videoconference Boardroom – Dual Purpose Teaching/Meeting

Typical Seating Capacity	Typical Room Dimensions	Typical m <sup>2</sup>
10 to 15	5.5 x 4 m	20 – 30

#### Rationale

- Cost-effective video conference room, which may be used for mid-sized meetings and teaching sessions, with a more collaborative/interactive seating style than traditional ISL theatres
- Touch-panel interface provides ease of use for students, lecturers and staff **Timetabling:**
- Centrally bookable for staff meetings or timetabled teaching sessions

#### Functional Description

- Boardroom style videoconference space, equipped with presentation tools for the lecturer
- One seat is nominated as the ‘presenter’ seat, and provides a document camera, PC/Mouse/Keyboard, and a cable to plug in a laptop or own device (BYOD)
- Self-serve videoconference calling is available from this space
- Automated video recording (lectures, meetings) using ECHO360

**Design Derivation:** Technically the same as Design 5.7, but with single camera and boardroom-style layout

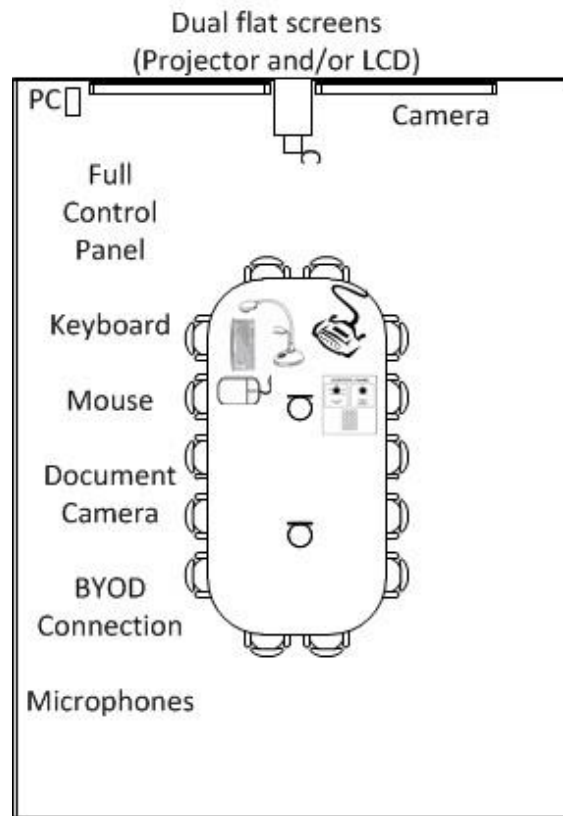
#### Technical Description

- Cisco SX80 Videoconference Unit, single camera, 2 microphones
- AMX touch panel interface, controller and video switcher
- Small Rack
- 2 microphones
- AMX button panel (to turn system on/off)
- Document Camera
- In-room PC, Wireless Keyboard/Mouse
- 2 x large LCD screens, or 1 x Large LCD + Projector (to suit space size). Mounted on wall.
- Power available on table
- Conventional white board/s on walls (not designed to be in camera shot)
- Wireless coverage
- Ability for presenter to plug in and display their own device (digital video + audio)
- ECHO360 Recording Device

#### Space Design Notes:

- OHS consideration: No cables to run loose across floor/space (either temporarily or permanently)
- Lighting: some lighting design required, including limiting natural light (blinds etc)
- Consideration must be given to ambient noise levels (e.g. air conditioner noise)
- Light acoustic treatment may be required in highly reflective room
- Allowance must be made for cabling paths between the ICT/AV equipment and the table (e.g. under carpet, in-floor etc)
- Room colour to be neutral





## 5.2 Videoconference Meetings Room – Basic (Staff Only)

Typical Seating Capacity	Typical Room Dimensions	Typical m <sup>2</sup>
12 -20	5.5.x 4.0	22 - 30

### Rationale

- Cost-effective video conference room, which may be used for mid-sized meetings for staff

### Timetabling:

- Centrally bookable for staff meetings

### Functional Description

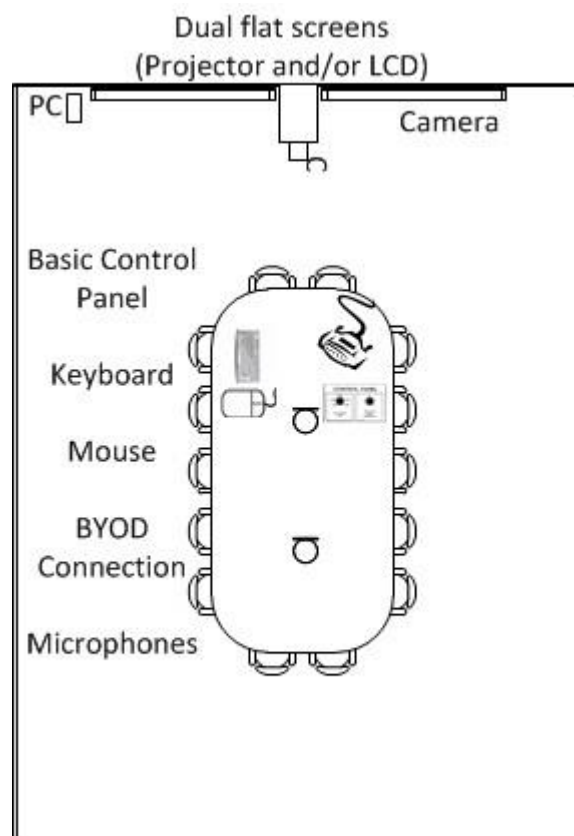
- Boardroom style videoconference space
- One seat is nominated as the 'presenter' seat with a cable to plug in a laptop or own device (BYOD)
- Self-serve videoconference calling is available from this space
- Note: Basic self serve recording only – no integration to Video Portal and/or Moodle.
- Limited teaching capability – no unattended student use.
- Limited presentation capability – no document camera, basic control panel, no in-room PC (BYOD only – cable provided).

### Technical Description

- Cisco SX20 Videoconference Unit, single camera, 2 microphones
- Cisco touch panel interface
- AMX button panel (to turn system on/off)
- 2 x large LCD screens, or 1 x Large LCD + Projector (to suit space size). Mounted on wall.
- Power available on table (where practical)
- Conventional white board/s on walls (not designed to be in camera shot)
- Wireless coverage
- Ability for presenter to plug in and display their own device (digital video + audio)

### Space Design Notes:

- OHS consideration: No cables to run loose across floor/space (either temporarily or permanently)
- Lighting: existing lighting to be re-used but at a minimum 320 Lux Level
- Consideration must be given to ambient noise levels (e.g. air conditioner noise)
- Light acoustic treatment may be required in highly reflective room
- Allowance must be made for cabling paths between the ICT/AV equipment and the table (e.g. under carpet, in-floor etc)
- Room colour to be neutral



### 5.3 Small Videoconference Meeting Room - PC Based (Uses Jabber- Staff Only)

Typical Seating Capacity	Typical Room Dimensions	Typical m <sup>2</sup>
3 – 10	5 x 4	20

**Rationale**

- Cost effective staff meeting room
- Allow for a small number of staff to participate in multipoint video conference meetings • Use existing furnishings

**Timetabling:**

- Centrally bookable for staff meetings

**Functional Description**

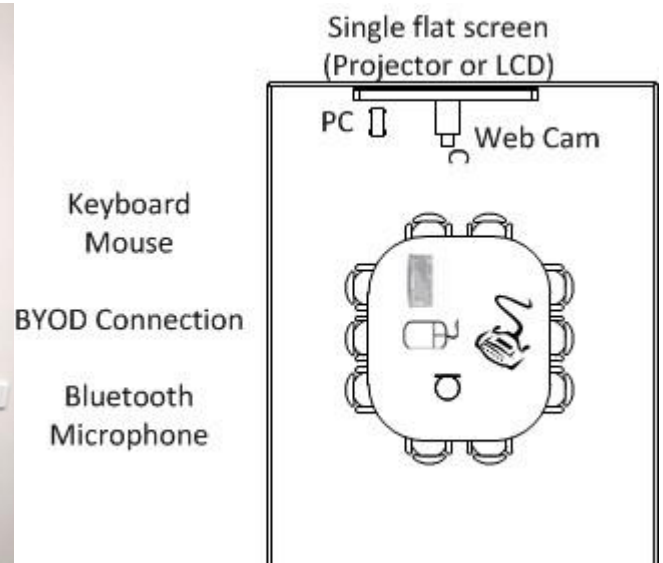
- Boardroom style videoconference space
- Self-serve videoconference calling is available from this space

**Technical Description**

- Large LCD screen on wall or trolley
- Room PC is required as the default Jabber PC
- High definition Web Cam
- Wireless Mouse & Keyboard
- Echo cancelling microphone (Dual Chat150 for larger room, Bluetooth Jabra for smaller rooms)

**Space Design Notes:**

- OHS consideration: No cables to run loose across floor/space (either temporarily or permanently)
- Lighting: existing lighting to be re-used
- Allowance must be made for cabling paths between the ICT/AV equipment and the table (e.g. under carpet, in-floor etc)
- Consideration must be given to ambient noise levels (e.g. air conditioner noise)
- Light acoustic treatment may be required in highly reflective room
- Room colour to be neutral



## 5.4 Small self-serve video space (PC + Small Group Videoconference Unit)

Typical Seating Capacity	Typical Room Dimensions	Typical m <sup>2</sup>
1-5	Typical Office Space	10 – 14

### Rationale

- Small, cost-effective space for staff or students to participate in small-group videoconferences
- Provides several options to self-record video content
- Lecturer able to deliver a video conference class to ISL venues

### Timetabling:

- Centrally bookable, by staff and students (web bookings)

### Functional Description

- Small space, designed for 1 to 5 people
- Will often be used by a single person to record video content or participate in a videoconference
- Will provide a PC for presentation and self-serve recording and content
- Will provide a document camera to allow presentation of paper-based content
- Will be a receiving space for classes delivered remotely
- Ability to deliver local (non-videoconference) class with up to 4 local students
- Can be used as a student group study space supporting both video conferencing and recording
- Proposed software tools will include Camtasia, Collaborate, PCAP (Echo360)
- Supports BYOD via cable connection (digital only cable provided; no VGA support)

### Technical Description

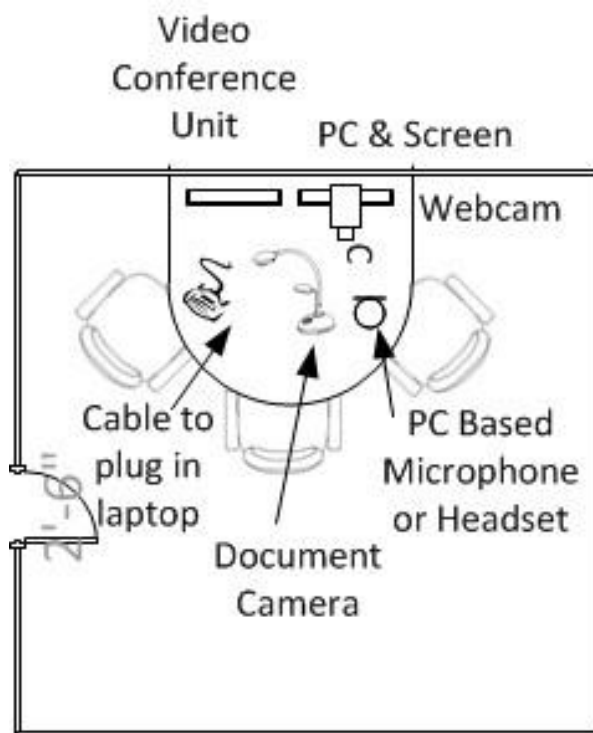
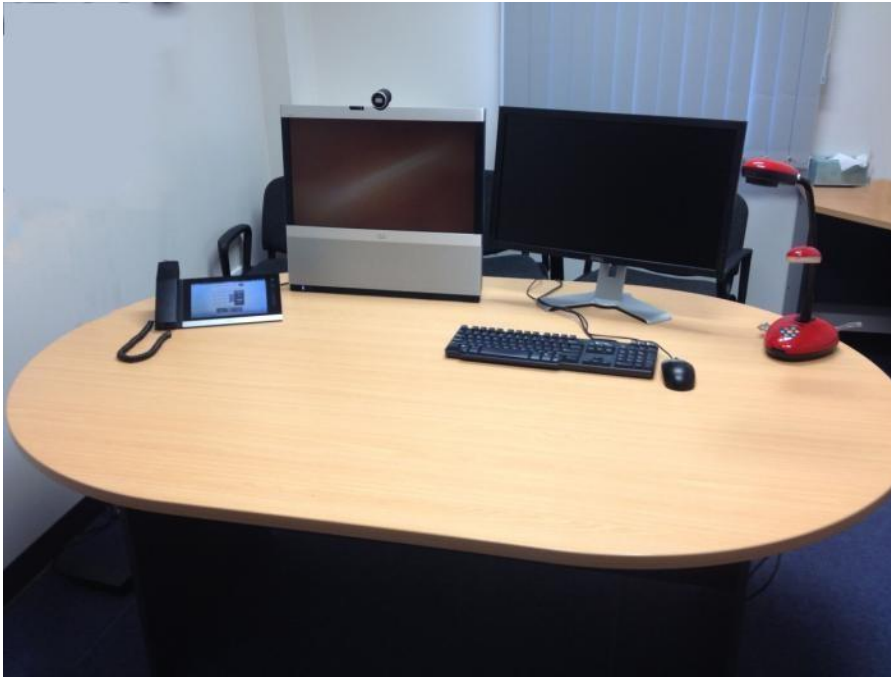
- Cisco SX10 Videoconference Unit + Screen
- All-in-one PC mouse, keyboard
- USB Document Camera
- HD Web cam
- USB Echo-cancelling microphone
- Ability for presenter to plug in and display their own device (digital video + audio)

### Options:

- (a) 32 Inch Screen sitting on a stand on the desk (suitable for smaller rooms, 3 to 5 participant)
- (b) 42 Inch Screen Mounted on wall (suitable for smaller rooms, 5 to 7 participant)

### Space Design Notes:

- OHS consideration: No cables to run loose across floor/space (either temporarily or permanently)
- Lighting: Minimum 320 Lux Level, including limiting natural light (blinds etc)
- Consideration must be given to ambient noise levels (e.g. air conditioner noise)
- Light acoustic treatment may be required in highly reflective or transmissive room
- Allowance must be made for cabling paths between the ICT/AV equipment and the table (e.g. under carpet, in-floor etc)
- Room colour to be neutral



## 5.5 Small Self-Serve Video Space (PC only)

Typical Seating Capacity	Typical Room Dimensions	Typical m <sup>2</sup>
5 – 7		18

### Rationale

- Single large LCD screen with a permanent in-room PC connected to the screen
- Breakout plate allows students to plug in and display their own device/BYOD instead of the in-room PC

### Timetabling:

- NA

### Functional Description

- Large LCD screen with in-room PC & USB web camera (with integrated mic)
- Ability to plug in and display a laptop/BYOD
- Wireless network only for own device/BYOD

### Technical Description

- Large LCD Screen/PC + Keyboard and Mouse
- Sideboard to house PC (for 'fixed' install only)
- Breakout plate for BYOD – digital AV + audio only
- Button controller for on/off/volume/PC/My Device
- Power Point available for laptop/BYOD charging

**Design Derivation:** Same as Design 5.6 with addition of PC



## 5.6 Groupwork Space (Screen Only)

Typical Seating Capacity	Typical Room Dimensions	Typical m <sup>2</sup>
NA	NA	NA

### Rationale

- Single large LCD screen on a wall, allows students to plug in and display their own device/BYOD

### Timetabling:

- NA

### Functional Description

- Ability to plug in and display a laptop/BYOD
- Wireless only for own device/BYOD

### Technical Description

- Large LCD Screen
- Breakout plate for BYOD – digital AV + audio only
- Button controller for on/off/volume
- Power Point available for laptop/BYOD charging
- Note: a PC is NOT included in this design





## 5.7 Flat-Floor Videoconference Teaching Room (Basic ISL)

Typical Seating Capacity	Typical Room Dimensions	Typical m <sup>2</sup>
15-30	7 x 6	42 – 50

### Rationale

- Cost-effective alternative to a full ISL theatre (with limitations – see below)
- Capable of being used as a stand-alone lecture or tutorial space
- Designed to suit small to medium class sizes
- Deployable to existing flat-floor spaces – especially applicable to leased space
- Capable of supporting flexible furniture in order to provide more engaging options to teaching staff, including stackable chairs and folding desks
- Supports self serve video conference and self serve recording

### Timetabling:

- Centrally bookable for teaching sessions

### Functional Description

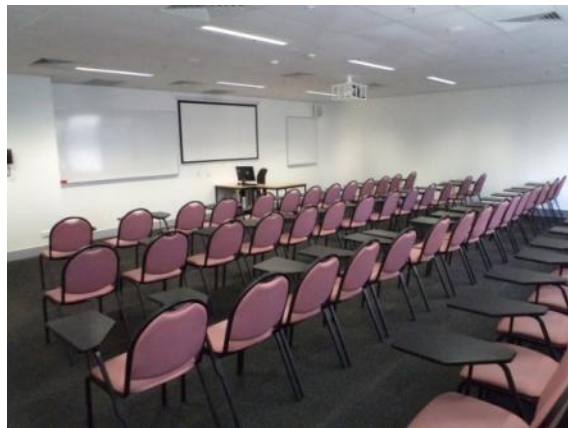
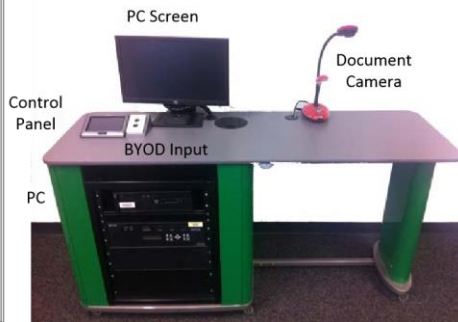
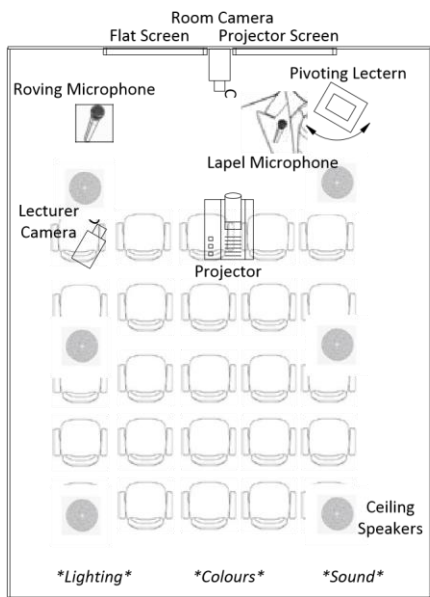
- Large format display for content (Projector or Large LCD Display, size determined per room but at least 65 inches)
- Second LCD screen for video conference display
- Class and presenter cameras (high definition with pan, tilt and zoom)
- Ability to configure pre-set camera shots
- Ability to deliver a videoconference lecture
- Ability to deliver local (non-videoconference) lecture
- Unattended videoconference operation will be that: the room will auto start on incoming video conference call; the camera will default to the class camera with a full room view; Microphone channels will be unmuted, requiring students to turn off when they are not speaking; For students to interact, they will need to collect the roving microphone; lecturers will need to turn the lapel microphone on and off as required.
- Small lectern with PC, document camera, and ability to plug in lecturer BYOD
- Wireless coverage
- Self-serve video calling via touch panel
- Self-serve lecture recording via ECHO360
- **Note:** No wired audio integration – only 1x lapel microphone for presenter and 1x roving microphone for students; no auto zoom on camera shot

### Technical Description

- Cisco SX80 Videoconference Unit
- Dual Cameras (Lecturer and Class)
- Projector and large LCD screen
- AMX Touch Panel & control system
- ECHO360 Recording Device
- Document Camera
- Remote equipment monitoring/support (AMX RMS, network camera)
- Standard pre-fabricated lectern
- Room audio system
- Wireless microphone system
- PC, screen, keyboard and mouse
- Lectern will include a breakout plate for lecturer to plug in their own device (display port with a VGA adapter for backward compatibility)
- Wireless presentation controller device (clicker)
- 2 x spare digital video/audio inputs into switcher – for future expansion

**Space Design Notes:**

- OHS consideration: No cables to run loose across floor/space (either temporarily or permanently)
- Lighting: some lighting design required, including limiting natural light (blinds etc)
- Consideration must be given to ambient noise levels (e.g. air conditioner noise)
- Light acoustic treatment may be required in highly reflective room
- Room colour to be neutral
- **Note:** Furniture decisions made space by space due to requirement for storage of these items when not in use and other available campus facilities



## 5.8 Flexible Collaborative Learning Space

Typical Seating Capacity	Typical Room Dimensions	Typical m <sup>2</sup>
36	9 x 7	60

### Rationale

- Provide support for collaborative/group learning
- Modular design so that rooms can be scaled
- Modular design so that equipment can be relocated/re-oriented if necessary
- Taken from the very successful QUT design – most components pre-fabricated

### Timetabling:

- Centrally bookable by staff for teaching – available to students as group study space in between timetabled sessions

### Functional Description

- Individual group tables (ideally 6), with large LCD screens for group work
- Ability to share PC content between group tables and to front of room screen
- Mobile furnishings for increased teaching flexibility
- Front of room project/screen provides ability to deliver a lecture or group-based learning
- Small lectern with PC, document camera, and ability to plug in lecturer BYOD
- Wireless coverage
- Ability for student to plug in and display their own device
- **OPTION:** Videoconferencing + Automated recording using ECHO360

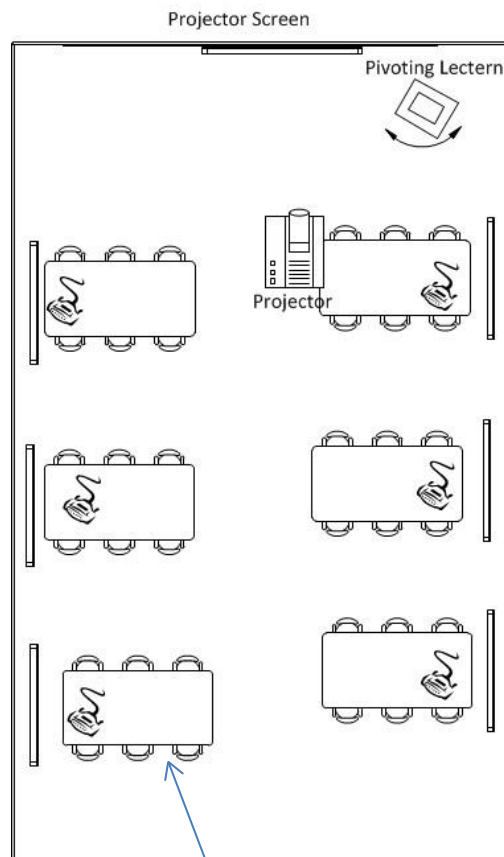
**Design Derivation:** Same as Design 5.7 with addition of mobile screens (MOCOWS)

### Technical Description

- Standard pre-fabricated lectern, with PC, AMX Touch Panel & control system, document camera
- Front of room projector
- Room audio system
- Remote equipment monitoring/support (AMX RMS, network camera)
- End-of-table monitors and PCs on stand (QUT MOCOW)
- VuePoint Connect collaboration software
- High Density Wireless Coverage
- Lectern will include a breakout plate for lecturer to plug in their own device (display port with a VGA adapter for backward compatibility)
- 2 x spare digital video/audio inputs into switcher – for future expansion

### Space Design Notes:

- If videoconference/recording:
  - Lighting: some lighting design required, including limiting natural light (blinds etc) ○ Consideration must be given to ambient noise levels (e.g. air conditioner noise) ○ Room colour to be neutral
- Light acoustic treatment may be required in highly reflective room



“MOCOW”  
Moveable trolley-  
based screen

Each ‘group table’  
has PC, BYOD connection,  
Large LCD Screen

Moveable Furniture

## 5.9 Basic Lecture/Tutorial Room with Lectern

Typical Seating Capacity	Typical Room Dimensions	Typical m <sup>2</sup>
Varies	Varies	Varies

### Rationale

- Provide basic technology for a lecture or tutorial session

### Timetabling:

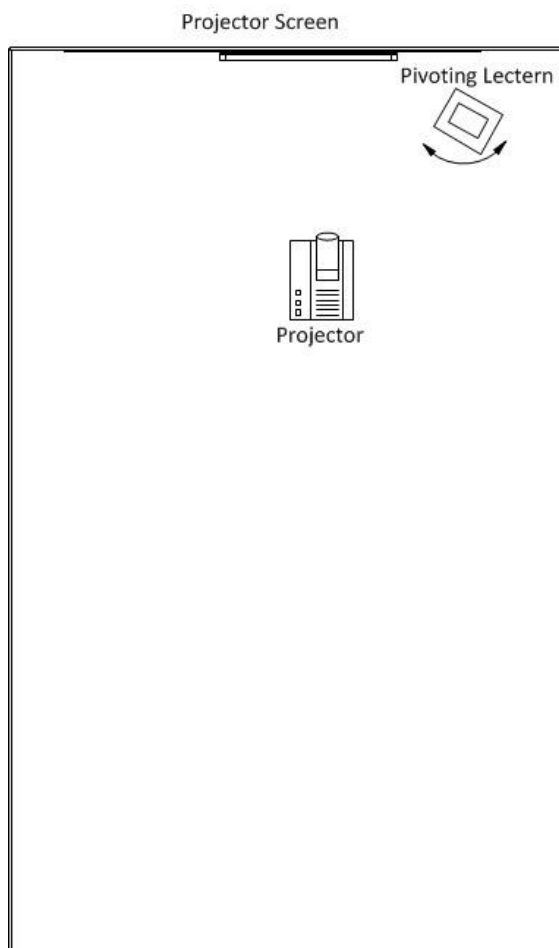
- Centrally timetabled for teaching sessions

### Functional Description

- Small lectern, with PC, button panel control, document camera, ability for lecturer to plug in own device
- Room Audio
- Projector display

### Technical Description

- AMX Button Panel
- AMX control system
- Document Camera
- Projector
- Remote equipment monitoring/support (AMX RMS, network camera)
- Standard pre-fabricated lectern
- Room audio system
- 2 x spare digital video/audio inputs into switcher – for future expansion



## 5.10 Basic Lecture/Tutorial Room with Student Screens

Typical Seating Capacity	Typical Room Dimensions	Typical m <sup>2</sup>
Varies	Varies	Varies

### Rationale

- Provide basic technology for a lecture or tutorial session, with added functionality of large LCD screens distributed throughout the room

### Timetabling:

- Centrally timetabled for teaching sessions

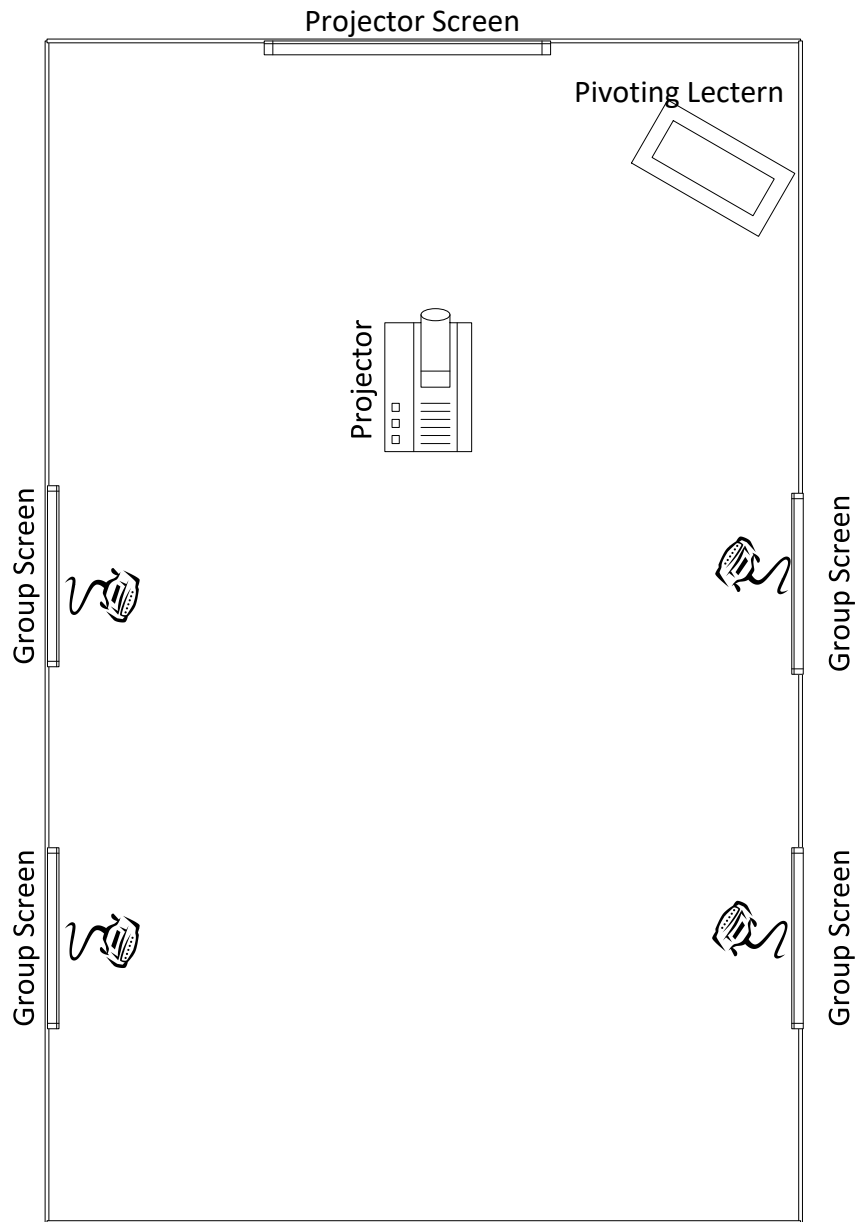
### Functional Description

- Small lectern, with PC, button panel control, document camera, ability for lecturer to plug in own device
- Projector display
- 4 large 'multi-purpose' LCD screens around walls – to promote visibility/readability of presentation material and additionally allow students to display their own content to their local group

**Design Derivation:** Same as Design 5.9 with addition of student screens

### Technical Description

- AMX Button Panel
- AMX control system
- Document Camera
- Projector
- Remote equipment monitoring/support (AMX RMS, network camera)
- Standard pre-fabricated lectern
- Room audio system
- 2 x spare digital video/audio inputs into switcher – for future expansion







- 5.11 Contemporary Computer-Based Learning Space (Deleted)**
- 5.12 Indoor Informal Learning Space (Deleted)**
- 5.13 Outdoor Informal Learning Space (Deleted)**
- 5.14 Combined Computer-Based Learning Space and Student Study Space (Deleted)**

## 5.15 Digital Signage Point

Typical Seating Capacity	Typical Room Dimensions	Typical m <sup>2</sup>
NA	NA	NA

### Rationale

- Pricing provided to supply and mount a single LCD screen on a wall, with Digital Signage/Player device
- Allows Marketing to manage digital signage across the enterprise

### Timetabling:

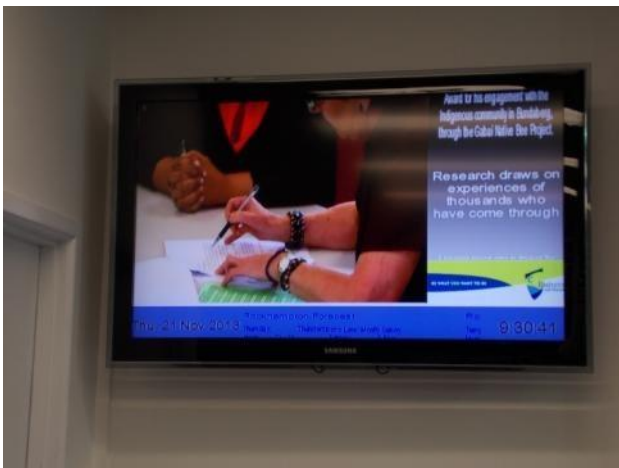
- NA

### Functional Description

- Supply and mount a single LCD screen on a wall
- With networked Digital Signage Player allowing Marketing Department to manage/distribute content centrally

### Technical Description

- Large LCD Screen mounted on wall
- AMX Digital Signage Player
- Data Point/Networked
- Power



**5.16 Videoconference-Enabled Lecture Theatre (Basic ISL) (Deleted)**

Typical Seating Capacity	Typical Room Dimensions	Typical m <sup>2</sup>
30 - 100	7 x 20 or larger	140+

**NOTE: THIS SPECIFICATION IS INTENDED FOR RETRO-FIT OF EXISTING LECTURE THEATRES THAT ARE CURRENTLY NOT ISL/ VIDEOCONFERENCE-ENABLED. IT IS TECHNICALLY IDENTICAL TO “5.7 Flat-Floor Videoconference Teaching Room (Basic ISL)”**

**5.17 Videoconference-Enabled Lecture Theatre (Full ISL) (Deleted)**

Typical Seating Capacity	Typical Room Dimensions	Typical m <sup>2</sup>
30 – 100	7 x 20 or larger	140+

**NOTE: THIS SPECIFICATION IS INTENDED FOR RETRO-FIT OF EXISTING TIERED ISL/Videoconference THEATRES**

## 5.18 Video Recording Lecture Theatre

Typical Seating Capacity	Typical Room Dimensions	Typical m <sup>2</sup>
30 – 100	7 x 20 or larger	140+

**NOTE: THIS SPECIFICATION IS INTENDED FOR RETRO-FIT OF EXISTING LECTURE THEATRES TO ADD AUTOMATED LECTURE RECORDING CAPABILITY (ECHO360)**

### Rationale

- Upgrade existing tiered theatres to provide self-serve lecture recording
- Capable of being used as a stand-alone lecture space
- Designed to suit medium to large class sizes
- Supports automated lecture recording

**NOT APPLICABLE TO NEW CAMPUSES**

### Timetabling:

- Centrally bookable for teaching sessions

### Functional Description

- Large format display for content (Projector or Large LCD Display, size determined per room but at least 65 inches)
- Presenter camera (high definition with pan, tilt and zoom)
- Ability to configure pre-set camera shots
- Small lectern with PC, document camera, microphone, and ability to plug in lecturer BYOD
- Wireless coverage
- Automated lecture recording via ECHO360
- Lectern and Lapel microphones for presenter
- **Note:** No microphone student/class participants, no class camera

### Technical Description

- Lecturer Camera
- Projector/s
- AMX Touch Panel & control system
- ECHO360 Recording Device
- Document Camera
- Remote equipment monitoring/support (AMX RMS, network camera)
- Standard pre-fabricated lectern
- Room audio system; Wireless (lapel) microphone system; Fixed mic on lectern
- PC, screen, keyboard and mouse
- Lectern will include a breakout plate for lecturer to plug in their own device (display port with a VGA adapter for backward compatibility)
- Wireless presentation controller device (clicker)
- 2 x spare digital video/audio inputs into switcher – for future expansion

## 5.19 Basic Projector Only

Typical Seating Capacity	Typical Room Dimensions	Typical m <sup>2</sup>
NA	NA	NA

### Rationale

- This standard defines requirements for a basic projector-only installation, suitable for low-cost, small to medium sized rooms
- Allows for in-room PC and/or lecturer to bring own device (BYOD)

### Timetabling:

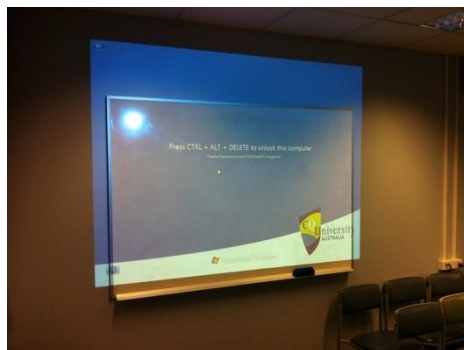
- NA

### Functional Description

- Projector shooting onto wall
- Button panel for on/off and volume up/down
- Powered speakers
- Wall-mounted AV wall-plate to plug in in-room PC and/or lecturer's device (digital video only) (BYOD)

### Technical Description

- Projector/s
- AMX Nx1200 Controller
- Extron Switcher
- Powered Speakers
- Button Panel (on/off, volume up/down)
- Wall-mounted breakout plate: HDMI x 2 (one for PC, one for BYOD) – audio via HDMI
- HDMI Auto-Switcher (PC=default, when a BYOD is plugged in switched to BYOD)



## 5.20 Mobile Video Collaboration Screen (MOCOW)

Typical Seating Capacity	Typical Room Dimensions	Typical m <sup>2</sup>
NA	NA	NA

### Rationale

- Mobile collaboration screen for students

**Note:** This is not suitable for connecting to ISL videoconference lectures - the web conferencing capability is really only suited to a small group of students (1 to 4) connecting to other students using their own tools (eg. Skype, BB Collaborate)

**Timetabling** N/A

### Functional Description

- Single large LCD screen on a trolley,
- Provides PC and webcam for collaborative work and software-based videoconferencing
- Allows students to plug in and display their own device/BYOD Ability to plug in and display a laptop/BYOD
- Wireless only for own device/BYOD

### Technical Description

- Large LCD Screen on trolley
- PC + Keyboard & mouse
- Webcam
- Breakout plate for BYOD – digital AV + audio only • Button controller for on/off/volume
- Double GPO provided on stand .



## 5.21 Single Screen Videoconference Unit - Small Meeting Room (max 10 persons)

Typical Seating Capacity	Typical Room Dimensions	Typical m <sup>2</sup>
NA	NA	NA

### Rationale

**Could be used for a small group video teaching space**

- Budget video connectivity for small meeting rooms where integrated design is not required

### Functional Description

- Single large LCD screen mounted on a wall, or on a stand on floor at end of table
- Fixed microphone only
- Cisco Touch Panel Control
- Screen size is such that viewers need to be fairly close to the screen
- Allows remote participants to converse, and share presentations (e.g .from laptop)
- Does not include PC
- Cables (mic and BYOD cable) run across the floor – therefore cable management is required for OH&S

### Technical Description

- Cisco MX300(6-10 persons) or MX200(1-5 persons) depending on table size (wall mounted or stand-mounted) • Wired mic only
- Cable for BYOD – digital AV + audio only
- Cisco Touch Panel Control (MX300 or MX200)
- Cable Management/Floor Cover



MX300



MX200

## 5.22 Personal Videoconference Unit (1-5 persons)

Typical Seating Capacity	Typical Room Dimensions	Typical m <sup>2</sup>
NA	NA	NA

### Rationale

- Budget video connectivity for an office or small meeting room

### Timetabling:

**STAFF ONLY**

- NA

### Functional Description

- 42 inch LCD screen mounted on a wall, or on a stand on a table
- Fixed microphone only
- Small hand-held remote control only
- Screen size is such that viewers need to be fairly close to the screen
- Allows remote participants to converse, and share presentations (e.g .from laptop)
- Does not include PC
- Cables (mic and BYOD cable) run across the floor – therefore cable management is required for OH&S

### Technical Description

- 42 Inch LCD Screen (wall or table mounted)
- Cisco SX10 (mounted on top of LCD screen) with wired microphone + remote control
- 1-5 Persons





## 5.23 Basic Dual Screen Videoconference Unit – Wall Mounted

Typical Seating Capacity	Typical Room Dimensions	Typical m <sup>2</sup>
10	NA	NA

### Rationale

- Basic video connectivity “on a wall” where integrated classroom presentation/teaching is not required
- Think of this as a ‘stand-alone video window’ that can be used for basic video connectivity
- May be suitable in a learning space where tutorial/discussion style presentation is required (where lecturer does not need to present to a large-room local audience and remote audience simultaneously) **Timetabling:**

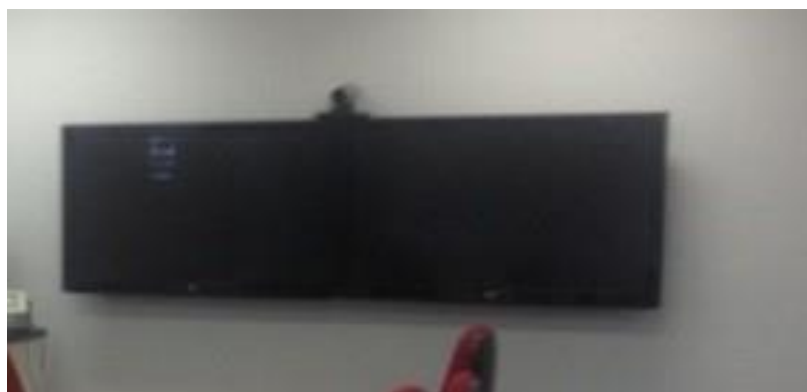
- NA

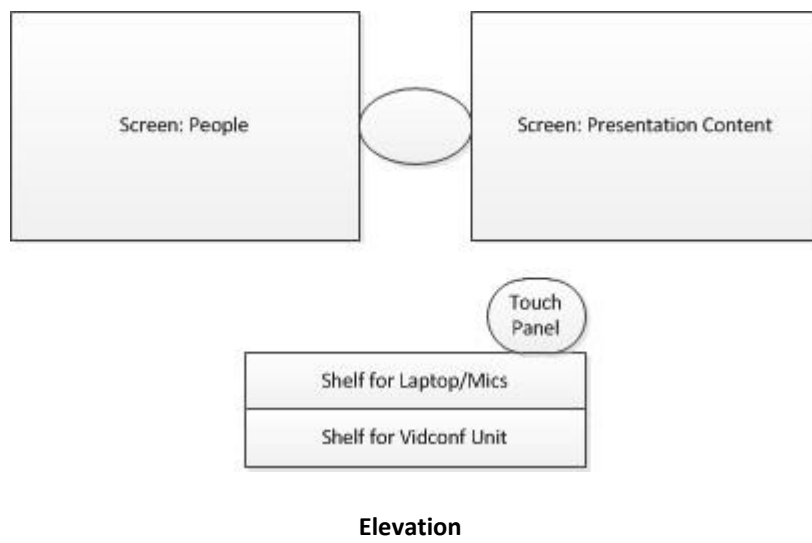
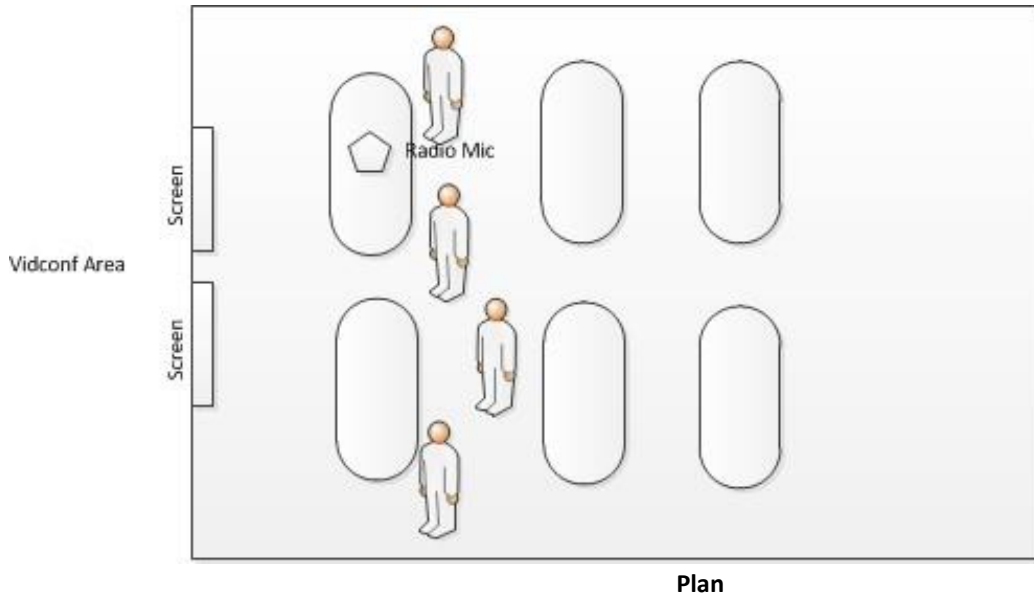
### Functional Description

- Dual large LCD screen mounted on wall
- 2 x Radio Microphones
- Screen size is such that viewers need to be reasonably close to the screen (within 3 metres)
- Allows remote participants to converse, and share presentations (e.g .from laptop) – however presentation is NOT integrated with any other aspect of the learning space
- Does not include PC
- Includes button panel and touch panel controls – for ease of use

### Technical Description

- 2 x large LCD screens
- Cisco SX20
- 2 x wireless Mics
- Cable for BYOD – digital AV + audio only
- AMX Button Panel Control (system on/off) + Cisco Touch Panel Control (calling)





## 5.24 Single Screen Zoom Space/ Huddle Space

Typical Seating Capacity	Typical Room Dimensions	Typical m <sup>2</sup>
10	NA	NA

### Rationale

- Basic Single Screen Zoom Room
- Room based Zoom system suitable for small meeting rooms, office huddle spaces and student huddle spaces
- May be suitable in a learning space receiving site

### Timetabling:

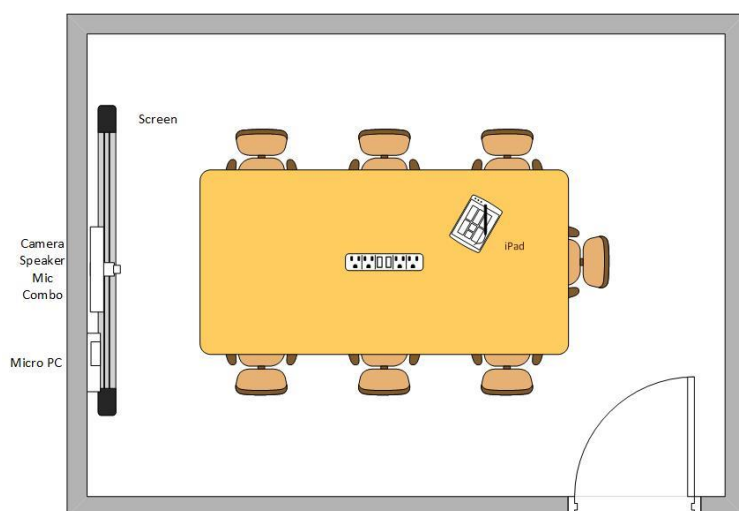
- NA

### Functional Description

- Single large LCD screen mounted on wall
- Camera, USB Microphone speaker (Logitech Meetup)
- Screen size is such that viewers need to be reasonably close to the screen (within 3 metres)
- Allows remote participants to converse, and share presentations (e.g .from laptop) – however presentation is NOT integrated with any other aspect of the learning space
- Does not include PC
- Uses iPad for system control
- Includes button panel for on/off of monitor

### Technical Description

- Single large LCD screens (Size to be determined at planning stage)
- i5 Micro PC wall mounted behind screen
- USB Camera, USB Microphone speaker combo (Logitech Meetup)
- 16Gb iPad with secure wall mount
- 2 button On/Off control panel



PLAN



## 5.25 Small Dual Screen Zoom Room

Typical Seating Capacity	Typical Room Dimensions	Typical m <sup>2</sup>
10-15	NA	NA

### Rationale

- Small Dual Screen Zoom Room
- Room based Zoom system suitable for small to medium meeting rooms
- May be suitable as a learning space receiving site

### Timetabling:

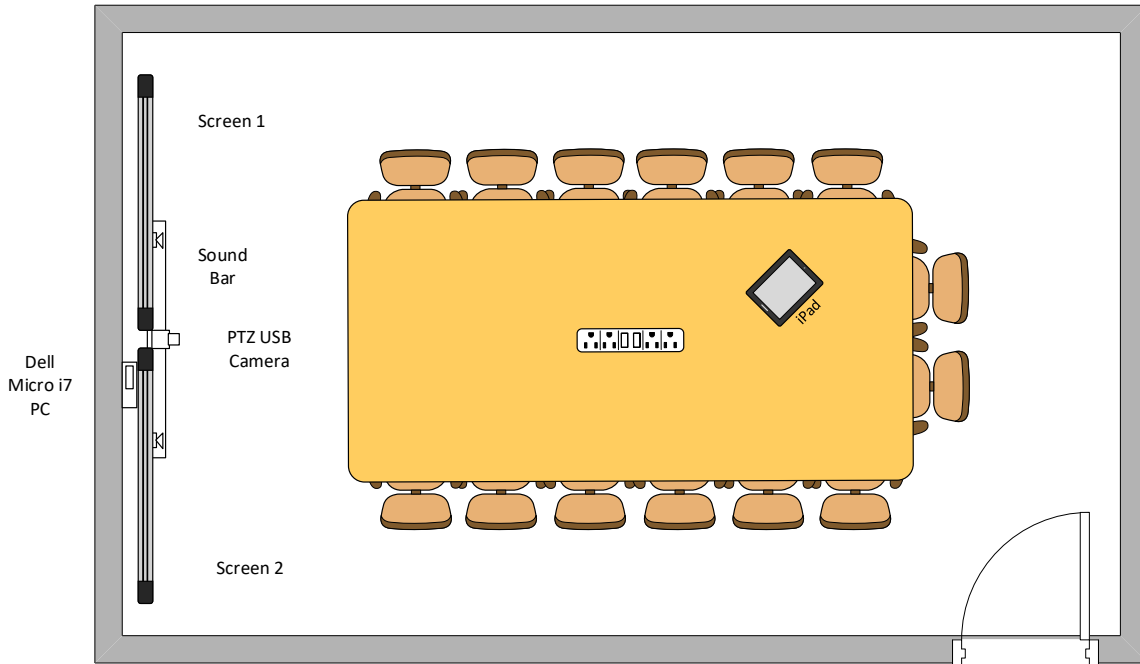
- NA

### Functional Description

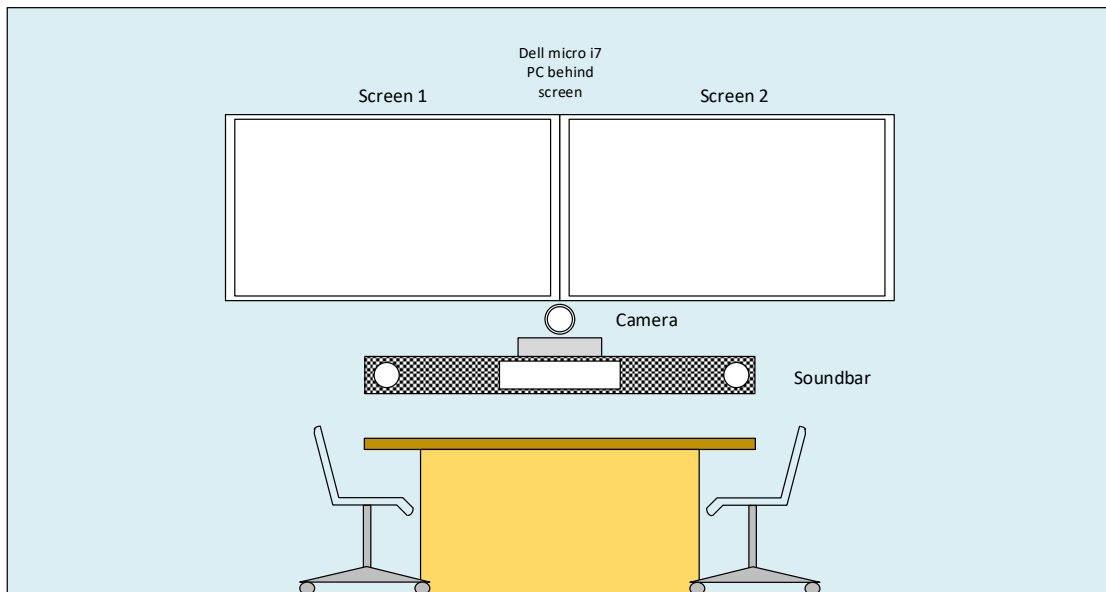
- Dual large LCD screen mounted on wall
- Camera, USB Microphone speaker (Logitech Meetup, AMX Ascendo)
- Screen size to CQU standard
- Allows remote participants to converse, and share presentations (e.g. from laptop) – however presentation is NOT integrated with any other aspect of the learning space
- Does not include PC
- Uses iPad for system control
- Includes button panel for on/off of monitor

### Technical Description

- Single large LCD screens (Size to be determined at planning stage)
- I7 Micro PC wall mounted behind screen
- USB Camera, USB Microphone speaker combo (Logitech Meetup, AMX Ascendo)
- 16Gb iPad with secure wall mount
- 2 button On/Off control panel



Typical Plan



Typical Elevation

## 5.26 Large Dual Screen Zoom Room

Typical Seating Capacity	Typical Room Dimensions	Typical m <sup>2</sup>
25	NA	NA

### Rationale

- Large Dual Screen Zoom Room
- Room based Zoom system suitable for medium to large meeting rooms
- May be suitable as a learning space receiving site

### Timetabling:

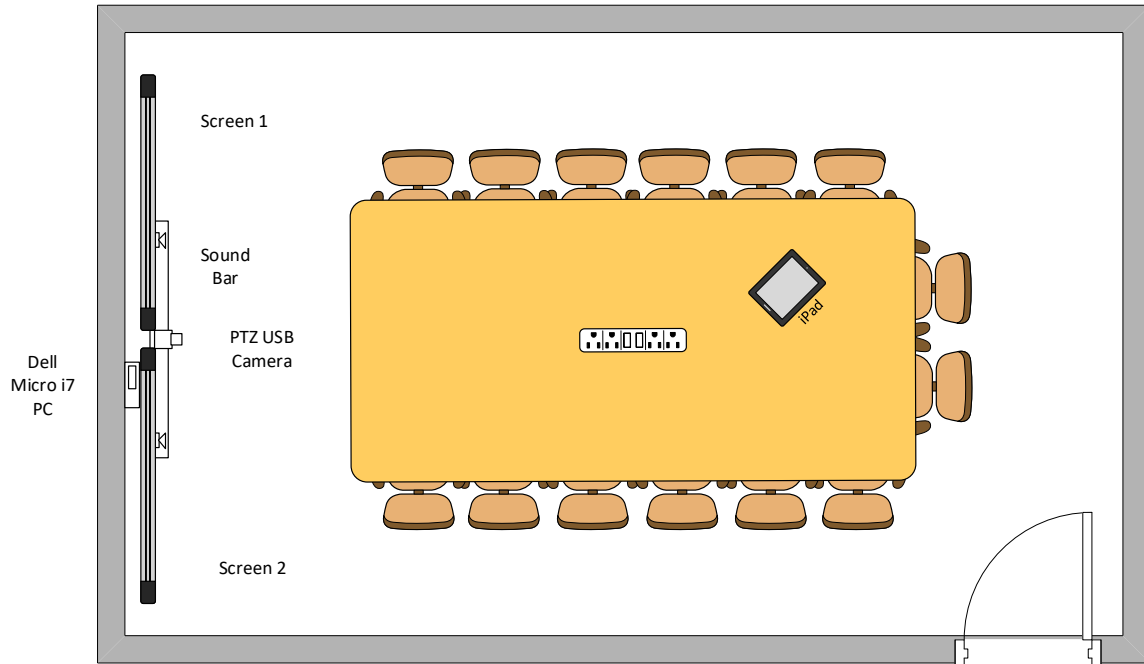
- NA

### Functional Description

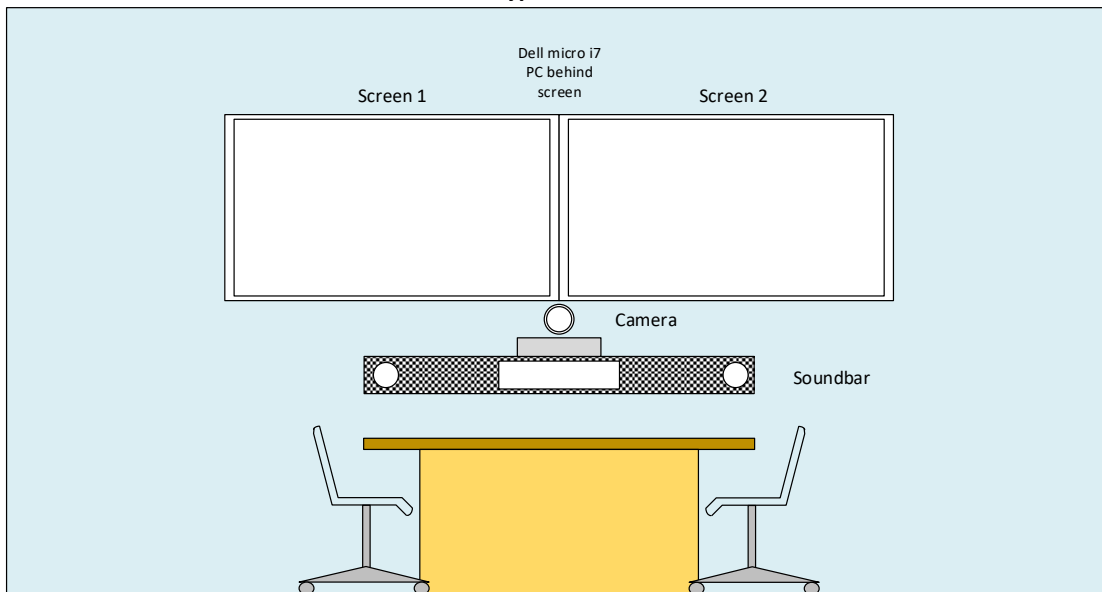
- Dual large LCD screens mounted on wall (Screen size to CQU standard )
- USB PTZ Camera (Aver Cam 520 or similar)
- Multiple boundary microphones through Analogue to USB bridge mixer
- Allows remote participants to converse, and share presentations (e.g. from laptop) – however presentation is NOT integrated with any other aspect of the learning space
- Includes i7 PC
- Uses iPad for system control
- Includes button panel for on/off of monitor

### Technical Description

- Dual large LCD screens (Size to be determined at planning stage)
- I7 Micro PC wall mounted behind screen
- USB Camera, multiple boundary microphone
- 16Gb iPad with secure wall mount
- 2 button On/Off control panel



**Typical Plan**



**Typical Elevation**

## 5.27 C-Space (Connect Collaborate Create)

Typical Seating Capacity	Typical Room Dimensions	Typical m <sup>2</sup>
Up to 20	8 x 10	80

### Rationale

- Modern, Flexible teaching space to support group learning
- Flexible alternative to a PC-Lab
- Allows for in-room PC and/or lecturer to bring own device (BYOD)

### Timetabling:

- Centrally timetabled by staff for teaching – available to students as group study space in between timetabled sessions

### Functional Description

- Flexible and Mobile desks and chairs that suit multiple arrangements. Includes a standard 5.19 for presentation. Desk size to suit exam conditions.
- Monitors mounted around the wall, evenly spaced and on flexible arms.
- Laptops to match the number of desks and locked trolleys to store and charge.
- Mix of mobile whiteboards and wall mounted whiteboards
- May include relaxed furniture for small group sessions

### Technical Description

- Includes standard 5.19 for presentation. As per 5.19 Bill of Materials and Schematic.
- Laptops with extended battery life to suit the number of desks
- PC-Locs, or similar trolley to securely store and charge laptops. Trolley to be padlocked to ground.
- Monitors mounted to flexible arms around the room. HDMI cable installed from monitor to wall mount
- Double GPO behind monitor and Double GPO between two screens above bench height for laptops
- Data outlets and double GPO evenly spaced around the room to support MoCOWs (5.20)
- Wireless AP to be installed in the room, in consultation with the network team

**Design Derivation:** Includes standard 5.19. May also require MoCOW 5.20.





## 5.28 ZoomCow

Typical Seating Capacity	Typical Room Dimensions	Typical m <sup>2</sup>
NA	NA	NA

### Rationale

- Mobile Zoom Collaboration Screen for staff and students.

**Note: This is not suitable for connecting to ISL videoconference lectures – The web conferencing capability is only suited to Zoom sessions.**

### Timetabling:

- NA

### Functional Description

- Single large touch screen on a motorised, height adjustable trolley.
- Allows for wireless sharing from Wifi connected laptops using the zoom software.
- Also used as an interactive whiteboard.

### Technical Description

- 55" touch screen LCD
- MicroPC mounted to rear of display running Zoom Rooms Software.
- MicroPC requires a network connection.
- Logitech meetup mounted to the top of the display for camera and audio.
- Double GPO provided on Stand.
- Button controller for On/Off
- Logitech camera can be controlled via bluetooth using IOS app LogiRemote

