



Audio Visual, CCTV, Access Control, Intrusion and Information  
Technology Systems  
Phone: (416) 557-2336  
Email: ehenny@techwavecom.com

## AV LEGEND

	IT/AV EQUIPMENT RACK
	15A - 120V - DUPLEX
	15A - 120V - QUAD
	20A - 120V - TWIST LOCK
	DATA OUTLET (# = NUMBER OF DROPS)
	MICROPHONE (SUSPENDEO OR TILE MOUNTED)
	PTZ CAMERA - 2-GANG ELECTRICAL BOX FOR AV COMPONENT
	1-GANG ELECTRICAL BOX FOR AV COMPONENT
	2-GANG ELECTRICAL BOX FOR AV COMPONENT
	3-GANG ELECTRICAL BOX FOR AV COMPONENT
	TOUCH PANEL (AV CONTROL INTERFACE)
	FLOOR BOXES WITH POWER/DATA/AV (COORDINATION IS REQUIRED) THIS DEVICE MAY ALSO BE FLOOR POKE, CORE DRILL, ETC. AS DESIGNED AND COORDINATED BY THE ARCHITECT AND ELECTRICAL ENGINEER.
	PROJECTION SCREEN
	VIDEO/DATA PROJECTOR
	LOUDSPEAKER (SUSPENDEO OR TILE MOUNTED)

### HEATLOAD DUE TO AV EQUIPMENT ONLY

TEACHING STATION	LOCATION	sBTU/hr.
INSIDE THE MILLWORK	AV CABINETS	5,000 TO 8,000
PROVIDE COOLING AND VENTILATION	VENTS AND FAN	

## ABBREVIATIONS

GC	- General Contractor	ARCH	- Architect
EC	- Electrical Contractor	OFE	- Owner Furnished Equipment
AVC	- Audiovisual Contractor	AFF	- Above Finished Floor

## INTERIOR ROOM ENVIRONMENT

### Furniture:

Dark colored, high gloss tables should be avoided whenever possible as they create a glare problem for the cameras and do not effectively reflect light for shadowed areas. Glass tops can NOT be put on tables. For best results, a light colored table with a matte finish should be used; a light Oak is a good choice. i.e. Bannister Oak. Table shape is also important. A slightly curved "C" shaped table, or a straight table are what is usually selected. These offer the advantage of all meeting participants being about equal distance from the camera; thereby eliminating any field of focus problems. The disadvantage is that fewer people can be fit into the picture at one time. Another popular shape is the "V" shape. This allows more people to fit into the picture at one time but, because of the varying depth from the camera, can cause problems with the camera field of focus.

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### Coloring:

For room interiors, very bright or very dark colors should be avoided. Also, patterned wall paper or drapes in front of the camera should not be used. For best results the color should be a light blue (crystal blue), a medium gray, or a dark wheat color; with crystal blue being the preference. These colors aren't mandatory, nor will the room be unusable if they aren't selected. However, empirical data has shown these colors to provide the best background for the camera, and enhances the probability of a successful video teleconferencing environment.

### Floors:

All floor surfaces in front of the video equipment should be carpeted, preferably with an anti-static type of carpeting. Since the carpet is rarely seen on camera, prohibitions about colors, and patterns are much less critical for the carpets. The main function of the carpet is to provide a sound absorption material to prevent echo from bouncing around the room, or noise intrusion from the floor below.

### Exterior Windows:

All exterior windows must be covered with blackout type shades, blinds or drapes for meeting rooms and other rooms with projection systems.

### Interior Glass Partitions:

Interior glass partitions will cause additional unwanted glare in the room, especially an exterior perimeter room which has exterior windows. In all cases all glass partitions must be covered (from the inside) with blackout type shades, blinds or drapes.

## ROOM ACOUSTICS

Classrooms and Meeting room must be designed for a Noise Criteria of NC-35 dB A-weighted (ANSI) S12.60.

Of all the problems associated with rooms equipped for web based teleconferencing, audio quality usually causes the most problems, and is the hardest to correct. Room acoustics are impacted by several factors: room size, ceiling height, wall/ceiling/floor material, desk/table placement, external noise factors, microphone types, the number of people in the room, etc. Ideally, all walls and ceiling should have acoustical panels; having a noise coefficient (NRC) of 0.9. The reality is, most rooms will have walls that are made of panel, plasterboard, or concrete, with windows, doors, and white boards: all having hard surfaces. The impact of these hard surfaces will be felt, not in the local room, but at the distant end. These hard walls act as reflectors for the room sound, or the voice coming from the distant end via the speaker. This noise hits the walls, an is directed back into the microphones, just as a ping pong ball thrown against a hard surface. The results are that the distant end hears the noise, or worse, their own voice coming back at them. The effect is similar to a bad echo cancel on a voice line, which is extremely disconcerting to the distant end.

For teleconferencing rooms the best solution is to create an environment where the receive level can be turned up to a level where all room participants can hear the distant end without straining. Also, where you can speak at a normal or low level without the distant end having problems hearing them. To do this we have to adjust speaker and microphone levels higher: while simultaneously reducing the reverberation or echo from feeding back into the microphone.

The area of the rooms to be covered is as follows: Approximately 50% of the wall and floor area needs to be covered with carpet, acoustic ceiling or acoustic panels. Recommended panel type: Armstrong "soundsoak" 1" thick compressed, dense-core fiberglass, fabric covered, or equivalent, with a SABIN (sound Absorption index) value of .9 average.

Acoustical treatment to the walls, ceiling and floor will prevent reverberation and ambient noise from intruding into the conference. This is where sound absorption, or acoustical panels are used. Acoustical panels come in varying levels of effectiveness and while .9NRC is desired, a .6NRC is acceptable.

There are also several other products, not specifically designed for sound absorption, that will also perform the function adequately. Standard acoustical ceiling tile should be used in the rooms; however Owens Corning Softex Acoustical Ceiling Panels, or their equivalent, will provide greater reverberation control and are suggested. Another item to consider is building walls up past the false ceiling to the true floor above. This will help eliminate any noise that travels in ceiling plenum area.

Air conditioning is frequently a large contributor to excessive ambient level noise. This can be alleviated through the use of air flow diffuser (100CFM) or adding acoustical baffles inside the ducts, if the noise is coming from the AC motor.

### CONDUIT AND BACKBOX NETWORKS

#### GENERAL:

1. THIS SECTION DESCRIBES THE SPECIAL REQUIREMENTS OF THE VARIOUS SYSTEMS NETWORKS
2. THE ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL NETWORKS OF CONDUITS, CABLE TRAYS, PULL BOXES, JUNCTION BOXES AND BACK BOXES COMPLETE WITH PULL STRINGS.
3. REVIEW FLOOR PLANS FOR DEVICE LOCATIONS. COORDINATE CONDUIT PATH WITH THE ARCHITECT.

#### BACKBOXES (BY THE ELECTRICAL CONTRACTOR)

##### GENERAL:

1. THE TERM "BACKBOX" INCLUDES TERMINATION BOXES MOUNTED TO WALLS, CEILINGS AND IN FLOORS. ALL BACKBOXES TO BE SUPPLIED WITH UTILITY COVERS, FASTENED IN PLACE.
2. THE DRAWINGS SHOW APPROXIMATELY WHERE BACKBOXES ARE TO BE LOCATED. FOR EXACT LOCATIONS, SEE ID AND OR ARCHITECTURAL DRAWINGS OR OBTAIN DIRECTION FROM THE ARCHITECT. THE LOCATIONS OF SOME PULL BOXES AND JUNCTION BOXES ARE INDICATED FOR REFERENCE. THEIR EXACT LOCATIONS TO BE DETERMINED BY THE DIV. 16 CONTRACTOR IN THE FIELD, SUBJECT TO THE REQUIREMENTS SHOWN HEREIN AND IN THE DRAWINGS.

#### NOMENCLATURE

1. WITH THE EXCEPTION OF CERTAIN "DAISY-CHAIN" LAYOUTS (E.G. LOUDSPEAKERS), EACH BACKBOX IS IDENTIFIED BY A UNIQUE NUMBER OR LETTER. FOR "DAISY-CHAIN" GROUPS, EACH GROUP IS ASSIGNED A UNIQUE ZONE IDENTIFICATION.
2. CONSULT AV DRAWINGS FOR DETAILS OF BACKBOX INSTALLATION REQUIREMENTS (SIZE, MOUNTING HEIGHT, OTHER REQUIREMENTS). FINAL MOUNTING LOCATIONS AS PER ID OR ARCHITECTS DRAWINGS.
3. EACH SPEAKER LOCATION IS IDENTIFIED BY A ZONE CODE ACCORDING TO THE AV SYSTEM(S) REQUIREMENTS.

#### MATERIALS

1. ALL BACKBOXES TO BE MANUFACTURED OF STEEL.
2. ALL BACKBOXES TO BE 75MM (3") DEEP OR GREATER, EXCEPT LOUDSPEAKER BACKBOXES, WHICH MAY BE OF A SPECIFIC SIZE, DEPENDING ON LOCATION (COORDINATE WITH THE AV CONTRACTOR).
3. ALL SUSPENDED BACKBOXES (AN EQUIPMENT) SHALL INCLUDE AT LEAST ONE REDUNDANT OVERHEAD RATED MOUNTING CABLECHAIN TO BE FASTENED TO THE CEILING SLAB OR OTHER STRUCTURAL MEMBER FOR SEISMIC AND FIRE SAFETY PURPOSES. TENSION RATINGS OF CHAIN AND FASTENERS TO MEET CODE REQUIREMENTS.

#### INSTALLATION

1. COORDINATE BACKBOX LOCATIONS AS REQUIRED WITH ELECTRICAL POWER RECEPTACLES AND LIGHT SWITCHES TO PRESENT A UNIFORM APPEARANCE TO THE SATISFACTION OF THE ARCHITECT.
2. MARK BACKBOXES IN THE FIELD CONSISTENT WITH THE DRAWINGS FOR IDENTIFICATION PURPOSES. USE PERMANENT MARKER TO MARK ID AND SYSTEM CODE ON THE FACING SURFACE OF THE BACKBOX.
3. COORDINATE CEILING BACKBOXES WITH OTHER SERVICES IN CEILING SUCH THAT BACKBOXES ARE CLEAR OF INTERFERENCES AND DIRECTLY ACCESSIBLE FROM BELOW.
4. IN OPEN CEILINGS, WHERE WIRE ROPE, THREADED ROD OR STRUT IS THE PRIMARY HANGING SUPPORT, ENSURE THAT LOUDSPEAKERS ARE SUSPENDED PLUMB AND LEVEL AT CONSISTENT HEIGHT ABOVE FINISHED FLOOR.
5. WHERE LOUDSPEAKER BACKBOXES WILL BE CONCEALED ABOVE PLASTER OR GYPSUM BOARD CEILING PRIOR TO INSTALLATION OF THE LOUDSPEAKERS, PROVIDE PULLSTRINGS SUSPENDED BELOW THE CEILING LINE TO INDICATE ITS LOCATION.

#### CONDUIT AND CABLE TRAYS (BY THE ELECTRICAL CONTRACTOR)

##### ORGANIZATION

1. UNLESS NOTED OTHERWISE, PROVIDE A SEPARATE NETWORK CONNECTING ALL BACKBOXES OF EACH SYSTEM, AS IDENTIFIED ON THE DRAWINGS.
2. UNLESS NOTED OTHERWISE, PROVIDE CONDUIT AND CABLE TRAYS TO JOIN EVERY BACK-BOX TO THE NETWORK(S), WHETHER OR NOT THE CONDUIT IS SPECIFICALLY DESCRIBED HEREIN.
3. WHERE SHOWN ON THE EAV DRAWINGS, SYSTEMS ARE COMBINED INTO "SHARE GROUPS": PROVIDE A SEPARATE NETWORK FOR EACH CABLE SHARE GROUP, UNLESS INDICATED AS SHARED. "DO NOT INTERMIX WIRING TYPES IN A GIVEN CONDUIT" example: DO NOT MIX MICROPHONE CABLES WITH LOUDSPEAKER CABLES.
4. WHERE A BULKHEAD OR PANEL IS SHOWN ON THE DRAWINGS AS "AVRIFB", MULTIPLE SEPARATE CONDUIT NETWORKS MAY BE TERMINATED TO IT, WHERE CONDUIT RUNS CONTINUE THROUGH A MULTI PANEL, MAINTAIN ORGANIZATION OF GROUPS ON BOTH SIDES.

## Systems Infrastructure Reference Notes

1. All designs, plans and specifications generated by the architects, electrical engineers, acoustical consultants, or project planners, pertaining directly to the installation of the audiovisual systems should be forwarded to TWC for review. It is our intention to aid all involved in the project, by insuring that all consensus and criteria are met for the proper installation of the various AV, IT and Security systems.
2. These drawings are intended as design input only to the architect and the electrical engineer. They are intended only as reference for design, owners and pricing coordination.
3. Where exact dimensions are not called for, do not scale this drawing, confirm locations for junction boxes, outlet boxes, wire ways, panels, etc. with the architects and system designers. Room dimensions on this drawing have been taken from preliminary architectural drawings.
4. Exact locations of flush floor boxes and flush floor power receptacles shall be verified with the architect, once final furniture designs and locations have been determined.
5. All power conduit, cable trays, J-hooks, and power junction boxes are to be sized by the electrical engineer. Where these items have been sized on this drawing, the electrical engineer shall check sizing for compliance with applicable codes. It is the electrical consultant/engineers responsibility to specify all systems conduits, cable trays, J-hooks, power and back boxes to meet all project requirements and applicable codes.
6. All junction boxes, conduit, J-hooks, wire ways, power, receptacles, floor boxes, are part of the Electrical Contractor scope of work.
7. Conduit and cable tray runs on this drawing show only interconnection between the termination points. The exact path of conduits and cable trays are to be determined by the electrical engineers and the architect. There shall be a minimum of one pull box for every 100 feet of straight empty conduit and a pull box for more than two 90 degree bends in a conduit run. All conduit and cable trays shall tagged and furnished with pull wires and shall be provided by base electrical contractor.
8. Power receptacles shown on the EAV drawings are DEDICATED to specific audiovisual equipment. They should be standard commercial duplex outlets (i.e. Hubbell 5262 or equivalent). Refer to TWC EAV drawings for quantities & locations. Additional utility power receptacles to meet code or convenience requirements are not shown and is the responsibility of the electrical consultant/engineer.
9. Power breaker panels are to be sized and specified by the electrical engineer. All circuits are to be protected 15 or 20 amp circuit breakers unless otherwise detailed. The circuit breaker panel should be accessible at all times (i.e. not locked), for maintenance access if required. All circuits must be CLEARLY labeled.
10. Power circuits for the AV systems must be on the same phase, but NOT on the same phase as any compressors, motors or lighting dimming systems.
11. All AV equipment racks must be completely grounded for proper operation.
12. All cable types shown are estimates only. Exact cable types and quantities shall be verified by the AVC. The AVC shall issue an approved cable pull drawing during the shop drawing process.

## ROOM READINESS

This section provides a checklist for the condition of the rooms prior to delivery and installation of the Audiovisual, CCTV and IT systems. The equipment are delivered after the rooms are "ready" to ensure a proper and secure installation of the various systems equipment.

1. All construction in the rooms complete, including:
  - a) the room free of debris and clean.
  - b) all walls complete with any fabric wall coverings or paint
  - c) ceilings complete and closed
  - d) floor finishes / carpet installed
  - e) all doors installed
  - f) general and track lighting installed
2. The AV/IT room complete including:
  - a) room painted
  - b) floor closed
  - c) all doors installed
  - d) general and track lighting installed
  - e) the room free of debris and clean
3. All electrical work related to the various system complete, including:
  - a) installation of all conduit, floor boxes, junction boxes wire ways, etc.
  - b) All related low voltage systems cables installed.
4. All specialty lighting and other ceiling lighting installed.
5. Lighting systems installed, tested and operational.
6. Motorized drapes installed and operational (where specified).
7. All millwork items complete for housing the systems equipment.
8. All phones, modem, data and LAN connections live.
9. The meeting room table installed and complete.
10. All credenzas, cabinets & closets housing AV Equipment to have locking doors.
11. All identified Rooms, Equipment rooms to have card readers as required.

### NOTE:

All audiovisual spaces must be "room ready" three weeks (TBD) prior to expected system operation date.

Refer to audiovisual specifications for further schedule information.

The contractor shall verify all dimensions and information on site  
and report any discrepancy to architect before proceeding.

## YORK CLASSROOM RENEWAL Y3

York University

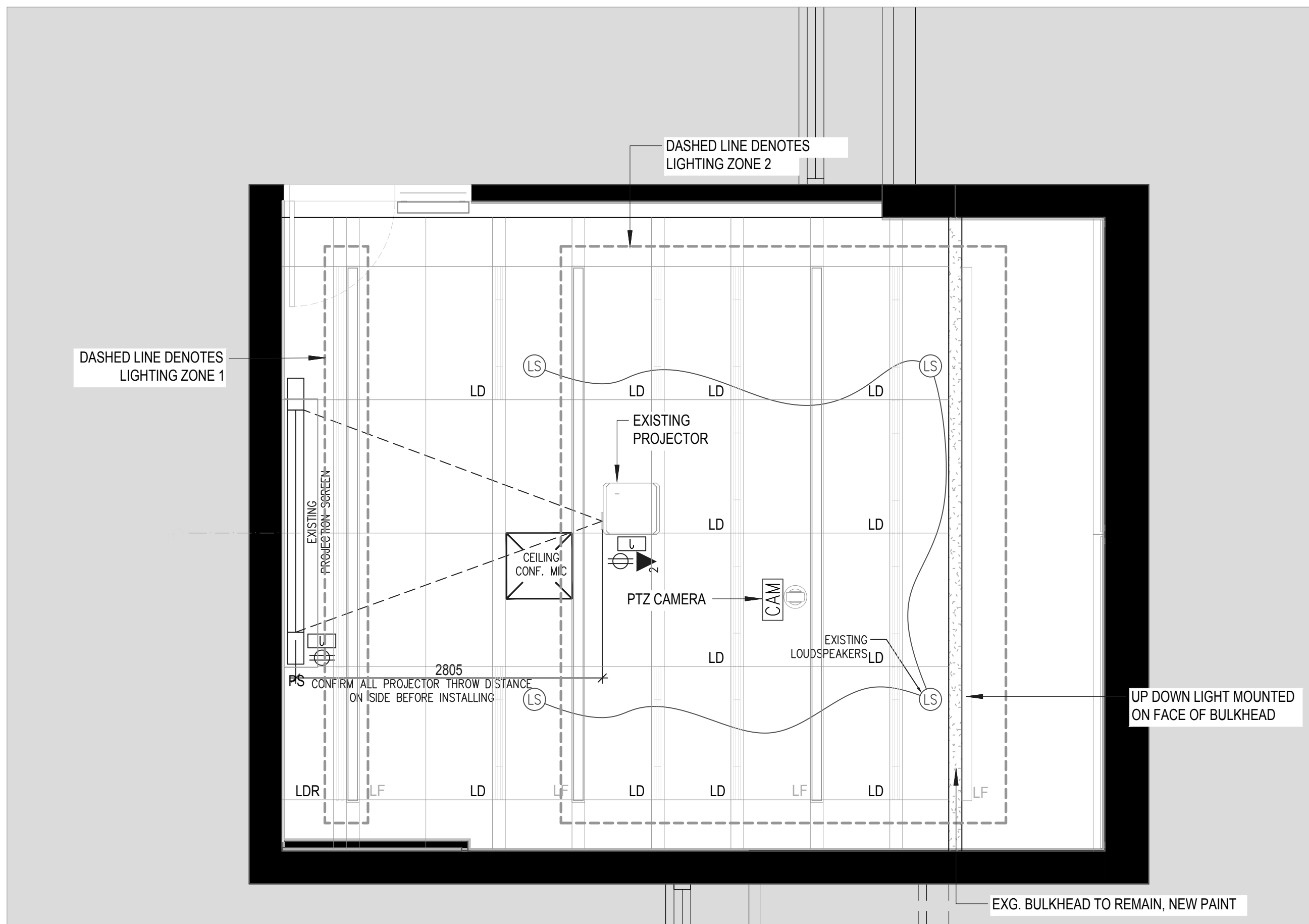
## INFORMATION: AUDIO VISUAL SYSTEMS NOTES

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Reviewed by: EH  
Job number: 02207  
Plot date: 2022.12.09

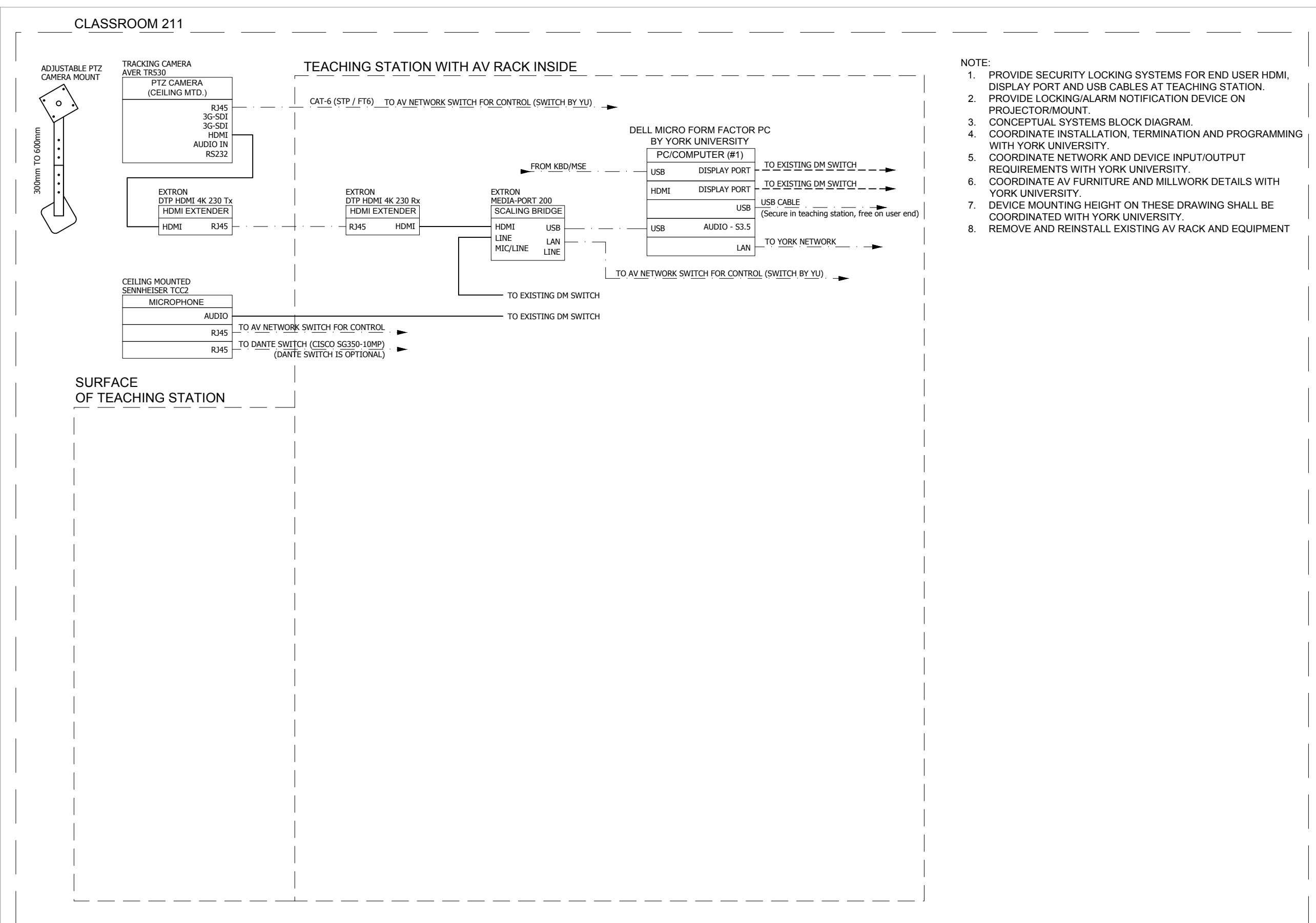
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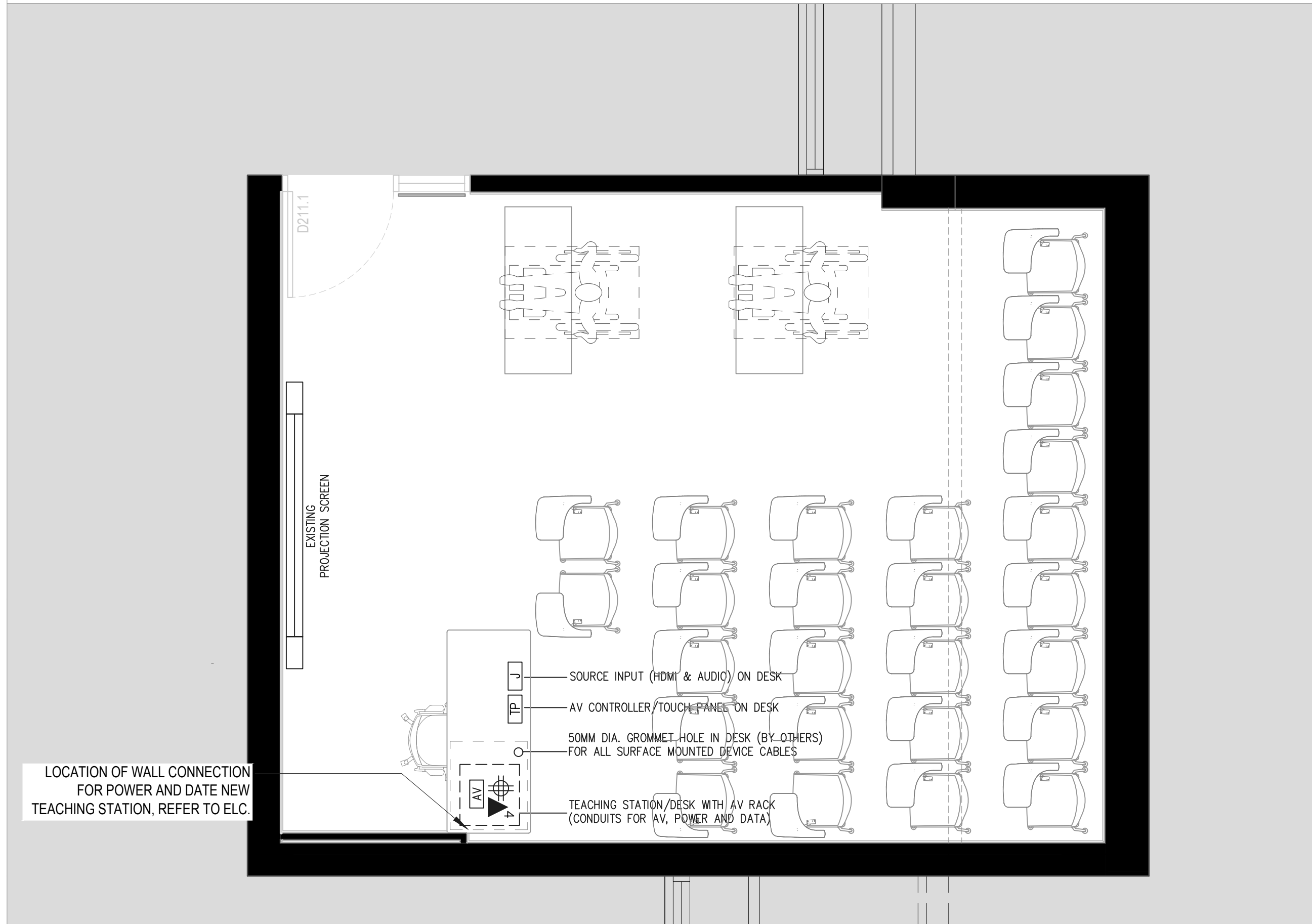




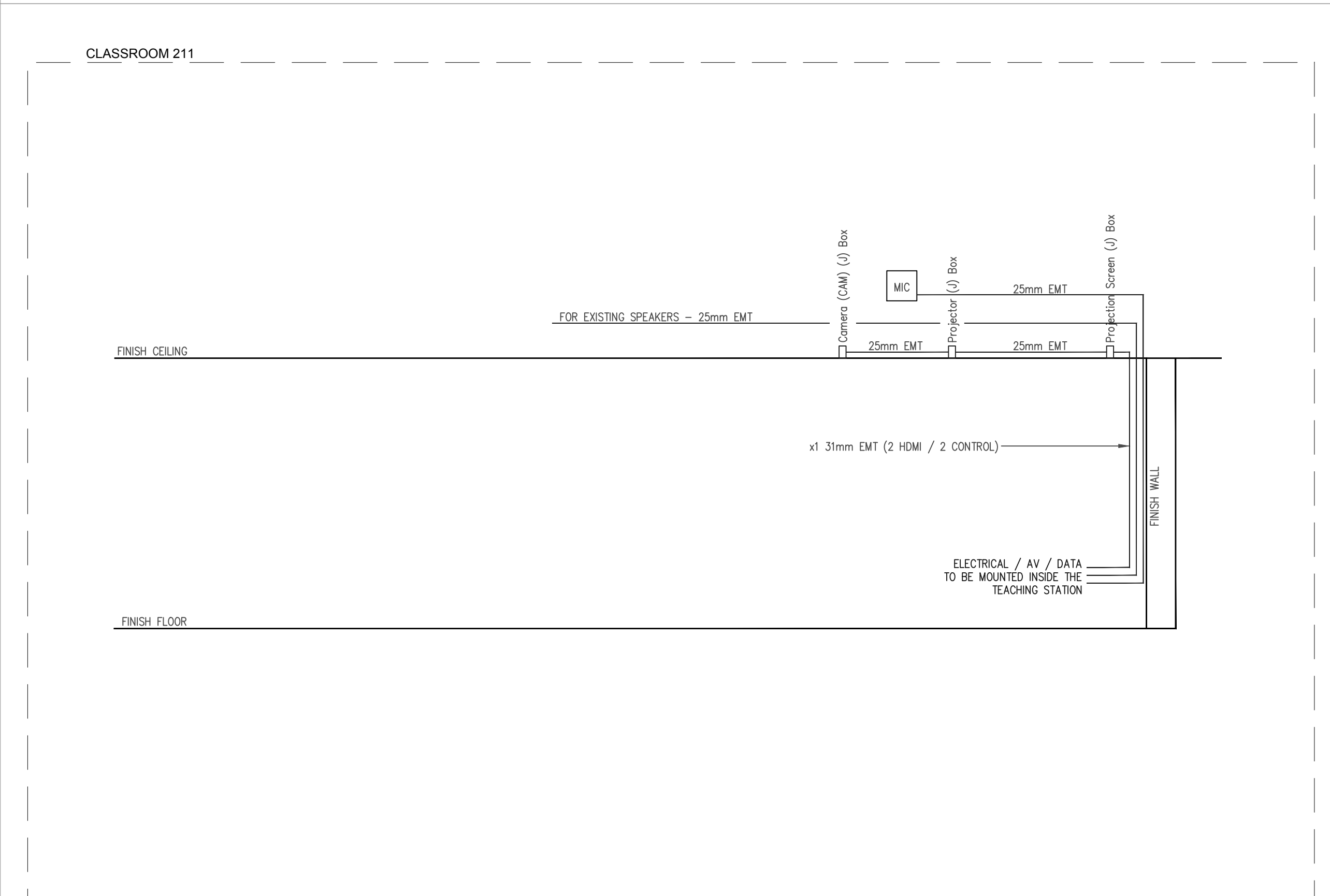
1 MC 211\_REFLECTED CEILING PLAN  
EAV212



3 AUDIO VISUAL SYSTEMS BLOCK DIAGRAM  
EAV212



2 MC 211\_PROPOSED FLOOR PLAN  
EAV212



4 AUDIO VISUAL SYSTEMS CONDUIT RISER  
EAV212 NOT FOR CONSTRUCTION - REFER TO EC DRAWINGS

2023.06.05	ISSUED FOR TENDER	RN
2023.05.19	80% CD COORDINATION	RN
2023.02.13	100% DD COORDINATION	RN
2023.01.09	ISSUED FOR COORDINATION	RN
DATE	REVISION	BY

drawing and specifications are the property of the architect.  
contractor shall verify all dimensions and information on site  
report any discrepancy to architect before proceeding.

WORK CLASSROOM  
RENEWAL Y3

University, Keele Campus

## PHASE 2

CLING NAME:  
**CLAUGHLIN COLLEGE (MC)**

CLING NUMBER:  
**78**

CLASSROOM TYPE:  
**TRADITIONAL FLAT (TABLET)**

CLASSROOM NUMBER:  
**11**

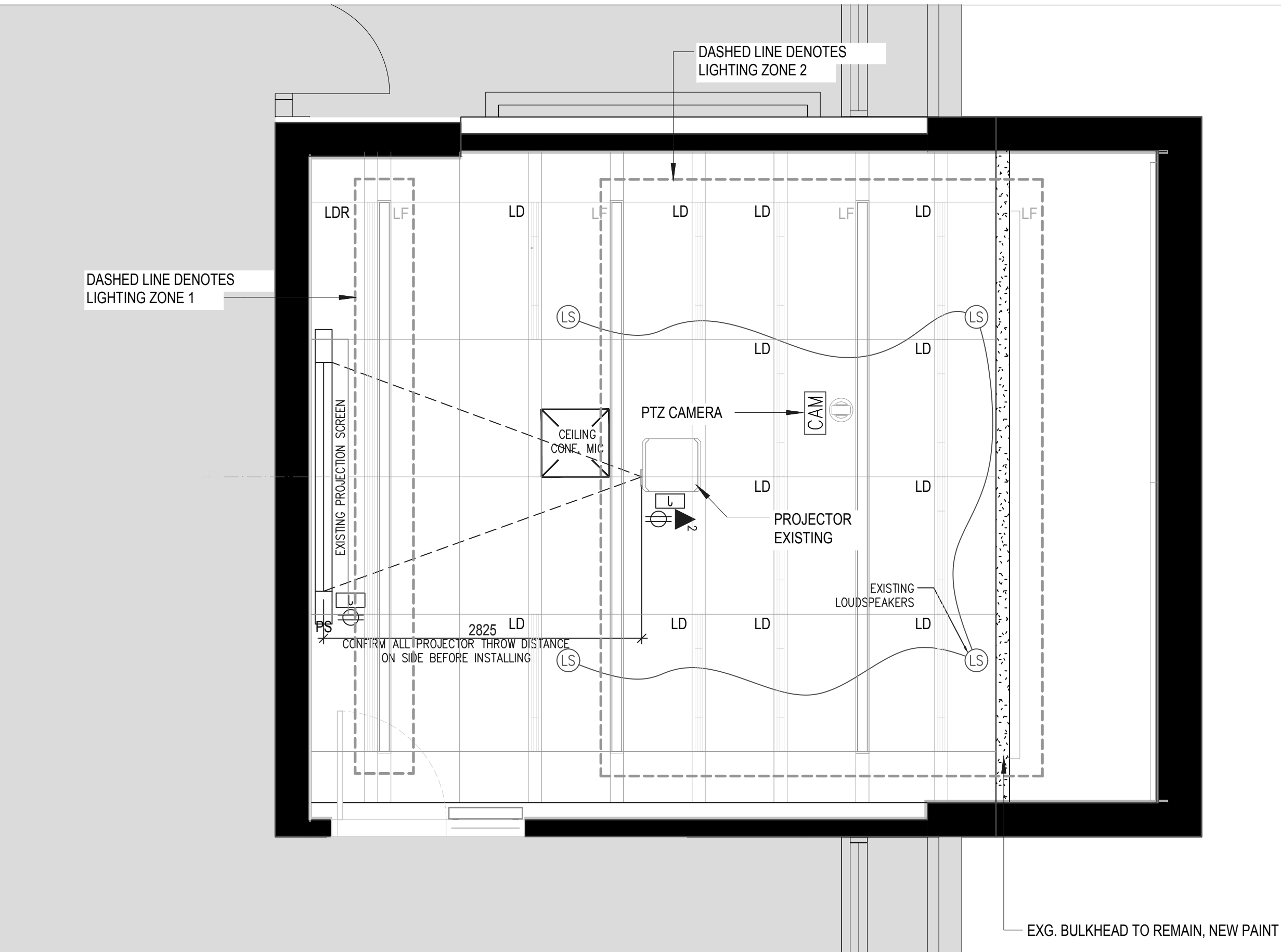
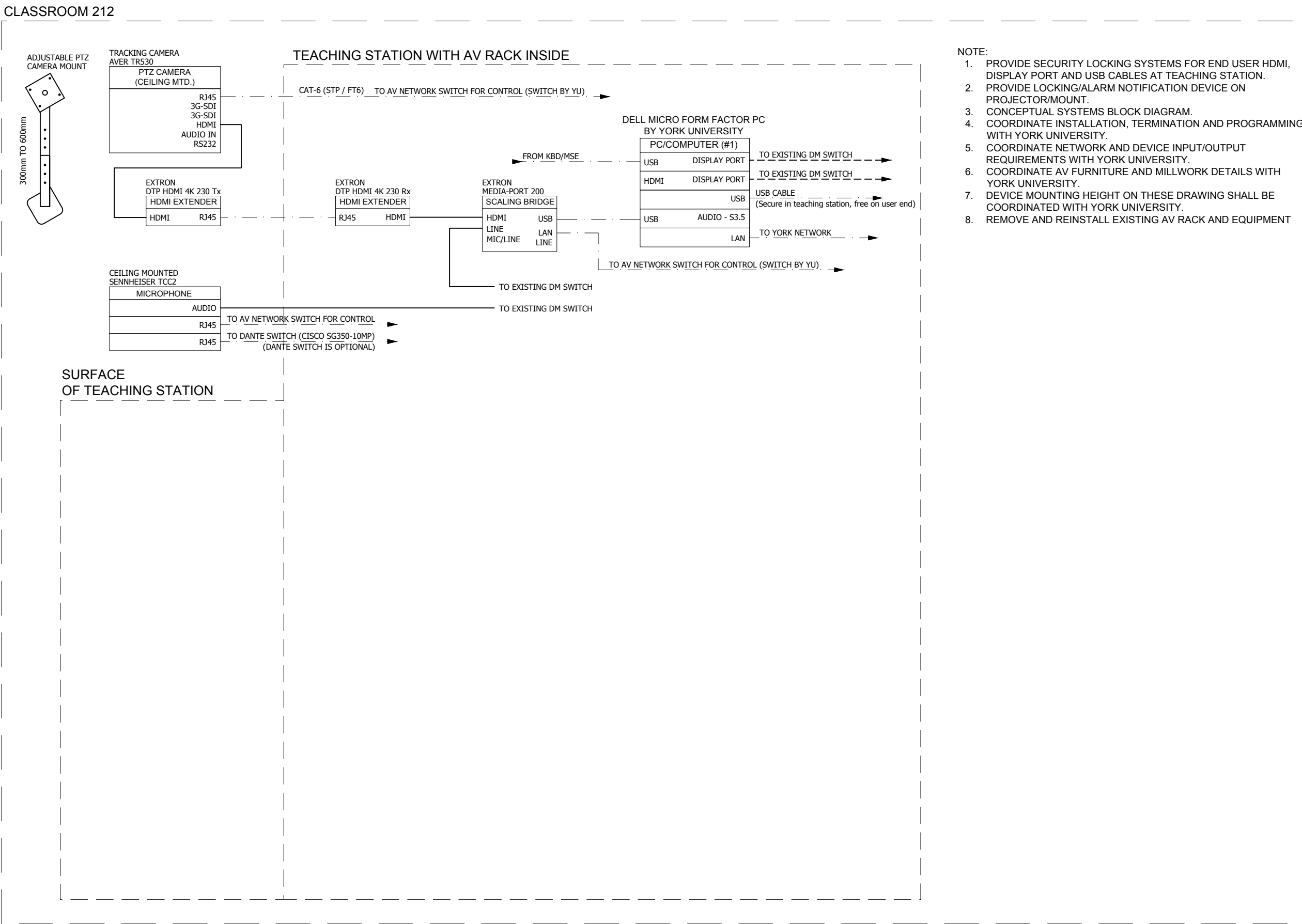
CLASSROOM CAPACITY:  
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Reviewed by:	N/A
Approved by:	RN
Reviewed by:	EH
Document number:	02207
Date:	2022.12.09

ving number:

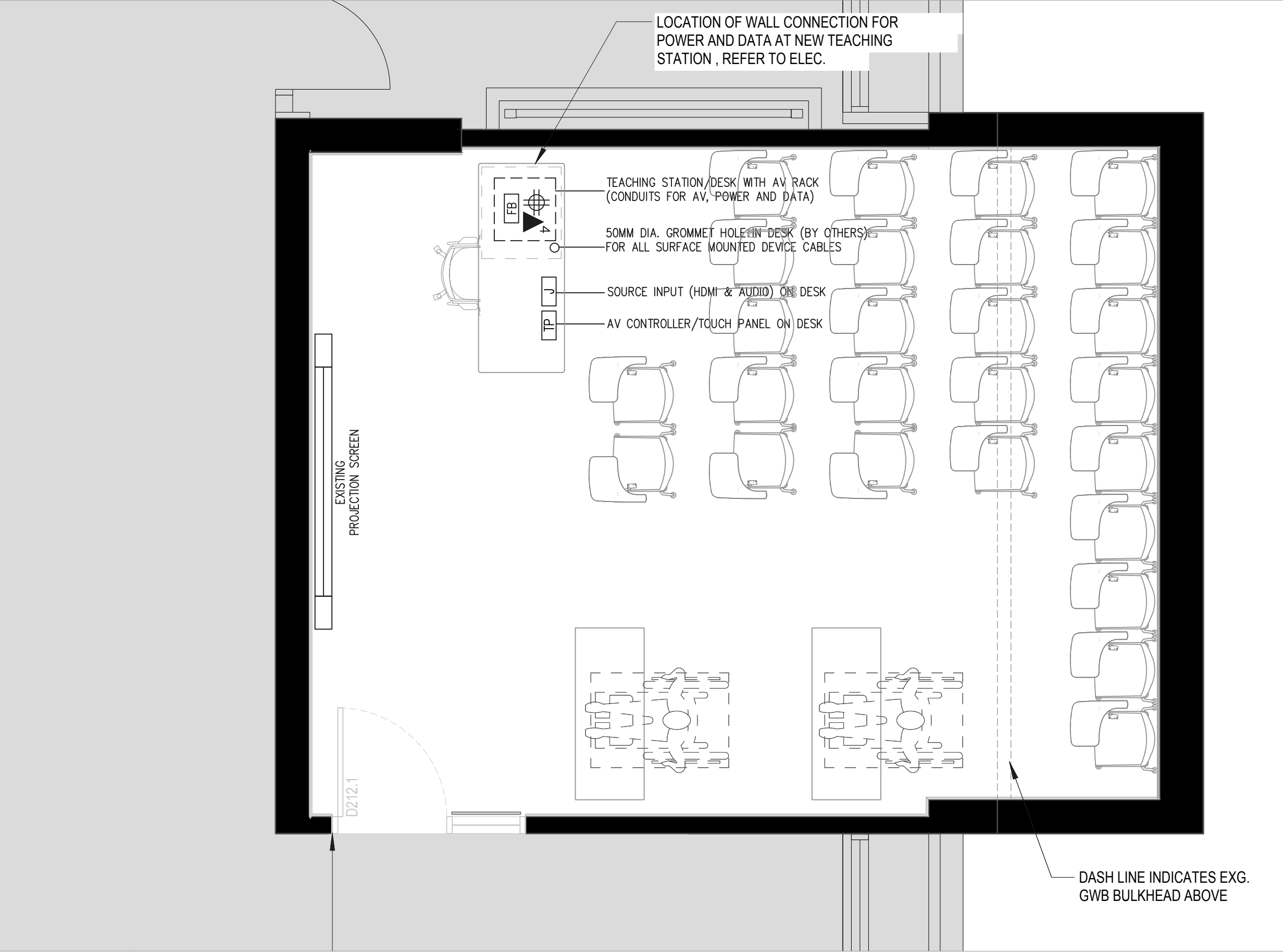
EAV212-211

- NOTE:
1. PROVIDE SECURITY LOCKING SYSTEMS FOR END USER HDMI, DISPLAY PORT AND USB CABLES AT TEACHING STATION.
  2. PROVIDE LOCKING/ALARM NOTIFICATION DEVICE ON PROJECTORMOUNT.
  3. CONCEPTUAL SYSTEMS BLOCK DIAGRAM.
  4. COORDINATE INSTALLATION, TERMINATION AND PROGRAMMING WITH YORK UNIVERSITY.
  5. COORDINATE NETWORK AND DEVICE INPUT/OUTPUT REQUIREMENTS WITH YORK UNIVERSITY.
  6. COORDINATE AV FURNITURE AND MILLWORK DETAILS WITH YORK UNIVERSITY.
  7. DEVICE MOUNTING HEIGHT ON THESE DRAWING SHALL BE COORDINATED WITH YORK UNIVERSITY.
  8. REMOVE AND REINSTALL EXISTING AV RACK AND EQUIPMENT

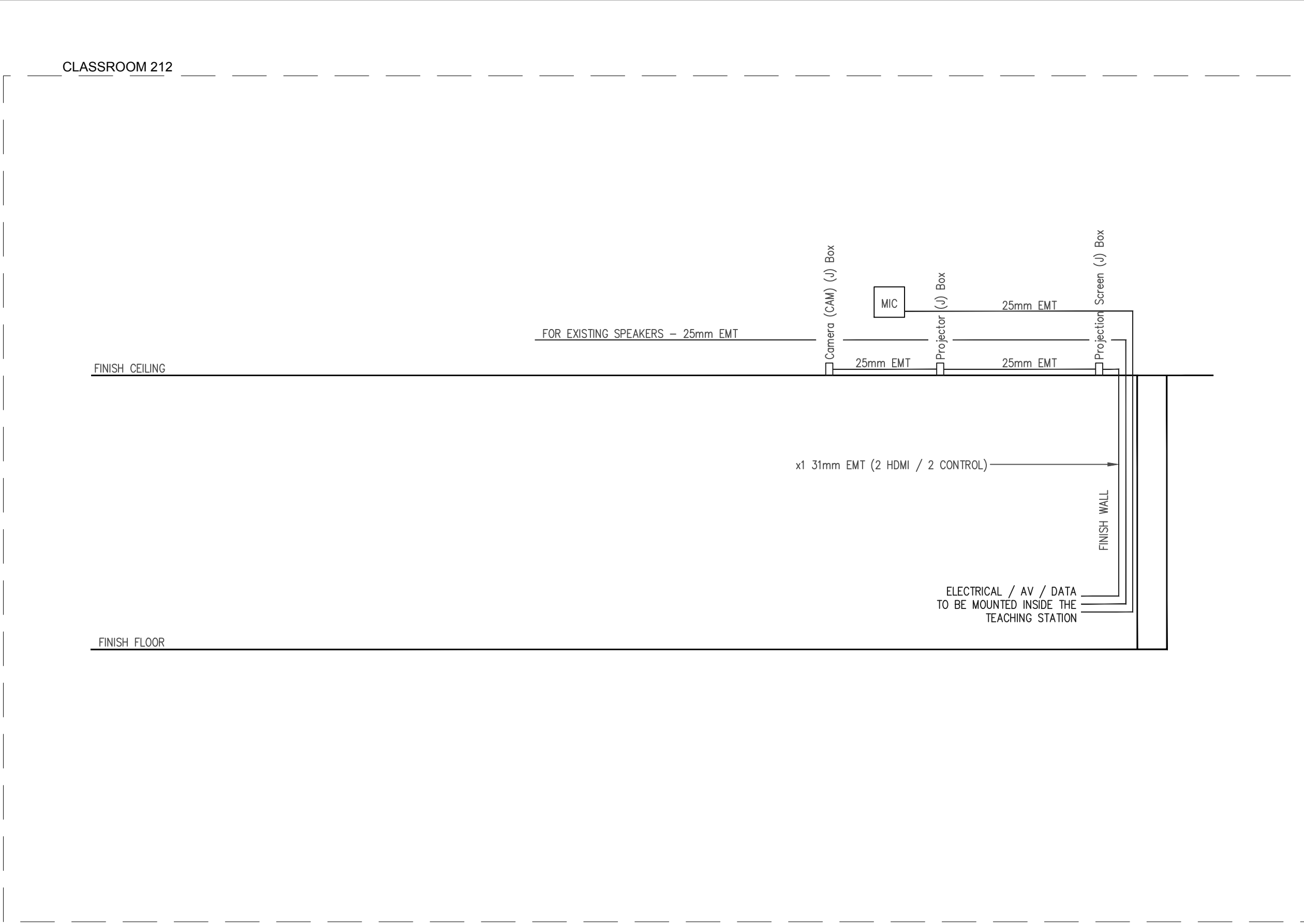


1 MC 212\_REFLECTED CEILING PLAN  
EAV213

3 AUDIO VISUAL SYSTEMS BLOCK DIAGRAM  
EAV213



2 MC 212\_PROPOSED FLOOR PLAN  
EAV213



4 AUDIO VISUAL SYSTEMS CONDUIT RISER  
NOT FOR CONSTRUCTION - REFER TO EC DRAWINGS  
EAV213

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2	2023.02.13	100% DD COORDINATION	RN
1	2023.01.09	ISSUED FOR COORDINATION	RN
#	DATE	REVISION	BY

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## YORK CLASSROOM RENEWAL Y3

York University, Keele Campus

## PHASE 2

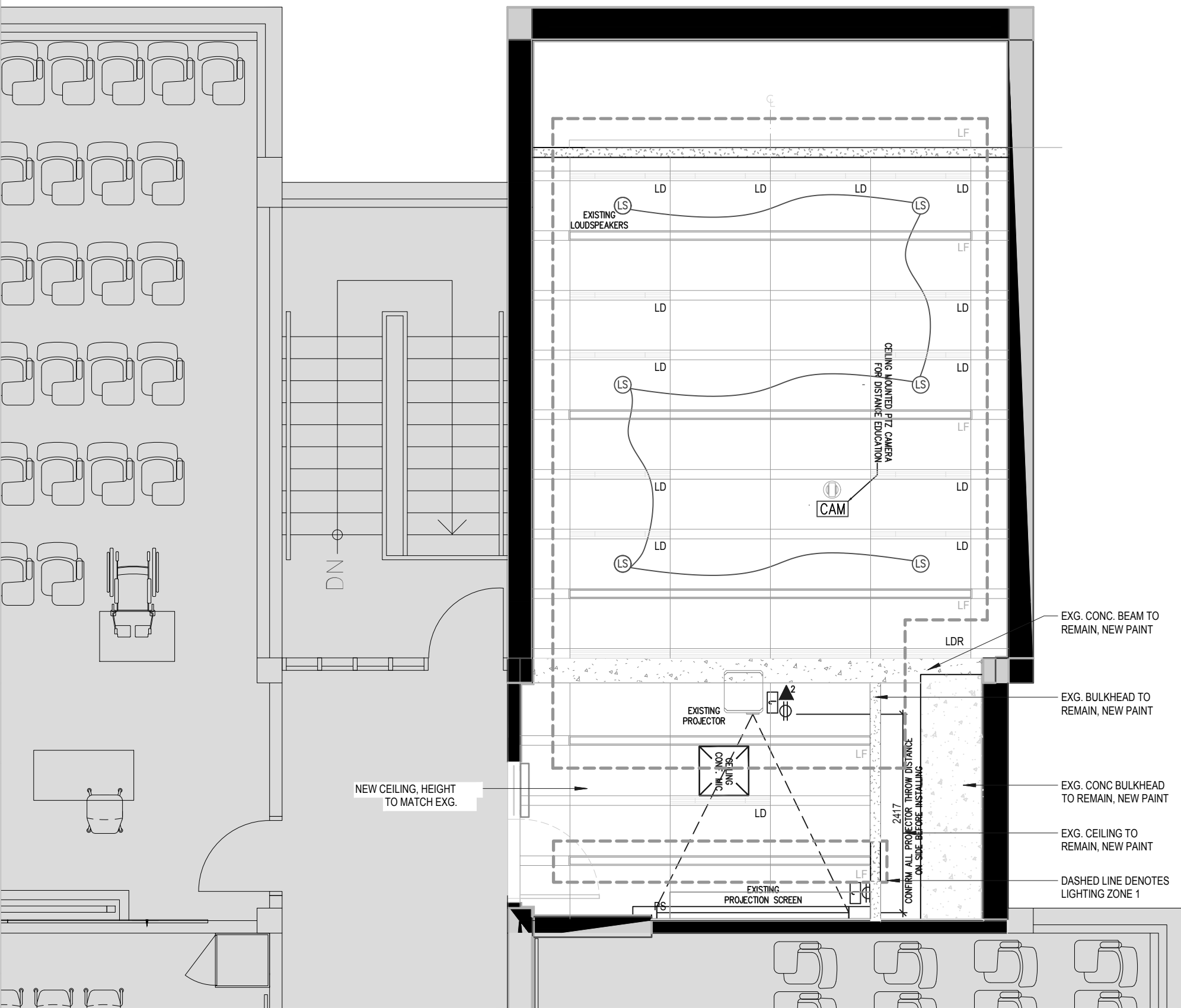
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**MCLAUGHLIN COLLEGE (MC)**  
BUILDING NUMBER:  
**378**  
CLASSROOM TYPE:  
**TRADITIONAL FLAT (TABLET)**  
CLASSROOM NUMBER:  
**212**  
NEW CLASSROOM CAPACITY:  
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Drawn by: RN  
Reviewed by: EH  
Job number: 02207  
Plot date: 2022.12.09

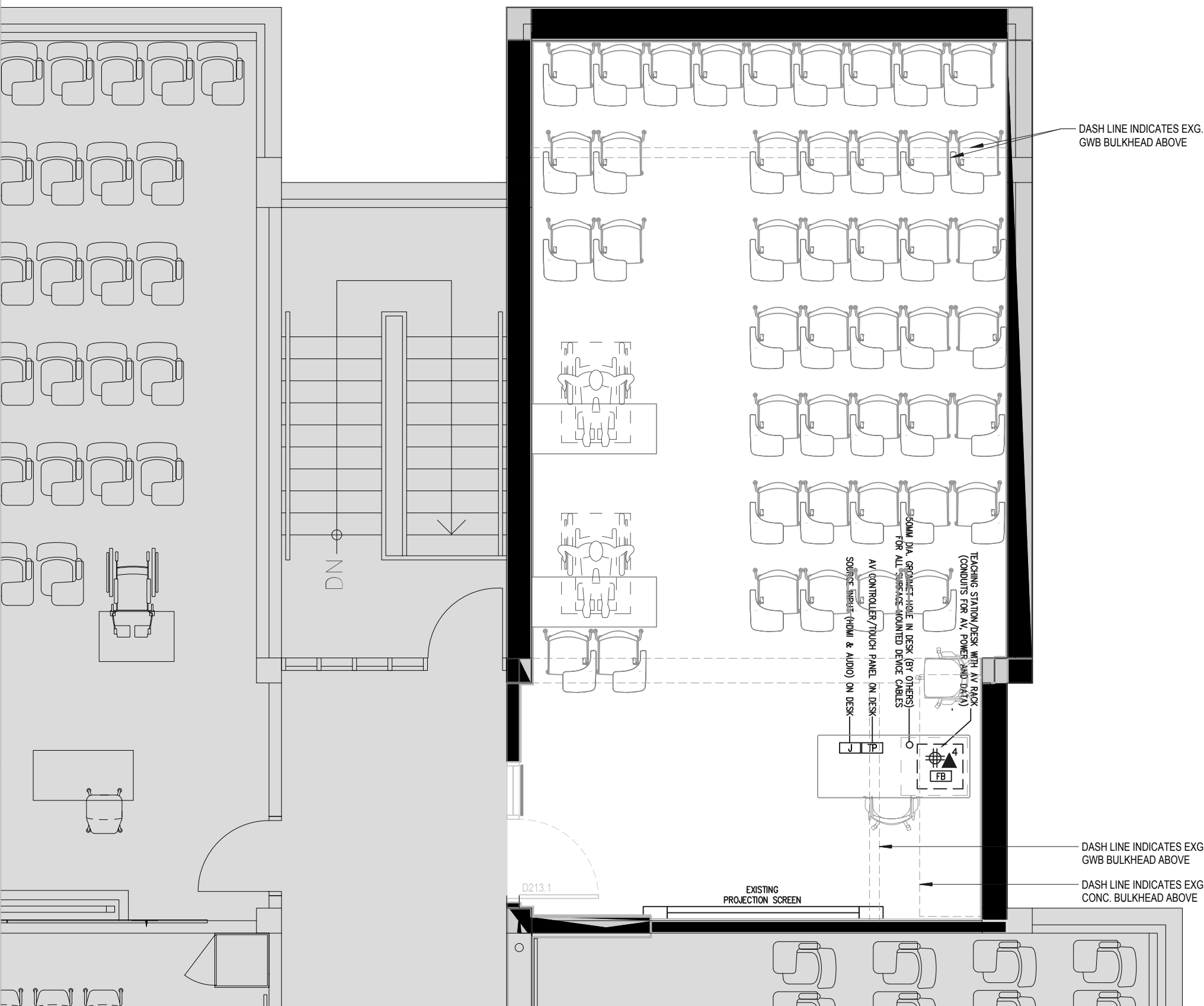
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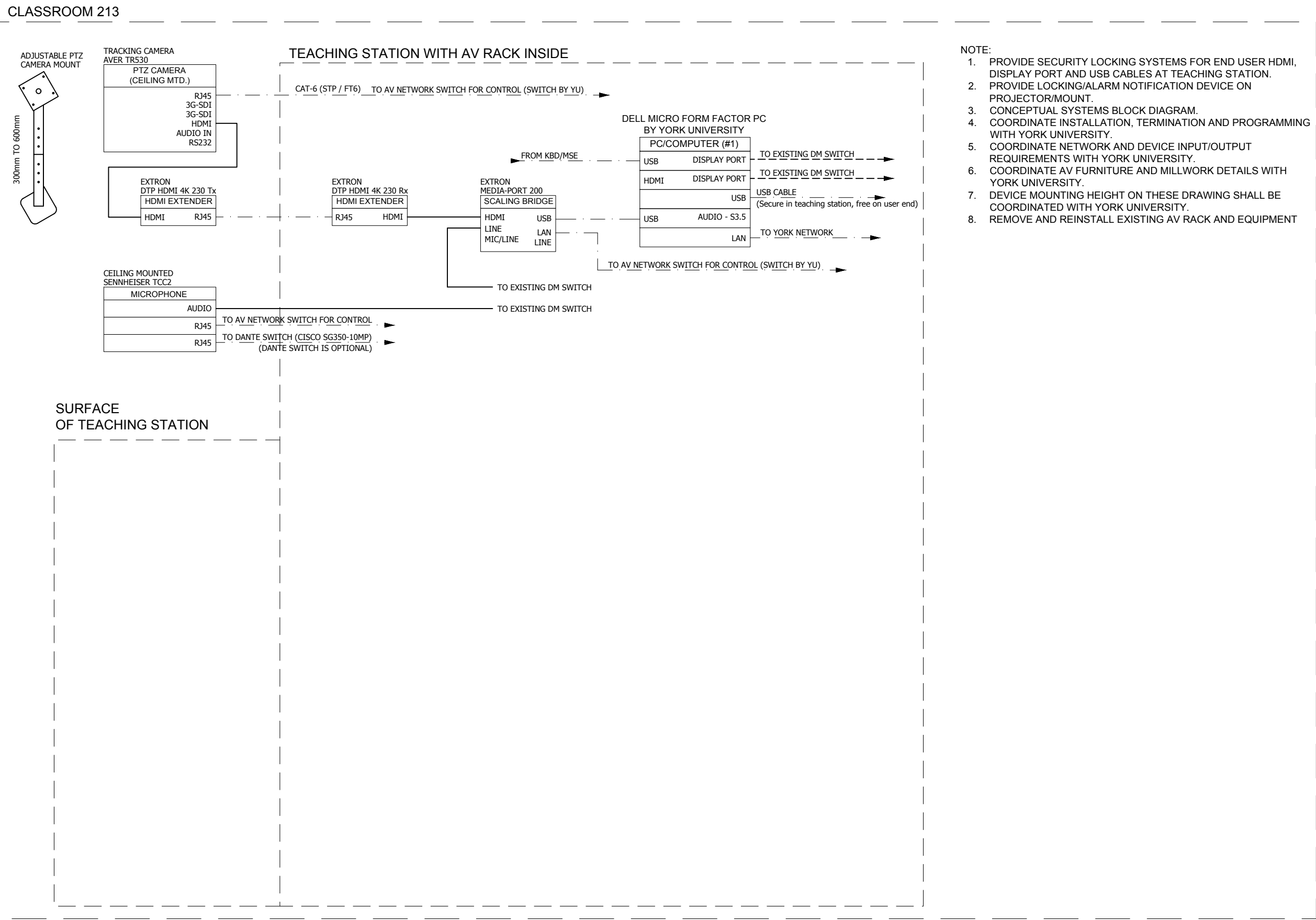




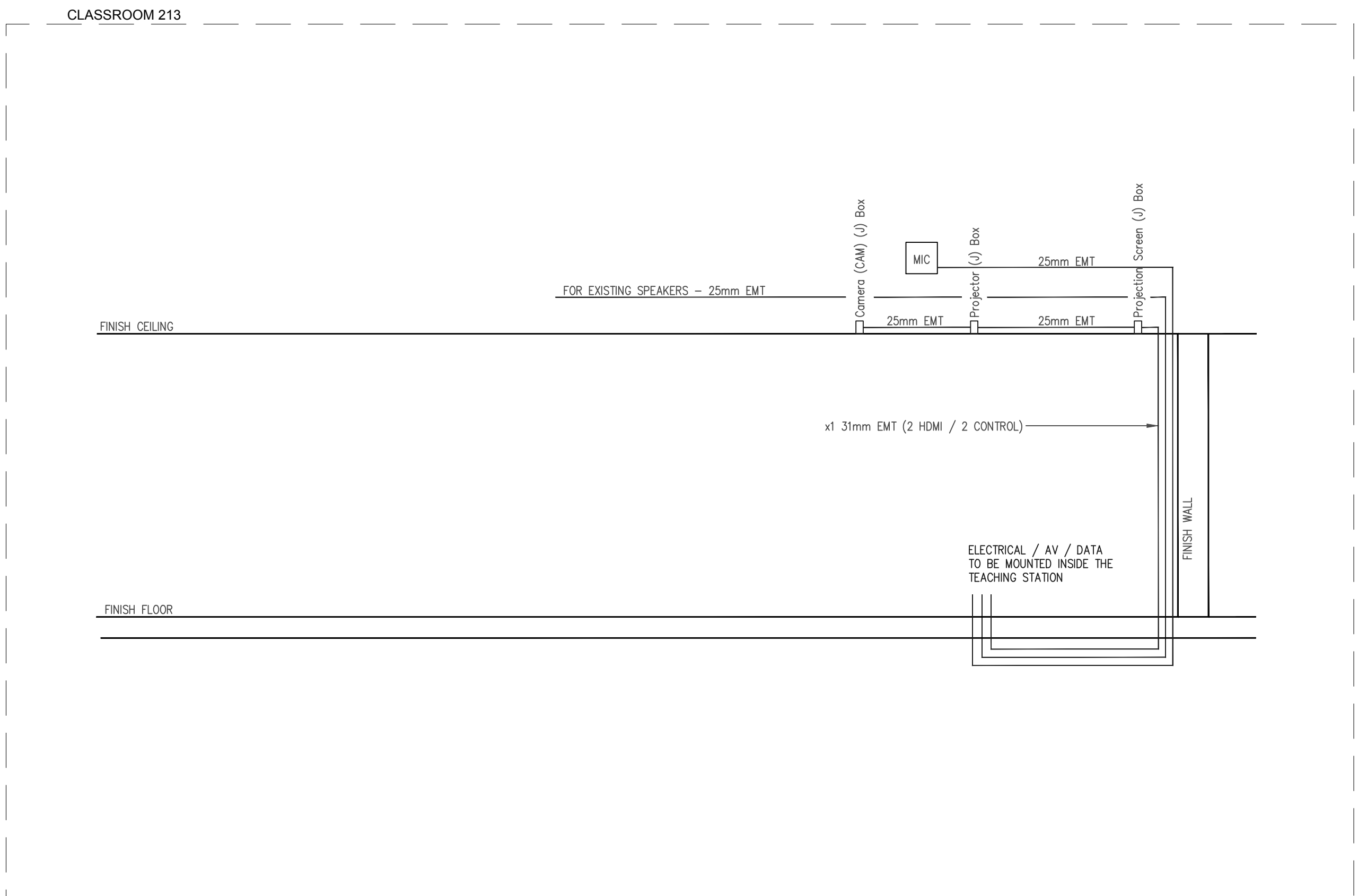
1 MC 213\_REFLECTED CEILING PLAN  
EAV214



2 MC 213\_PROPOSED FLOOR PLAN  
EQV214



3 AUDIO VISUAL SYSTEMS BLOCK DIAGRAM  
EAV214



4 AUDIO VISUAL SYSTEMS CONDUIT RISER  
NOT FOR CONSTRUCTION - REFER TO EC DRAWINGS  
EAV214

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2	2023.02.13	100% DD COORDINATION	RN
1	2023.01.09	ISSUED FOR COORDINATION	RN
#	DATE	REVISION	BY

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## YORK CLASSROOM RENEWAL Y3

York University, Keele Campus

### PHASE 2

BUILDING NAME:  
MCLAUGHLIN COLLEGE (MC)

BUILDING NUMBER:

378

CLASSROOM TYPE:

TRADITIONAL FLAT (TABLET)

CLASSROOM NUMBER:

213

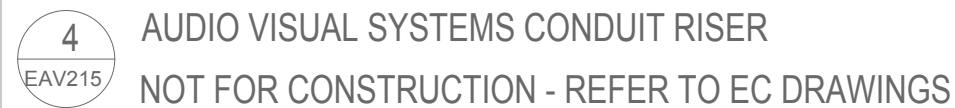
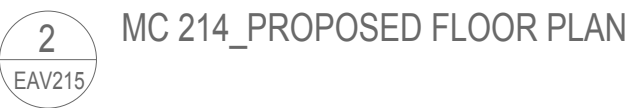
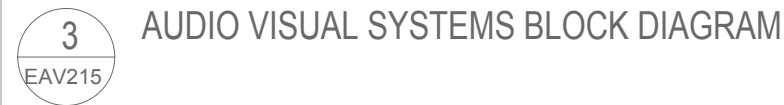
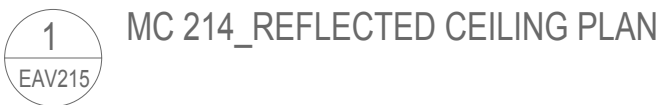
NEW CLASSROOM CAPACITY:

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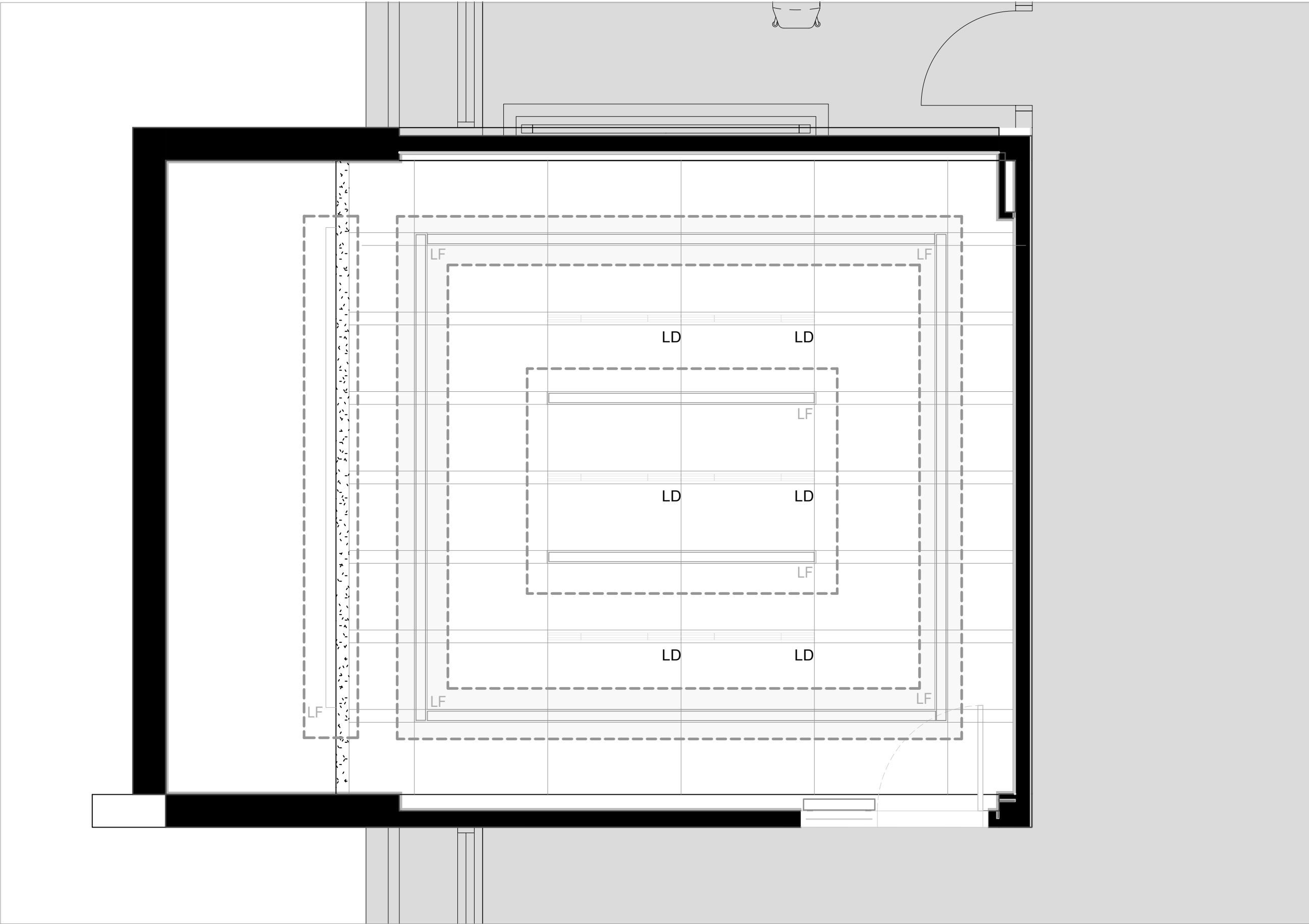
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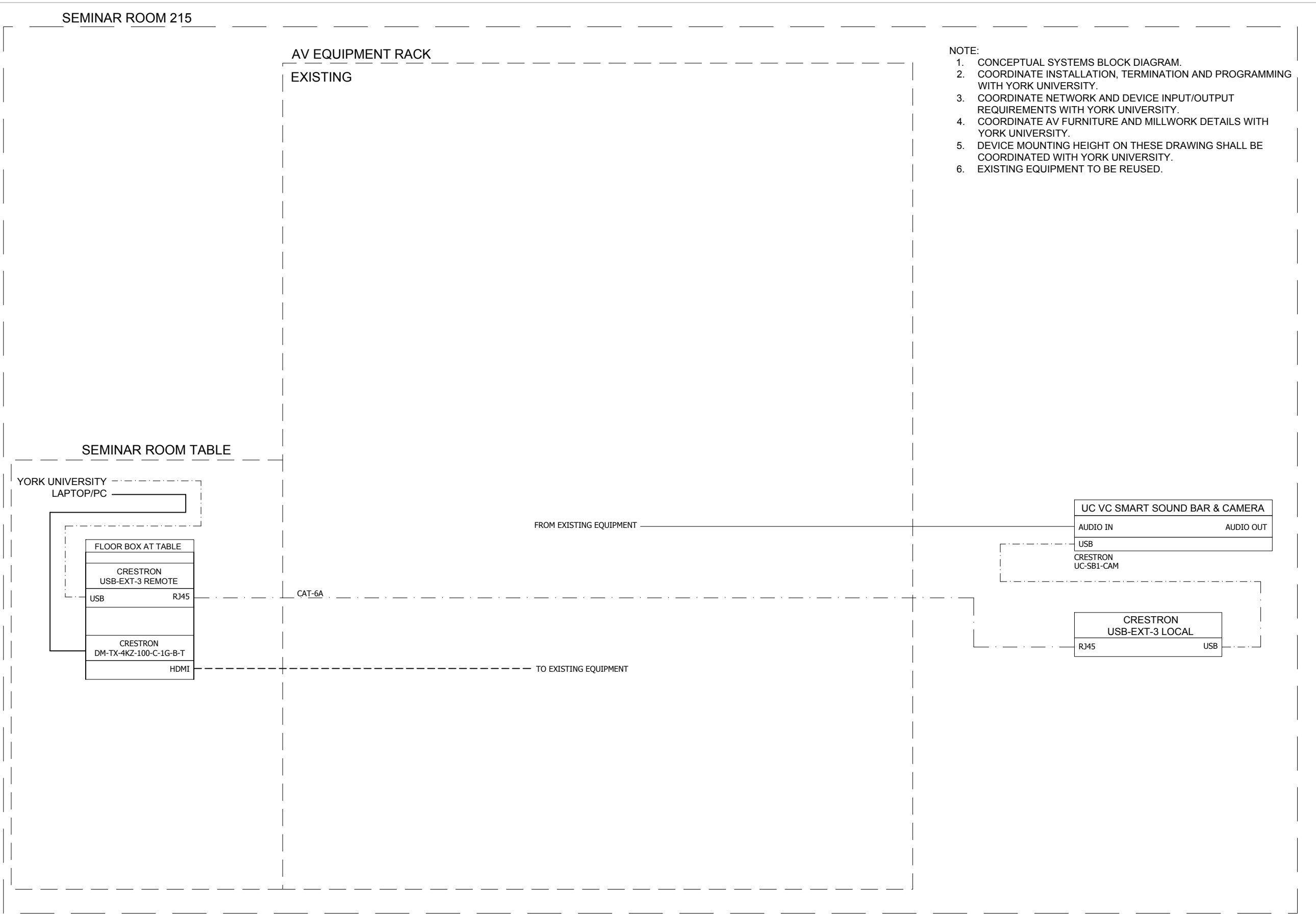
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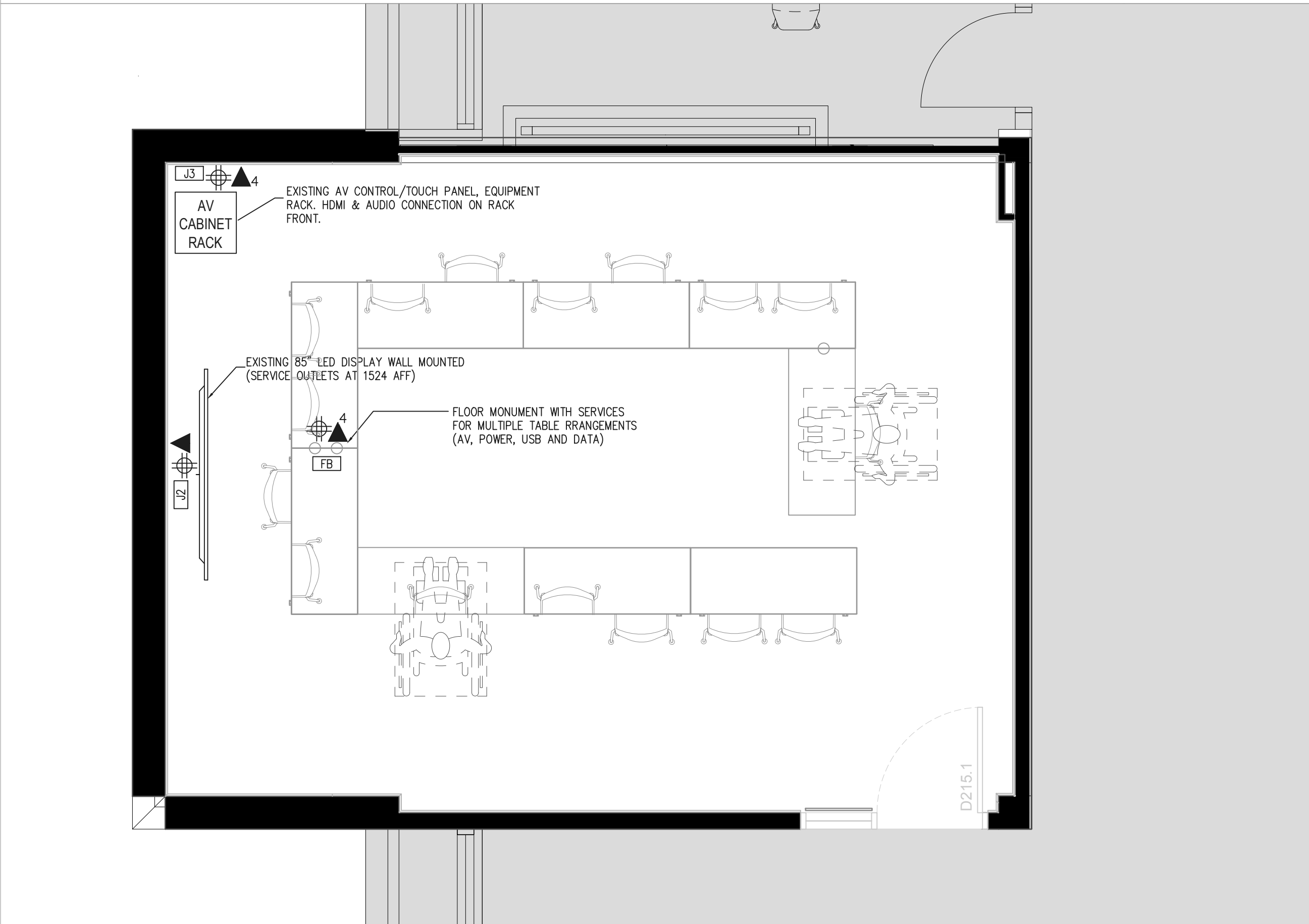




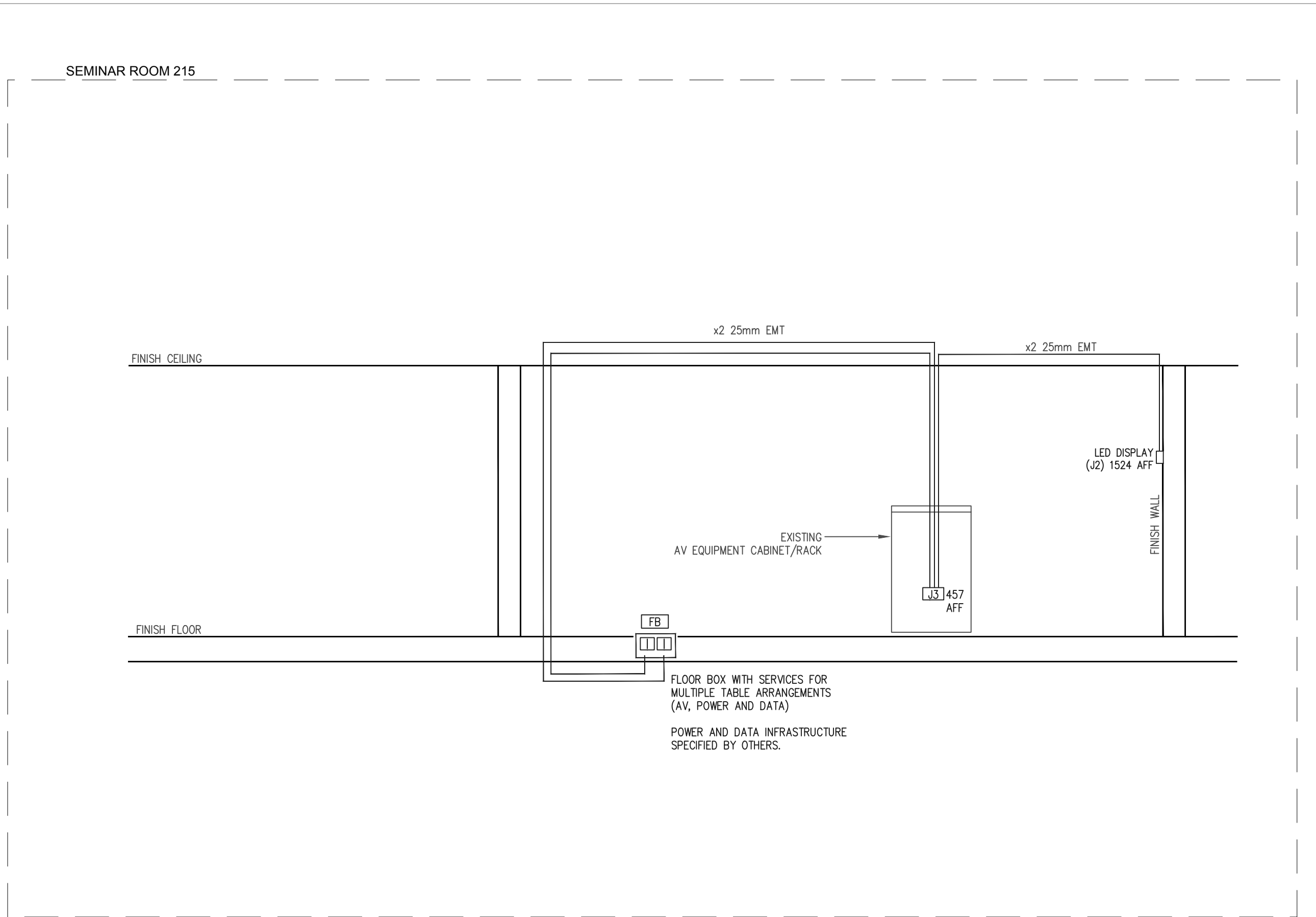
1 MC 215\_REFLECTED CEILING PLAN  
EAV216



3 AUDIO VISUAL SYSTEMS BLOCK DIAGRAM  
EAV216



1 MC 215\_PROPOSED FLOOR PLAN  
EAV216



4 AUDIO VISUAL SYSTEMS CONDUIT RISER  
NOT FOR CONSTRUCTION - REFER TO EC DRAWINGS  
EAV216

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3	2023.05.19	80% CD COORDINATION	RN
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1	2023.01.09	ISSUED FOR COORDINATION	RN
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YORK CLASSROOM  
RENEWAL Y3

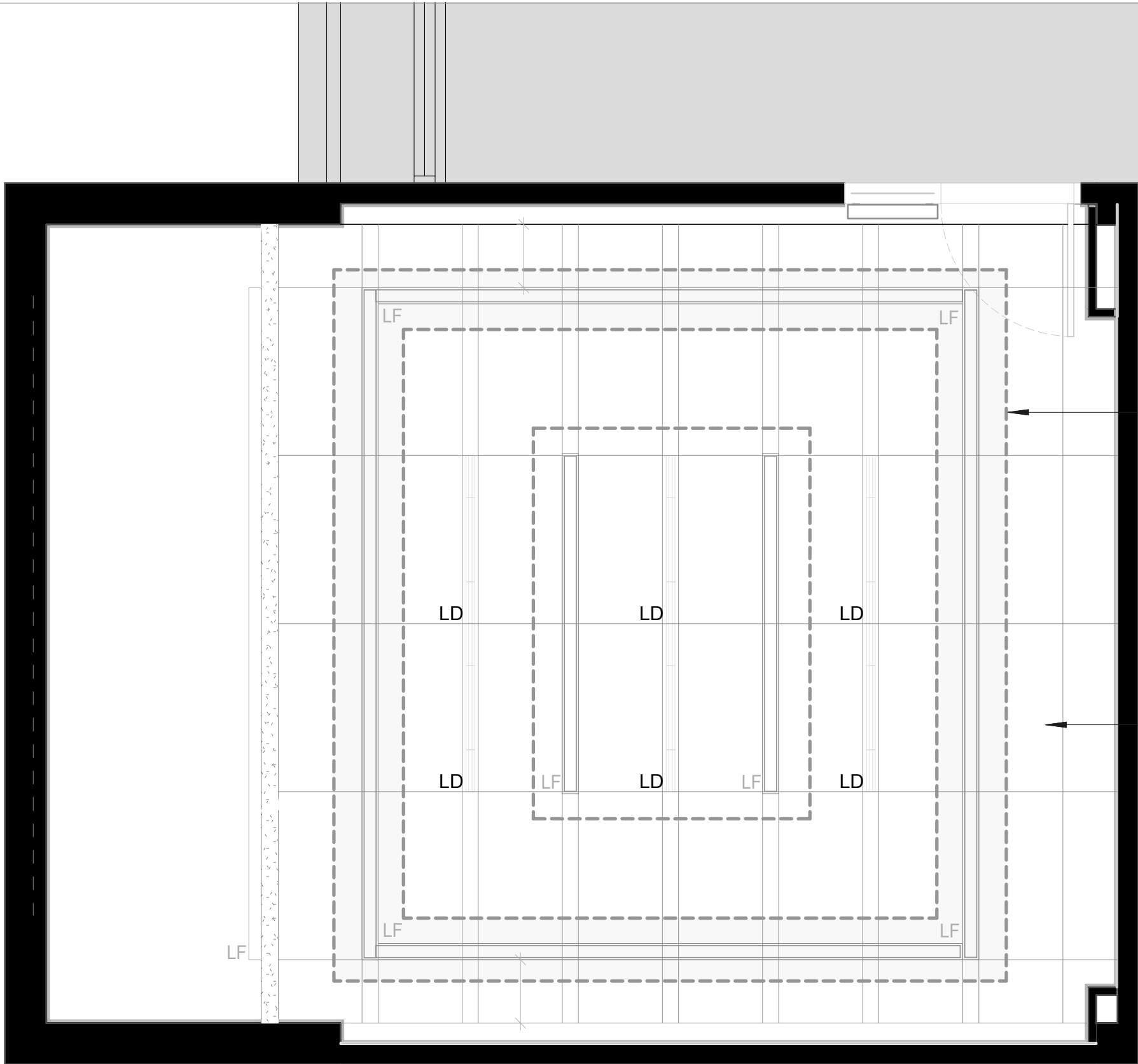
York University, Keele Campus

PHASE 2

BUILDING NAME:  
MCLAUGHLIN COLLEGE (MC)  
BUILDING NUMBER:  
378  
CLASSROOM TYPE:  
SEMINAR FLAT (TABLET)  
CLASSROOM NUMBER:  
215  
NEW CLASSROOM CAPACITY:  
16

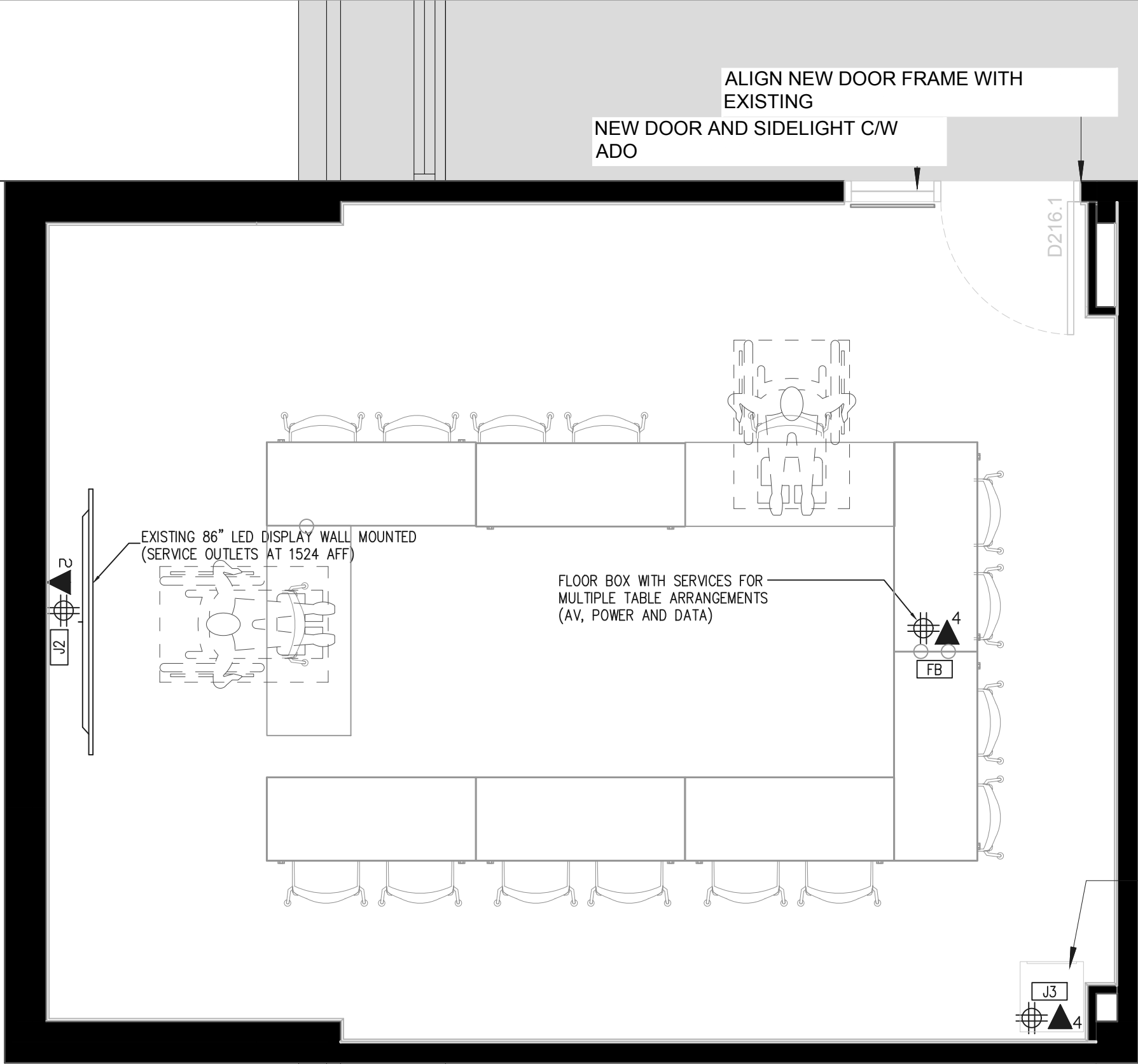
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EAV217

MC 216\_REFLECTED CEILING PLAN



2  
EAV217

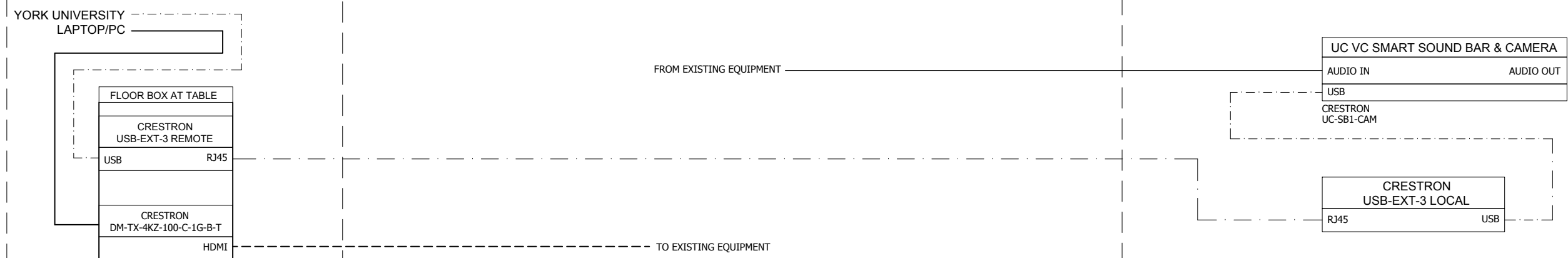
MC 216\_PROPOSED FLOOR PLAN

SEMINAR ROOM 216

AV EQUIPMENT RACK  
EXISTING

- NOTE:
1. CONCEPTUAL SYSTEMS BLOCK DIAGRAM.
  2. COORDINATE INSTALLATION, TERMINATION AND PROGRAMMING WITH YORK UNIVERSITY.
  3. COORDINATE NETWORK AND DEVICE INPUT/OUTPUT REQUIREMENTS WITH YORK UNIVERSITY.
  4. COORDINATE AV FURNITURE AND MILLWORK DETAILS WITH YORK UNIVERSITY.
  5. DEVICE MOUNTING HEIGHT ON THESE DRAWING SHALL BE COORDINATED WITH YORK UNIVERSITY.
  6. EXISTING EQUIPMENT TO BE REUSED.

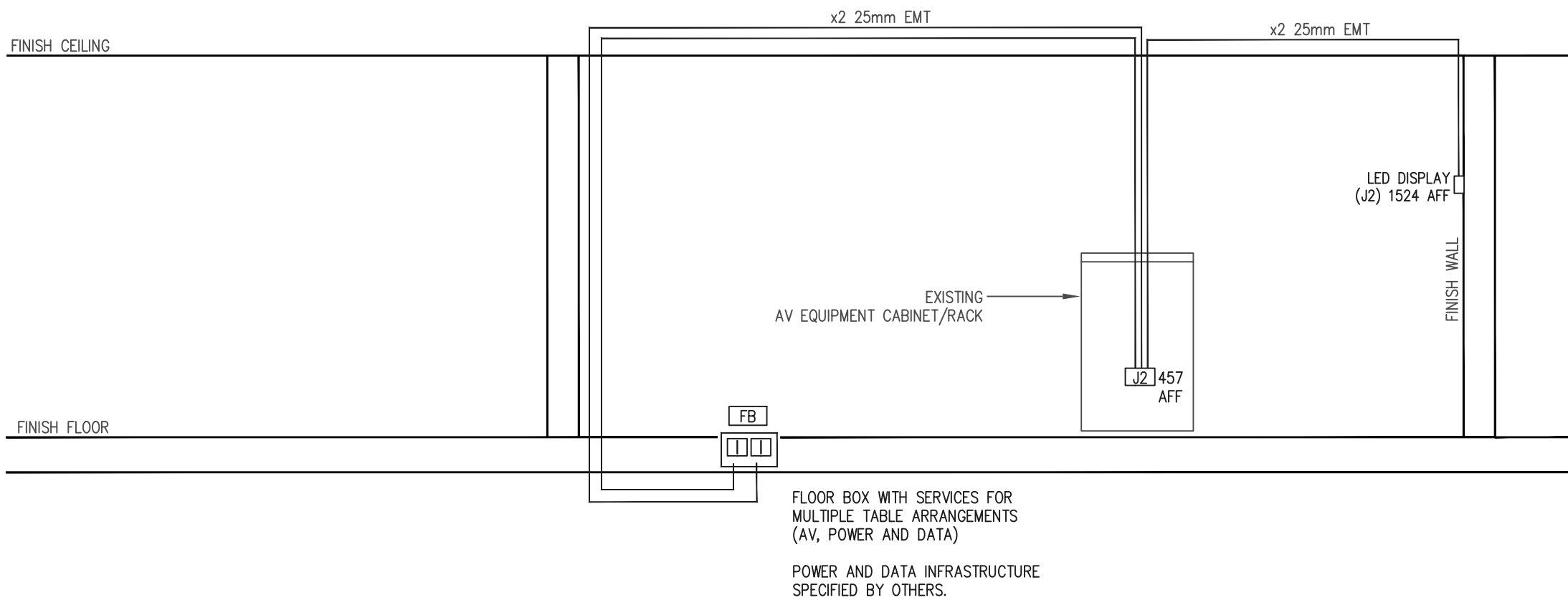
SEMINAR ROOM TABLE



3  
EAV217

AUDIO VISUAL SYSTEMS BLOCK DIAGRAM

SEMINAR ROOM 216



4  
EAV217

AUDIO VISUAL SYSTEMS CONDUIT RISER  
NOT FOR CONSTRUCTION - REFER TO EC DRAWINGS

4	2023.06.05	ISSUED FOR TENDER	RN
3	2023.05.19	80% CD COORDINATION	RN
2	2023.02.13	100% DD COORDINATION	RN
1	2023.01.09	ISSUED FOR COORDINATION	RN
#	DATE	REVISION	BY

All drawing and specifications are the property of the architect.  
The contractor shall verify all dimensions and information on site  
and report any discrepancy to architect before proceeding.

## YORK CLASSROOM RENEWAL Y3

York University, Keele Campus

## PHASE 2

BUILDING NAME:  
MCLAUGHLIN COLLEGE (MC)

BUILDING NUMBER:

378

CLASSROOM TYPE:

SEMINAR FLAT

CLASSROOM NUMBER:

216

NEW CLASSROOM CAPACITY:

16

Scale: N/A  
Drawn by: RN  
Reviewed by: EH  
Job number: 02207  
Plot date: 2022.12.09

Drawing number:

EAV217-216



4	2023.06.05	ISSUED FOR TENDER	RN
3	2023.05.19	80% CD COORDINATION	RN
2	2023.02.13	100% DD COORDINATION	RN
1	2023.01.09	ISSUED FOR COORDINATION	RN
#	DATE	REVISION	BY

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## YORK CLASSROOM RENEWAL Y3

York University, Keele Campus

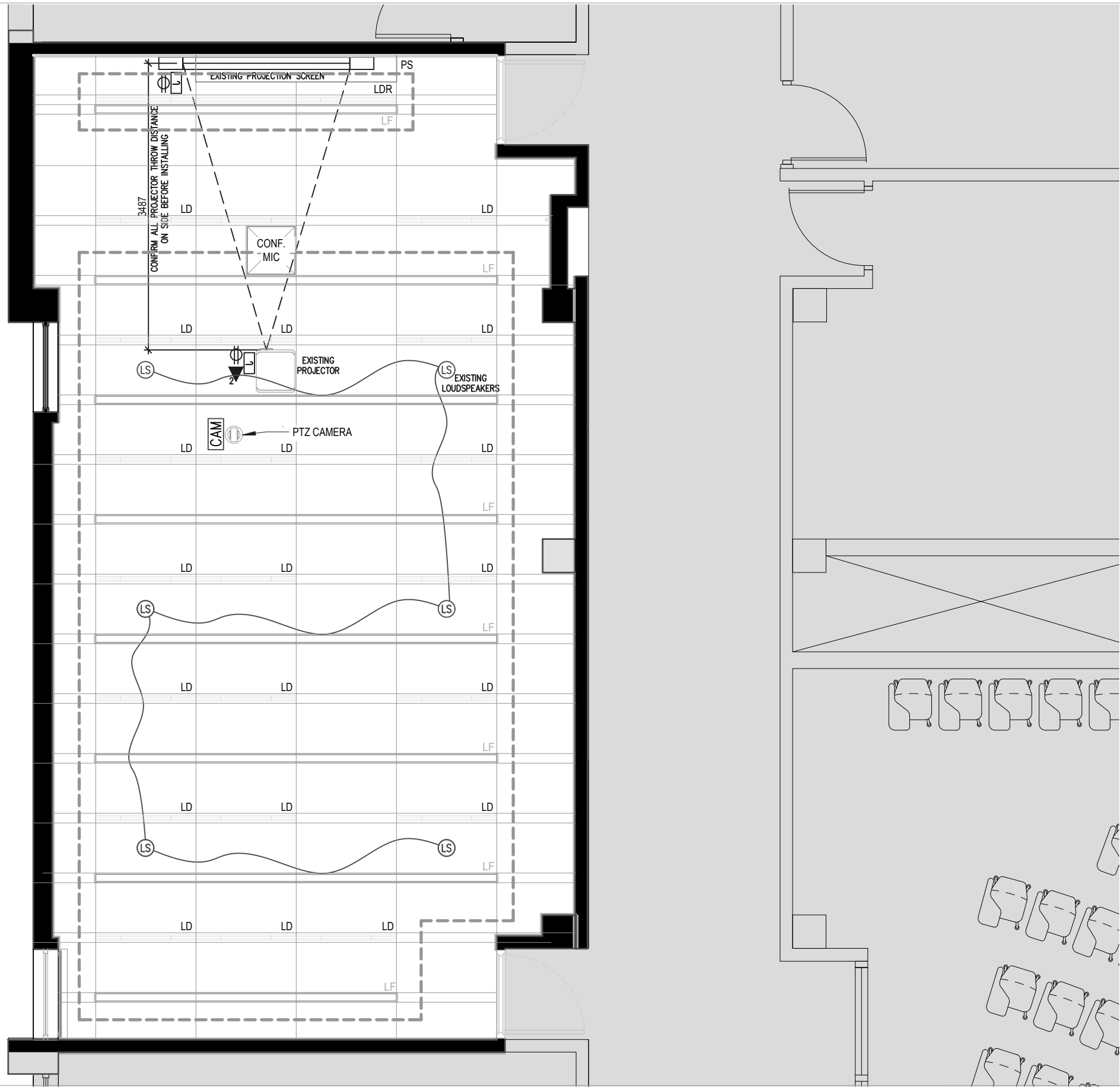
### PHASE 2

BUILDING NAME:  
**BETHUNE COLLEGE (BC)**  
BUILDING NUMBER:  
**393**  
CLASSROOM TYPE:  
**TRADITIONAL FLAT (TABLET)**  
CLASSROOM NUMBER:  
**215**  
NEW CLASSROOM CAPACITY:  
**53**

Scale: N/A  
Drawn by: RN  
Reviewed by: EH  
Job number: 02207  
Plot date: 2022.12.09

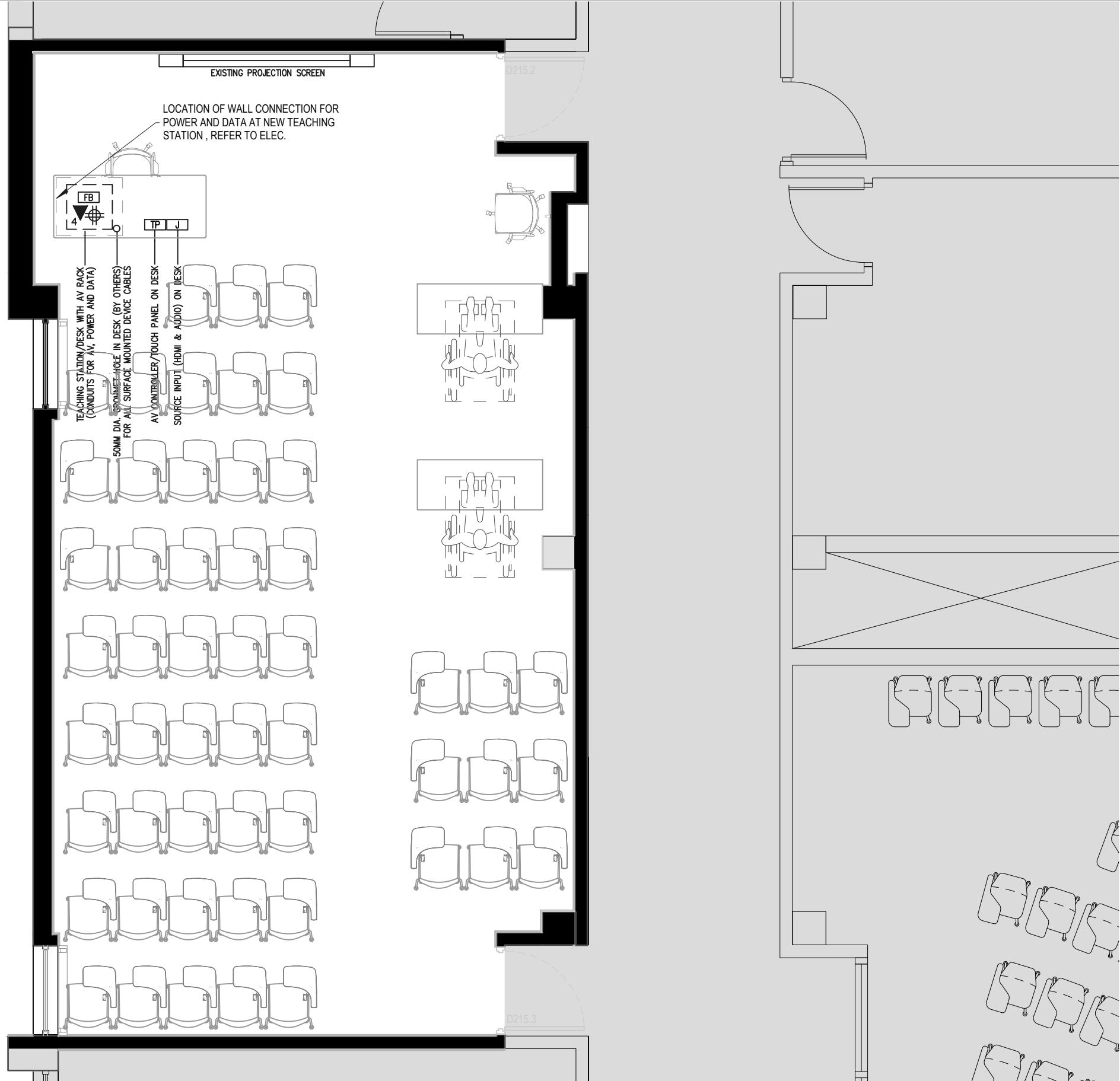
Drawing number:

EAV228-215



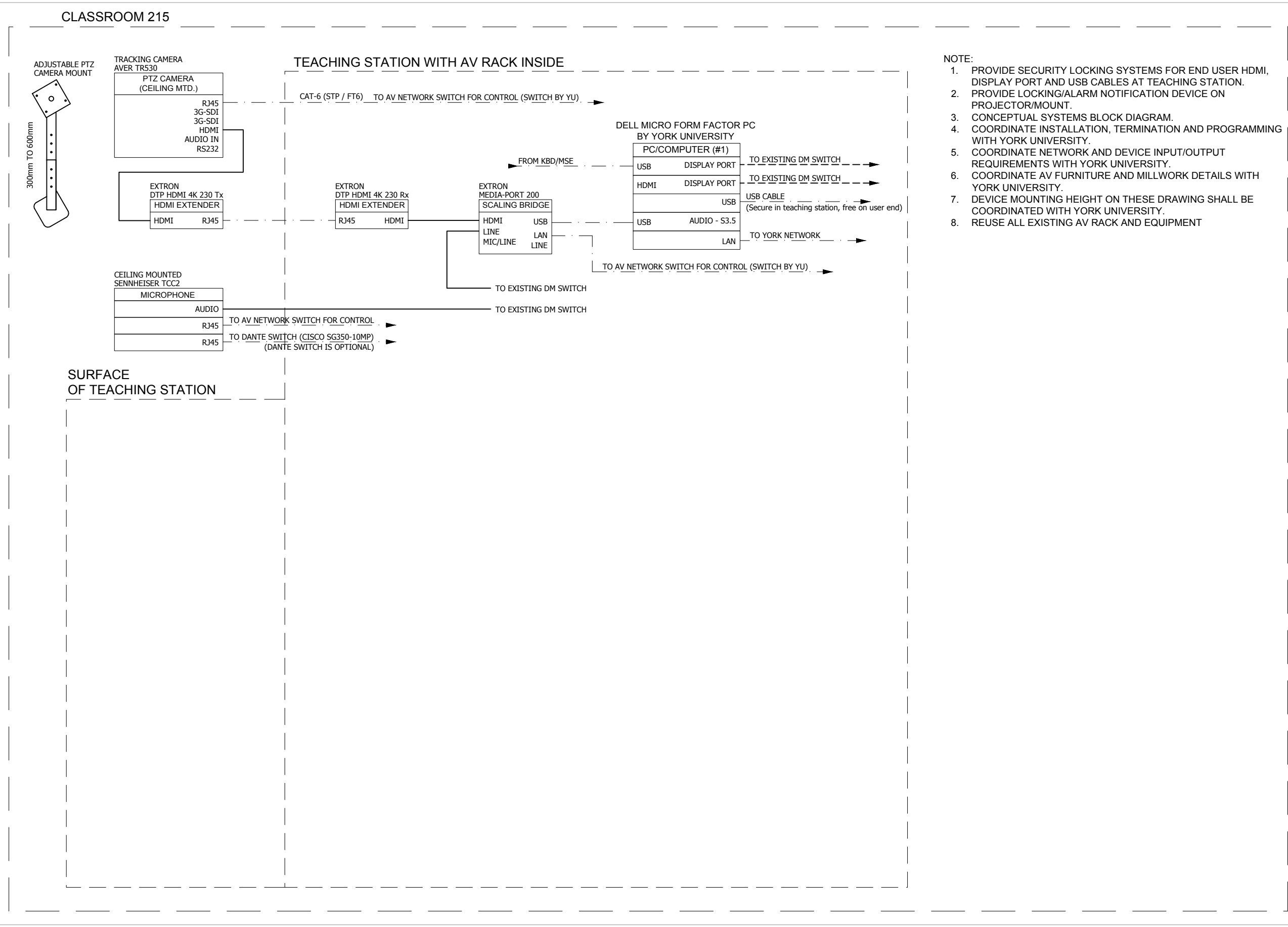
1 BC 215\_REFLECTED CEILING PLAN

EAV228



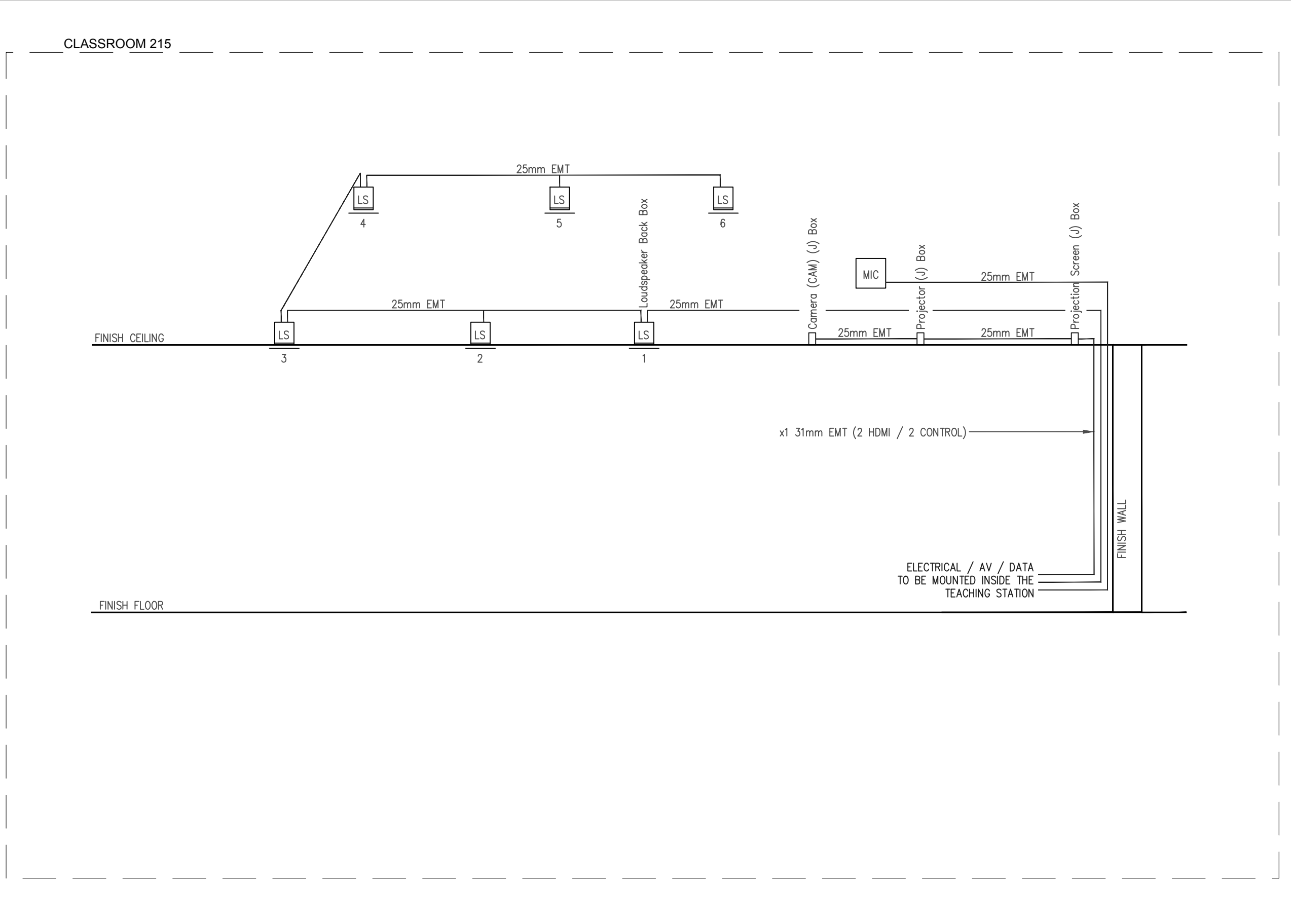
2 BC 215\_PROPOSED FLOOR PLAN

EAV228



3 AUDIO VISUAL SYSTEMS BLOCK DIAGRAM

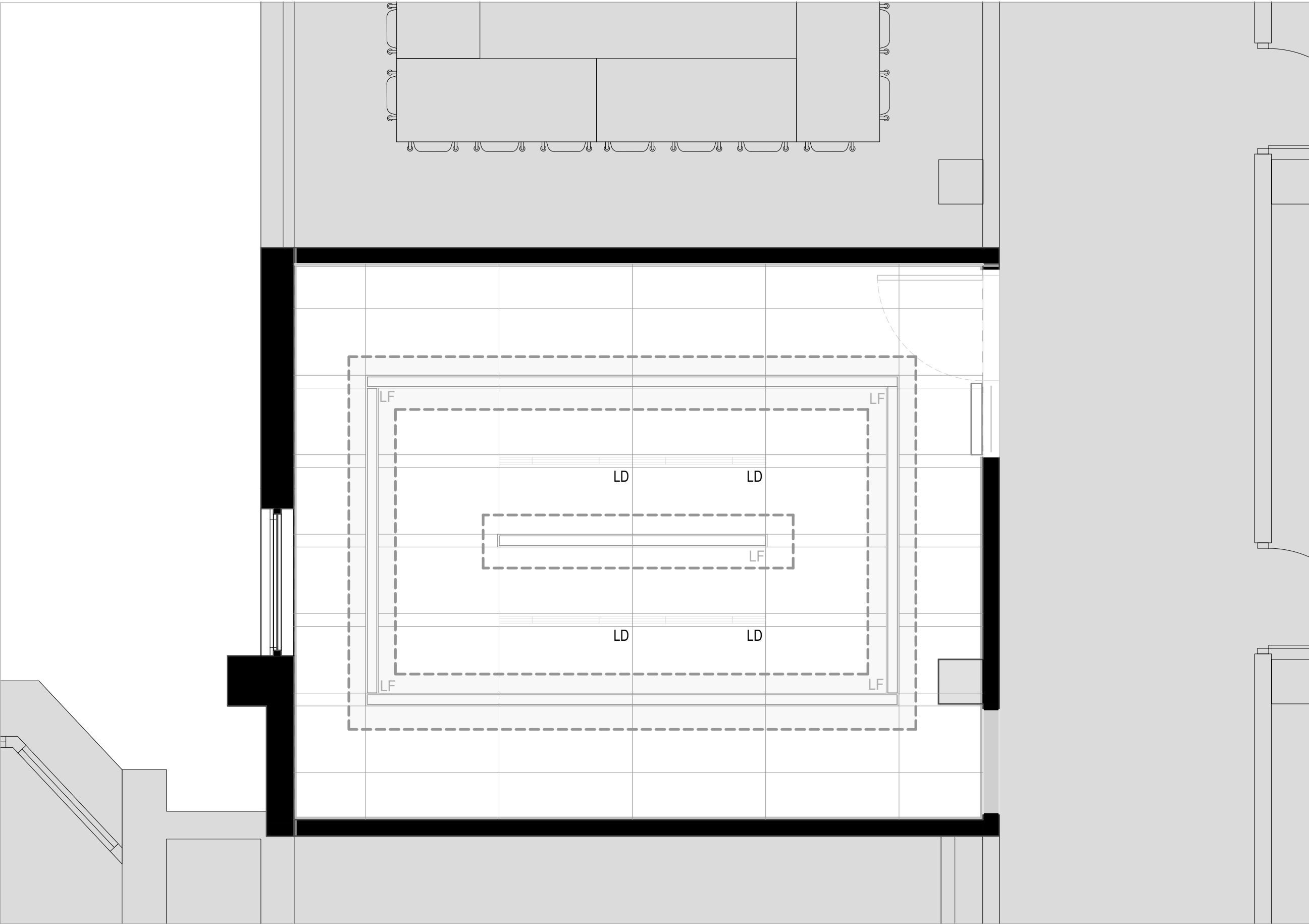
EAV228



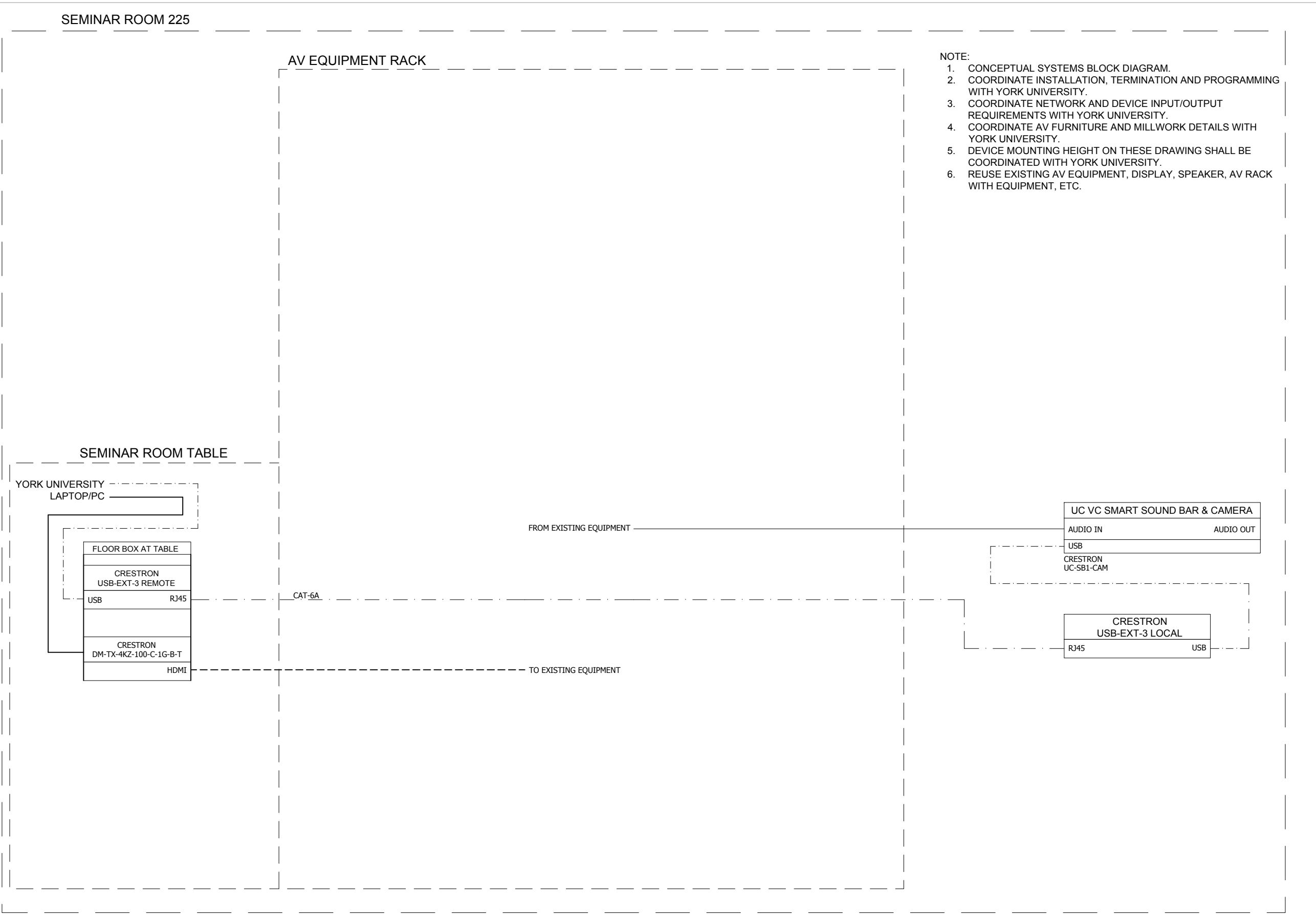
4 AUDIO VISUAL SYSTEMS CONDUIT RISER  
NOT FOR CONSTRUCTION - REFER TO EC DRAWINGS

EAV228

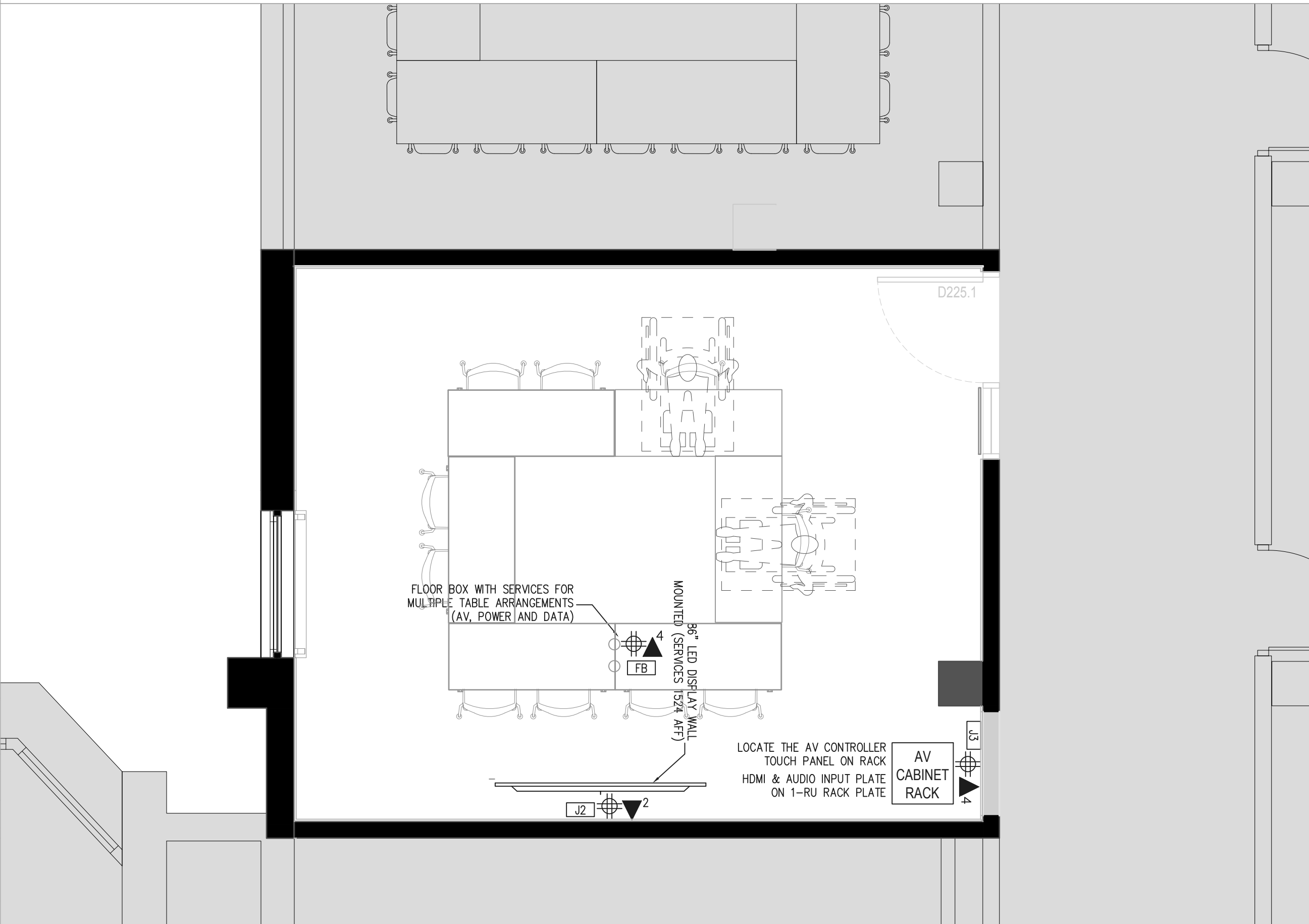




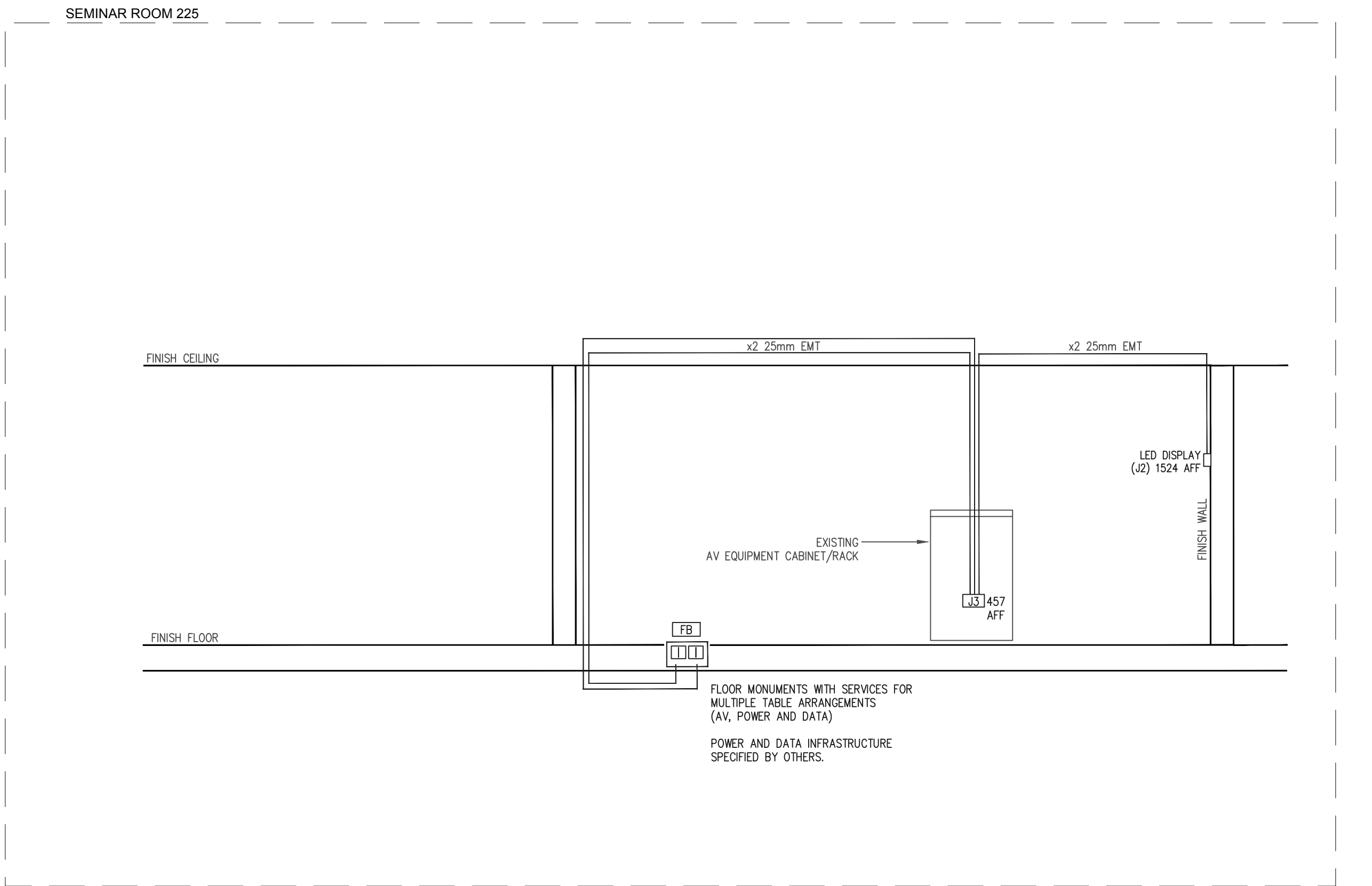
1 BC 225\_REFLECTED CEILING PLAN  
EAV229



3 AUDIO VISUAL SYSTEMS BLOCK DIAGRAM  
EAV229



2 BC 225\_PROPOSED FLOOR PLAN  
EAV229



4 AUDIO VISUAL SYSTEMS CONDUIT RISER  
NOT FOR CONSTRUCTION - REFER TO EC DRAWINGS  
EAV229

4	2023.06.05	ISSUED FOR TENDER	RN
3	2023.05.19	80% CD COORDINATION	RN
2	2023.02.13	100% DD COORDINATION	RN
1	2023.01.09	ISSUED FOR COORDINATION	RN
#	DATE	REVISION	BY

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## YORK CLASSROOM RENEWAL Y3

York University, Keele Campus

## PHASE 2

BUILDING NAME:  
BETHUNE COLLEGE (BC)

BUILDING NUMBER:

393

CLASSROOM TYPE:

SEMINAR FLAT

CLASSROOM NUMBER:

225

NEW CLASSROOM CAPACITY:

10

Scale: N/A  
Drawn by: RN  
Reviewed by: EH  
Job number: 02207  
Plot date: 2022.12.09

Drawing number:

EAV229-225







4	2023.06.05	ISSUED FOR TENDER	RN
3	2023.05.19	80% CD COORDINATION	RN
2	2023.02.13	100% DD COORDINATION	RN
1	2023.01.09	ISSUED FOR COORDINATION	RN
#	DATE	REVISION	BY

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## YORK CLASSROOM RENEWAL Y3

York University, Keele Campus

### PHASE 2

BUILDING NAME:  
**BETHUNE COLLEGE (BC)**

BUILDING NUMBER:

**393**

CLASSROOM TYPE:

**TRADITIONAL FLAT (TABLET)**

CLASSROOM NUMBER:

**322**

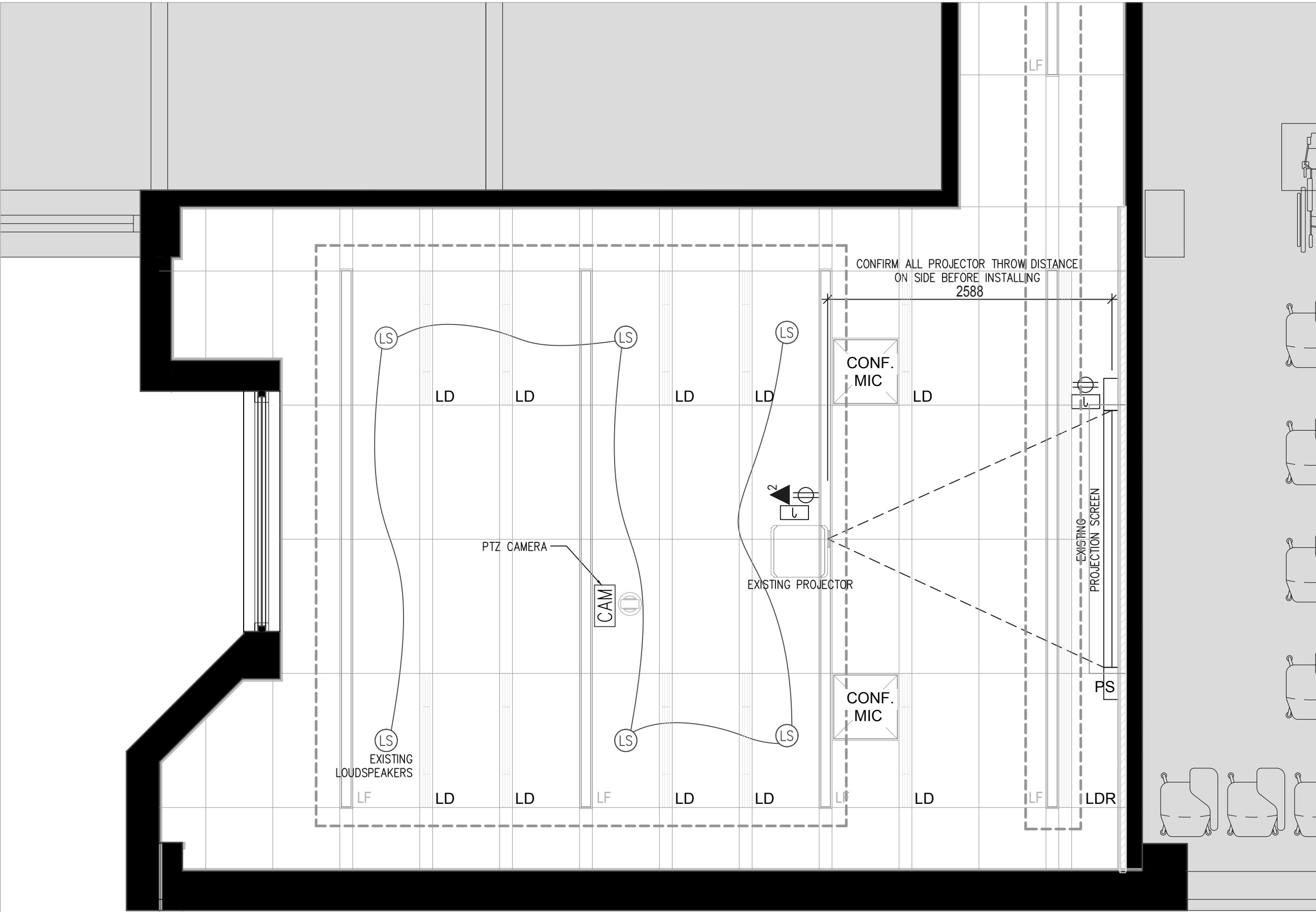
NEW CLASSROOM CAPACITY:

**34**

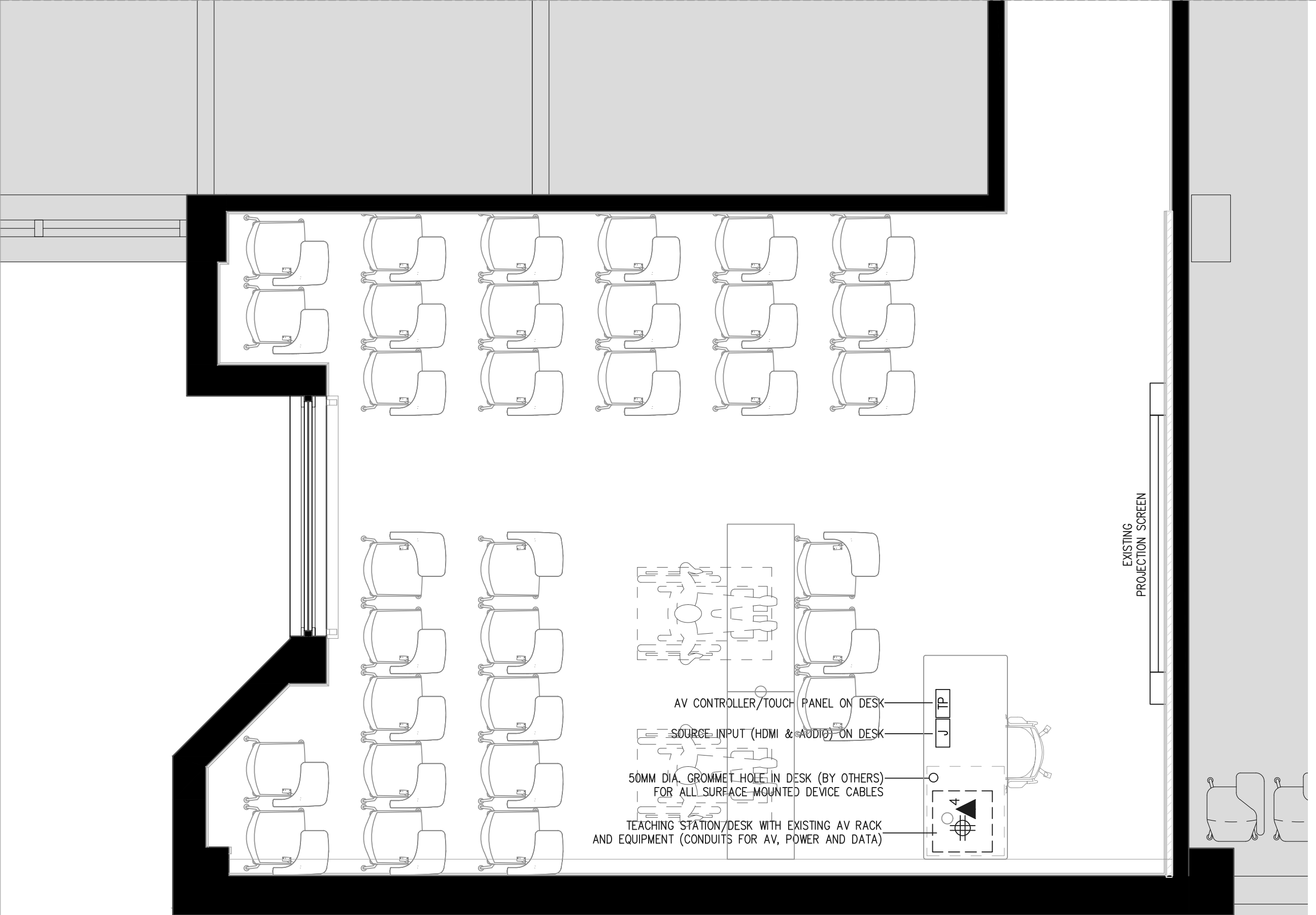
Scale: N/A  
Drawn by: RN  
Reviewed by: EH  
Job number: 02207  
Plot date: 2022.12.09

Drawing number:

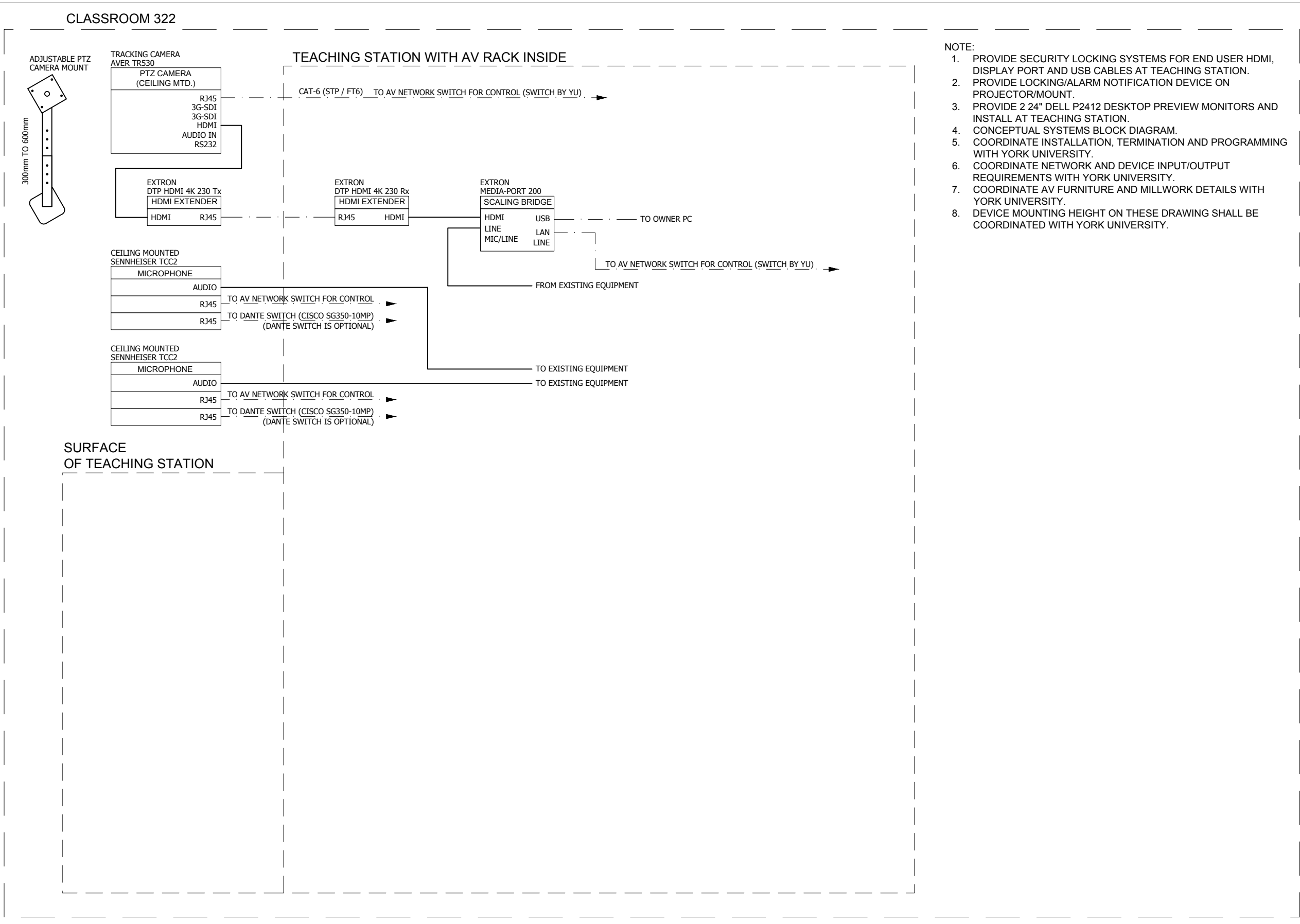
**EAV231-322**



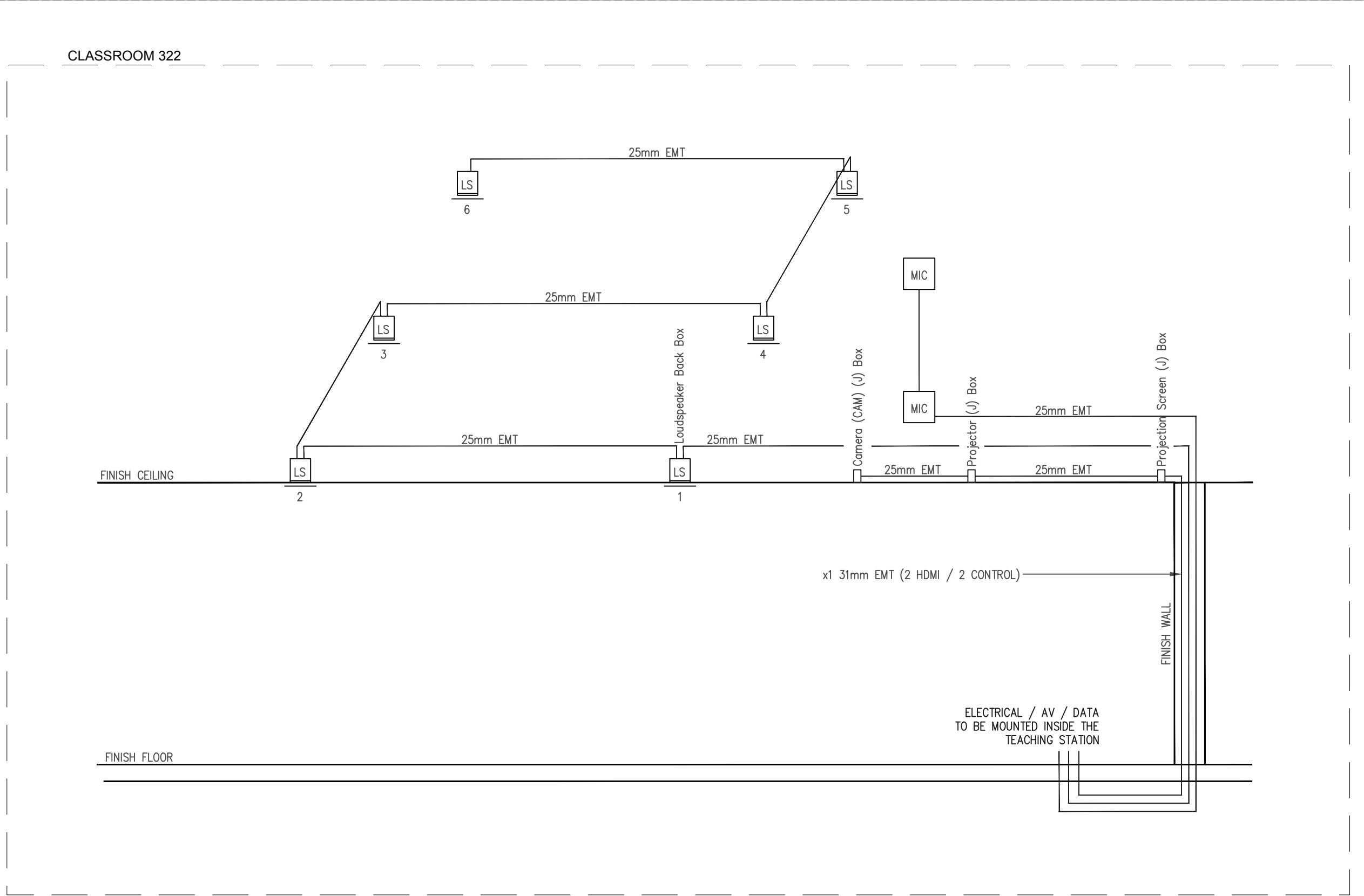
1 BC 322\_REFLECTED CEILING PLAN  
EAV231



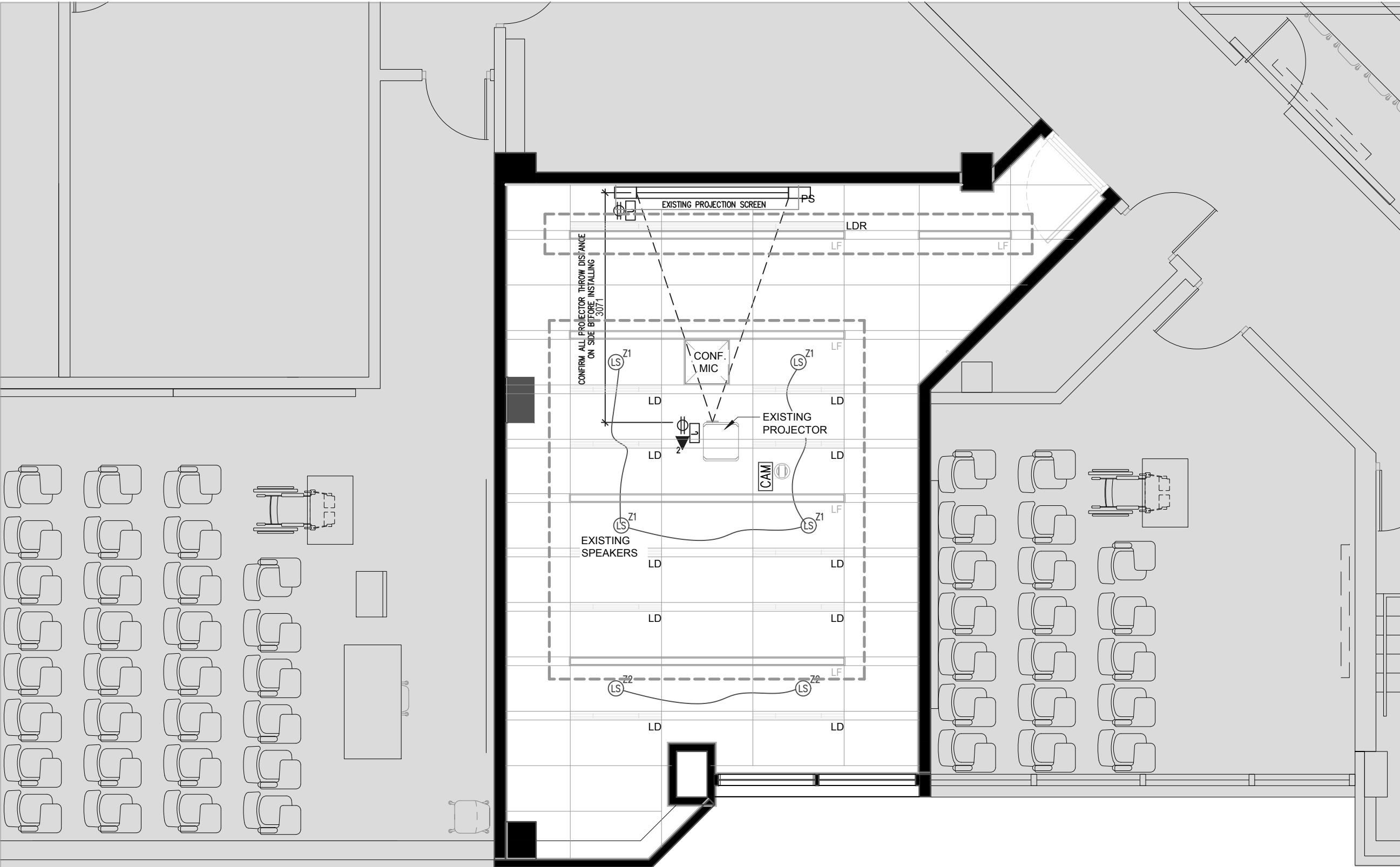
2 BC 322\_PROPOSED FLOOR PLAN  
EAV231



3 AUDIO VISUAL SYSTEMS BLOCK DIAGRAM  
EAV231



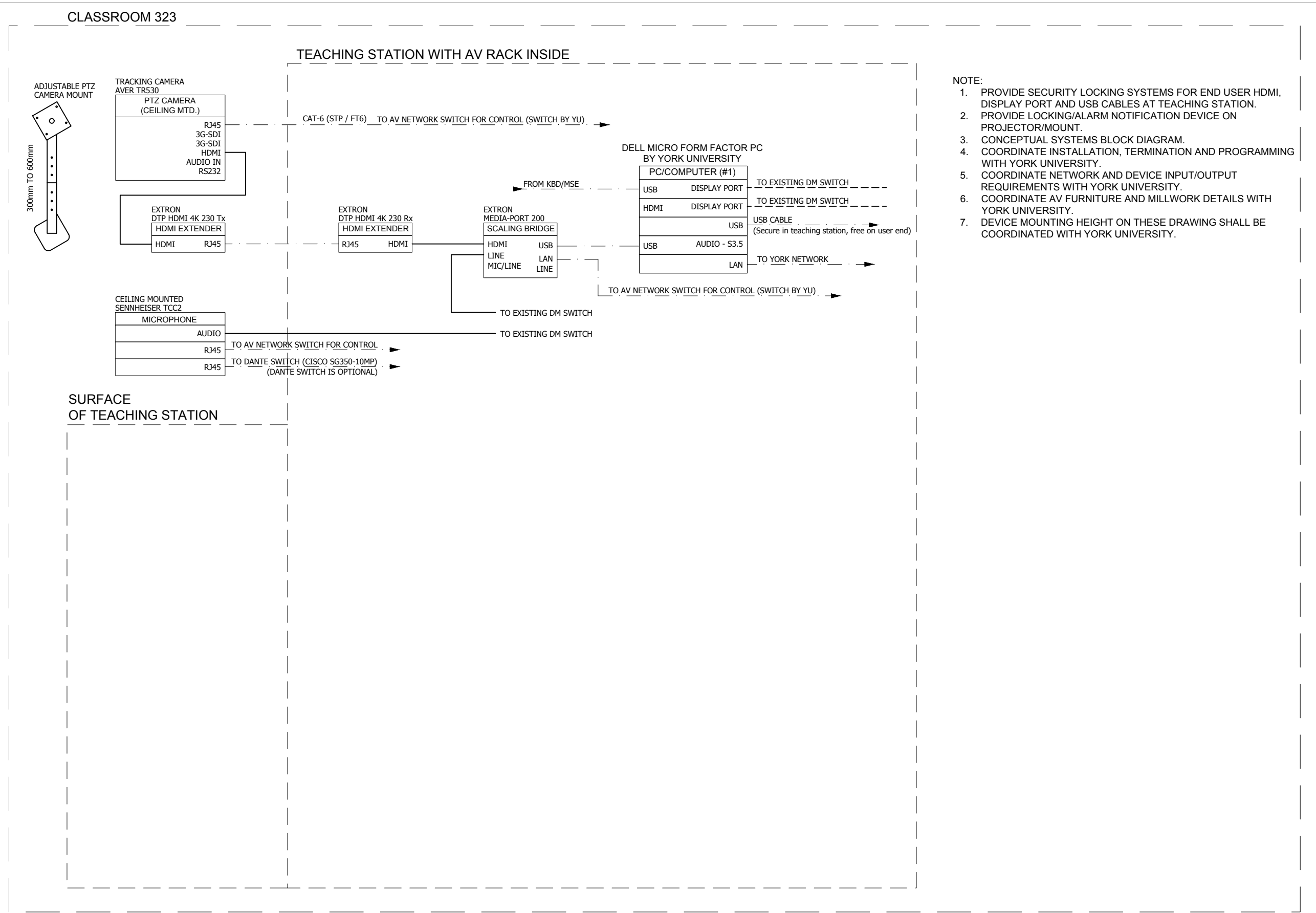
4 AUDIO VISUAL SYSTEMS CONDUIT RISER  
EAV231  
NOT FOR CONSTRUCTION - REFER TO EC DRAWINGS



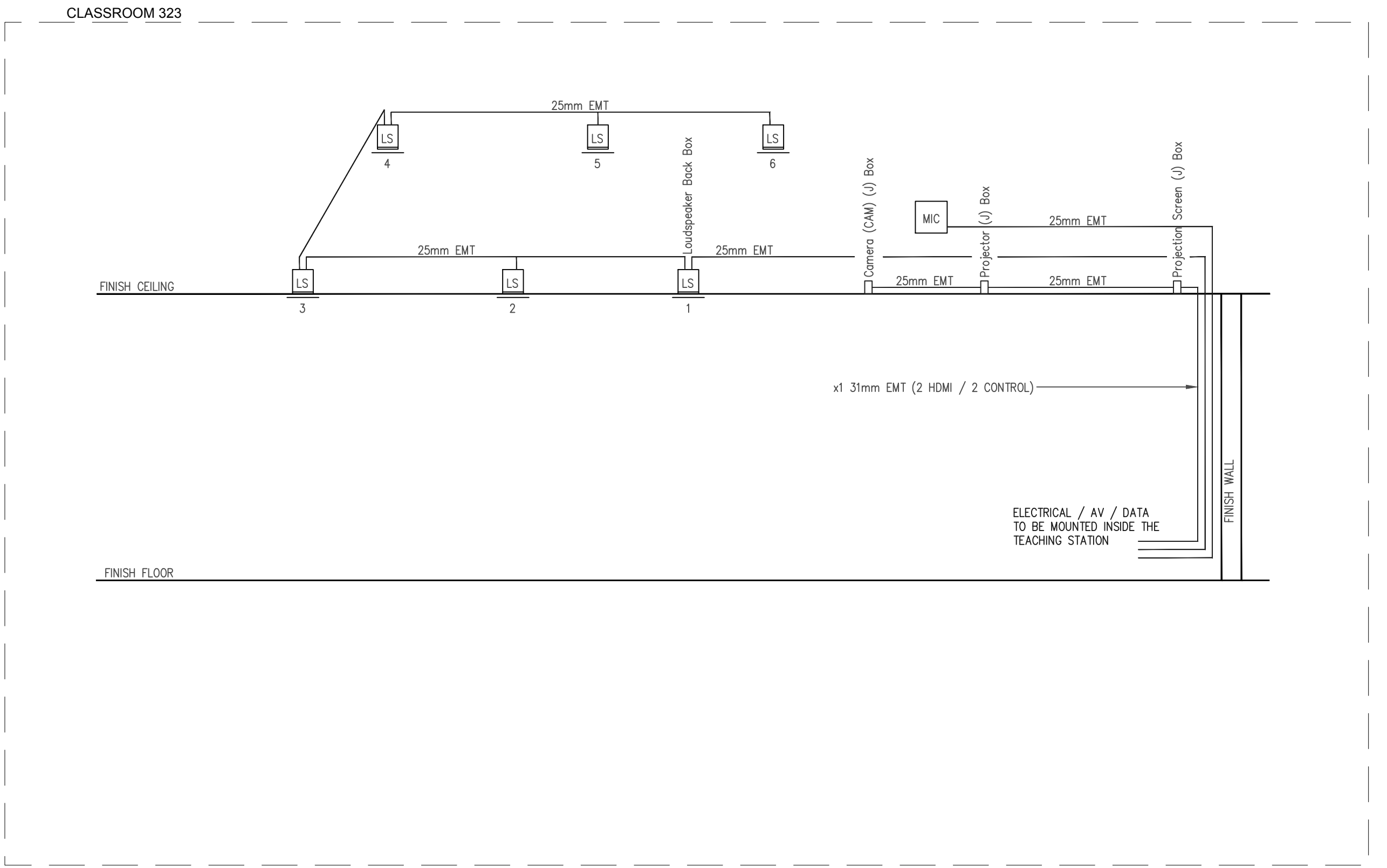
1 BC 323\_REFLECTED CEILING PLAN  
EAV232



2 BC 323\_PROPOSED FLOOR PLAN  
EAV232



3 AUDIO VISUAL SYSTEMS BLOCK DIAGRAM  
EAV232



4 AUDIO VISUAL SYSTEMS CONDUIT RISER  
EAV232  
NOT FOR CONSTRUCTION - REFER TO EC DRAWINGS

# Architecture Counsel

75 BERKELEY ST. TORONTO, ON M5A 2W5 T 416-603-1515

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Audio Visual, CCTV, Access Control, Intrusion and Information Technology Systems  
Phone: (416) 557-2238  
Email: cherry@techwavecom.com

4	2023.05.05	ISSUED FOR TENDER	RN
3	2023.05.19	80% CD COORDINATION	RN
2	2023.02.13	100% DD COORDINATION	RN
1	2023.01.09	ISSUED FOR COORDINATION	RN
#	DATE	REVISION	BY

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## YORK CLASSROOM RENEWAL Y3

York University, Keele Campus

### PHASE 2

BUILDING NAME:  
**BETHUNE COLLEGE (BC)**  
BUILDING NUMBER:  
**393**  
CLASSROOM TYPE:  
**TRADITIONAL FLAT (TABLET)**  
CLASSROOM NUMBER:  
**323**  
NEW CLASSROOM CAPACITY:  
**28**

Scale: N/A  
Drawn by: RN  
Reviewed by: EH  
Job number: 02207  
Plot date: 2022.12.09

Drawing number:

EAV232-323