

TASK	FURNISH	INSTALL
CEILING MOUNTED LOUDSPEAKERS	AV	AV
AUDIOVISUAL CABLE	AV	AV
AUDIOVISUAL EQUIPMENT AND RACK	AV	AV
TERMINATIONS OF AUDIOVISUAL CABLE	AV	AV
CABLE MANAGEMENT HARDWARE AT RACKS AND CONSOLES	AV	AV
CUSTOM COVER PLATES FOR FLOOR BOXES, BACK BOXES	AV	AV
UNISTRUT, ANCHORS, OR OTHER MATERIALS REQUIRED TO ATTACH AUDIOVISUAL EQUIPMENT MOUNTS TO STRUCTURE	AV	AV
FACILITY VOICE/DATA CABLING AND REQUIRED CONNECTION LOCATIONS	DC	DC
AC POWER, CONDUIT, RACEWAYS, ELECTRICAL BACKBOXES, JUNCTION BOXES, PULL BOXES, CABLE TRAYS, FLOOR BOXES AND ENCLOSED CABLE PATH INFRASTRUCTURE	EC	EC
FLOOR BOXES INCLUDING INTERNAL BRACKETS, TEMPORARY COVERS, AND PERMANENT COVERS	EC	EC
ROUGH OR FINISHED TRIM, CASEWORK, MILLWORK, EQUIPMENT CAVITIES, STRUCTURAL WORK, WHITE BOARDS, TACK BOARDS, OTHER NON-ELECTRONIC DISPLAY SURFACES, OR SPECIAL CONSTRUCTION	GC	GC
FLAT PANEL VIDEO DISPLAY BLOCKING FOR WALL MOUNTED DEVICES	GC	GC
TECHNICAL FURNITURE	GC	GC

GENERAL DIVISION OF RESPONSIBILITIES

CODE	GENERAL ABBREVIATIONS	CODE	GENERAL ABBREVIATIONS
AFF	ABOVE FINISHED FLOOR	LAN	LOCAL AREA NETWORK
AV	AUDIO VISUAL CONTRACTOR	NTS	NOT TO SCALE
DC	DATA COMMUNICATIONS CONTRACTOR	O	OWNER
EC	ELECTRICAL CONTRACTOR	OFE	OWNER FURNISHED EQUIPMENT
EXS	EXISTING EQUIPMENT	RCP	REFLECTED CEILING PLAN
FBO	FURNISHED BY OTHERS	RK	RACK MOUNT
FC	FURNITURE CONTRACTOR	SR	SURFACE MOUNT
FL	FLUSH MOUNT	SSH	STANDARD SWITCH HEIGHT
FOH	FRONT OF HOUSE	SWL	SAFE WORKING LOAD
GC	GENERAL CONTRACTOR	TBD	TO BE DETERMINED
		UON	UNLESS OTHERWISE NOTED

GENERAL ABBREVIATIONS

The Electrical Contractor or "EC" will be responsible for the following:

*All high voltage wiring/terminations contained within this drawing set. Scope includes, but is not limited to:

PROVISION AND INSTALLATION OF:

*Conduit, gang boxes, pull boxes, and pull string required for the audio and video systems.

*All junction boxes and in-wall enclosures required for the audio communications system. Sizes of all junction boxes and enclosures will be indicated on the audio/video drawings. All junction boxes, pull boxes, and wall mounted enclosures are to be clearly labeled with permanent marker. Refer to audio/video drawings for labeling.

*AC power circuits, outlets, and interconnection of power to each video projector location.

*All AC power circuits, outlets, power panels and interconnection of power to the sound equipment racks.

*Wherever possible, all audio circuits shall be supplied from the same A/V electrical panel.

*The designated A/V power panel (if appropriate to the project) shall not furnish power to any other equipment.

*All outlets that service the stage (if there is a stage area) shall be supplied from the same A/V electrical panel.

*All outlets that service the control booth (if there is a control booth) shall be supplied from the same A/V electrical panel.

*Wherever possible, all outlets that service the ceiling mounted video projectors shall be supplied from the same A/V electrical panel.

*All high voltage wiring and terminations for projector screens and up/down switches

CONDUIT GENERAL NOTES FOR ELECTRICAL CONTRACTOR

- EC to provide and install all conduit, backboxes, gutter boxes, terminal cans, raceways, cable trays and access panels unless otherwise noted.

- EC to install pull lines in all conduits.

- EC shall not substitute conduit type without written permission from the consultant.

- Conduit runs are drawn for illustration only. Actual conduit paths & interim boxes to be determined by the EC.

- EC may increase the size of junction boxes, gutters & conduit as needed in the event that a conflict exists.

- EC to provide and install all high voltage (120V - 240V) cable and fixtures unless otherwise noted.

- Install applicable size pull boxes after 270 deg. of bend or if conduit run is more than 100'.

- Label all conduit for destinations such as box numbers and/or room locations.

- Deburr all rough edges to prevent cable abrasion.

- Ensure all conduits are free from debris & water.

- Ensure all in ground pull boxes and vaults are weather proof & free of debris & water.

- Ensure conduit is electrically isolated from all equipment racks & enclosures.

ADDITIONAL RESPONSIBILITIES

FAMILY	SIGNAL TYPE	CABLE LABEL DETAIL
A	Serial	
B	Broadband	
C	Video	
D	DVI Video	
E	Digital Media	
F	Fiber Optic	
G	AES/EBU	
H	HDMI	
I	IR/S	
J	Optical Audio	
K	Control Network	
L	Line-Level	
M	Microphone	
N	Network	
O	I/O	
P	Power	
Q	Component Video	
R	Relay	
S	Speaker	
T	DMX	
U	UTP Signal	
V	Digital Video	
W	RGB Signal	
X	Antenna	
Y	Y/C S-Video	
Z	SDI Video	

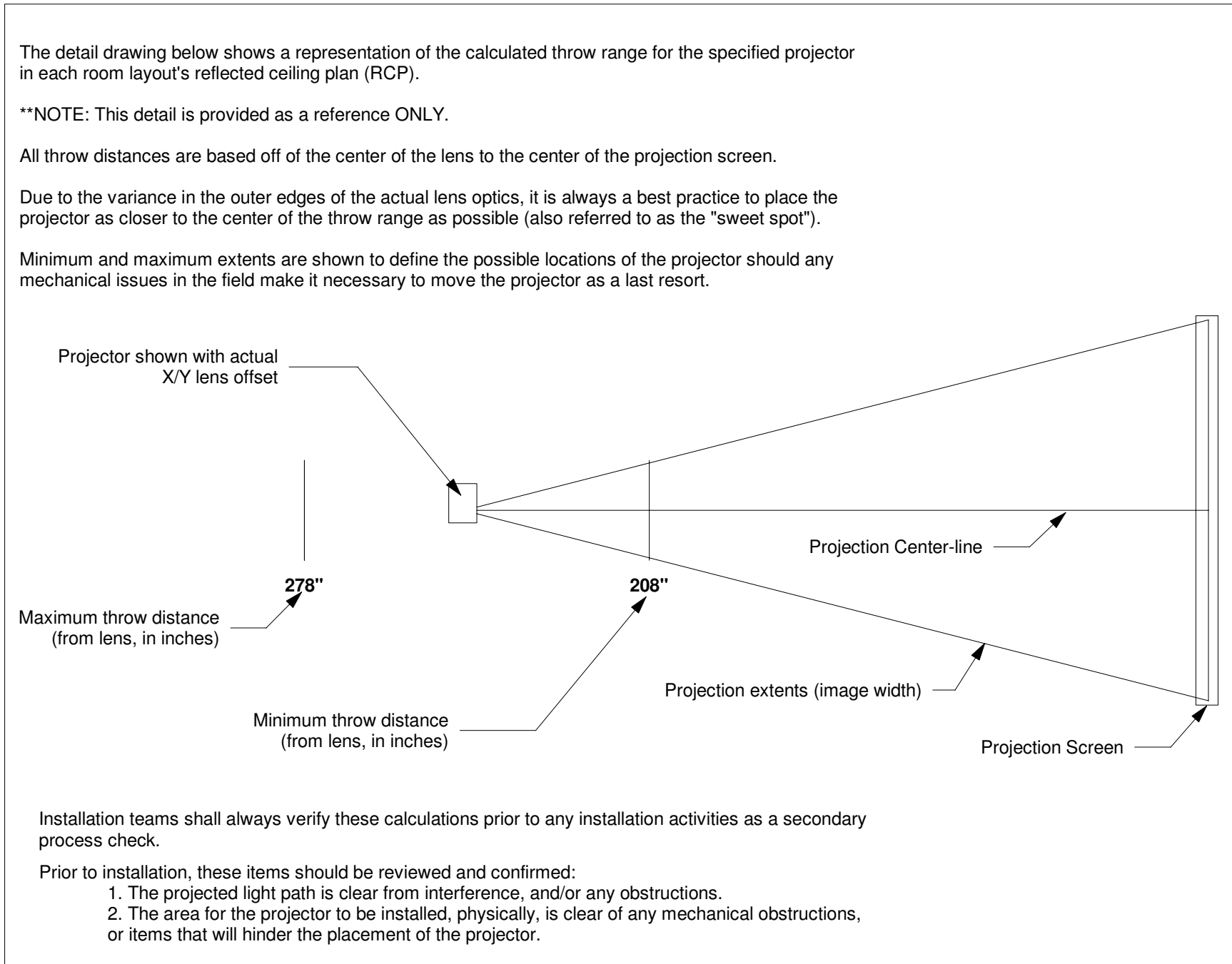
CABLE LABEL DETAIL

SHRINK WRAP DETAIL

NOTES:

1. All exposed cable strip-points must have heat-shrink tubing applied.
2. Consult project documents for specific colors if required.
3. Consult project documents for "Clear" heat-shrink requirements on cable labels.

CABLE LABELING

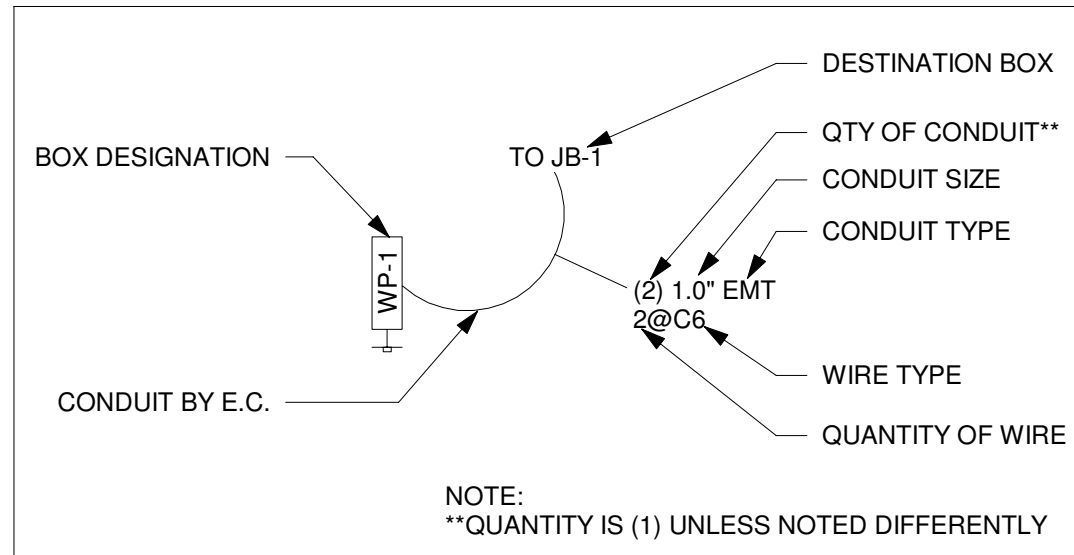
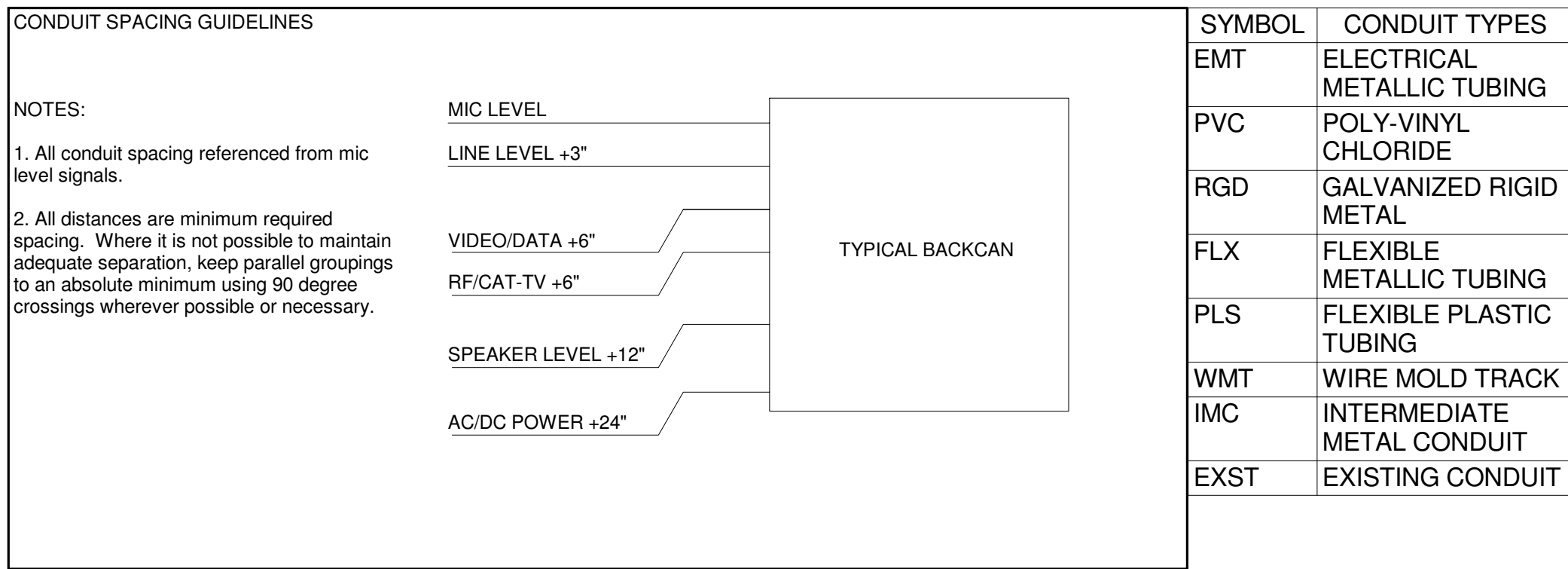


PROJECTOR THROW RANGE DETAIL (RCP ONLY)

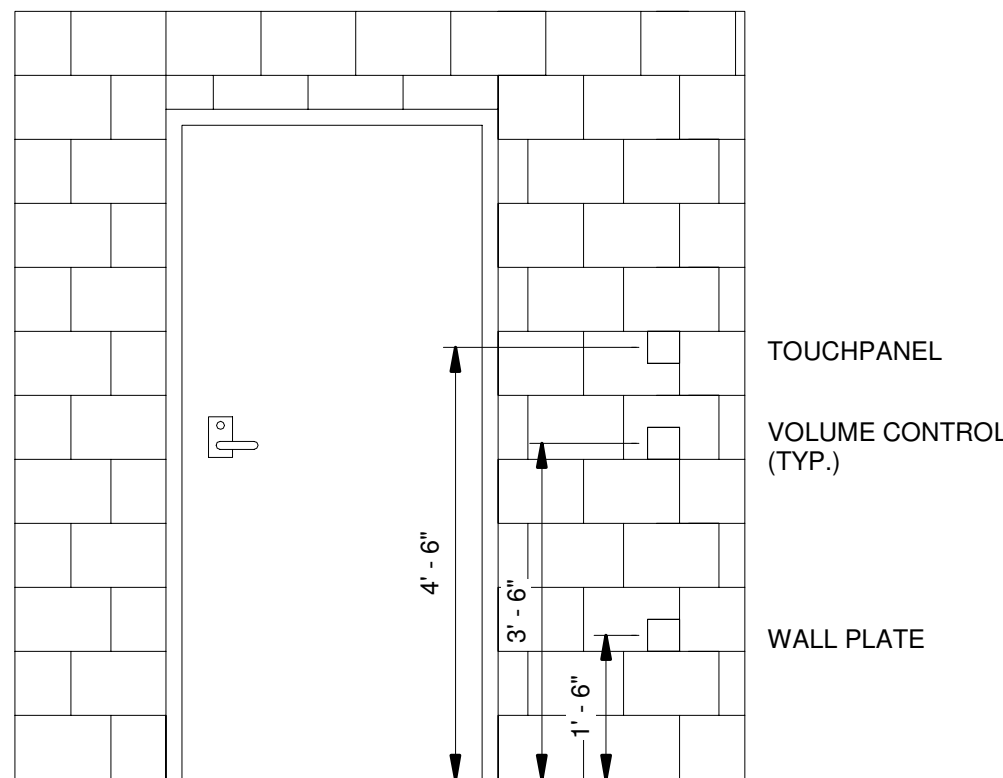
Installation teams shall always verify these calculations prior to any installation activities as a secondary process check.

Prior to installation, these items should be reviewed and confirmed:

1. The projected light path is clear from interference, and/or any obstructions.
2. The area for the projector to be installed, physically, is clear of any mechanical obstructions, or items that will hinder the placement of the projector.

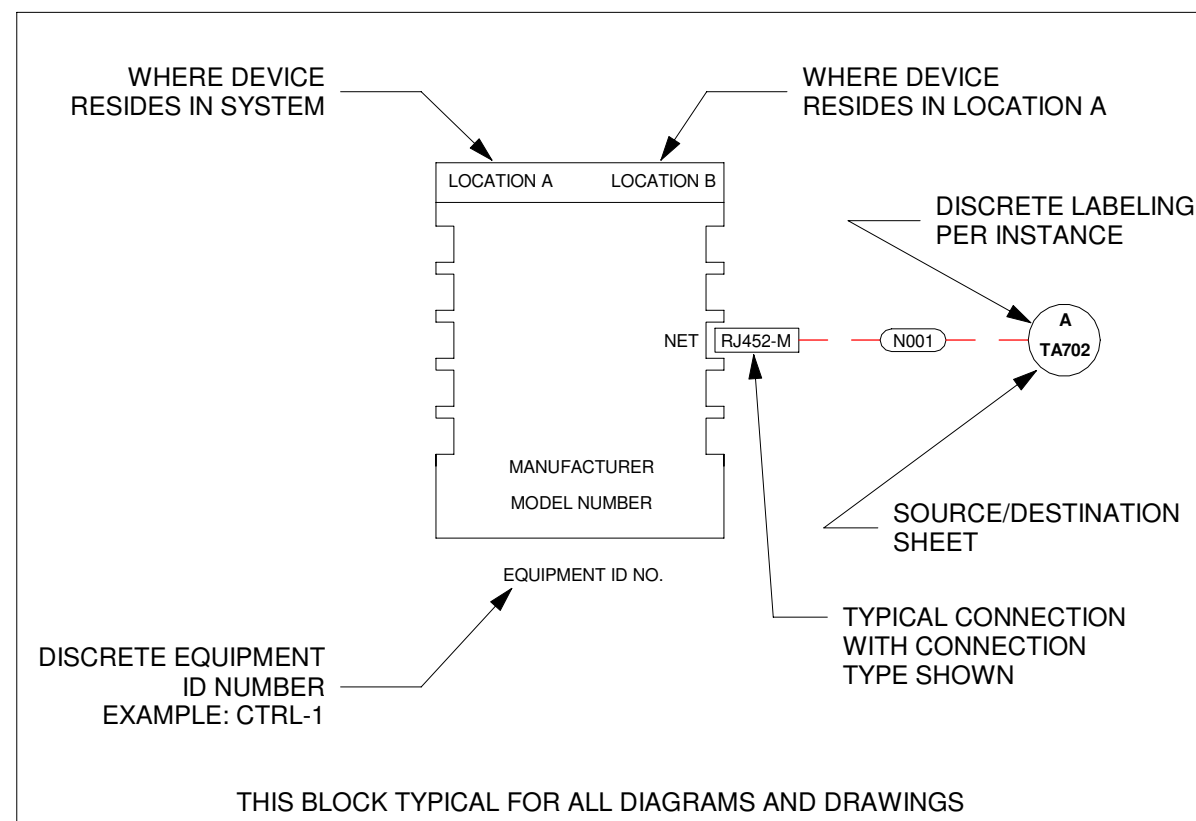


WIRE PULL PLAN/RCP DETAIL



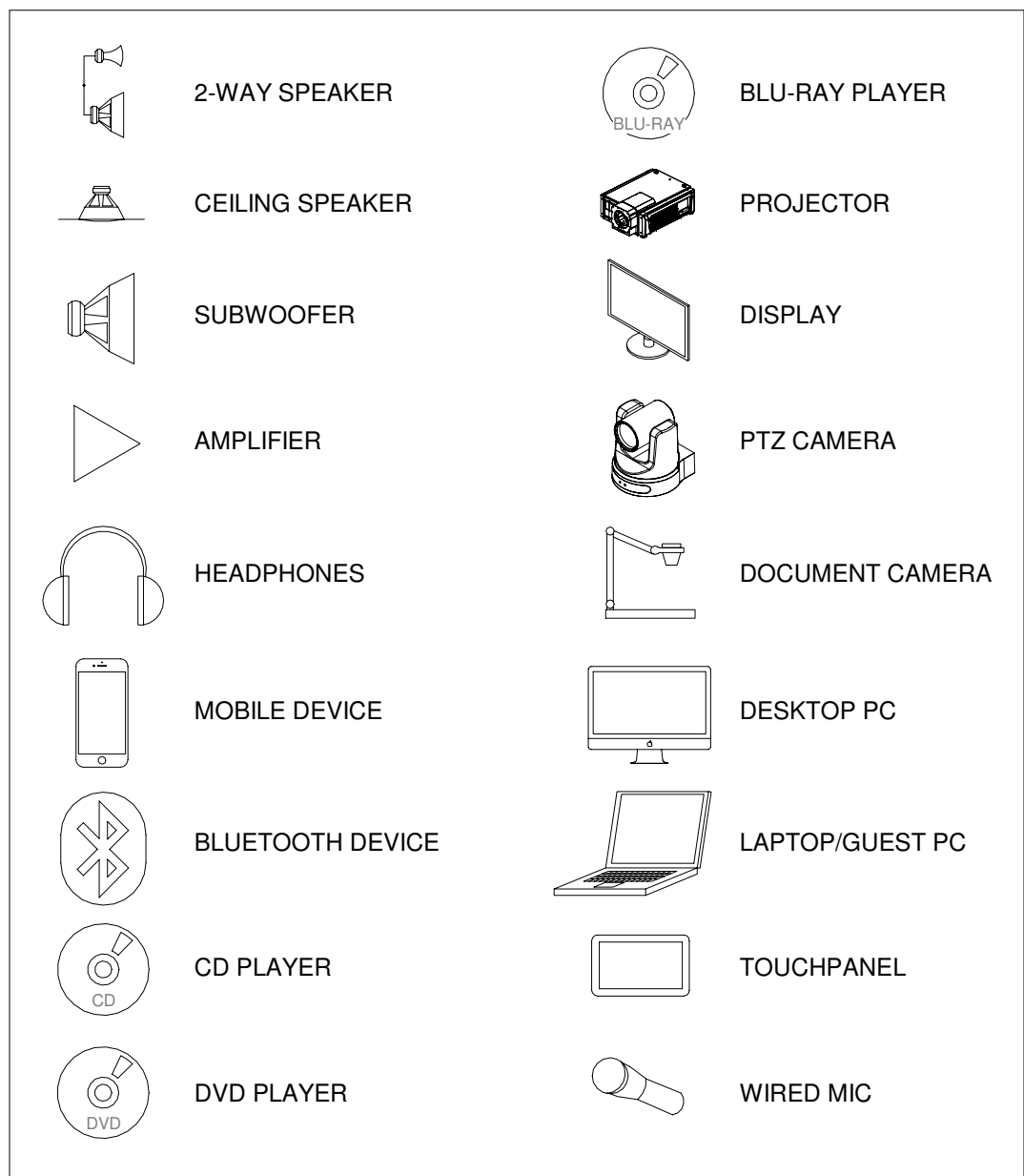
NOTE: ALL MOUNTING HEIGHTS FOR AVL BOXES IN THIS PROJECT MEASURED TO CENTER OF BOX

MOUNTING HEIGHT DETAIL

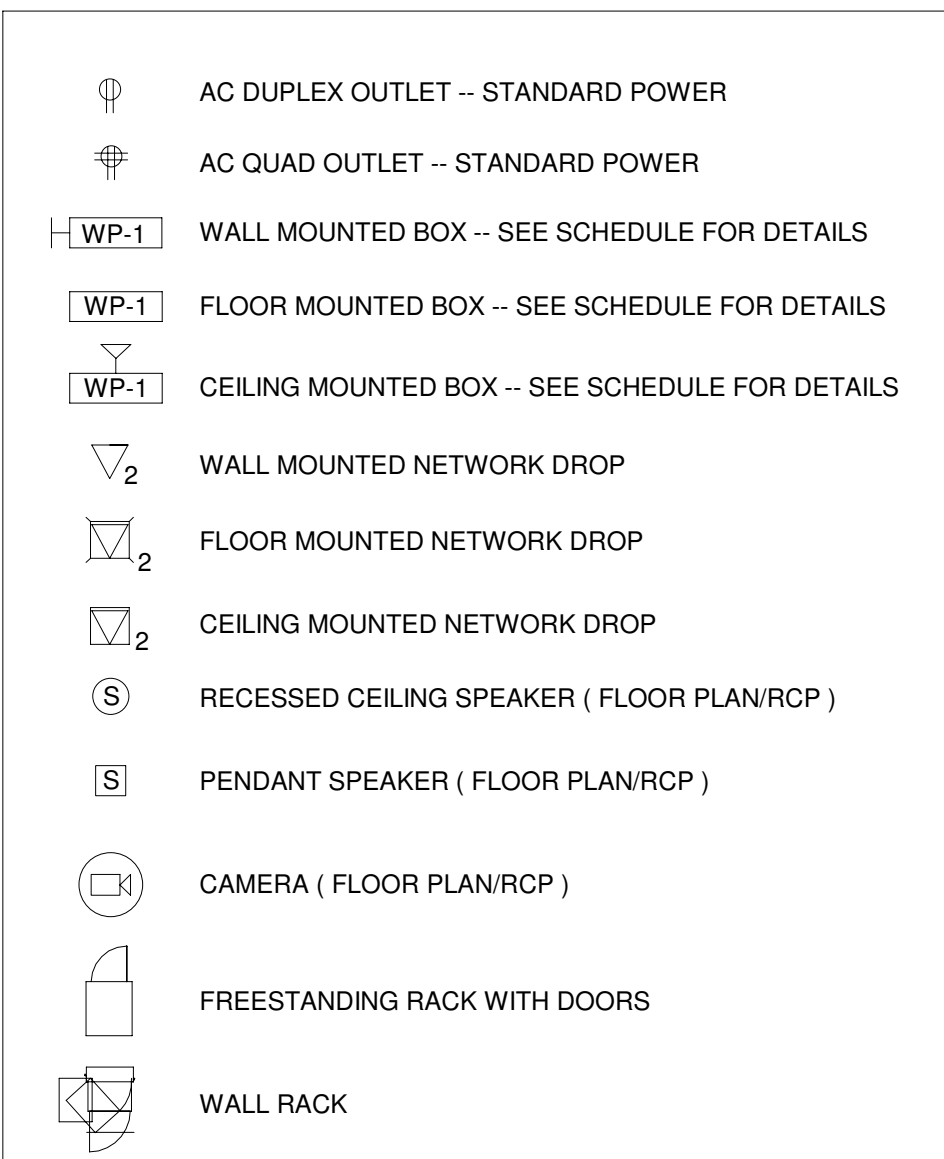


SCHEMATIC DEVICE KEY

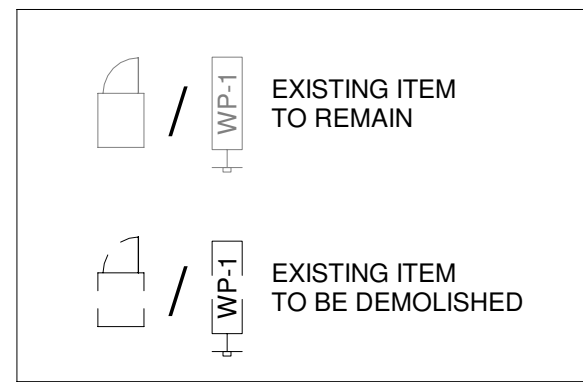
CABLE TYPES - AV					
CODE	DESCRIPTION	BELDEN	WEST PENN	WINDY CITY	OTHER
C6	CAT6 - 4 UNSHIELDED, TWISTED PAIR	7883A	4246	CAT6	
CNT	CONTROL WIRE				CABLE TYPE AS REQUIRED BY DEVICE
F	FIBER WIRE	1801B	DA252401	OCC-DZ006TSLX9VP	
HDMI	PRETERMINATED HDMI CABLE				4K60 CAPABLE
L	LINE - 1 PR 22 GA W/ SHIELD	9451	454	22-1PREZ	
M	MIC - 1 PR 22 GA W/ SHIELD	9451	454	22-1PREZ	
RF	ANTENNA CABLE	-	-	-	CABLE TYPE AS REQUIRED BY DEVICE
S10	SPEAKER - 1 PAIR 10 GA SPEAKER WIRE	6T00UP	25210	10-02P	
S12	SPEAKER - 1 PAIR 12 GA SPEAKER WIRE	6000UE	227	12-02	
S16	SPEAKER - 1 PAIR 16 GA SPEAKER WIRE	6200UE	225	16-02	
SDI	VIDEO COAXIAL WIRE	-	-	-	CABLE TYPE AS REQUIRED BY DEVICE



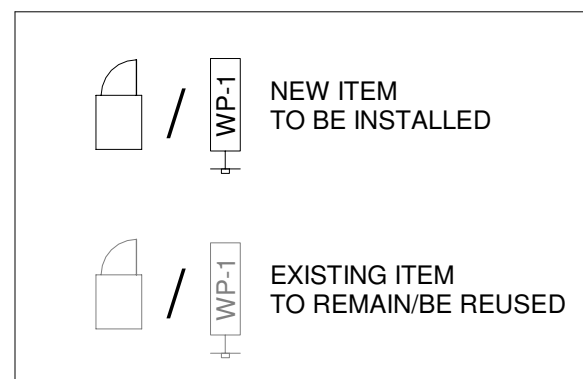
AV SCHEMATIC SYMBOLS



AV PLAN/RCP SYMBOLS



EQUIPMENT STYLE - EXISTING



EQUIPMENT STYLE - NEW

SHEET LIST - TA SERIES	
NUMBER	NAME
TA001	AV SYMBOLS, NOTES, DIVISION OF LABOR
TA002	AV SCHEDULES
TA101	AV EXISTING PLAN - FIRST FLOOR - EAST WING
TA111	AV EXISTING RCP - FIRST FLOOR - EAST WING
TA201	AV PLAN - FIRST FLOOR - EAST WING
TA211	AV RCP - FIRST FLOOR - EAST WING
TA401	AV RACKS, PLATES, DETAILS
TA402	AV DETAILS - DISPLAY ELEVATIONS
TA701	AV SCHEMATIC - CONFERENCE INPUTS
TA702	AUDIO SCHEMATIC - SPEAKERS & PROCESSING
TA703	AV SCHEMATIC - VIDEO DISTRIBUTION

Revisions		No.	Date	Description
		1	03/25/2025	CONSTRUCTION SET

NORTHWESTERN MICHIGAN COLLEGE

HAGERTY CENTER

715 E Front St, Traverse City, MI 49686

SHEET TITLE

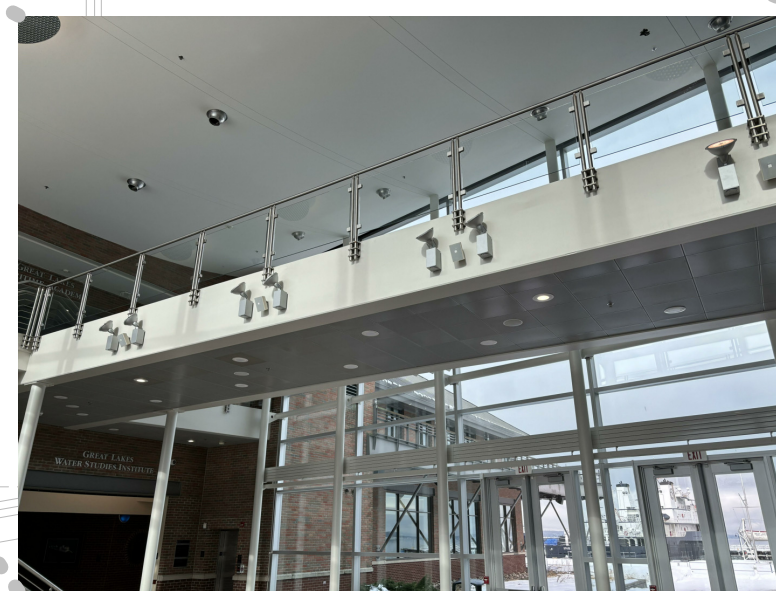
AV
SCHEDULES

Issue :	CONSTRUCTION SET
Project Number :	NWC-07
Designed By :	Designer
Drawn By :	Author
Checked By :	Checker
Date Issue :	03/25/2025

TA002

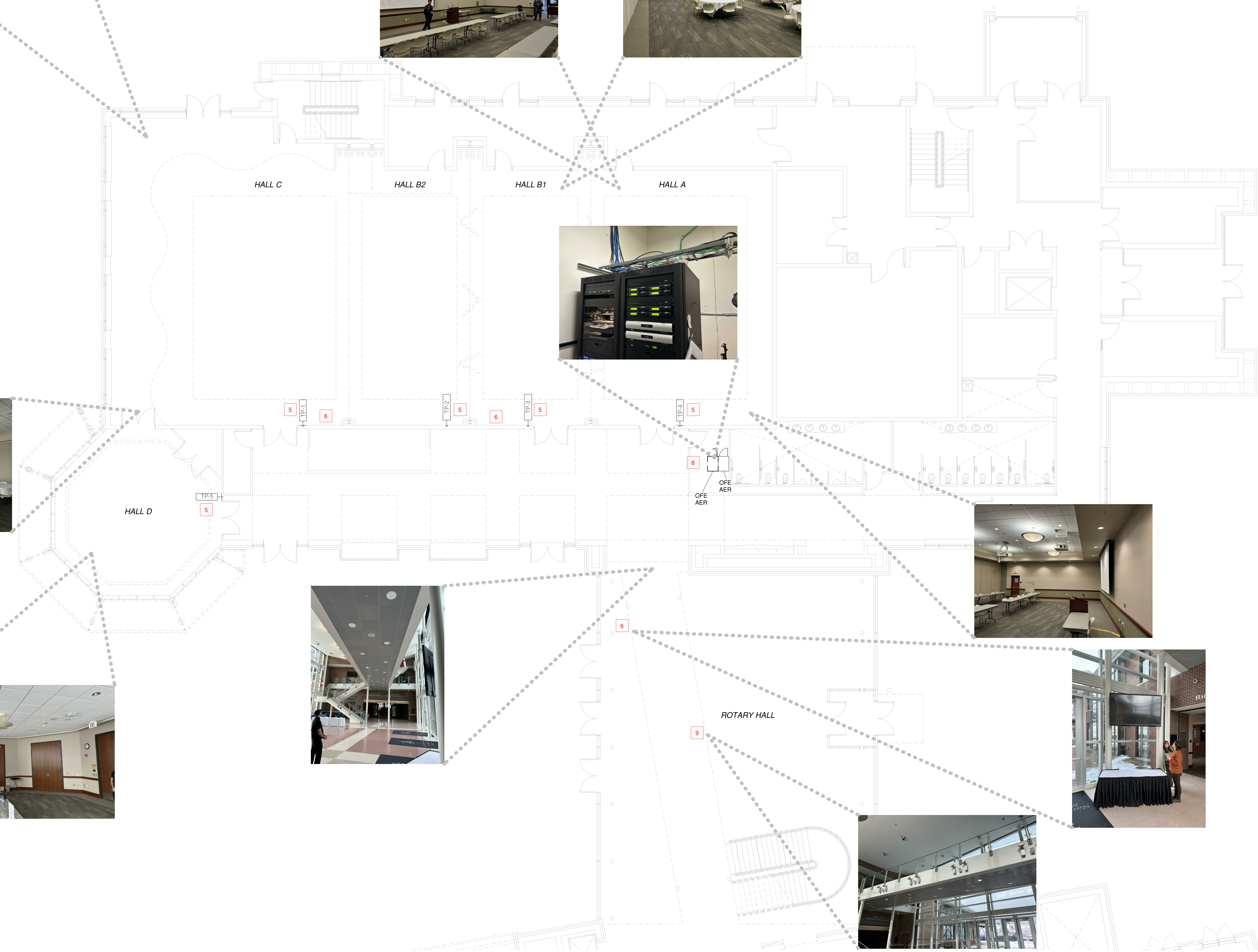
AV BOX SCHEDULE						
BOX #	TYPE	MOUNTING HEIGHT	MOUNTING TYPE	BOX & COVER PROVIDED BY	CONN. PLATE PROVIDED BY	COMMENTS
AER-1	OFE RACK 38 RU					OFE FLOOR-MOUNTED EQUIPMENT RACK
ANT-A	1 GANG LV TRIM RING	9' - 6"	FLUSH	AV	AV	
ANT-B	1 GANG LV TRIM RING	9' - 6"	FLUSH	AV	AV	
ANT-C	1 GANG LV TRIM RING	9' - 6"	FLUSH	AV	AV	
TP-1	2 GANG LV TRIM RING	4' - 6"	FLUSH	AV	AV	
TP-2	2 GANG LV TRIM RING	4' - 6"	FLUSH	AV	AV	
TP-3	2 GANG LV TRIM RING	4' - 6"	FLUSH	AV	AV	
TP-4	2 GANG LV TRIM RING	4' - 6"	FLUSH	AV	AV	
TP-5	1 GANG LV TRIM RING	4' - 6"	FLUSH	AV	AV	
VJ-1	PWB-203-B	6' - 6"	FLUSH	AV	AV	PWB-203-B PROVIDED BY AV, INSTALLED BY EC
VJ-2	PWB-203-B	6' - 6"	FLUSH	AV	AV	PWB-203-B PROVIDED BY AV, INSTALLED BY EC
VJ-3	PWB-203-B	6' - 6"	FLUSH	AV	AV	PWB-203-B PROVIDED BY AV, INSTALLED BY EC
VJ-4	PWB-203-B	6' - 6"	FLUSH	AV	AV	PWB-203-B PROVIDED BY AV, INSTALLED BY EC
VJ-5	PWB-203-B	6' - 6"	FLUSH	AV	AV	PWB-203-B PROVIDED BY AV, INSTALLED BY EC
VJ-6	PWB-203-B	6' - 0"	FLUSH	AV	AV	PWB-203-B PROVIDED BY AV, INSTALLED BY EC
VJ-7	PWB-203-B	6' - 0"	FLUSH	AV	AV	PWB-203-B PROVIDED BY AV, INSTALLED BY EC
VJ-8	4 SQ	10' - 0"	FLUSH	EC	AV	
WP-1	4 GANG LV TRIM RING	1' - 6"	FLUSH	AV	AV	
WP-2	4 GANG LV TRIM RING	1' - 6"	FLUSH	AV	AV	
WP-3	4 GANG LV TRIM RING	1' - 6"	FLUSH	AV	AV	
WP-4	1 GANG LV TRIM RING	1' - 6"	FLUSH	AV	AV	
WP-5	1 GANG LV TRIM RING	1' - 6"	FLUSH	AV	AV	
WP-6	4 GANG LV TRIM RING	1' - 6"	FLUSH	AV	AV	
WP-7	4 GANG LV TRIM RING	1' - 6"	FLUSH	AV	AV	
WP-8	4 GANG LV TRIM RING	1' - 6"	FLUSH	AV	AV	
WP-9	1 GANG LV TRIM RING	1' - 6"	FLUSH	AV	AV	
WP-10	1 GANG LV TRIM RING	1' - 6"	FLUSH	AV	AV	
WP-11	1 GANG LV TRIM RING	1' - 6"	FLUSH	AV	AV	
WP-12	1 GANG LV TRIM RING	1' - 6"	FLUSH	AV	AV	
WP-13	1 GANG LV TRIM RING	1' - 6"	FLUSH	AV	AV	
WP-14	1 GANG LV TRIM RING	1' - 6"	FLUSH	AV	AV	
WP-15	1 GANG LV TRIM RING	1' - 6"	FLUSH	AV	AV	
WP-16	1 GANG LV TRIM RING	1' - 6"	FLUSH	AV	AV	

AV DISPLAY SCHEDULE			
LABEL	MAKE	MODEL	MOUNT
MON-1	NEC	E988	AS3LD
MON-2	NEC	E988	AS3LD
MON-3	NEC	E988	AS3LD
MON-4	NEC	E988	AS3LD
MON-5	NEC	E988	AS3LD
MON-6	NEC	E758	AS3LD
MON-7	NEC	E758	AS3LD
MON-8	NEC	E988	AS3LD



DEMO NOTES - AV	
#	NOTES
1	EXISTING PROJECTOR AND LIFT TO BE RETIRED IN PLACE. AV CABLING TO BE REMOVED BY AV
2	EXISTING RECESSED PROJECTION SCREEN TO BE RETIRED IN PLACE
3	EXISTING SURFACE-MOUNTED PROJECTION SCREEN TO BE RETIRED IN PLACE
4	EXISTING CEILING-MOUNTED CAMERA AND CABLING TO BE RETIRED IN PLACE
5	EXISTING TOUCH PANEL AND ASSOCIATED CABLING TO BE REMOVED BY AV. REPLACE WITH NEW TOUCH SCREEN, AS SPECIFIED
6	EXISTING TV, MOUNT, AND ASSOCIATED CABLING TO BE REMOVED BY AV. TV AND MOUNT TO BE TURNED OVER TO THE OWNER
7	EXISTING CEILING-MOUNTED MICROPHONES AND CABLING TO BE RETIRED IN PLACE
8	(1) EXISTING AV RACK AT THIS LOCATION TO BE REMOVED AND TURNED OVER TO OWNER. (1) EXISTING AV RACK AT THIS LOCATION TO REMAIN AND BE RE-USED
9	EXISTING SURFACE MOUNTED LOUDSPEAKERS TO BE REMOVED AND TURNED OVER TO THE OWNER

NOTE: ALL EXISTING SPEAKERS AND CABLING TO BE REMOVED BY AV UNLESS SPECIFIED IN AV DEMO NOTES ABOVE.
NOTE: ALL EXISTING WALL MOUNTED AV CONNECTIONS AND ASSOCIATED CABLING TO BE REMOVED BY AV. PROVIDE BLANK COVER.



1 AV EXISTING PLAN - FIRST FLOOR - EAST WING
1/8" = 1'-0"

Revisions		Date	Description
No.	1	03/25/2025	CONSTRUCTION SET

NORTHWESTERN MICHIGAN COLLEGE
HAGERTY CENTER
715 E Front St, Traverse City, MI 49686

SHEET TITLE

AV EXISTING
PLAN - FIRST
FLOOR -
EAST WING

Issue:	CONSTRUCTION SET
Project Number:	NMCC-07
Designed By:	Designer
Drawn By:	Author
Checked By:	Checker
Date Issue:	03/25/2025

TA101



DEMO NOTES - AV	
#	NOTES
1	EXISTING PROJECTOR AND LIFT TO BE RETIRED IN PLACE. AV CABLING TO BE REMOVED BY AV
2	EXISTING RECESSED PROJECTION SCREEN TO BE RETIRED IN PLACE
3	EXISTING SURFACE-MOUNTED PROJECTION SCREEN TO BE RETIRED IN PLACE
4	EXISTING CEILING-MOUNTED CAMERA AND CABLING TO BE RETIRED IN PLACE
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6	EXISTING TV, MOUNT, AND ASSOCIATED CABLING TO BE REMOVED BY AV. TV AND MOUNT TO BE TURNED OVER TO THE OWNER
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NOTE: ALL EXISTING WALL MOUNTED AV CONNECTIONS AND ASSOCIATED CABLING TO BE REMOVED BY AV. PROVIDE BLANK COVER.

1 AV EXISTING RCP - FIRST FLOOR - EAST WING
1/8" = 1'-0"

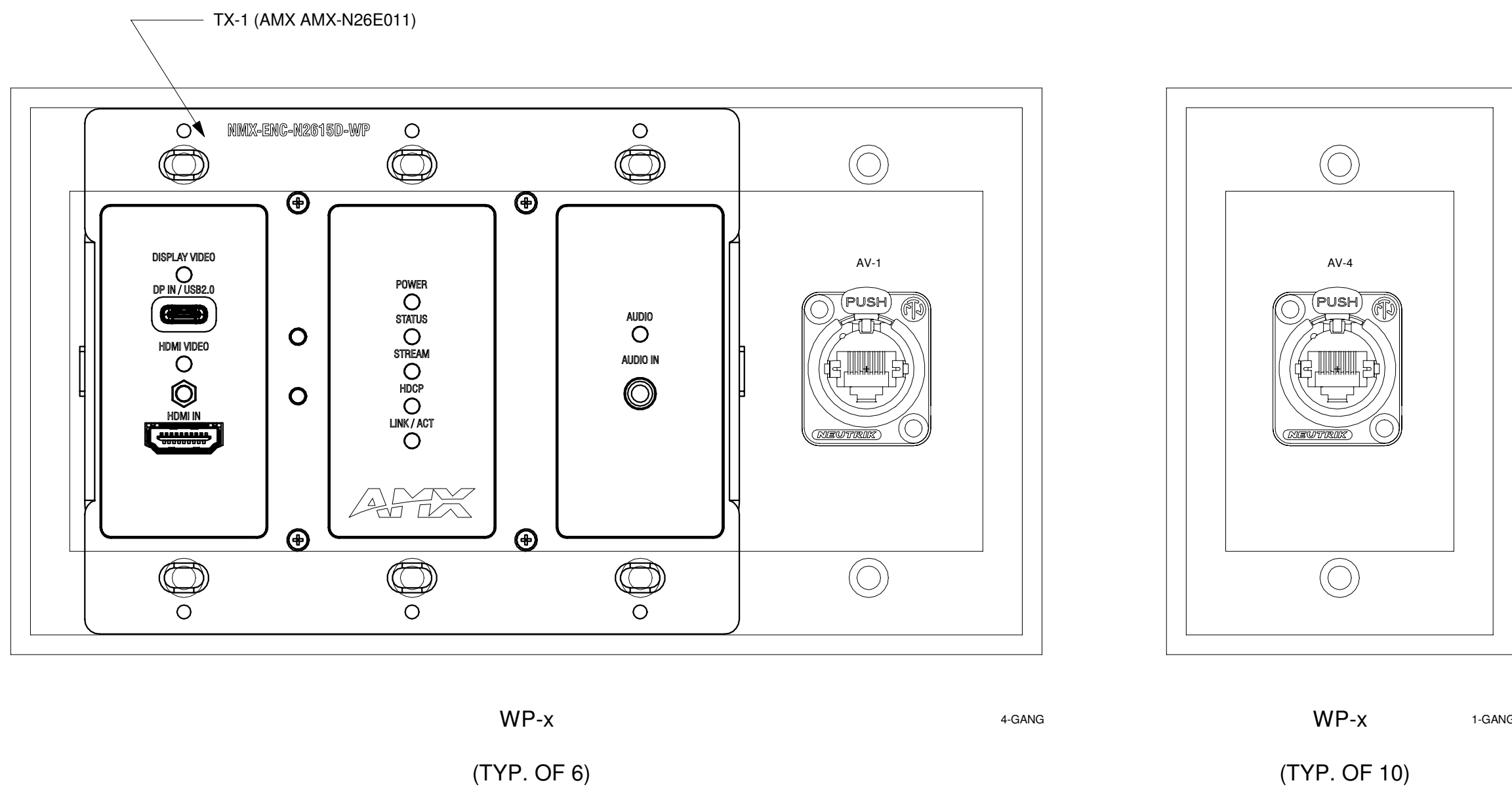
Revisions		Description
No.	Date	
1	03/25/2025	CONSTRUCTION SET

NORTHWESTERN MICHIGAN COLLEGE
HAGERTY CENTER
715 E Front St, Traverse City, MI 49686

AV EXISTING
RCP - FIRST
FLOOR -
EAST WING

Issue:	CONSTRUCTION SET
Project Number:	NMCC-07
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Drawn By:	Author
Checked By:	Checker
Date Issue:	03/25/2025

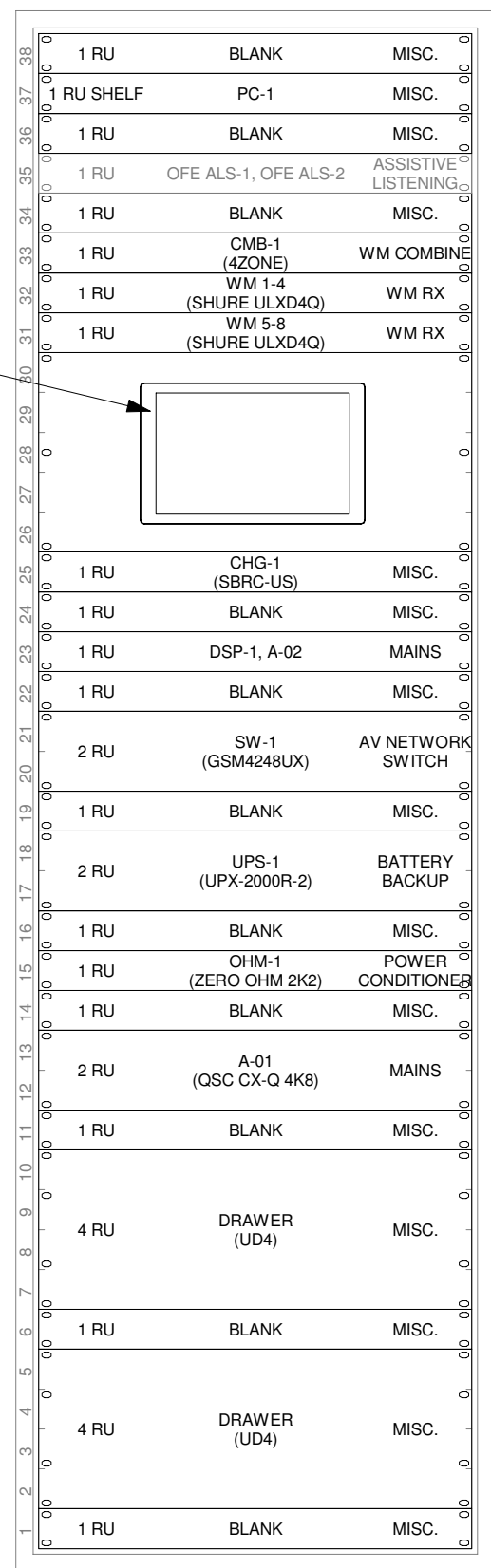
TA111



1 AV PLATES
12" = 1'-0"

TP-6 (QSC TSC-101-G3)
10" TOUCHPANEL
MOUNTED TO 5 RU PLATE

AER
OFE
38-SP FLOOR RACK



AER-1 (COMM. C111)

2 RACK DETAILS
1 1/2" = 1'-0"

RACK NOTES:

1. INSTALL RACK RAILS AT APPROPRIATE DISTANCE FROM BACK OF EQUIPMENT FOR LACER BARS.
2. ALL WIRING IN BACK OF RACKS SHOULD BE SECURED TO THE LACER BARS.
3. WIRING TO AND FROM THE RACK SHALL BE RUN ON THE LEFT HAND SIDE OF THE RACK AS YOU FACE THE REAR OF THE RACK.
4. ALL POWER CONNECTIONS AND WIRING SHALL BE RUN ON THE RIGHT HAND SIDE OF THE RACK AS YOU FACE THE REAR OF THE RACK.
5. ALL WIRING SHALL BE CONTAINED IN PANDUIT FINGER TRAY OR SIMILAR.
6. WIRING SHALL BE SEPARATED IN FINGER TRAY(S) ACCORDING TO SIGNAL AND WIRE TYPE.
7. ALL WIRES TERMINATING IN THE EQUIPMENT RACK MUST HAVE A UNIQUE LABEL. SEE DRAWINGS FOR LABELING DETAILS.
8. ALL EQUIPMENT SHALL HAVE A LABEL ON THE FRONT INDICATING THE EQUIPMENT FUNCTION AND SCHEMATIC DESIGNATION.
9. ALL NETWORKED DEVICES SHALL BE CLEARLY LABELED WITH THE NETWORK IP ADDRESS.
10. ALL NETWORKED DEVICES SHALL HAVE STATIC IP ADDRESSES. COORDINATE WITH THE SCHOOL IT DEPARTMENT FOR RESERVATIONS.
11. PROGRAM AMPLIFIERS FOR SLEEP MODE WHEN THE SYSTEM IS POWERED OFF.

Revisions		Date	Description
No.	1	03/25/2025	CONSTRUCTION SET

NORTHWESTERN MICHIGAN COLLEGE
HAGERTY CENTER
715 E Front St, Traverse City, MI 49686

SHEET TITLE

AV RACKS,
PLATES,
DETAILS

Issue :	CONSTRUCTION SET
Project Number :	NWC-07
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Drawn By :	Author
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TA401

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No.	1	03/25/2025	CONSTRUCTION SET

NORTHWESTERN MICHIGAN COLLEGE
HAGERTY CENTER
715 E Front St, Traverse City, MI 49686

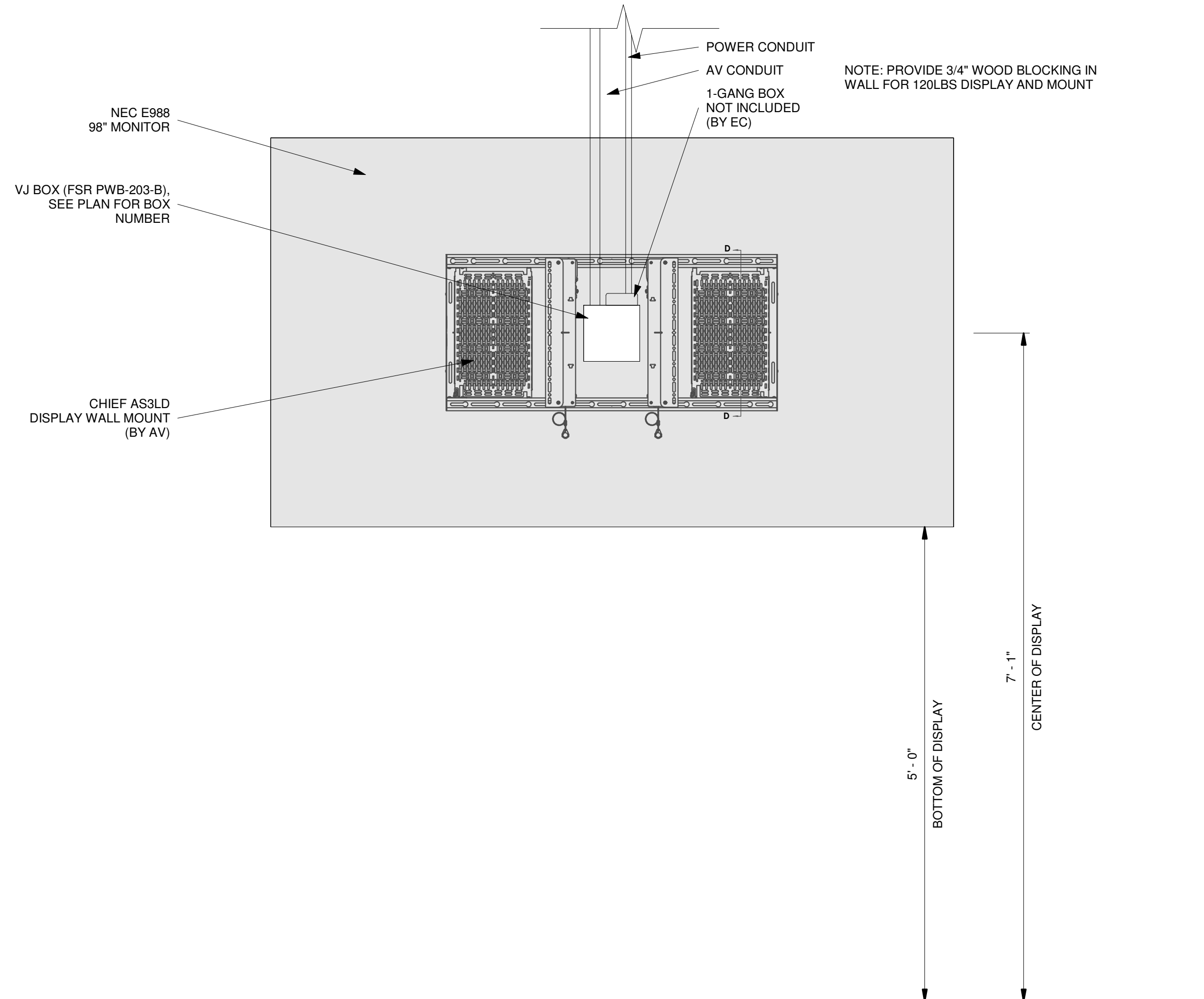
SHEET TITLE

AV DETAILS -
DISPLAY
ELEVATIONS

Issue :	CONSTRUCTION SET
Project Number :	NWC-07
Designed By :	Designer
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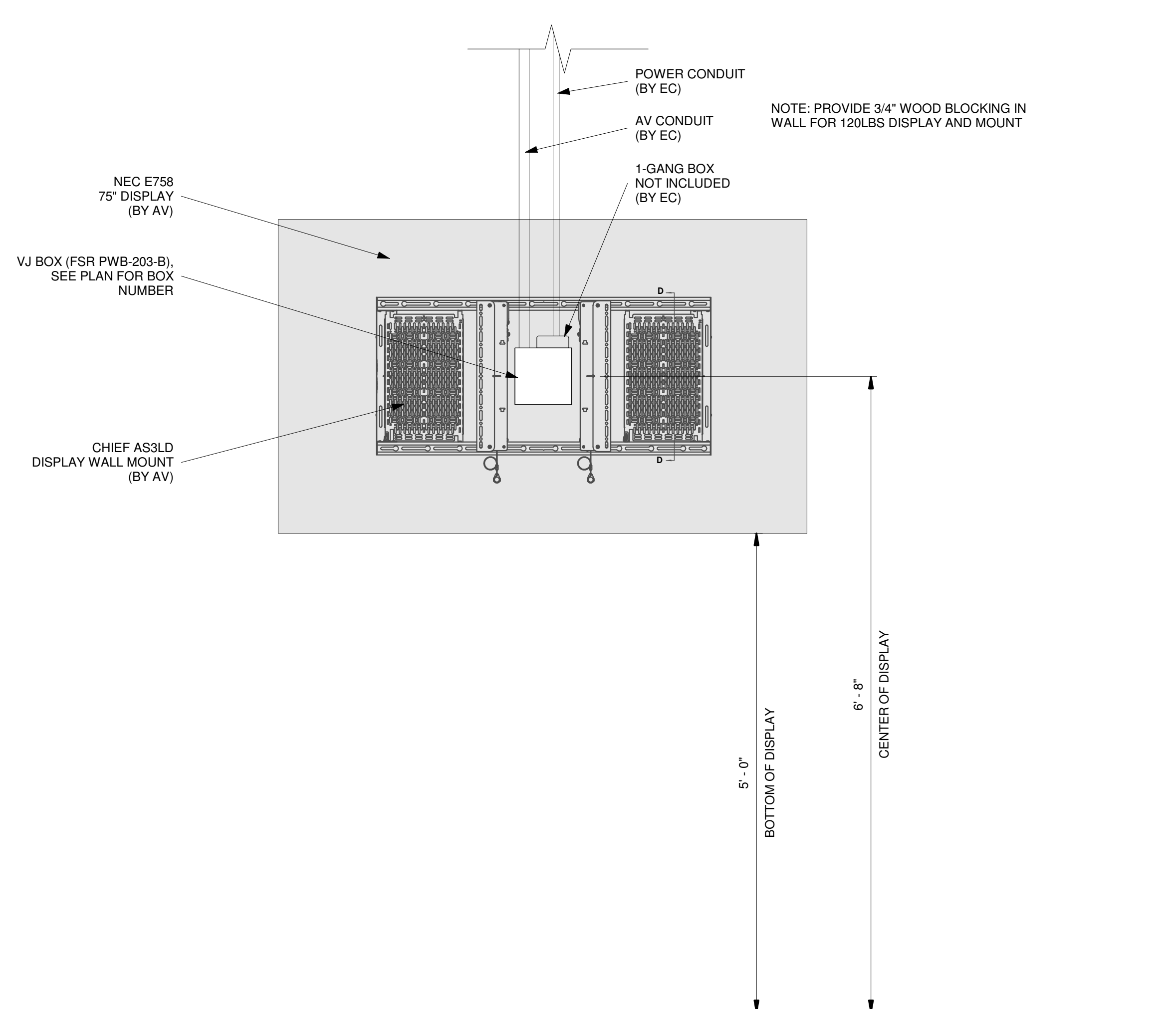
TA402

98" DISPLAY



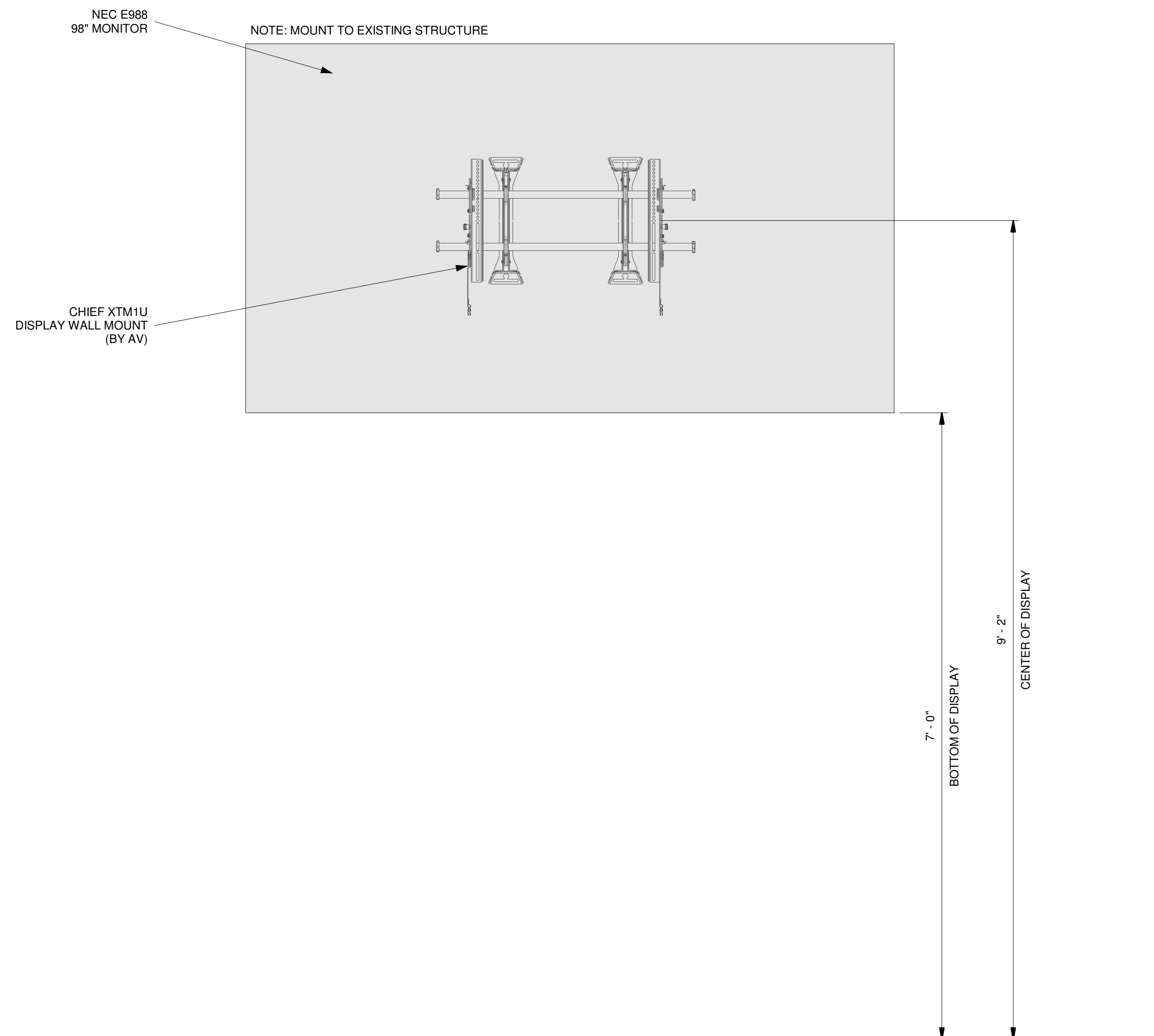
1 DISPLAY MOUNTING DETAIL - 98" - AS3LD
1" = 1'-0"

75" DISPLAY



2 DISPLAY MOUNTING DETAIL - 75" - AS3LD
1" = 1'-0"

98" DISPLAY - ROTARY HALL



3 DISPLAY MOUNTING DETAIL - 98" - XTM1U
1" = 1'-0"



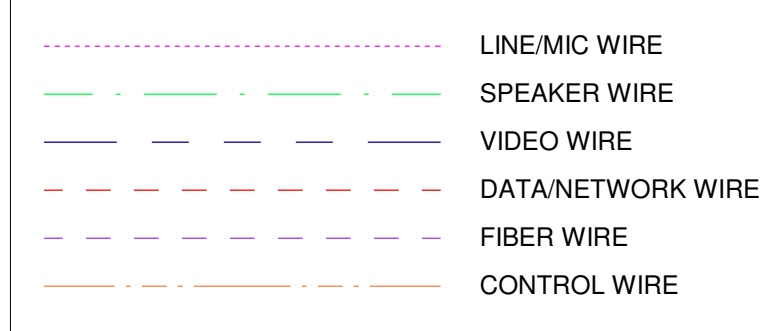
HAGERTY CENTER

SHEET TITLE

AUDIO SCHEMATIC - SPEAKERS & PROCESSING

Issue :	CONSTRUCTION SET
Project Number :	NMC-0
Designed By :	Design
Drawn By :	Autho
Checked By :	Checke
Date Issue :	03/25/2025

TA702



SCHEMATIC LINE TYPES - AV

1 AUDIO SCHEMATIC - SPEAKERS & PROCESSING
NOT TO SCALE

Revisions		Date	Description
No.	1	03/25/2025	CONSTRUCTION SET

NORTHWESTERN MICHIGAN COLLEGE
HAGERTY CENTER
715 E Front St, Traverse City, MI 49686

SHEET TITLE

AV
SCHEMATIC
- VIDEO
DISTRIBUTION

Issue:	CONSTRUCTION SET
Project Number:	NMC-07
Designed By:	Author
Drawn By:	Author
Checked By:	Author
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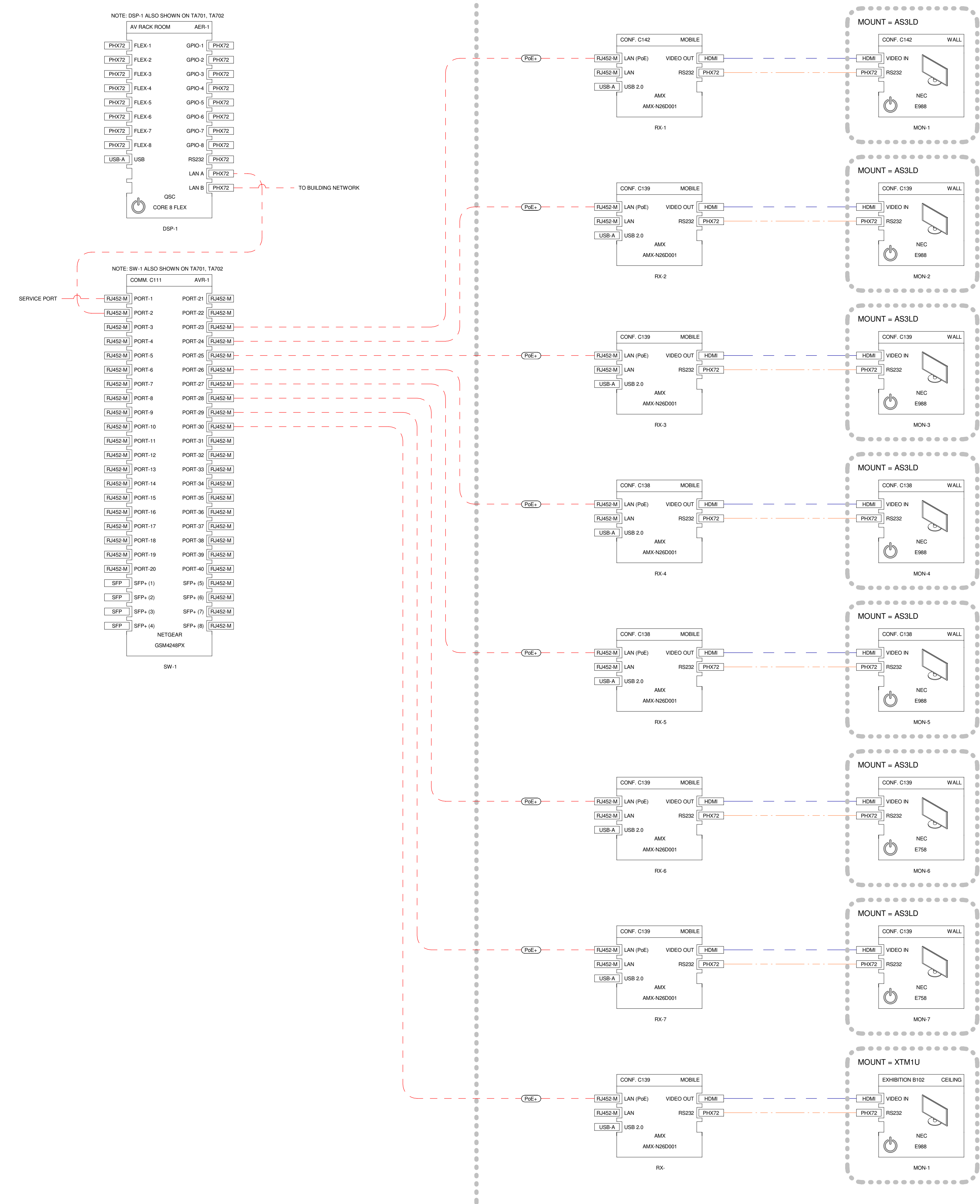
TA703

DISTRIBUTED AREAS

COMM. C111

COMM. C111

DISTRIBUTED AREAS



1 AUDIO SCHEMATIC - VIDEO DISTRIBUTION & WIRELESS MICS
12" = 1'-0"

LINE/MIC WIRE
SPEAKER WIRE
VIDEO WIRE
DATA/NETWORK WIRE
FIBER WIRE
CONTROL WIRE

SCHEMATIC LINE TYPES - AV