RTLS DEVICE LOCATIONS TO BE INSTALLED UNDER NURSE CALL CONTRACT. FOR INFORMATION ON INTEGRATION WITH NURSE CALL DEVICES.

CENTRAK®
Enterprise Location Services™

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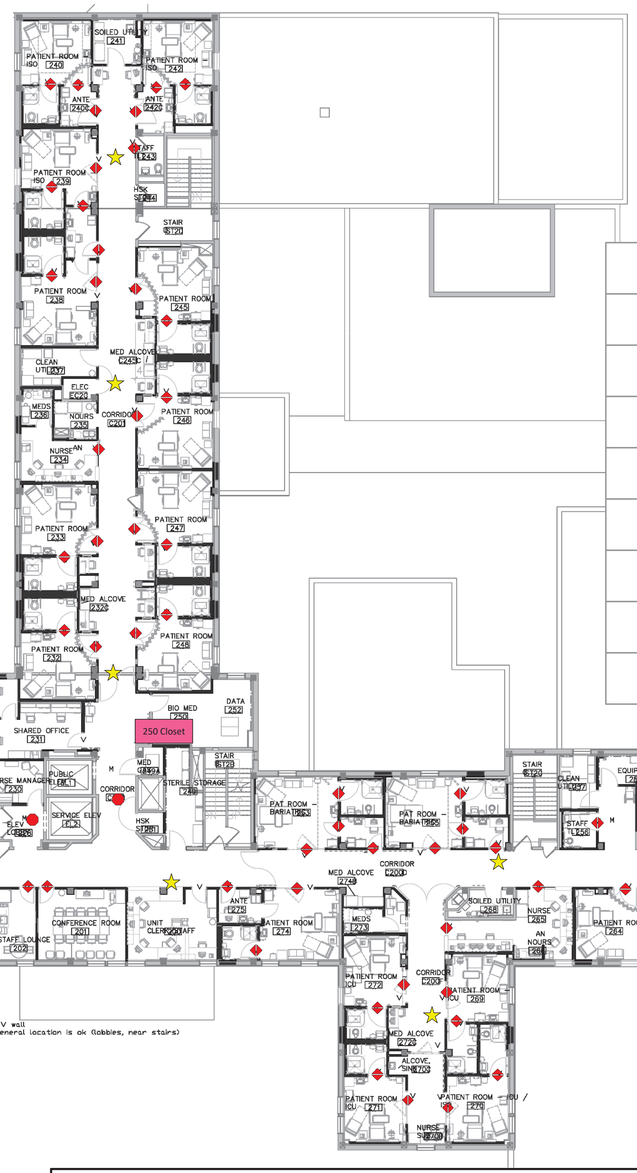
Final Design
FSE



Timing Controller	★
Stars	☆
Monitors	⬢
Virtual Walls	▲
LF Exciters	▬

Final designs must be approved by partner/hospital prior to implementation

VA Black Hills Health Care System - Fort Meade Campus, Fort Meade, SD

Revision Notes

AS[05/06/2022] : POST SURVEY DESIGN : COVERAGE UPDATED BASED OF CUSTOMER DIRECTIONS
BM [05/27/2022]: Each closet (marked in Pink) will have 1 Cisco POE switch
BM [05/27/2022]: Soffits on entrances and Nurses stations

BM [05/27/2022]: Ceiling 15/16" 2x2 grids

G-005

Drawn By: - Akshit Shetty

Checked By: - AKSHIT SHETTY

Room Count		Hardware Count	
Patient Room	24	Stars	17
Staff Room	-	Monitors	18
Storage Room	-	Virtual Walls	216
Other	-	LF Exciters	-
Other	-	Add Monitor	-
Other	-	Add Virtual Wall	-
Other	-	Add LF Exciter	-

Date: 05/10/2022

Bldg 113 - 2nd Floor – New Map

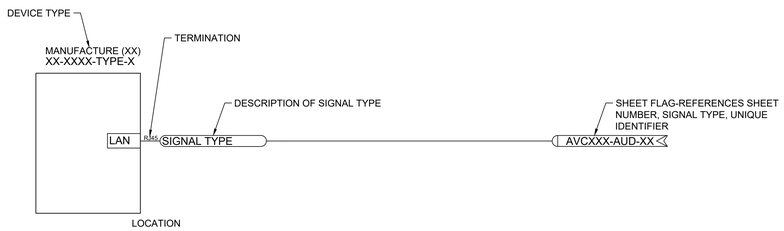
FT. MEADE VETERANS HOSPITAL
PUBLIC ADDRESS SYSTEM REPLACEMENT

FOR INFORMATION ONLY

CABLE TYPE SCHEDULE (THIS PROJECT ONLY)

TYPE	SIGNAL TYPE/APPLICATION	PLENUM/ NON-PLENUM (NEC RATING)	DESCRIPTION	MFG	PART#	O.D. (in.)	COMMENTS
A	2-WIRE PRODUCTION COMMS; LINE & MIC LEVEL AUDIO	PLENUM (CMP)	1PR x 22AWG SHIELDED, TWISTED PAIR WITH DRAIN WIRE	WEST PENN OR EQUAL	25291B	0.116	NOT USED
B	2-PAIR INDIVIDUAL JACKET; LINE & MIC LEVEL AUDIO	PLENUM (CMP)	2PR x 22AWG SHIELDED, TWISTED PAIR WITH DRAIN WIRE	WEST PENN OR EQUAL	D25510	0.14	NOT USED
D	DC POWER AND CONTACT CLOSURE	PLENUM (CMP)	1PR x 16AWG SHIELDED	WEST PENN OR EQUAL	25294B	0.178	
E	70 VOLT SPEAKER CABLE	RISER (CMR)	1PR x 16AWG UNSHIELDED	WEST PENN OR EQUAL	225	0.182	
F	MICROPHONE CABLE	RISER (CMR)	1PR x 22AWG DUAL SHIELDED	WEST PENN OR EQUAL	452	0.135	
G	SHIELDED CAT 6A CABLE	PLENUM (CMP)	4PR x 23AWG STP	WEST PENN OR EQUAL	254246AF	0.305	NOT USED
H	OUTSIDE PLANT FIBER CABLE	DIRECT BURIAL (CEC OFCP)	ARMORED TIGHT BUFFER FIBER	CORNING OR EQUAL	012EUC-T4101ASN	0.48	12 FIBER SINGLE MODE (OS2)
J	RISER FIBER CABLE	PLENUM (CEC OFCP)	ARMORED TIGHT BUFFER FIBER	CORNING OR EQUAL	012ED9-T1301-M2	0.22	12 FIBER SINGLE MODE (OS2)
K	ANALOG "VGA" CABLE 5C MINI-COAXIAL TYPE	RISER (CMR)	5C 25AWG IND. JACKET MINI Hi-RES COAX CABLE	BELDEN	1279R	0.403	NOT USED
L	COPPER ETHERNET CABLE	RISER (CMR)	4PR x 23AWG CAT6 UNSHIELDED, TWISTED PAIR	WEST PENN OR EQUAL	4246	0.22	

FUNCTIONAL BLOCK DIAGRAM STANDARD ANNOTATION



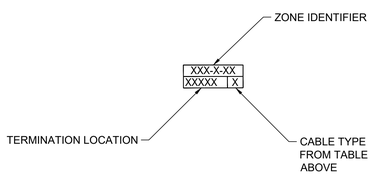
AUDIO VISUAL SYMBOLS

- VC — WALL MOUNTED VOLUME CONTROL
- SP 1 — WALL MOUNT PAGING SPEAKER
- SP 2 — 2x2 LAY-IN TILE SPEAKER
- SP 3 — SURFACE MOUNT CEILING SPEAKER
- SP 4 — WALL MOUNT OUTDOOR PAGING SPEAKER
- SP 5 — BEAM MOUNT CEILING SPEAKER
- SP 6 — ELEVATOR SPEAKER
- SP 7 — CEILING SPEAKER-BLIND MOUNT
- SP 8 — WALL MOUNT VANDAL RESISTANT OUTDOOR SPEAKER
- LM — END-OF-LINE MONITOR DEVICE

AUDIO VISUAL SYMBOLS

- AS — AMBIENT NOISE SENSING DEVICE
- AM — AMBIENT SENSING MICROPHONE

WIRE PULL TAG



CONDUIT SEPARATION TABLE NOTES:

1. THESE NOTES ARE THE MINIMUM, ALLOWABLE STANDARDS FOR THE AUDIOVISUAL PORTION OF THIS PROJECT.
2. FOLLOWING ARE DETAILS OF THE DIFFERENT LEVELS AND TYPES OF AUDIO AND VIDEO SIGNALS THAT WILL BE A PART OF THE COMPLETE SOUND, COMMUNICATIONS, AND VIDEO SYSTEM.
3. IT IS IMPORTANT THAT EACH GROUP (A, B, C, AND D RESPECTIVELY) BE INSTALLED IN CONDUIT DISCREET FROM OTHER GROUP LEVELS. COMMON JUNCTION BOXES / WIRE RACEWAYS THAT COMBINE DIFFERENT CABLES SHALL NOT BE USED.
4. ANY WIRING THAT IS CLASSIFIED WITHIN A GROUP CAN BE COMBINED IN A CONDUIT CARRYING OTHER WIRING THAT IS IN THE SAME GROUP.
5. WHEN A COMBINATION PANEL IS SPECIFIED THE CONDUITS WILL ENTER INTO THE BOX WITH THE INTENT OF MAINTAINING THE SEPARATION AS MUCH AS POSSIBLE. IN BRINING THE CONDUITS INTO THE BOX THE METAL WALLS OF THE BOX WILL SUPPLY SOME ADDITIONAL SHIELDING. THE DIFFERENT LEVELS OF AUDIO AND VIDEO SIGNALS ARE DEFINED AS FOLLOWS:

   GROUP A - MICROPHONE AND OTHER SENSITIVE WIRING (0 to 100 millivolts)
   GROUP B - LINE LEVEL WIRING (100 millivolt to 10 volt)
   GROUP C - LOUDSPEAKER AND CONTROL WIRING (10 volt to 70 volt)
   GROUP D - TELEPHONE, VIDEO, CONTROL AND DIGITAL SYSTEMS

TABLE 1

	GROUP A	GROUP B	GROUP C	GROUP D
GROUP A	ADJACENT 6"		12"	12"
GROUP B	---	ADJACENT 12"		6"
BROUP C	---	---	ADJACENT	6"
GROUP D	---	---	---	ADJACENT
DIMMER CONTROLLED LIGHTING	24"	12"	6"	12"
SCR CONTROLLED DEVICES	36"	12"	6"	6"
220/240V FEEDER CIRCUITS	72"	72"	72"	72"
ALL OTHERS (PLUMBING, HEAT, ETC)	12"	12"	12"	12"

GENERAL CONDUIT NOTES:

1. REFER TO TABLE ONE (DRAWING TE000) FOR ALL SEPARATION DISTANCES.
2. ALL UNDER SLAB CONDUIT SHOULD BE SPECIFIED AS RIGID NONMETALLIC SCHEDULE 40 CONDUIT. ALL OTHER CONDUIT MUST BE EMT.
3. THERE ARE MINIMUM CONDUIT SEPARATIONS THAT MUST BE MAINTAINED BETWEEN CONDUITS CARRYING WIRE OF DIFFERENT GROUPS. IT IS IMPORTANT TO NOTE THAT WHILE DIFFERENT SIGNALS MAY EXIST ON A WALL PANEL, IT IS NOT APPROPRIATE TO RUN MORE THAN ONE GROUP IN A CONDUIT.
4. IT WILL BE NECESSARY AT TIMES FOR CONDUITS OF DIFFERENT GROUPS TO CROSS IN CLOSE PROXIMITY. THE CONDUIT PATHS MUST BE DESIGNED TO CROSS AT 90 DEGREES TO EACH OTHER.
5. THE CONDUIT PATHS OF THE SOUND, COMMUNICATION, AND VIDEO SYSTEMS (GROUPS A,B,C, AND D) SHOULD NOT BE ROUTED NEAR POWER TRANSFORMERS, SCR DIMMERS, POWER CONTROL EQUIPMENT, HEAVY CURRENT SWITCHGEAR, FLUORESCENT BALLAST, MOTORS OR ANY OTHER EQUIPMENT THAT MAY BE A SOURCE OF INTERFERENCE (SEE CONDUIT SEPARATION DISTANCES).
6. THE MINIMUM CONDUIT SIZE SHALL BE 3/4", THE CONDUIT SHOULD BE SIZED FOR 40% FILL OR LESS IF REQUIRED BY PREVAILING CODE. THE DESIGN SHALL REQUIRE PULL LINES TO BE LEFT IN ALL CONDUITS BY THE ELECTRICAL CONTRACTOR . THE CONDUIT DESIGN SHALL INCORPORATE ADDITIONAL PULL BOXES TO MATCH THE PULL TENSIONS OF THE WIRING TO BE INSTALLED. THE ELECTRICAL CONTRACTOR SHALL DETERMINE FROM THE CABLE SPECIFICATIONS THE APPROPRIATE PULL TENSIONS AND LUBRICANT TO ENSURE THAT THE CABLE INSULATION WILL NOT BE ABRADED OR CUT DURING INSTALLATION.
7. IN A SITUATION WHERE THERE WILL EXIST A HEAVY CURRENT DEMAND IN ADJACENT CONDUITS, OR WHERE THERE WILL BE LONG PARALLEL RUNS, THERE WILL NEED TO BE ADDITIONAL SEPARATION BETWEEN THOSE CONDUITS AND THE SOUND, COMMUNICATION AND VIDEO CONDUITS.
8. SIGNAL CONDUITS SHOULD BE MECHANICALLY AND ELECTRICALLY CONNECTED TO THE RECEPTACLE BOXES. THESE CONDUITS AND BOXES SHOULD CONNECT TO THE BUILDING SAFETY GROUNDING SYSTEM.
9. ALL SYSTEMS WIRING SHOULD BE IN CONDUIT UNLESS AUTHORIZED BY THE PROJECT ARCHITECT AND APPROVED BY THE SOUND, COMMUNICATION, AND VIDEO CONSULTANT/ENGINEER.
10. WHERE CONDUITS FOR THE SOUND, COMMUNICATION AND VIDEO SYSTEM ENTER EQUIPMENT RACKS; THERE WILL BE A DIALECTICALLY INSULATED GROUND JOINT UNION (MFG. BY CAPITOL OR CENTRAL PLASTICS) THAT WILL ISOLATE THE CONDUIT SYSTEM FROM THE CHASSIS OF THE RACK (SEE AV-702).
11. THE SOUND SYSTEM TECHNICAL GROUND IS BONDED TO THE METAL FRAME OF ALL EQUIPMENT RACKS AND TO THE UNINSULATED GROUND BUSS BAR OR GROUNDING LUG MOUNTED IN EACH RACK. WHEN MORE THAN ONE RACK EXIST TOGETHER, ALL RACK GROUNDING LUGS WILL BE BONDED TO ONE CENTRAL EQUIPMENT RACK LUG. THIS CENTRAL EQUIPMENT RACK GROUNDING LUG WILL BE THE ONLY CONNECTION TO THE SOUND SYSTEM TECHNICAL GROUND CONDUCTOR. THE GANGING OF RACKS TOGETHER WITH MECHANICAL FASTENERS IS NOT AN ACCEPTABLE METHOD OF BONDING THE SOUND SYSTEM TECHNICAL GROUND BETWEEN RACKS.
12. THE RACK FRAMES WILL BE INSULATED FROM THE FLOOR AND SO LOCATED TO PREVENT COMING INTO CONTACT WITH ANY SAFETY GROUNDED ITEMS DURING OPERATION.
13. DUPLEX RECEPTACLES WILL HAVE AN INSULATED GROUND CONDUCTOR CONNECTED TO THE ISOLATED GROUND BUSS BAR THAT WILL BE LOCATED IN THE FIRST BRANCH CIRCUIT PANELBOARD FOLLOWING A SEPERATELY DERIVED POWER SYSTEM DEMARCATION.
14. ALL CONDUIT TO BE SIZED BY ELECTRICAL CONTRACTOR IN ACCORDANCE WITH ALL APPLICABLE FEDERAL AND LOCAL CODES.
15. WE RECOMMEND THAT A DEDICATED ELECTRICAL POWER PANEL(S) BE USED FOR ALL AUDIOVISUAL CIRCUITS.
16. ALL ELECTRICAL POWER CIRCUITS FOR AUDIOVISUAL DEVICES AT ALL LOCATIONS ARE TO HAVE AN ISOLATED GROUND.
17. ALL ELECTRICAL POWER CIRCUITS FOR AUDIOVISUAL DEVICES AT ALL LOCATIONS ARE TO BE DEDICATED CIRCUITS.

DRAWING ABBREVIATIONS

AS	ABOVE SLAB
AFF	ABOVE FINISHED FLOOR
AFP	ABOVE FINISHED PLATFORM
AVC	AUDIO VISUAL CONTRACTOR
C	CONDUIT
CL	CENTER LINE
CM	CONSTRUCTION MANAGER
DIA	DIAMETER
DIM	DIMENSION
DR	DOOR
(E)	EXISTING
E.	EAST
EC	ELECTRICAL CONTRACTOR
E.C.	EMPTY CONDUIT
EL	ELEVATION
ELEC	ELECTRICAL CONTRACTOR
EQ	EQUAL
EQV	EQUIVALENT
FL	FLOOR LEVEL
FUT	FUTURE
GC	GENERAL CONTRACTOR
MISC	MISCELLANEOUS
N.	NORTH
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OFOI	OWNER FURNISHED OWNER INSTALLED
OC	ON CENTER
OD	OUTER DIAMETER
OFE	OWNER FURNISHED EQUIPMENT
RCP	REFLECTED CEILING PLAN
S.	SOUTH
SOH	STANDARD OUTLET HEIGHT
SSH	STANDARD SWITCH HEIGHT
ST UP	STUBBED UP
SECT	SECTION
UBC	UNIFORM BUILDING CODE
VIF	VERIFY IN FIELD
W.	WEST

DEVICE ABBREVIATIONS - AV

AV-ER	AUDIO/VISUAL EQUIPMENT RACK
CM	CEILING MICROPHONE ARRAY
CP	CONFERENCE PHONE
DS	DIGITAL SIGNAGE DISPLAY
FPD	FLAT PANEL DISPLAY
OS	OCCUPANCY SIGN
OAL	ON-AIR LIGHT
PJ	CEILING MOUNTED PROJECTOR
PS	CEILING MOUNTED PROJECTOR SCREEN
RS	ROOM SCHEDULING PANEL
TP	WALL MOUNT TOUCH PANEL
TVB	IN-WALL DISPLAY BACK BOX
VW	VIDEO WALL (SIZE TBD)

DEVICE ABBREVIATIONS - NETWORK

IDF	INTERMEDIATE DISTRIBUTION FACILITY
MDF	MAIN DISTRIBUTION FACILITY
ONT	OPTICAL NETWORK TERMINAL UNIT
RAU	CORNING ONE REMOTE ACCESS UNIT
WAP	WIRELESS ACCESS POINT
WB	RECESSED IT WALL ENCLOSURE

PROJECT CONTACTS

PROJECT DEVELOPMENT ENGINEER
ANTHONY HAMMOND, CTS
JOHNSON CONTROLS, INC.
CONNECTED TECHNOLOGIES
1350 NORTHMEADOW PARKWAY, SUITE 100
ROSWELL, GA 30076

Johnson Controls

WWW.JOHNSONCONTROLS.COM

PROJECT INFORMATION

FT. MEADE VETERANS HOSPITAL

100 COMANCHE RD
FT. MEADE, SD

SET MILESTONE SUBMISSIONS

DESCRIPTION	DATE
65% CONSTRUCTION DOCUMENTS	4/1/2022
95% CONSTRUCTION DOCUMENTS	5/13/2022
100% CONSTRUCTION DOCUMENTS	6/17/2022
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SHEET REVISIONS

△	DESCRIPTION	DATE
01	65% CONSTRUCTION	5/4/2022
02	95% CONSTRUCTION	5/27/2022
03	REV-03	7/18/2022
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KEY PLAN

PROJECT TEAM

SALES REP:	
PROJECT MANAGER:	
APP ENGINEER:	
DRAWN BY:	AH
APPROVED BY:	AH

SYSTEM

TECHNOLOGY

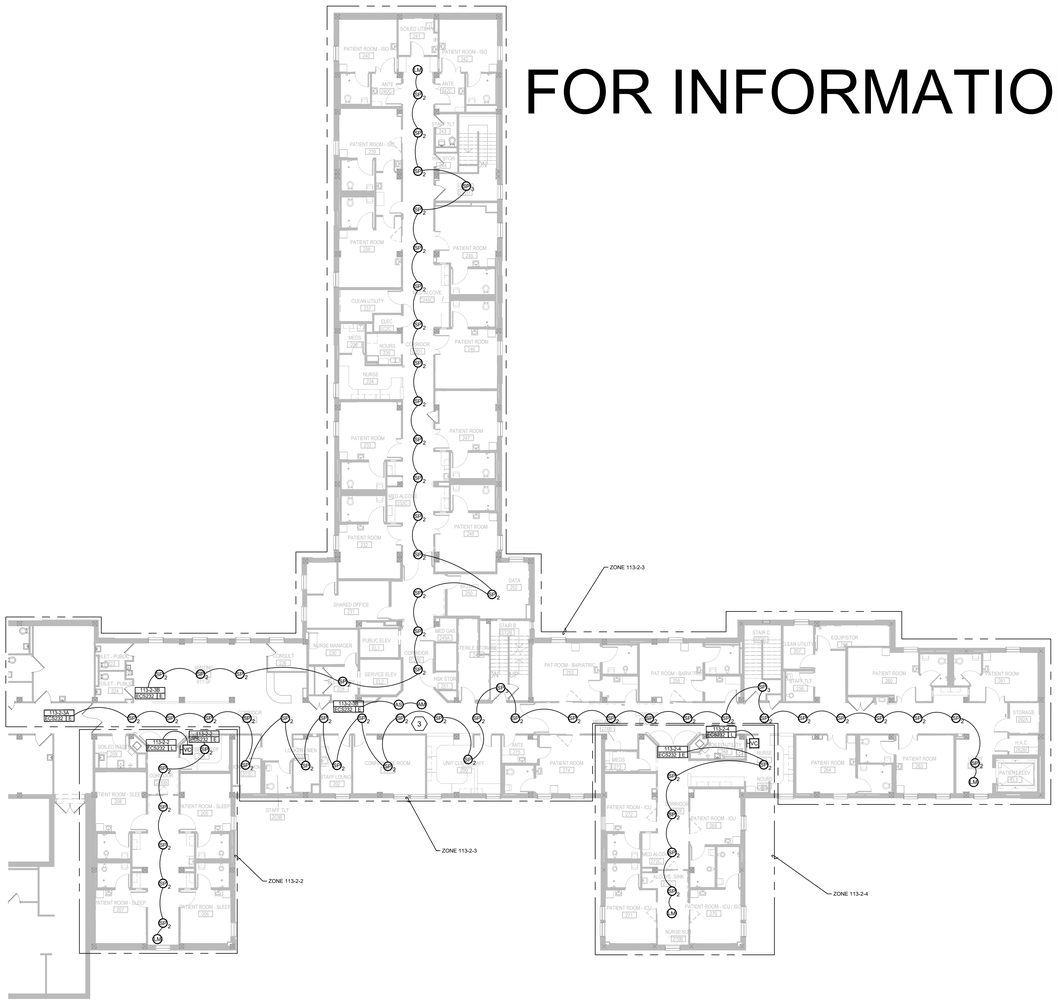
DRAWING TITLE

LEGEND & COVER SHEET

PLOT DATE:	CONTRACT NUMBER
7/18/2022	----

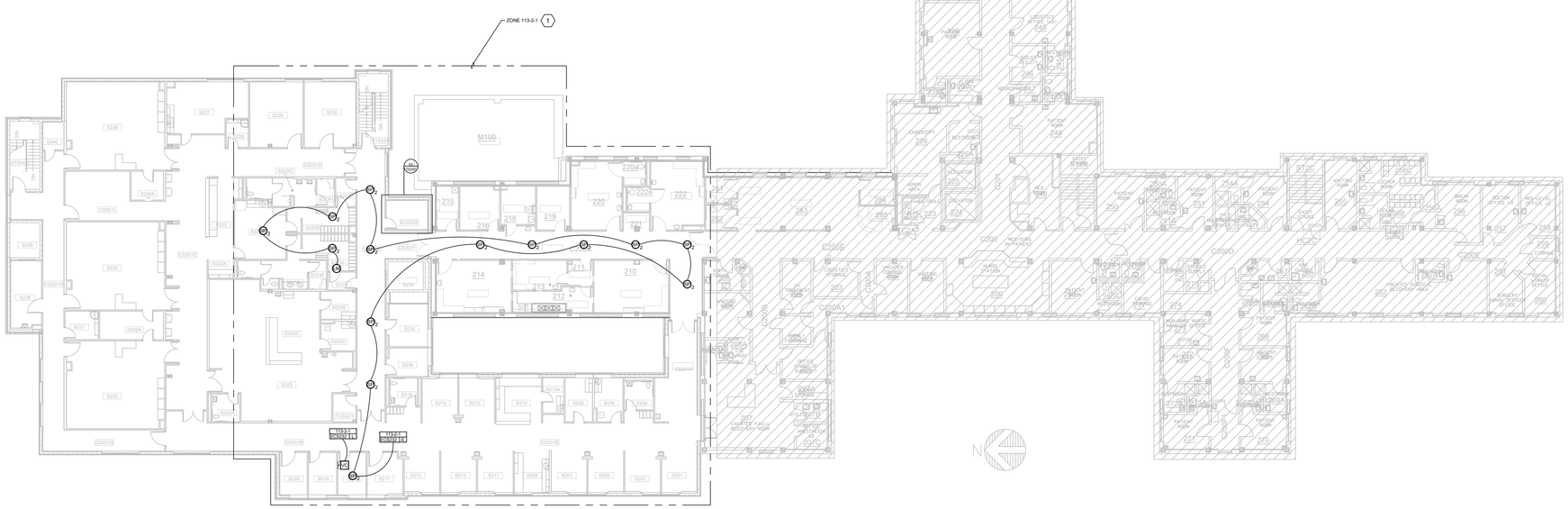
TE-000

FOR INFORMATION ONLY



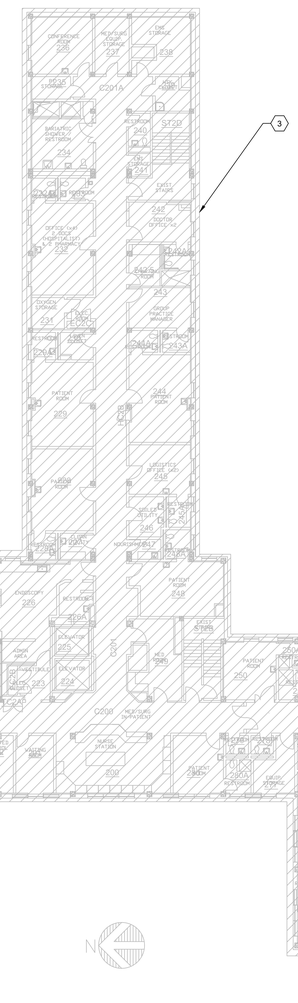
02 BUILDING 113-SECOND FLOOR-FUTURE RENOVATION

SCALE: 1/16" = 1'-0"



01 BUILDING 113-SECOND FLOOR-EXISTING

SCALE: 1/16" = 1'-0"



AUDIO/VISUAL SYMBOLS

VC	WALL MOUNTED VOLUME CONTROL
SP 1	WALL MOUNT PAGING SPEAKER
SP 2	2' x 2' LAY-IN TILE SPEAKER
SP 3	SURFACE MOUNT CEILING SPEAKER
SP 4	WALL MOUNT SPEAKER
SP 5	BEAM MOUNT CEILING SPEAKER
SP 6	ELEVATOR SPEAKER
SP 7	CEILING SPEAKER-BLIND MOUNT
SP 8	WALL MOUNT VANDAL RESISTANT OUTDOOR SPEAKER
LM	END-OF-LINE MONITOR DEVICE
AS	AMBIENT NOISE SENSING DEVICE
AM	AMBIENT SENSING MICROPHONE

GENERAL NOTES FLOOR PLAN

1. REMOVE EXISTING PAGING EQUIPMENT AND WIRING IN ITS ENTIRETY. NEW WIRING TO BE RUN IN NEWLY INSTALLED CONDUIT. (TYPICAL)
2. TARGET VOLUME FOR SPEAKER OUTPUT IS 75dB AT AVERAGE STANDING EAR HEIGHT.
3. REFER TO SIGNAL DIAGRAMS FOR TAP SETTINGS.

KEY NOTES - LOW VOLTAGE

1. SPEAKERS ARE A 1:1 REPLACEMENT IN THIS AREA.
2. THIS MAY NEED TO CHANGE BASED ON NEW SYSTEM DESIGN/DEPLOYMENT.
3. DENOTES AREA OF FUTURE RENOVATION.
4. SPEAKERS ARE SPACED GENERALLY 10' APART CENTER TO CENTER. IF A CEILING OBSTRUCTION EXISTS, LOCATE SPEAKER TO NEXT AVAILABLE CEILING TILE, 24" MAXIMUM.
5. SPEAKERS ARE SPACED GENERALLY 15' APART CENTER TO CENTER. IF A CEILING OBSTRUCTION EXISTS, LOCATE SPEAKER TO NEXT AVAILABLE CEILING TILE, 24" MAXIMUM.

KEY NOTES - ELEC. COORDINATION

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PROJECT INFORMATION

FT. MEADE VETERANS HOSPITAL

100 COMANCHE RD
FT. MEADE, SD

SET MILESTONE SUBMISSIONS

DESCRIPTION	DATE
65% CONSTRUCTION DOCUMENTS	4/1/2022
95% CONSTRUCTION DOCUMENTS	5/13/2022
100% CONSTRUCTION DOCUMENTS	6/17/2022
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SHEET REVISIONS

△	DESCRIPTION	DATE
01	65% CONSTRUCTION	5/4/2022
02	95% CONSTRUCTION	5/27/2022
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KEY PLAN

PROJECT TEAM

SALES REP:	
PROJECT MANAGER:	
APP ENGINEER:	
DRAWN BY:	AH
APPROVED BY:	AH

SYSTEM

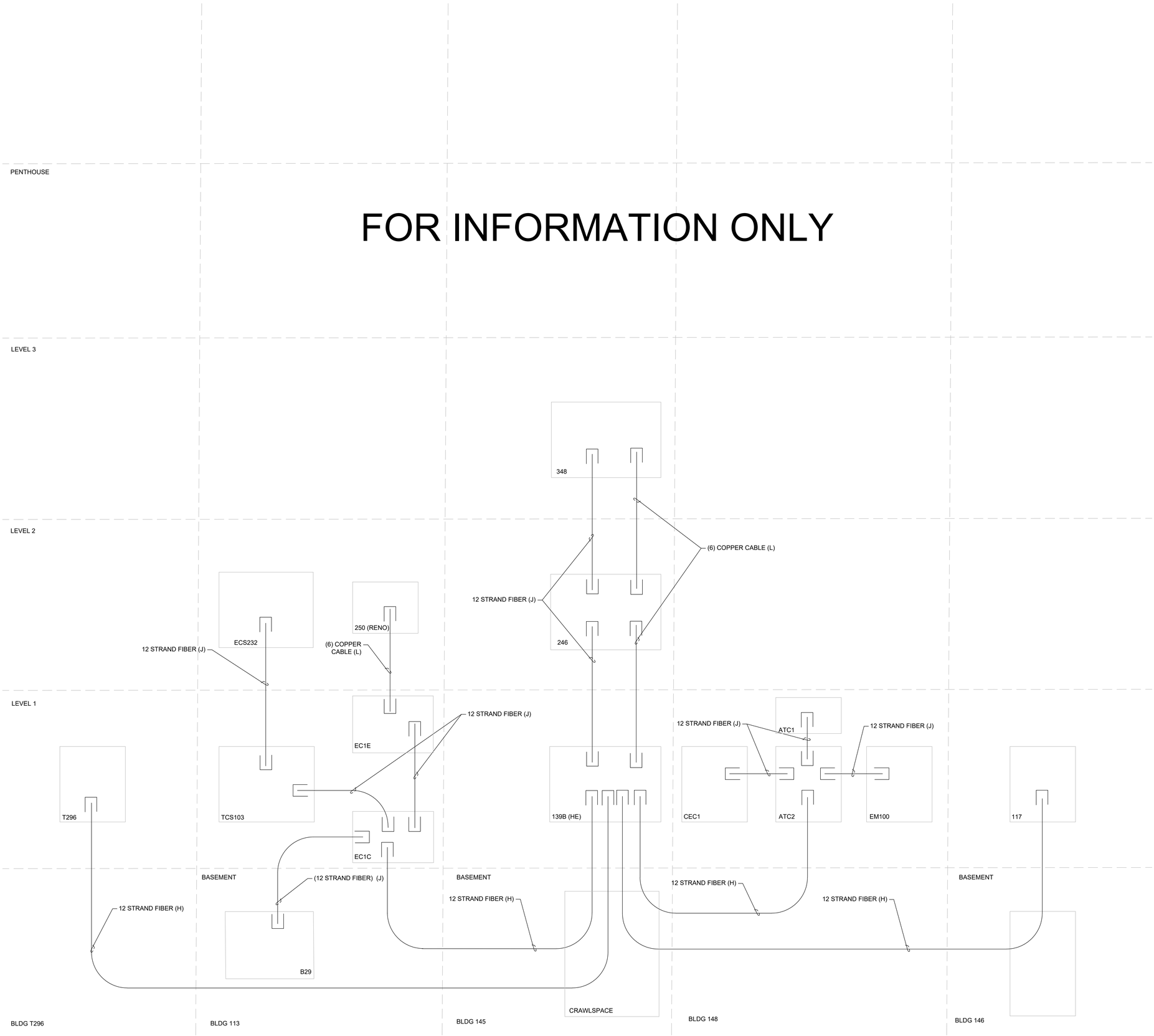
TECHNOLOGY

DRAWING TITLE

BUILDING 113 SECOND FLOOR

PLOT DATE:	CONTRACT NUMBER
6/17/2022	----

TE-102-113-2



01 CABLE RISER
SCALE: NTS

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PROJECT INFORMATION

FT. MEADE VETERANS HOSPITAL

100 COMANCHE ROAD
FT. MEADE,SD

SET MILESTONE SUBMISSIONS

DESCRIPTION	DATE
95% CONSTRUCTION DOCUMENTS	5/13/2022
100% CONSTRUCTION DOCUMENTS	6/17/2022

SHEET REVISIONS

△	DESCRIPTION	DATE
02	95% CONSTRUCTION	5/27/2022

KEY PLAN

PROJECT TEAM

SALES REP:	
PROJECT MANAGER:	
APP ENGINEER:	
DRAWN BY:	AH
APPROVED BY:	AH

SYSTEM

TECHNOLOGY

DRAWING TITLE

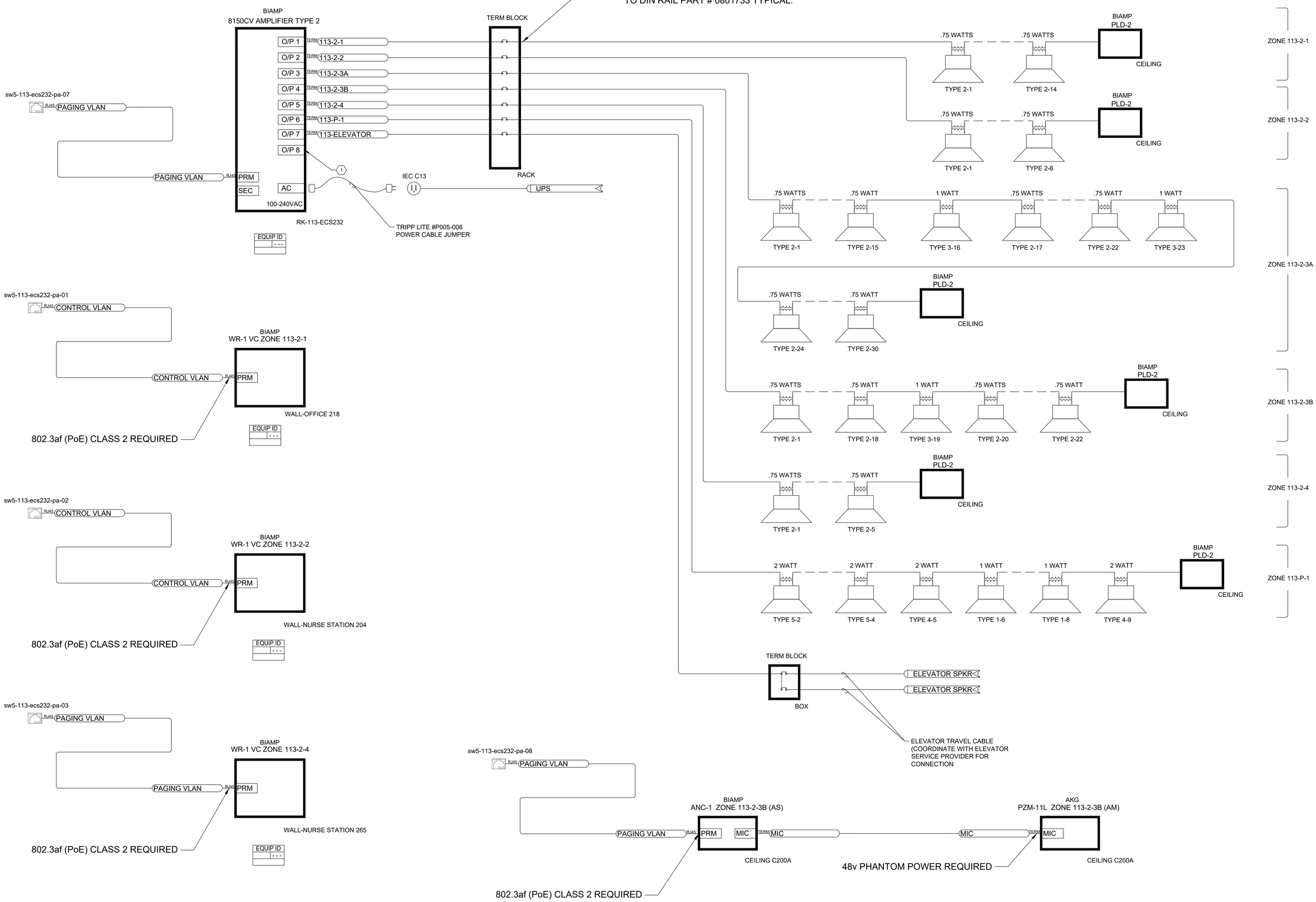
RISER

PLOT DATE: 6/18/2022

CONTRACT NUMBER

TE-300

FOR INFORMATION ONLY



NOTES:

1. AMPLIFIER CHANNEL RESERVED FOR FAILOVER
2. PROGRAM REMOTE TO CONTROL (2) ZONES

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PROJECT INFORMATION

FT. MEADE VETERANS HOSPITAL

100 COMANCHE RD
FT. MEADE, SD

SET MILESTONE SUBMISSIONS

DESCRIPTION	DATE
100% CONSTRUCTION DOCUMENTS	6/17/2022

SHEET REVISIONS

△	DESCRIPTION	DATE

KEY PLAN

PROJECT TEAM

SALES REP:	
PROJECT MANAGER:	
APP ENGINEER:	
DRAWN BY:	AH
APPROVED BY:	AH

SYSTEM

TECHNOLOGY

DRAWING TITLE

SIGNAL FLOW DIAGRAM

PLOT DATE: 6/18/2022

CONTRACT NUMBER ----

TE-405

01 OVHP FUNCTIONAL-BLDG 113 SECOND FLOOR

SCALE: NOT TO SCALE

FORT MEADE VA HOSPITAL
BLACK HILLS, SOUTH DAKOTA
NURSE CALL SYSTEM

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Johnson Controls

DRAWING INDEX

Sheet List Table

Sheet Number	Sheet Title
NC-001	COVER SHEET
NC-101	1ST FLOOR PLAN BUILDING 113
NC-101.1	1ST FLOOR PLAN BUILDING 113 NORTH
NC-101.2	1ST FLOOR PLAN BUILDING 113 EAST
NC-101.3	1ST FLOOR PLAN BUILDING 113 SOUTH
NC-102	2ND FLOOR PLAN BUILDING 113
NC-102.1	2ND FLOOR PLAN BUILDING 113
NC-102.2	2ND FLOOR PLAN BUILDING 113
NC-103	1ST FLOOR PLAN BUILDING 145
NC-103.1	1ST FLOOR PLAN BUILDING 145
NC-103.2	2ND FLOOR PLAN BUILDING 145
NC-103.3	3RD FLOOR PLAN BUILDING 145
NC-104	1ST FLOOR PLAN BUILDING 146
NC-104.1	1ST FLOOR PLAN BUILDING 146
NC-105	1ST FLOOR PLAN BUILDING 148
NC-105.1	1ST FLOOR PLAN BUILDING 148
NC-105.2	1ST FLOOR PLAN BUILDING 148
NC-105.3	1ST FLOOR PLAN BUILDING 148
NC-105.4	1ST FLOOR PLAN BUILDING 148
NC-105.5	1ST FLOOR PLAN BUILDING 148
NC-201	RISER DIAGRAM
NC-501	HEAD END DETAILS
NC-502	HEAD END DETAILS
NC-503	HEAD END DETAILS
NC-701	WIRING TYPICALS
NC-702	WIRING TYPICALS
NC-703	WIRING TYPICALS

GENERAL NOTES

1. THESE DRAWINGS DEPICT GENERAL LOCATIONS OF LIFE SAFETY EQUIPMENT & FIELD DEVICES. EXACT ROUTING OF CONDUITS IS TO BE DETERMINED IN THE FIELD BY THE INSTALLING CONTRACTOR TO SUIT CONDITIONS. ALL CHANGES SHALL BE CLEARLY INDICATED ON THE RECORD DRAWINGS.
2. SHOULD ANY CONDITIONS EXIST THAT DIFFER FROM WHAT IS INDICATED ON THESE DRAWINGS WHICH CAUSE MAJOR DEVIATIONS IN THE WORK SHOWN, THE CONTRACTOR SHALL CONTACT TYCO JOHNSON CONTROLS IN A TIMELY MANNER SO AS NOT TO IMPAIR THE CONSTRUCTION SCHEDULE.
3. CONTRACTOR IS RESPONSIBLE FOR MAKING AND OBTAINING APPROVAL FOR ALL NECESSARY ADJUSTMENTS IN CIRCUITING AS REQUIRED TO ACCOMMODATE THE RELOCATION OF EQUIPMENT AND/OR DEVICES WHICH ARE AFFECTED BY ANY AUTHORIZED CHANGE. ALL CHANGES SHALL BE CLEARLY INDICATED ON THE RECORD DRAWINGS.
4. THE POWER CIRCUIT TO THE NURSE CALL NCT LOCATIONS SHALL BE ON A DEDICATED 120V, 20A CRITICAL BRANCH CIRCUIT .
5. UPDATE THE AS-BUILT DRAWING SET DAILY WITH JOB PROGRESS. RETURN THE AS-BUILT DRAWING SET TO TYCO JOHNSON CONTROLS NO LATER THAN 7 DAYS AFTER FINAL TEST.
6. THE CONTRACTOR WILL MAINTAIN ALL AREAS OF THE BUILDING IN A NEAT AND WORKMANLIKE MANNER.
7. THE NURSE CALL SYSTEM INSTALLER WILL MAINTAIN THE FIRE RESISTANCE INTEGRITY OF ALL WALL, CEILING, AND ROOF ASSEMBLIES ANY TIME THAT WORK IS NOT ACTIVELY BEING PERFORMED.
8. NURSE CALL CABLE INSTALLED IN UNDERGROUND CONDUIT OR OTHER WET LOCATIONS SHALL BE UL LISTED FOR WET LOCATIONS.
9. ONLY SYSTEM WIRING CAN BE RUN IN THE SAME CONDUIT.
10. 120VAC IS NOT PERMITTED IN THE SAME CONDUIT WITH LOW VOLTAGE WIRING.
11. MAINTAIN MAXIMUM CONDUIT FILL RATIO AS PER APPLICABLE ELECTRICAL CODES REQUIREMENTS

LEGENDS

NURSE CALL SYMBOL LEGEND

SYMBOL	DESCRIPTION	PART NUMBER	BACKBOX	MOUNTING HEIGHT
NCT	Nurse Call Head End Equipment Location	TBD	NA	NA
NM	Color Touch VoIP Console	NGTDSPA-H	Raco #231 w/782 Plaster Ring (1 gang)	18"
AN	Color Touch VoIP Annunciator	NGWDSP-HU	Raco #692 (3gang)	48"
P	Bedside Patient Station	NUBM3-HU	Raco #231 w/782 Plaster Ring (1 gang)	48"
SP	Single Patient Stn /w Pillow Spk, 2 Aux Jacks Adapters, and 37 Pin Bed Adapter	NUPSTN-H (1)NUHSDADVEP-H (1)NUBAC37-H (2)NUSJA-H	Raco #692 (3gang)	48"
DP	Dual Patient Stn /w (2)Pillow Spk, (2) 37 Pin Bed Adapters	NUPSTN-H (2)NUHSDADVEP-H (2)NUBAC37-H	Raco #692 (3gang)	48"
EA	Customizable Lavatory Audio Pull Cord	NULAPC3-HU	Raco #231 w/782 Plaster Ring (1 gang)	36"
EP	Customizable Lavatory Pull Cord	NUPC3-HU	Raco #231 w/782 Plaster Ring (1 gang)	36"
EP/g	Customizable Lavatory Pull Cord	NUPC3-HU	Raco #231 w/782 Plaster Ring (1 gang)	72"
<D>	Infinity LED Dome Lt - 4 Section	NUDL4S-H	Raco #231 w/PLaster Ring (1 gang)	Above Door/Ceiling
<Z>	Infinity LED Zone Lt - 4 Section	NUDL4S-H	Raco #231 w/PLaster Ring (1 gang)	Above Door/Ceiling
<R>	Dome Light (Inside of Room Locations)	NUCL4-H	Raco #231 w/PLaster Ring (1 gang)	Above Door/Ceiling
<>	Dome Light (Located Above Ceiling)	NUDL4S-H	Raco #231 w/PLaster Ring (1 gang) can be surface mounted	Installed Above Ceiling
⏀	REF Dedicated "Critical Care" Circuit - 120/V-20A	Provoded By Others	NA	
TV	REF TV Remote Control Receptacle	Existing Device	NA	
LC	REF Low Voltage Light Controller	Existing Device	NA	
CA	3-Button Station - Custom Config Code Blue/Staff Assist	NUDM3-HU	Raco #231 w/782 Plaster Ring (1 gang)	48"
CW	Weather Proof Emerg Call Station	ETECH MODEL TBD	Raco #231 w/782 Plaster Ring (1 gang)	48"
WS	Work Station PC - Desktop	TBD	Raco #231 w/782 Plaster Ring (1 gang)	18"
W	LCD Workflow Station	NGWDSP-HU	Raco #692 (3gang)	48"
SS or DS	Smart Staff / Duty Station	NUDM3-HU NUSPK4-HU NUF2G-HU NUAUCC-HE	Raco #692 (3gang)	48"
A	Auxiliary Jack Station w/ 2 1/4" Jack Inputs	NUIAUX2-HU	Raco #231 w/782 Plaster Ring (1 gang)	48"
PE	Vandal Proof Push Button (Push On/Push Off)	ETECH MODEL TBD	Raco #231 w/782 Plaster Ring (1 gang)	48"
PE/L	Vandal Proof Push Button (Push On/Push Off) (Mounted Low)	ETECH MODEL TBD	Raco #231 w/782 Plaster Ring (1 gang)	18"
S	Vandal Proof in Ceiling Speaker	NUSPM-HU WITH BACKBOX	Custom ceiling mount backbox is TBD	In Ceiling
XX	Device dip switch address to be set on device prior to installation. Refer to NC-700 sheets for dip switch addressing details. Leave set to default '0' if address is not shown.			
——				

NURSE CALL WIRE LIST

SYM.	PART NUMBER	DESCRIPTION	FUNCTION
AB			Corridor Trunk Cable
A			Network Cable & Room Station Cable.

ABBREVIATIONS LEGEND

AC = ABOVE CEILING
AFF = ABOVE FINISHED FLOOR
AHJ = AUTHORITY HAVING JURISDICTION
ALM = ALARM
ANN = ANNUNCIATOR
BMS = BUILDING MANAGEMENT SYSTEM
C = CEILING MOUNTED
CD = CANDELA RATING
DET = DETECTOR
DGP = DATA GATHERING PANEL
E = EXISTING TO REMAIN
EOL = END OF LINE
EPO = EMERGENCY POWER OFF
ER = ELEVATOR RECALL
FAA = FIRE ALARM ANNUNCIATOR
FACP = FIRE ALARM CONTROL PANEL
FATC = FIRE ALARM TERMINAL CABINET
FBO = FURNISHED BY OTHERS
FCC = FIRE COMMAND CENTER
FSD = FIRE SMOKE DAMPER
FTR = FIRE ALARM TRANSPONDER
H = HIGH HUMIDITY
HT = HEIGHT
HVAC = HEATING VENTILATION & AIR CONDITIONING
IMS = INFORMATION MANAGEMENT SYSTEM
MAX = MAXIMUM
MIN = MINIMUM
N/A = NOT APPLICABLE
NAC = NOTIFICATION APPLIANCE CIRCUIT
NDU = NETWORK DISPLAY UNIT
NEC = NATIONAL ELECTRIC CODE
NFPA = NATIONAL FIRE PROTECTION ASSOCIATION
NIC = NOT IN CONTRACT
NPU = NETWORK PROCESSING UNIT
NTS = NOT TO SCALE
PAP = PRE-ACTION PANEL
RC = EXISTING TO REMOVE AND COVER
RD = EXISTING DEVICE TO BE RELOCATED
RL = RELOCATED DEVICE
RR = REMOVE EXISTING & REPLACE WITH NEW
SCC = STATUS COMMAND CENTER
SLC = SIGNALING LINE CIRCUIT
SMK = SMOKE
SUPV = SUPERVISORY
TAC = TRUEALERT ADDRESSABLE CONTROLLER
TOS = TOP OF SHAFT
TRBL = TROUBLE
TS = TAMPER SWITCH
TYP = TYPICAL
UON = UNLESS OTHERWISE NOTED
VCC = VOICE COMMAND CENTER
VT = VALVE TAMPER
W = WATTAGE
W/ = WITH
W/O = WITHOUT
WF = WATERFLOW
WG = WIRE GUARD
WP = WEATHERPROOF
XP = EXPLOSION PROOF

JOHNSON CONTROLS CONTACTS

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PROJECT DIRECTORY

Site
FORT MEADE VA HOSPITAL
113 COMANCHE RD.
FORT MEADE, SD 57741

Johnson Controls District - 385
2821 FIECHTNER DRIVE SW
FARGO, ND 58103
PHONE: 701-237-6712
FAX: 701-280-2955
SERVICE: 701-237-6712

Owner
FORT MEADE VA HOSPITAL
113 COMANCHE RD.
FORT MEADE, SD 57741

Johnson Controls
DISTRICT - 385
2821 FIECHTNER DRIVE SW
FARGO, ND 58103
SERVICE: 701-237-6712
PHONE: 701-237-6712
FAX: 701-280-2955

FORT MEADE VA HOSPITAL
BLACK HILLS, SOUTH DAKOTA

FORT MEADE VA HOSPITAL
113 COMANCHE RD.
FORT MEADE, SD 57741

Revisions shown with ⚠ symbol

ISSUE LOG

MARK	DATE	CAD	CHK	DESCRIPTION
1	5/17/2022	RS	JS	95% SUBMITTAL ISSUE (2ND SUBMISSION)
2	6/30/2022	RS	JS	95% SUBMITTAL ISSUE (3RD SUBMISSION)
3	7/15/2022	RS	JS	100% SUBMITTAL ISSUE

SUBMITTAL

DRAWN BY:	R.SCOTT
CHECKED BY:	J.SOMERVILLE
ISSUE DATE:	2/8/22
JOB #:	
PROJECT #:	385:650236862

SYSTEM:
NURSE CALL SYSTEM

SHEET:
COVER SHEET

NC-001

FILE PATH: C:\Users\jsomerj\OneDrive - Johnson Controls\HVAC Black Hills-32989465\HVAC Black Hills-32989465\Fy Name-NurseX_System_Dwg\NC-001.dwg
LAST SAVED BY: JSOMERJE
LAST PRINTED: 7/19/2022 9:26:47 AM
30" x 42" - Arch E1 Size

GENERAL NOTES:

1. 120VAC CRITICAL POWER OUTLET IS TO BE PROVIDED BY AT THE NCT HEAD END RACK LOCATION.

3. ALL CABLES ARE TO BE IN CONDUIT.
4. REMOVE ALL OLD NURSE CALL SYSTEM IN ITS ENTIRETY (CABLE, CONDUIT,DEVCIES, ETC).
5. RECONNECT ALL EXISTING TV AND LIGHT CONTROL CONNECTIONS. SEE SHEET NC-703.

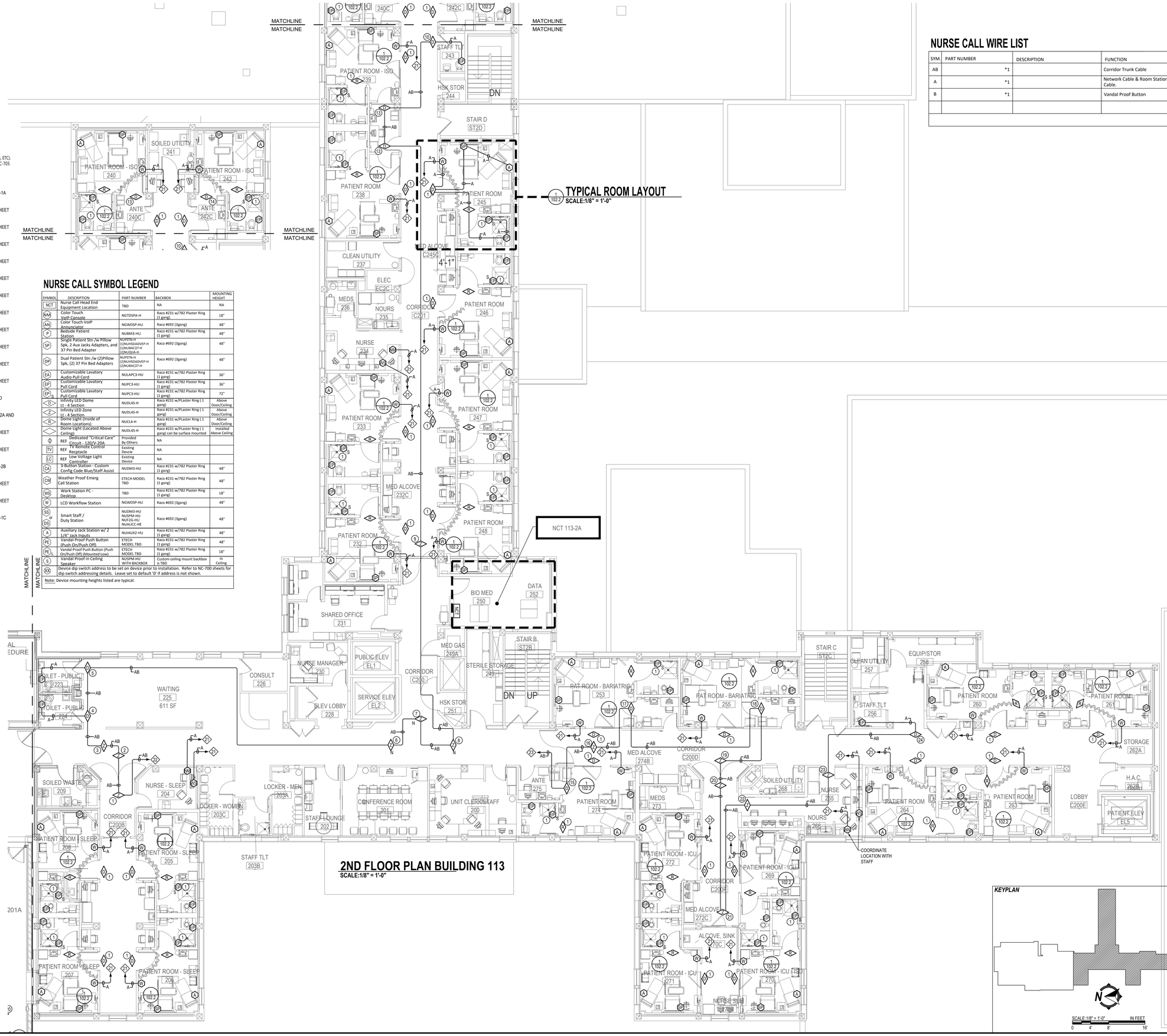
KEYNOTES:

1. RUN CONSOLE/ANNUNCIATOR/WORKFLOW OR WORK STATION TO NCT113-1A AND CONNECT TO SWITCH PORT AS SHOWN ON SHEET NC-501.
2. RUN TO NCT 113-1A AND CONNECT TO GATEWAY 113-1A-1 PORT A. SEE SHEET NC-501 FOR FURTHER DETAILS.
3. RUN TO NCT 113-1A AND CONNECT TO GATEWAY 113-1A-1 PORT B. SEE SHEET NC-501 FOR FURTHER DETAILS.
4. RUN TO NCT 113-1A AND CONNECT TO GATEWAY 113-1A-2 PORT A. SEE SHEET NC-501 FOR FURTHER DETAILS.
5. RUN TO NCT 113-1A AND CONNECT TO GATEWAY 113-1A-2 PORT B. SEE SHEET NC-501 FOR FURTHER DETAILS.
6. RUN TO NCT 113-1A AND CONNECT TO GATEWAY 113-1A-3 PORT A. SEE SHEET NC-501 FOR FURTHER DETAILS.
7. RUN TO NCT 113-1A AND CONNECT TO GATEWAY 113-1A-3 PORT B. SEE SHEET NC-501 FOR FURTHER DETAILS.
8. RUN TO NCT 113-1A AND CONNECT TO GATEWAY 113-1A-4 PORT A. SEE SHEET NC-501 FOR FURTHER DETAILS.
10. RUN TO NCT 113-1B AND CONNECT TO GATEWAY 113-1B-1 PORT A. SEE SHEET NC-501 FOR FURTHER DETAILS.
11. RUN TO NCT 113-1B AND CONNECT TO GATEWAY 113-1B-1 PORT B. SEE SHEET NC-501 FOR FURTHER DETAILS.
12. RUN TO NCT 113-1B AND CONNECT TO GATEWAY 113-1B-2 PORT A. SEE SHEET NC-501 FOR FURTHER DETAILS.
13. RUN TO NCT 113-1B AND CONNECT TO GATEWAY 113-1B-2 PORT B. SEE SHEET NC-501 FOR FURTHER DETAILS.
14. RUN CONSOLE/ANNUNCIATOR/OR WORKFLOW STATION TO NCT113-3B AND CONNECT TO POWER SWITCH PORT AS SHOWN ON SHEET NC-501.
21. RUN CONSOLE/ANNUNCIATOR/WORKFLOW OR WORK STATION TO NCT113-2A AND CONNECT TO SWITCH PORT AS SHOWN ON SHEET NC-501.
22. RUN TO NCT 113-2A AND CONNECT TO GATEWAY 113-2A-1 PORT A. SEE SHEET NC-501 FOR FURTHER DETAILS.
23. RUN TO NCT 113-2A AND CONNECT TO GATEWAY 113-2A-1 PORT B. SEE SHEET NC-501 FOR FURTHER DETAILS.
31. RUN CONSOLE/ANNUNCIATOR/WORKFLOW OR WORK STATION TO NCT113-2B AND CONNECT TO SWITCH PORT AS SHOWN ON SHEET NC-501.
32. RUN TO NCT 113-2B AND CONNECT TO GATEWAY 113-2B-1 PORT A. SEE SHEET NC-501 FOR FURTHER DETAILS.
33. RUN TO NCT 113-2B AND CONNECT TO GATEWAY 113-2B-1 PORT B. SEE SHEET NC-501 FOR FURTHER DETAILS.
41. RUN CONSOLE/ANNUNCIATOR/WORKFLOW OR WORK STATION TO NCT113-1C AND CONNECT TO SWITCH PORT AS SHOWN ON SHEET NC-501.

NURSE CALL SYMBOL LEGEND

SYMBOL	DESCRIPTION	PART NUMBER	BACKBOX	MOUNTING HEIGHT
NCT	Nurse Call Head End Equipment Location	TBD	NA	NA
NM	Color Touch VoIP Console	NGTD5PA-H	Raco #231 w/782 Plaster Ring (1 gang)	18"
AN	Color Touch VoIP Annunciator	NGWD5P-HU	Raco #692 (3gang)	48"
P	Bedside Patient Station	NUBM3-HU	Raco #231 w/782 Plaster Ring (1 gang)	48"
SP	Single Patient Stn /w Pillow Spk, 2 Aux Jacks Adapters, and 37 Pin Bed Adapter	NUPSTN-H (1)NUHSDA0VEP-H (1)NUBACF7-H (2)NUQSUA-H	Raco #692 (3gang)	48"
DP	Dual Patient Stn /w (2)Pillow Spk, (2) 37 Pin Bed Adapters	NUPSTN-H (2)NUHSDA0VEP-H (2)NUBACF7-H	Raco #692 (3gang)	48"
EA	Customizable Lavatory Audio Pull Cord	NULAPC3-HU	Raco #231 w/782 Plaster Ring (1 gang)	36"
EP	Customizable Lavatory Pull Cord	NUPC3-HU	Raco #231 w/782 Plaster Ring (1 gang)	36"
EP S	Customizable Lavatory Pull Cord	NUPC3-HU	Raco #231 w/782 Plaster Ring (1 gang)	72"
D	Infinity LED Dome Lt - 4 Section	NUDL4S-H	Raco #231 w/PLaster Ring (1 gang)	Above Door/Ceiling
Z	Infinity LED Zone Lt - 4 Section	NUDL4S-H	Raco #231 w/PLaster Ring (1 gang)	Above Door/Ceiling
R	Dome Light (Inside of Room Locations)	NUCL4-H	Raco #231 w/PLaster Ring (1 gang)	Above Door/Ceiling
	Dome Light (Located Above Ceiling)	NUDL4S-H	Raco #231 w/PLaster Ring (1 gang) can be surface mounted	Installed Above Ceiling
	REF Dedicated "Critical Care" Circuit - 120/V-20A	Provided By Others	NA	
TV	REF TV Remote Control Recptacle	Existing Devcie	NA	
LC	REF Low Voltage Light Controller	Existing Device	NA	
CA	3-Button Station - Custom Config Code Blue/Staff Assist	NUDM3-HU	Raco #231 w/782 Plaster Ring (1 gang)	48"
CW	Weather Proof Emerg Call Station	ETECH MODEL TBD	Raco #231 w/782 Plaster Ring (1 gang)	48"
WS	Work Station PC - Desktop	TBD	Raco #231 w/782 Plaster Ring (1 gang)	18"
W	LCD Workflow Station	NGWDSP-HU	Raco #692 (3gang)	48"
SS or DS	Smart Staff / Duty Station	NUDM3-HU NUSPM-HU NUF2G-HU NUAUCC-HE	Raco #692 (3gang)	48"
A	Auxiliary Jack Station w/ 2 1/4" Jack Inputs	NUIAUX2-HU	Raco #231 w/782 Plaster Ring (1 gang)	48"
PE	Vandal Proof Push Button (Push On/Push Off)	ETECH MODEL TBD	Raco #231 w/782 Plaster Ring (1 gang)	48"
PE L	Vandal Proof Push Button (Push On/Push Off) (Mounted Low)	ETECH MODEL TBD	Raco #231 w/782 Plaster Ring (1 gang)	18"
S	Vandal Proof in Ceiling Speaker	NUSPM-HU WITH BACKBOX	Custom ceiling mount backbox is TBD	In Ceiling
XX	Device dip switch address to be set on device prior to installation. Refer to NC-700 sheets for dip switch addressing details. Leave set to default '0' if address is not shown.			

Note: Device mounting heights listed are typical.



NURSE CALL WIRE LIST

SYM.	PART NUMBER	DESCRIPTION	FUNCTION
AB	*1		Corridor Trunk Cable
A	*1		Network Cable & Room Station Cable.
B	*1		Vandal Proof Button

Johnson Controls
DISTRICT : 365
20210 CENTENNIAL TOWER DRIVE SW
FARGO, ND 58103
SERVICE: 701-237-6712
PHONE: 701-237-6712
FAX: 701-282-2935

FORT MEADE VA HOSPITAL BLACK HILLS, SOUTH DAKOTA

FORT MEADE VA HOSPITAL
113 COMANCHE RD.
FORT MEADE, SD 57741

Revisions shown with △ symbol

ISSUE LOG				
MARK	DATE	CAD	CHK	DESCRIPTION
1	5/20/2022	RS	JS	60% SUBMITTAL ISSUE (2ND SUBMISSION)
2	6/30/2022	RS	JS	90% SUBMITTAL ISSUE (3RD SUBMISSION)
3	7/15/2022	RS	JS	100% SUBMITTAL ISSUE

SUBMITTAL

DRAWN BY:	R.SCOTT
CHECKED BY:	J.SOMERVILLE
ISSUE DATE:	2/8/22
JOB #:	
PROJECT #:	385:650236862

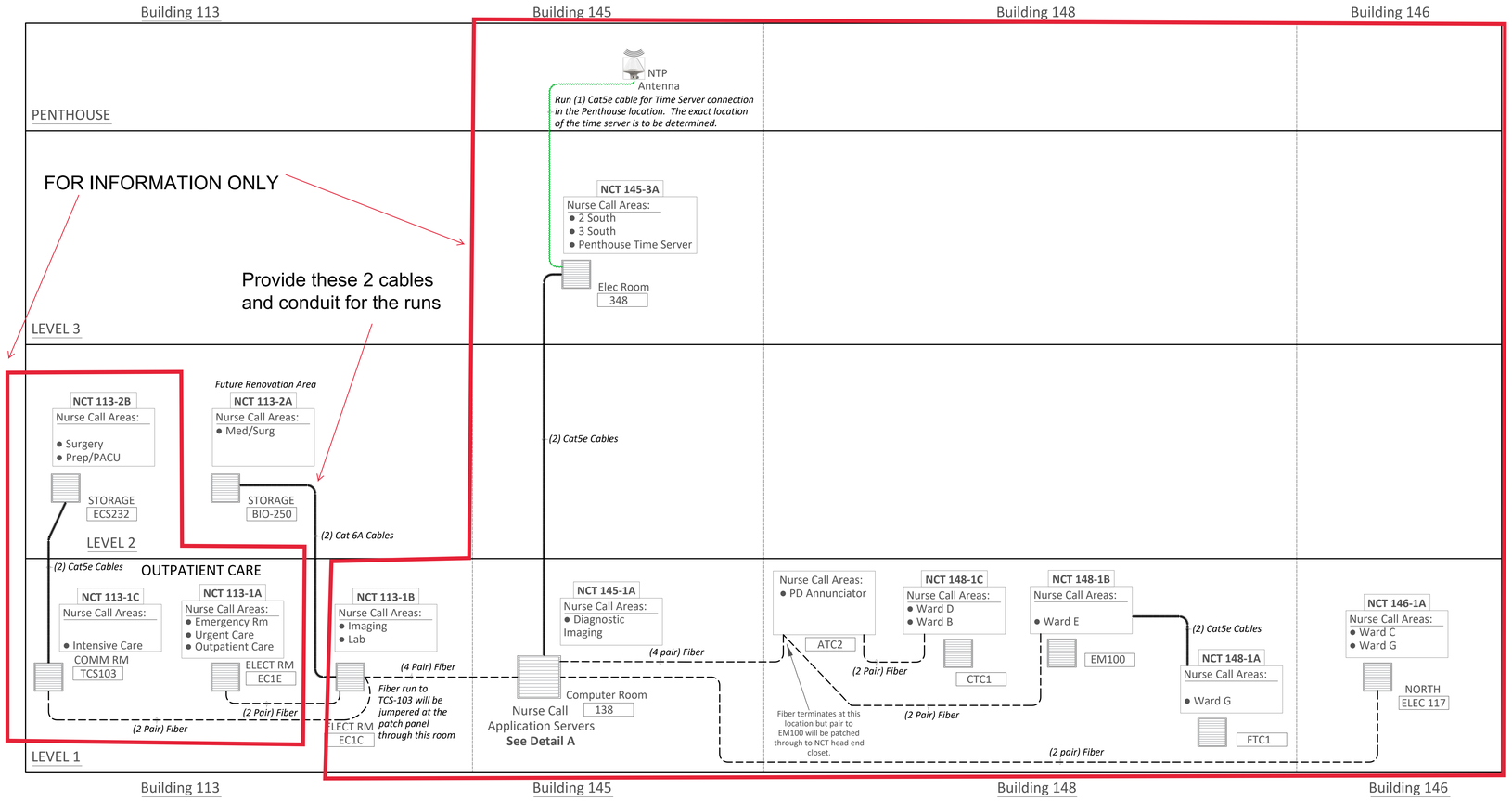
SYSTEM:
NURSE CALL SYSTEM

SHEET:
2ND FLOOR PLAN BUILDING 113

NC-102.2

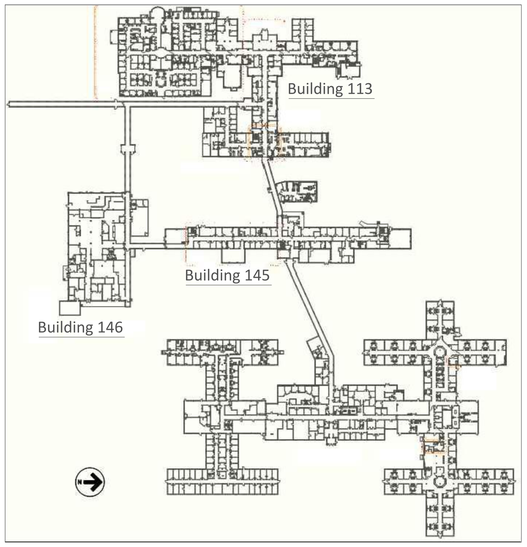
FILE PATH: C:\Users\jsomerv\OneDrive - Johnson Controls\VAMC Black Hills-32989455\X-Fly-Name-NurseX_System_Dwg\NC-102.dwg
LAST SAVED BY: JSOMERVILLE
LAST PRINTED: 7/19/2022 9:29:38 AM
30" x 42" - Arch E1 Size

Network Riser - Telligence Nurse Call System

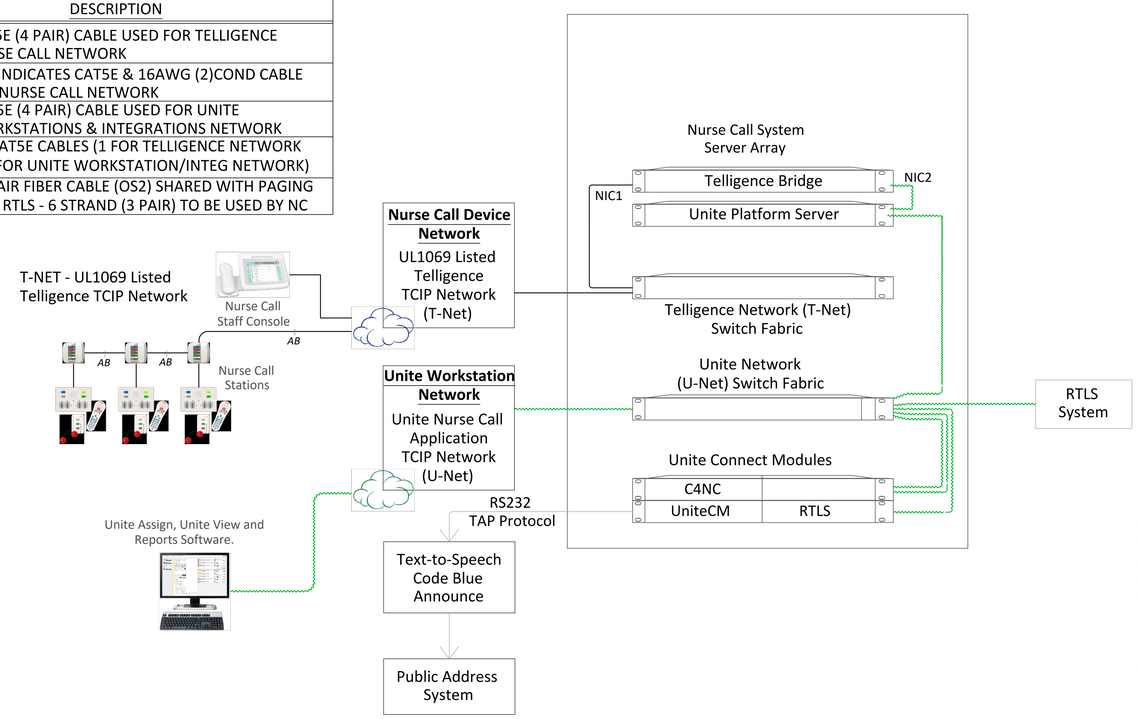


FOR INFORMATION ONLY

Building Footprint



RISER CABLE LEGEND	
SYMB	DESCRIPTION
	CAT5E (4 PAIR) CABLE USED FOR TELLIGENCE NURSE CALL NETWORK
AB	'AB' INDICATES CAT5E & 16AWG (2)COND CABLE FOR NURSE CALL NETWORK
	CAT5E (4 PAIR) CABLE USED FOR UNITE WORKSTATIONS & INTEGRATIONS NETWORK
	(2) CAT5E CABLES (1 FOR TELLIGENCE NETWORK & 1 FOR UNITE WORKSTATION/INTEG NETWORK)
	12 PAIR FIBER CABLE (OS2) SHARED WITH PAGING AND RTLS - 6 STRAND (3 PAIR) TO BE USED BY NC



Server Applications

- Telligence Bridge
- Unite Platform Server/w Analyze Reporting Server
- SQL Server

Unite Applications & Connect Modules

- Admin Manager (Client Application)
- Connect for Telligence
- Connect for RTLS

The nurse call system network infrastructure supports the Telligence network (T-Net) as well as the Unite workstation/integrations network (U-Net). The T-Net is the UL1069 listed nurse call system network. The U-Net supports secondary nurse call notification and ancillary devices and function provided by Unite software. The U-Net may also support the RTLS system and other ancillary applications. The T-Net requires that only UL1069 listed components be connected to the network except at the top level of the switch fabric.

Johnson Controls
DISTRICT : 245
2600 DOUGLAS FORDER DRIVE SW
FARGO, ND 58103
SERVICE: 701-237-9712
PHONE: 701-237-6712
FAX: 701-282-2583

FORT MEADE VA HOSPITAL
BLACK HILLS, SOUTH DAKOTA

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113 COMANCHE RD,
FORT MEADE, SD 57741

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ISSUE LOG				
MARK	DATE	CAD	CHK	DESCRIPTION
1	6/17/2022	RS	JS	95% SUBMITTAL ISSUE (2ND SUBMISSION)
2	6/30/2022	RS	JS	95% SUBMITTAL ISSUE (3RD SUBMISSION)
3	7/15/2022	RS	JS	100% SUBMITTAL ISSUE

SUBMITTAL

DRAWN BY:	R.SCOTT
CHECKED BY:	J.SOMERVILLE
ISSUE DATE:	2/8/22
JOB #:	
PROJECT #:	385:650236862

JOHNSON CONTROLS © 2022

SYSTEM: **NURSE CALL SYSTEM**

SHEET: **RISER DIAGRAM**

NC-201

FILE PATH: C:\Users\jsomerv\OneDrive - Johnson Controls\VAMC Black Hills-32989465\VAMC Black Hills-32989465\VA-Fy-Name-NurseX_System_Dwg\NC-201.dwg
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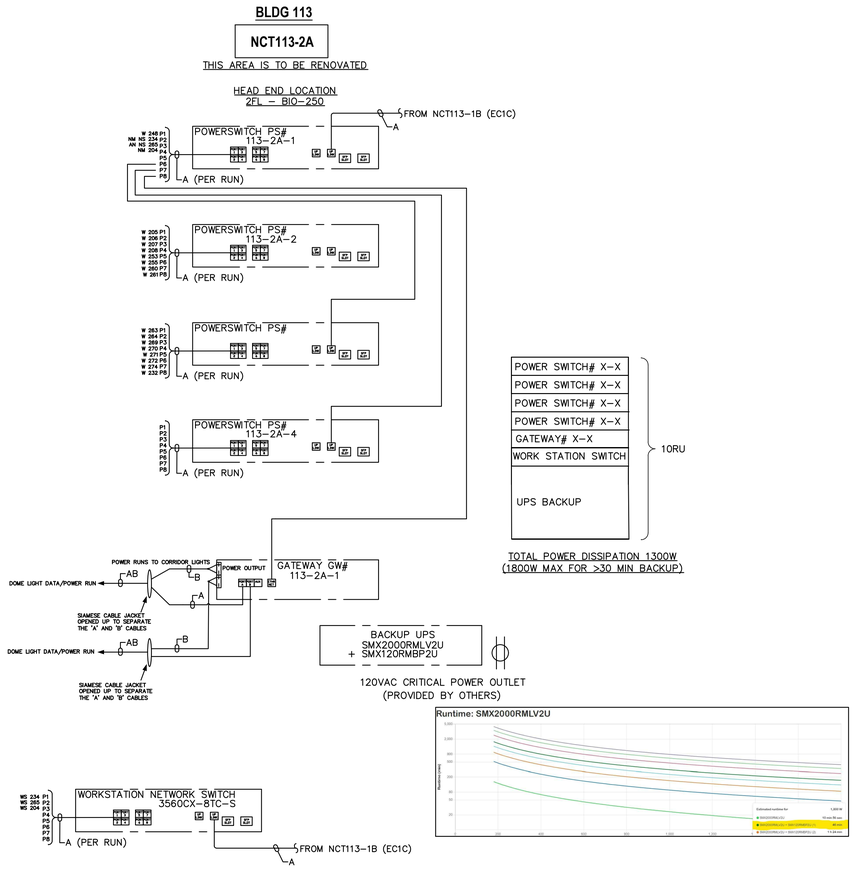
LAST PRINTED: 7/19/2022 9:32:18 AM
30" X 42" - Arch E1 Size



Johnson Controls
DISTRICT : 365
7500 EDGEWATER DRIVE SW
FARGO, ND 58103
SERVICE: 701-237-6712
PHONE: 701-237-6712
FAX: 701-282-2583

FORT MEADE VA HOSPITAL
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113 COMANCHE RD,
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ISSUE LOG

MARK	DATE	CAD	CHK	DESCRIPTION
1	11/17/2022	RS	JS	85% SUBMITTAL ISSUE (2ND SUBMISSION)
2	6/20/2022	RS	JS	85% SUBMITTAL ISSUE (3RD SUBMISSION)
3	7/15/2022	RS	JS	100% SUBMITTAL ISSUE

SUBMITTAL

DRAWN BY:	R.SCOTT
CHECKED BY:	J.SOMERVILLE
ISSUE DATE:	2/8/22
JOB #:	
PROJECT #:	385.650236862

SYSTEM:
NURSE CALL SYSTEM

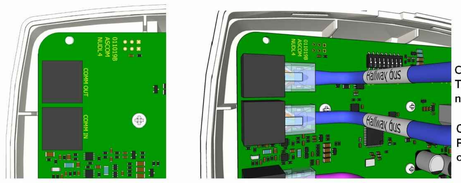
SHEET:
HEAD END DETAILS

NC-501

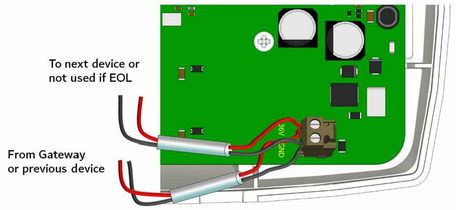
FILE PATH: C:\Users\jsomeviy\OneDrive - Johnson Controls\VAMC Black Hills-32989455\Fy Name-NurseX_System_Dwg\NC-501.dwg
LAST SAVED BY: JSOMEDJE
LAST PRINTED: 7/19/2022 9:32:23 AM
30" x 42" - Arch E1 Size

DOME LIGHT DETAILS

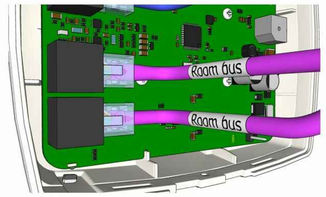
Hallway Bus Connections – Dome Light CATX Unshielded Cable



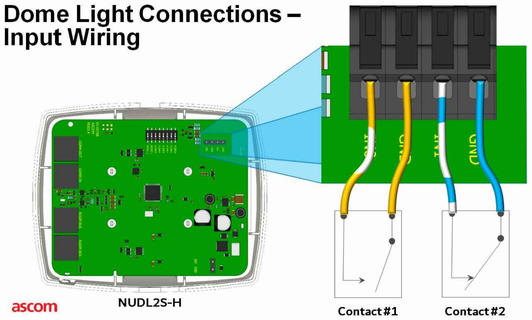
Hallway Bus Connections – Dome Light Power



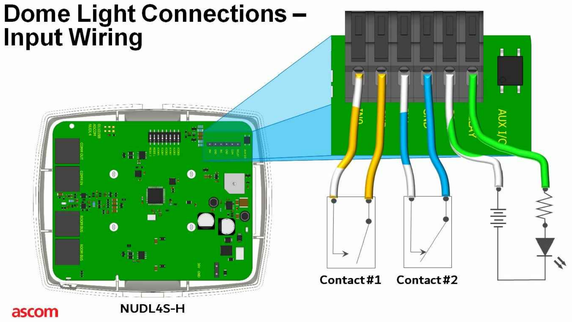
Active Room Bus



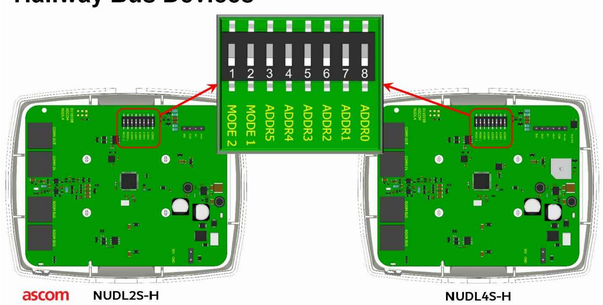
Dome Light Connections – Input Wiring



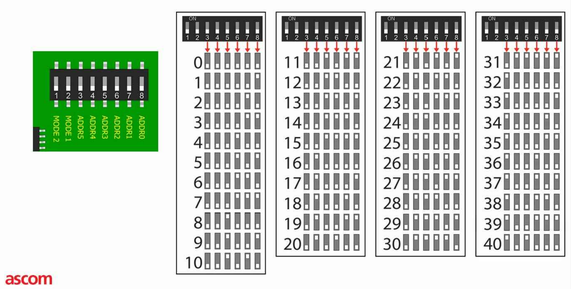
Dome Light Connections – Input Wiring



Hallway Bus Devices



Dip Switches

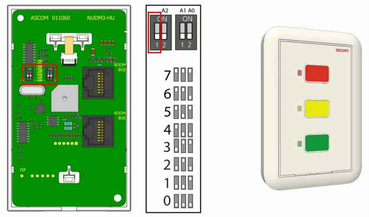


CONNECT THE HALLWAY BUS (IN/OUT) AS SHOWN FOR EACH DOME LIGHT USING THE RJ-45 JACK LOCATIONS. CONNECT THE 16AWG POWER CABLE AS SHOWN. SET THE ADDRESS AS INDICATED ON THE FLOORPLAN PAGES. USE THE RJ-45 ROOM BUS JACKS TO CONNECT TO ROOM DEVICE (EITHER ROOM BUS PORT, OR BOTH, CAN BE USED FOR DEVICE CONNECTIONS). THE 2 SECTION DOME LIGHT HAS TWO CONTACT INPUTS AND THE 4 SECTION LIGHT HAS AN ADDITIONAL RELAY OUTPUT FOR EXTERNAL DEVICE CONNECTIONS.

DUTY/STAFF STATIONS CONSIST OF A DOORSIDE MODULE, SPEECH MODULE, 2 DEVICE FRAME, AND JUMPER CABLE.

DOORSIDE/CUSTOM MODULE WIRING DETAILS (ALSO PART OF STAFF OR DUTY STATION)

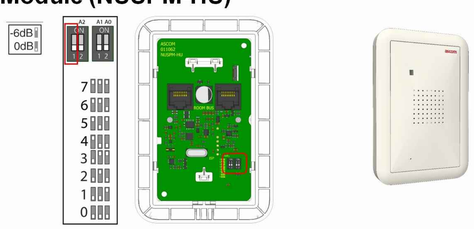
Details and Options Doorside Module (NUDM3-HU)



USE ADDRESS SWITCHES A0, A1, AND A2 FOR DEVICE ADDRESSING. LEAVE ADDRESS SET TO DEFAULT '0' UNLESS NOTED ON FLOOR PLANS. USE THE RJ-45 ROOM BUS JACKS TO CONNECT FROM THE DOME LIGHT OR PREVIOUS ROOM STATION. USE THE SECOND RJ-45 JACK TO CONNECT TO THE NEXT STATION IN LINE IF REQUIRED. NOTE THAT EITHER JACK CAN BE USED FOR THE INCOMING OR OUTGOING ROOM BUS CONNECTION. THIS DEVICES IS ALSO USED TO MAKE A DUTY STATION AND IS COMBINED WITH A SPEECH MODULE AND A TWO DEVICE FRAME.

SPEECH MODULE WIRING DETAILS (ALSO PART OF STAFF OR DUTY STATION)

Details and Options Speech Module (NUSPM-HU)



USE ADDRESS SWITCHES A0, A1, AND A2 FOR DEVICE ADDRESSING. LEAVE ADDRESS SET TO DEFAULT '0' UNLESS NOTED ON FLOOR PLANS. USE THE ROOM BUS JACKS TO CONNECT FROM THE DOME LIGHT OR PREVIOUS ROOM STATION. USE THE SECOND RJ-45 JACK TO CONNECT TO THE NEXT STATION IN LINE IF REQUIRED. NOTE THAT EITHER JACK CAN BE USED FOR THE INCOMING OR OUTGOING ROOM BUS CONNECTION. LEAVE STATION SET TO 0dB UNLESS NOTED OTHERWISE ON FLOORPLANS. THIS STATION IS USED TO CREATE A DUTY STATION AND IS COMBINED WITH A DOORSIDE MODULE IN A TWO DEVICE FRAME.

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113 COMANCHE RD,
FORT MEADE, SD 57741

Revisions shown with ▲ symbol

ISSUE LOG

MARK	DATE	CAD	CHK	DESCRIPTION
1	5/13/2022	RS	JS	60% SUBMITTAL ISSUE (2ND SUBMISSION)
2	6/30/2022	RS	JS	95% SUBMITTAL ISSUE (3RD SUBMISSION)
3	7/15/2022	RS	JS	100% SUBMITTAL ISSUE

SUBMITTAL

DRAWN BY:	R.SCOTT
CHECKED BY:	J.SOMERVILLE
ISSUE DATE:	2/8/22
JOB #:	
PROJECT #:	385-650236862

SYSTEM:
NURSE CALL SYSTEM

SHEET:
WIRING TYPICALS

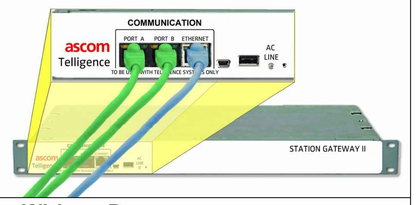
NC-701

FILE PATH: C:\Users\jsomerv\OneDrive - Johnson Controls\VAMC Black Hills-32989455\VAMC Black Hills-32989455\Fly-Name-NurseX_System_Dwg\NC-701.dwg
LAST SAVED BY: JSOMERVILLE
LAST PRINTED: 7/19/2022 9:32:38 AM
30" x 42" - Arch E Size

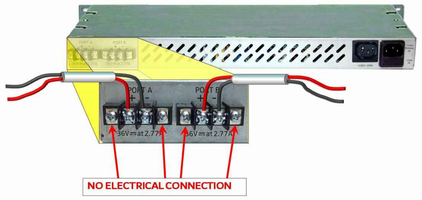
CONNECTOR INSTALLATION DETAILS

TELLIGENCE GATEWAY CONNECTION DETAILS

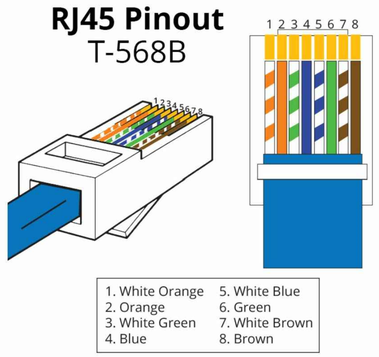
The Telligence Gateway – Hallway Bus and Ethernet Connections



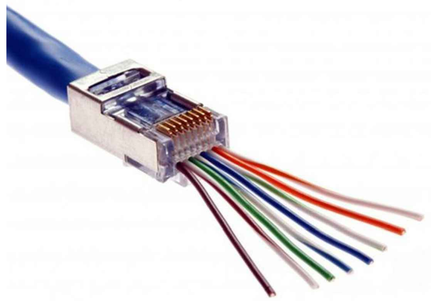
Hallway Bus Wiring - Power



RJ45 Pinout T-568B



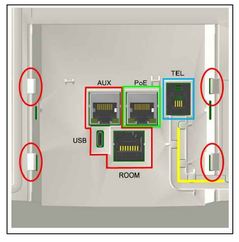
USE THE T-568B CONNECTION FOR ALL RJ-45 CONNECTORS IN THE NURSE CALL SYSTEM. IT IS VITAL THAT ALL RJ-45 CONNECTORS USE THE SAME PINOUT SCHEME.

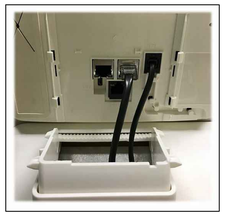


USE THE CAT6A RJ45 CONNECTOR THAT ALLOWS WIRES TO PASS THROUGH THE CONNECTOR TO CONFIRM PROPER ORIENTATION

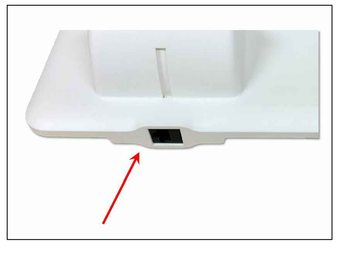
USE THE PROPER RJ45 CONNECTOR CRIMPING TOOL THAT ALSO CUTS THE PASS THROUGH CABLES FLUSH WITH THE CONNECTOR

STAFF CONSOLE WIRING DETAIL



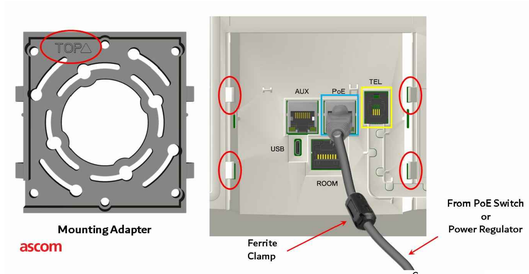


MODEL
NGTDSPA-H

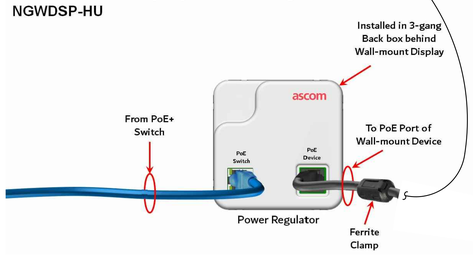


THE STAFF CONSOLE DIRECTLY CONNECTS TO THE POE POWERSWTICH. IT WILL REQUIRE ASSEMBLY AND HAS A 'JUMPER CABLE' INSIDE OF THE BASE FOR THE POE CONNECTION FROM THE BASE TO THE ACTUAL DISPLAY UNIT (SEE ABOVE). THE POE CABLE FROM THE POWERSWITCH WILL PLUG INTO THE RJ-45 JACK ON THE BACK OF THE BASE THAT IS CONNECTED TO THE PANEL POE INPUT BY THIS INTERNAL JUMPER. USE THE 'TEL' JACK FOR HANDSET COIL CORD CONNECTION. THE ROOM, AUX, AND USB JACKS WILL NOT BE USED ON THIS INSTALLATION.

VOIP WALL MOUNTED WORK FLOW / ANNUNCIATOR STATION DETAIL



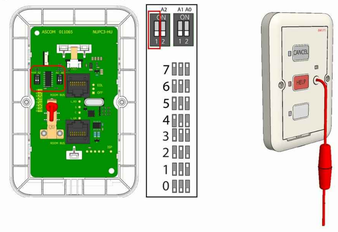
Wall-mount Display Power Regulator
NGWDSP-HU



THE WALL MOUNTED VOIP WORKFLOW/ANNUNCIATOR REQUIRES THE USE A POWER REGULATOR. THE REGULATOR IS TO BE MOUNTED INSIDE OF THE 3 GANG BACKBOX. CONNECT THE INCOMING POE FROM THE POWERSWITCH TO THE REGULATOR FIRST AND THEN CONNECT FROM THE REGULATOR TO THE PANEL AS SHOWN. THE 'ROOM' JACK ON THE PANEL WILL THEN CONNECT TO THE CORRIDOR LIGHT WITH A SINGLE CAT5 CABLE AND WILL POWER THE CORRIDOR LIGHT (SEPARATE POWER WIRE NOT REQUIRED).

PULL CORD STATION WIRING DETAILS

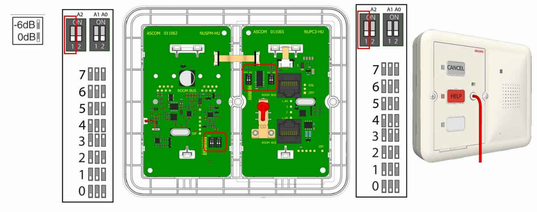
Details and Options
Pull Cord Module (NUPC3-HU)



USE ADDRESS SWITCHES A0, A1, AND A2 FOR DEVICE ADDRESSING. LEAVE ADDRESS SET TO DEFAULT '0' UNLESS NOTED ON THE FLOOR PLANS. USE THE RJ-45 ROOM BUS JACKS TO CONNECT FROM THE DOME LIGHT OR PREVIOUS ROOM STATION. USE THE SECOND RJ-45 JACK TO CONNECT TO THE NEXT STATION IN LINE IF REQUIRED. NOTE THAT EITHER JACK CAN BE USED FOR THE INCOMING OR OUTGOING ROOM BUS CONNECTION.

PULL CORD WITH AUDIO WIRING DETAILS

Details and Options
Pull Cord w/ Speech (NULAPC3-HU)



USE ADDRESS SWITCHES A0, A1, AND A2 FOR DEVICE ADDRESSING OF EACH MODULE. LEAVE ADDRESSES SET TO DEFAULT 0 UNLESS FLOORPLANS SHOW A SPECIFIC ADDRESS SETTING. LEAVE THE IN 0dB SETTING UNLESS OTHERWISE NOTED ON FLOORPLANS. USE THE RJ-45 ROOM BUS JACKS TO CONNECT FROM THE DOME LIGHT OR PREVIOUS ROOM STATION. USE THE SECOND RJ-45 JACK TO CONNECT TO THE NEXT STATION IN LINE IF REQUIRED. NOTE THAT EITHER JACK CAN BE USED FOR THE INCOMING OR OUTGOING ROOM BUS CONNECTION. THIS IS A STATION THAT CONSISTS OF A SEPARATE PULL CORD AND SPEECH MODULE TOGETHER IN ONE PACKAGE.

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FORT MEADE, SD 57741

Revisions shown with ascom

ISSUE LOG

MARK	DATE	CAD	CHK	DESCRIPTION
1	1/17/2022	RS	JS	50% SUBMITTAL ISSUE (2ND SUBMISSION)
2	6/30/2022	RS	JS	95% SUBMITTAL ISSUE (3RD SUBMISSION)
3	7/15/2022	RS	JS	100% SUBMITTAL ISSUE

SUBMITTAL

DRAWN BY:	R.SCOTT
CHECKED BY:	J.SOMERVILLE
ISSUE DATE:	2/8/22
JOB #:	
PROJECT #:	385-650236862

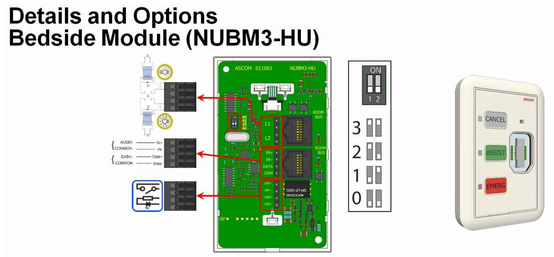
SYSTEM:
NURSE CALL SYSTEM

SHEET:
WIRING TYPICALS

NC-702

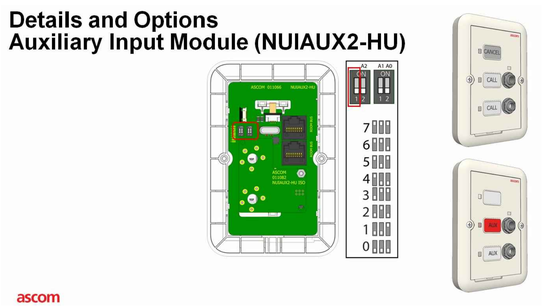
FILE PATH: C:\Users\jsomerv\OneDrive - Johnson Controls\VAMC Black Hills-385\BH455\Fly-Name-NurseX_System_Dwg\NC-701.dwg
LAST SAVED BY: JSOMERVLE
LAST PRINTED: 7/19/2022 3:32:39 AM
36" x 42" - Arch E1 Size

BEDSIDE MODULE WIRING DETAILS



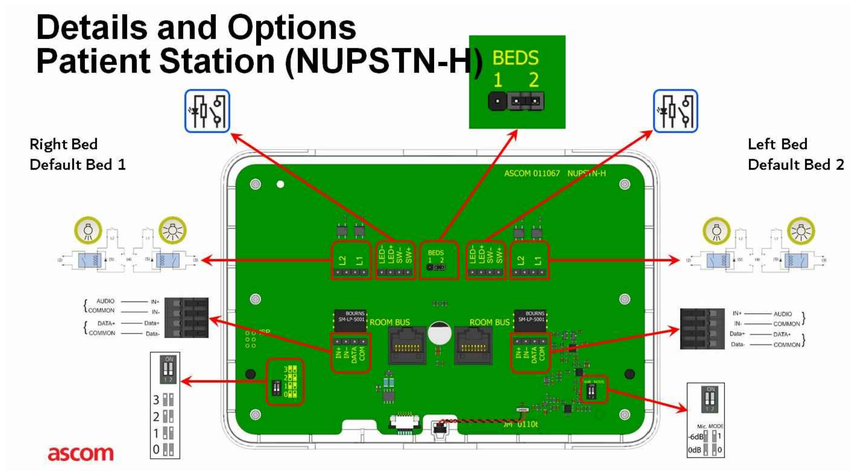
USE ADDRESS SWITCHES A0, A1, AND A2 FOR DEVICE ADDRESSING. LEAVE ADDRESS SET TO DEFAULT 0 UNLESS FLOORPLANS SHOW A SPECIFIC ADDRESS SETTING. USE THE RJ-45 ROOM BUS JACKS TO CONNECT FROM THE DOME LIGHT OR PREVIOUS ROOM STATION. USE THE SECOND RJ-45 JACK TO CONNECT TO THE NEXT STATION IN LINE IF REQUIRED. NOTE THAT EITHER JACK CAN BE USED FOR THE INCOMING OR OUTGOING ROOM BUS CONNECTION. REFER TO TV AND LIGHTING CONTROL DETAIL FOR CONNECTIONS TO THOSE DEVICES IF REQUIRED. THE STATION ALSO HAS A CONTACT INPUT AND A RELAY OUTPUT TO ONLY BE USED IF INDICATED ON THE FLOORPLANS.

AUX INPUT STATION WIRING DETAILS



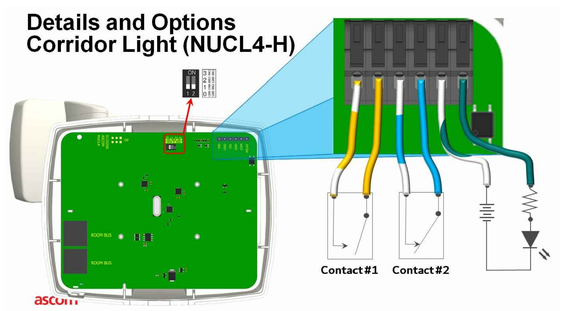
USE ADDRESS SWITCHES A0, A1, AND A2 FOR DEVICE ADDRESSING. LEAVE ADDRESS SET TO DEFAULT 0 UNLESS FLOORPLANS SHOW A SPECIFIC ADDRESS SETTING. USE THE RJ-45 ROOM BUS JACKS TO CONNECT FROM THE DOME LIGHT OR PREVIOUS ROOM STATION. USE THE SECOND RJ-45 JACK TO CONNECT TO THE NEXT STATION IN LINE IF REQUIRED. NOTE THAT EITHER JACK CAN BE USED FOR THE INCOMING OR OUTGOING ROOM BUS CONNECTION.

PATIENT STATION WIRING DETAILS



USE ADDRESS SWITCHES FOR DEVICE ADDRESSING. LEAVE ADDRESS SET TO DEFAULT 0 UNLESS FLOORPLANS SHOW A SPECIFIC ADDRESS SETTING. LEAVE SET TO 0dB UNLESS OTHERWISE NOTED ON FLOORPLANS. USE THE RJ-45 ROOM BUS JACKS TO CONNECT FROM THE DOME LIGHT OR PREVIOUS ROOM STATION. USE THE SECOND RJ-45 JACK TO CONNECT TO THE NEXT STATION IN LINE IF REQUIRED. NOTE THAT EITHER JACK CAN BE USE FOR THE INCOMING OR OUTGOING ROOM BUS CONNECTION. REFER TO TV AND LIGHTING CONTROL DETAIL FOR CONNNECTIONS TO THOSE DEVICES. IF THE STATION IS TO BE USED AS A DUAL STATION, MOVE THE 'BEDS' JUMPER TO THE '2' BED SETTING. THE PATIENT STATION HAS AN ONBOARD CONTACT INPUTS AND RELAY OUTPUTS, USE THESE CONNECTIONS ONLY IF INDICATED ON FLOORPLANS. NOTE, IF THE PATIENT STATION IS TO BE USED AS A SINGLE BED STATION, THEN ONLY USE THE 'RIGHT BED' CONNECTIONS FOR TV, LIGHT, AND INPUT/OUTPUT CONNECTIONS.

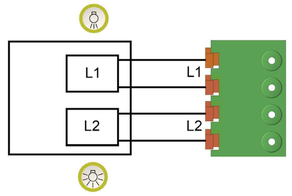
REMOTE LIGHT WIRING DETAILS



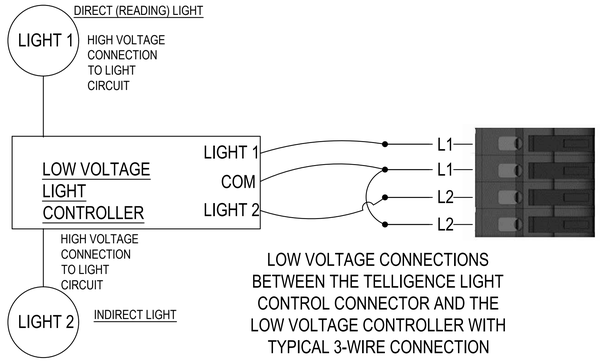
LEAVE ADDRESS SET TO DEFAULT 0 UNLESS FLOORPLANS SHOW A SPECIFIC ADDRESS SETTING. USE THE RJ-45 ROOM BUS JACKS TO CONNECT FROM THE DOME LIGHT OR PREVIOUS ROOM STATION. USE THE SECOND RJ-45 JACK TO CONNECT TO THE NEXT STATION IN LINE IF REQUIRED. NOTE THAT EITHER JACK CAN BE USED FOR THE INCOMING OR OUTGOING ROOM BUS CONNECTION. TWO INPUT CONTACTS AND ONE RELAY OUTPUT IS AVAILABE ON THIS DEVICE, HOWEVER THEY ARE NOT TO BE USED IN THIS PROJECT.

LIGHT CONNECTION DETAIL

NOTE:
IF ROOMS HAVE LOW VOLTAGE LIGHT CONTROLLERS USING 4 LOW VOLTAGE CONTROL WIRES THEN CONNECT THEM AS DESCRIBED IN THIS DIAGRAM. OTHERWISE USE THE THREE WIRE CONNECTION AS SHOWN BELOW.



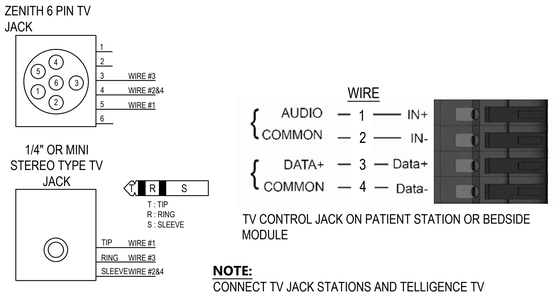
NOTE FOR EITHER CONNECTION METHOD:
CONNECT L1 TO THE TO THE LOW VOLTAGE CONTROLLER FOR CONTROL OF THE DOWNLIGHT (READING LIGHT). CONNECT L2 TO THE LOW VOLTAGE CONTROLLER FOR CONTROL OF THE INDIRECT LIGHT.



LOW VOLTAGE CONNECTIONS BETWEEN THE TELLIGENCE LIGHT CONTROL CONNECTOR AND THE LOW VOLTAGE CONTROLLER WITH TYPICAL 3-WIRE CONNECTION

TV CONNECTION DETAILS

TYPICAL JACKS USED AT TV LOCATION FOR NURSE CALL INTERFACE



TV CONTROL JACK ON PATIENT STATION OR BEDSIDE MODULE

NOTE:
CONNECT TV JACK STATIONS AND TELLIGENCE TV CONTROL CONNECTIONS AS SHOWN. IF RE-USING EXISTING TV JACKS, VERIFY THE EXISTING CONNECTIONS AND PINOUTS BEING USED PRIOR TO INSTALLATION.

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BLACK HILLS, SOUTH DAKOTA

FORT MEADE VA HOSPITAL
113 COMANCHE RD,
FORT MEADE, SD 57741

Revisions shown with ⚠ symbol

ISSUE LOG

MARK	DATE	CAD	CHK	DESCRIPTION
1	6/15/2022	RS	JS	95% SUBMITTAL ISSUE (2ND SUBMISSION)
2	6/30/2022	RS	JS	99% SUBMITTAL ISSUE (3RD SUBMISSION)
3	7/15/2022	RS	JS	100% SUBMITTAL ISSUE

SUBMITTAL

DRAWN BY:	R.SCOTT
CHECKED BY:	J.SOMERVILLE
ISSUE DATE:	2/8/22
JOB #:	
PROJECT #:	385.6502368662

SYSTEM:
NURSE CALL SYSTEM

SHEET:
WIRING TYPICALS

NC-703

FILE PATH: C:\Users\jsomerv\OneDrive - Johnson Controls\HVAC Black Hills-32989455\Fy Name-NurseX_System_Dwg\NC-701.dwg
LAST SAVED BY: JSOMERJE
LAST PRINTED: 7/19/2022 9:32:44 AM
36" x 42" - Arch E1 Size

POWER GENERAL NOTES

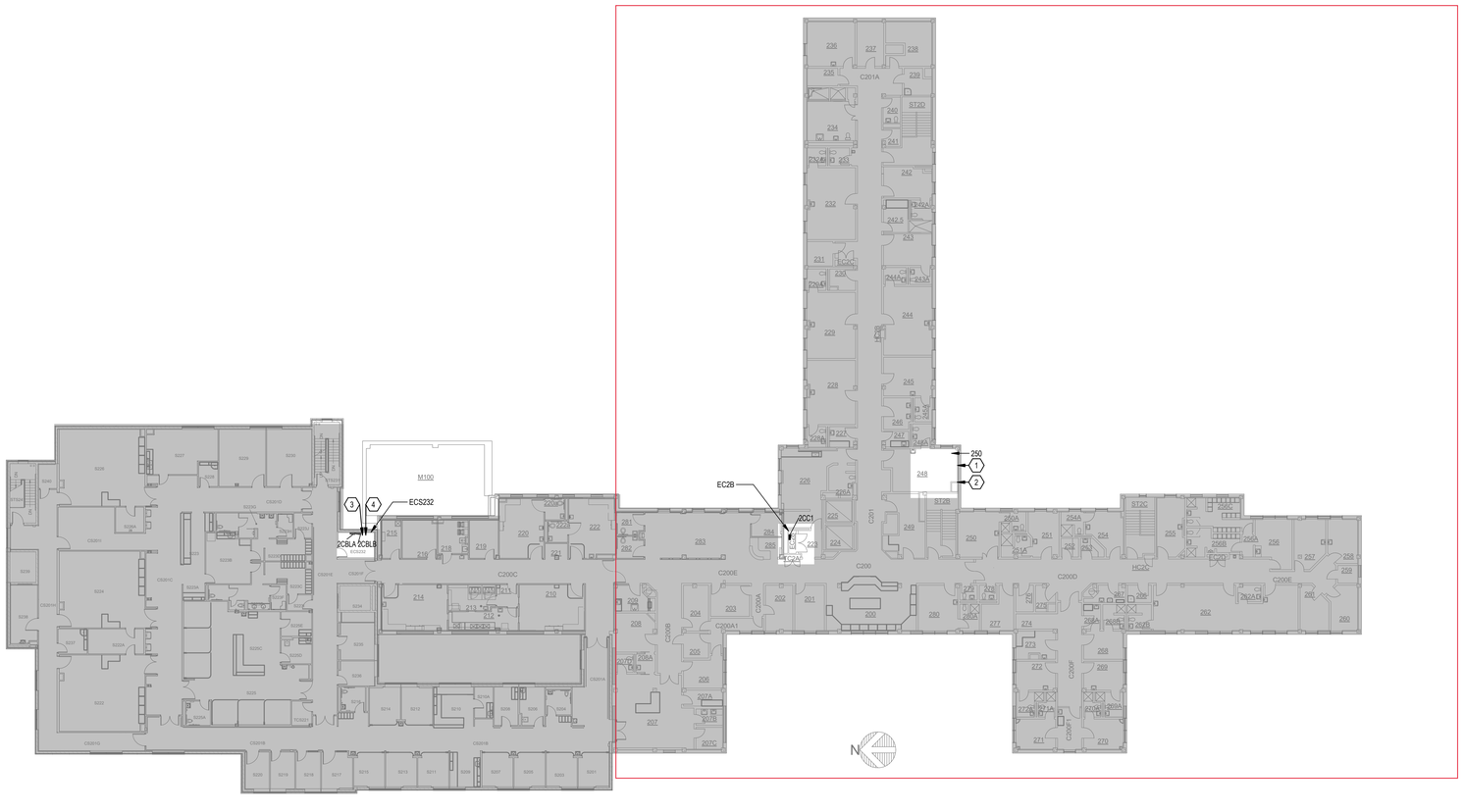
A.	WHERE NEW CIRCUIT BREAKERS ARE INSTALLED IN EXISTING PANELBOARDS, WORK MUST BE COMPLETED DURING OFF-HOURS. COORDINATE SCHEDULE AND ANY DOWNTIME WITH THE VA IN ADVANCE.

KEYNOTES

1	PROVIDE (1) 20A CIRCUIT FROM PANEL 2CBLA TO A NEW QUAD RECEPTACLE IN 250 FOR NURSE CALL SYSTEM. USE EXISTING SPARE 20A CIRCUIT BREAKER IN PANEL.
2	PROVIDE (1) 20A, 208V, 1-Ph CIRCUIT FROM PANEL 2CC1 TO A NEW L6-20R RECEPTACLE IN ROOM 250 FOR NEW PA SYSTEM. PROVIDE A NEW 20A, 2-POLE CIRCUIT BREAKER IN PANEL 2CC1 IN PLACE OF EXISTING SPARE 100A 2-POLE BREAKER IN PANEL. MATCH CHARACTERISTICS OF EXISTING BREAKERS IN PANEL. EXISTING PANEL IS A GE PANELBOARD.
3	PROVIDE (1) 20A CIRCUIT FROM PANEL 2CBLB TO A NEW QUAD RECEPTACLE IN ECS232 FOR NURSE CALL SYSTEM. USE EXISTING SPARE 20A CIRCUIT BREAKER IN PANEL.
4	PROVIDE (1) 20A, 208V, 1-Ph CIRCUIT FROM PANEL 2CBLB TO A NEW L6-20R RECEPTACLE IN ECS232 FOR NEW PA SYSTEM. PROVIDE A NEW 20A, 2-POLE CIRCUIT BREAKER IN PANEL 2CBLB IN PLACE OF EXISTING SPACES IN PANEL. MATCH CHARACTERISTICS OF EXISTING BREAKERS IN PANEL. EXISTING PANEL IS A SQUARE D NQ PANELBOARD.

CONNECT AND PROVIDE POWER AS REQUIRED FOR NURSE CALL, SPEAKERS, AND RTLS DEVICES IN CONSTRUCTION BOUNDS. COORDINATE WITH OTHER PANEL DRAWINGS.

CONSTRUCTION AREA



A1 BUILDING 113 SECOND LEVEL POWER PLAN
SCALE: 1" = 20'-0"

TSP, Inc.
600 Kansas City St.
Rapid City, SD 57701

(605) 343-6102
www.teamtsp.com

Architecture
Engineering
Planning

CONSULTANTS

NOT FOR CONSTRUCTION

PROJECT TITLE

GCH
FT. MEADE VA - UPGRADE PAGE AND NC SYSTEM

Sturgis, SD

ISSUES

ISSUE	DATE	DESCRIPTION

ISSUE DATE **07/29/2022**	DRAWN BY **KAO**
PROJECT # **03221578**	CHECKED BY **KAO**

SHEET TITLE

BUILDING 113 SECOND LEVEL POWER PLAN

SHEET NUMBER

E-113C

100% REVIEW DOCUMENTS