Rehab Building VAMC Jefferson Barracks Division, St. Louis, Missouri VA Solicitation No.: VA101-15-R-0081

VA Project No.: 657-313E

AMENDMENT NO. 3

February 10, 2016

The following summarizes revisions or clarifications to VA Solicitation No. VA101-15-R-0081 issued January 25, 2016. Drawings or Specifications referenced and included herein shall replace and supersede only the corresponding documents previously issued. All other documents not changed, replaced, or retracted by this or any subsequent amendment, remain a part of the solicitation. Offerors' proposals shall acknowledge Offerors' receipt and inclusion of this Amendment No. 3.

DRAWING REVISIONS INCLUDE THE FOLLOWING:

Rehab Drawings Volume 1, 2 and 3

Sheet TN400:

- a. **REMOVE** 400 pair shielded twisted pair copper cable from Technology Riser Diagram.
- b. **REVISE** Keynote 7 to LC to LC fiber optic patch Cable.

Sheet TN500:

a. REVISE item 122 in the General Technology Equipment Schedule from ST connection to LC connection.

Sheet TN600:

- REVISE item 56 in the General Technology Equipment Schedule from ST connection to LC Connection.
- b. REVISE Nurse Call Master description, item 39 of the General Technology Equipment Schedule.
- REVISE Patient Assistance Pull Cord Station, item 41 of the General Technology Equipment Schedule.
- d. **REMOVE** Nurse Call Dual Patient Station in the General Technology Equipment Schedule.
- e. ADD Nurse Call Duty Station in the General Technology Equipment Schedule.
- f. ADD Nurse Call Dome Light in the General Technology Equipment Schedule.

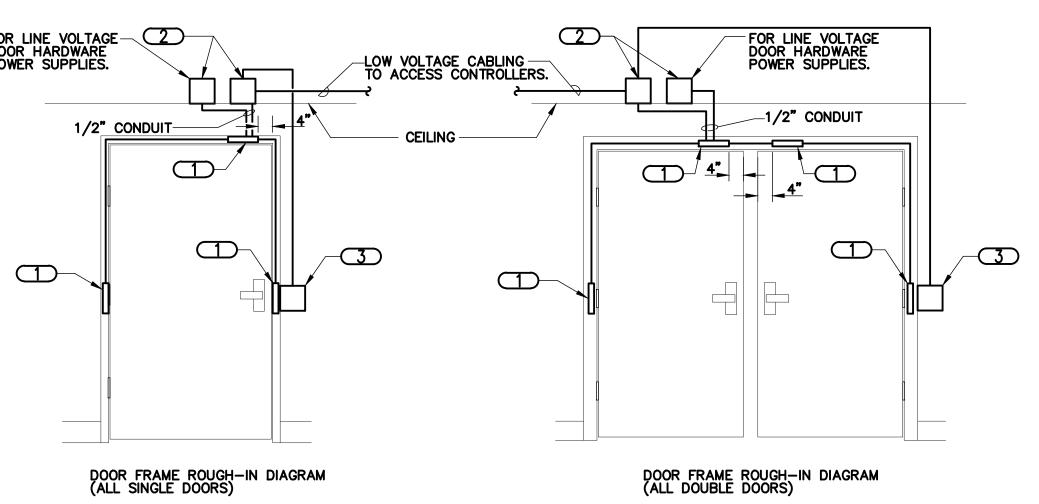
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ACCESS CONTROL RISER DIAGRAM

- 1. THIS DIAGRAM IS DIAGRAMMATIC AND MAY NOT SHOW ACTUAL DEVICE QUANTITIES OR LOCATIONS. ALL DEVICES SHOWN ARE TYPICAL AND MAY NOT REFLECT EVERY WIRE OR CONNECTION THAT MUST BE MADE. WIRING SHOWN ON THIS DIAGRAM REFLECTS THE REQUIREMENTS FOR THE BASIS OF DESIGN MANUFACTURER. ANY CHANGES REQUIRED DUE TO THE T.C.'S SELECTION OF AN ALTERNATE MANUFACTURER, INCLUDING ANY POWER REQUIRED FOR FIELD LOCATED SECURITY CONTROLLERS, SHALL BE INCLUDED IN THE T.C.'S BID.
- 2. ALL WORKSTATIONS AND SERVERS REQUIRE A KEYBOARD AND MOUSE.
- 3. ALL ACCESS SYSTEMS SHALL BE ON THEIR OWN NETWORK. THEY ARE NOT ALLOWED ON THE VA LAN.
- 4. ALL CABLE FOR THIS SYSTEM SHALL BE INSTALLED IN CONDUIT.

VA FORM 08-6231

- THE REQUEST TO EXIT, DOOR CONTACT AND LOCKING DEVICE ITEMS ARE SHOWN AS CSS ON THE FLOOR
- 2 REFER TO FLOOR PLANS FOR LOCATIONS AND LAYOUT OF SECURITY DEVICES.
- 3 UTILIZE FIBER OPTIC BACKBONE CABLE FOR CONNECTION TO SECURITY SYSTEM HEAD END. REFER TO 1/TN400 FOR FIBER OPTIC BACKBONE CABLE RISER DIAGRAM.
- 4 RJ45, CATEGORY 6 PATCH CORDS, REFER TO SPECIFICATIONS.
- 5 SINGLE MODE FIBER OPTIC PATCH CORDS, REFER TO SPECIFICATIONS.

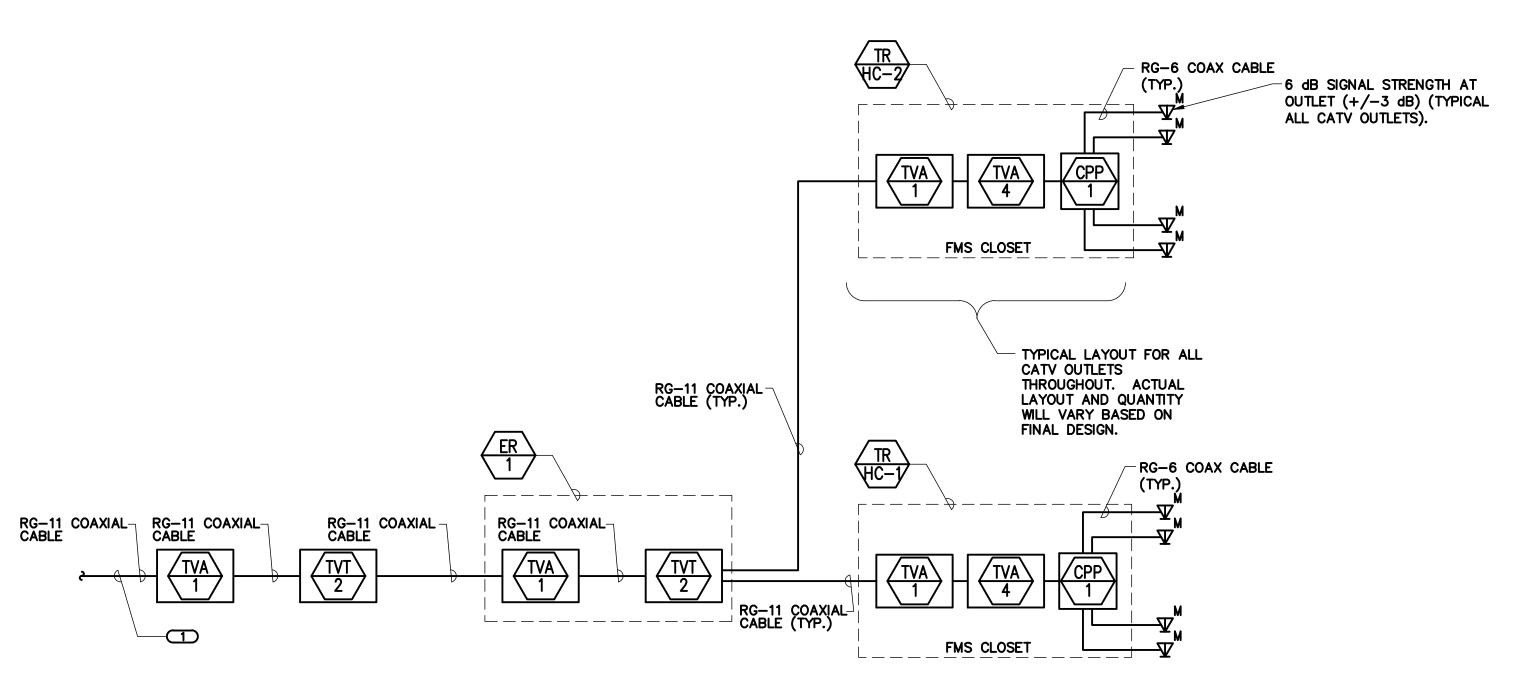


DOOR ROUGH-IN AND WIRING DIAGRAMS

- 1. WIRING SHOWN ON THESE DIAGRAMS IS FOR BIDDING PURPOSES AND REPRESENTS MINIMUM REQUIREMENTS. COORDINATE EXACT REQUIREMENTS WITH SELECTED MANUFACTURER.
- 2. DETAILS ABOVE MAY NOT BE REPRESENTATIVE OF SPECIFIC DOOR SWING DIRECTION. MIRROR DETAIL AS REQUIRED.
- 3. WIRING SHOWN IN CONFIGURATION DETAILS SHALL UTILIZE RELEVANT JUNCTION BOXES SHOWN IN ROUGH—IN DETAIL. ALL WIRING IS CONCEALED IN DOOR FRAME OR DOOR. NO EXPOSED CABLING IS ALLOWED.
- 4. CONFIGURATIONS SHOWN ARE DIAGRAMMATIC, INTENDED TO DESCRIBE THE SECURITY REQUIREMENTS OF THE DOORS. THEY ARE NOT INTENDED TO ACCURATELY REPRESENT DOOR SIZE, DOOR FUNCTIONALITY OR DOOR HARDWARE. REFER TO ARCHITECTURAL DOOR HARDWARE GROUPS AND SPECIFICATION FOR COMPLETE INFORMATION.
- 5. ALL DOOR POSITION SWITCHES SHALL BE RECESSED, CONCEALED TYPE UNLESS OTHERWISE NOTED.
- 6. ALL CABLING IN WALLS AND WHEN EXPOSED ON VERTICAL SURFACES, (I.E., THE OVERHEAD DOOR FRAME) SHALL BE ROUTED IN MINIMUM 1/2" EMT CONDUIT. CABLING TRAVELING HORIZONTALLY ALONG THE CEILING DECK OR ABOVE A LAY-IN CEILING. SHALL BE INSTALLED IN MINIMUM 3/4" CONDUIT.
- 7. ELECTRIC HINGE MONITORS ARE NOT ACCEPTABLE REPLACEMENTS FOR THE CONCEALED DOOR POSITION SWITCHES. 8. REFER TO FLOOR PLANS FOR CARD READER LOCATIONS.

KEYNOTES:

- PROVIDE A JUNCTION BOX IN THE DOOR FRAME WHERE SHOWN ON THE DETAIL. ROUGH-IN SHALL BE PROVIDED WHETHER THE CURRENT SECURITY SCHEME UTILIZES THEM OR NOT. CONNECT THE JUNCTION BOXES IN THE VERTICAL SECTIONS OF THE DOOR FRAME TO THE BOX IN THE HEADER WITH 3/8" FLEXIBLE CONDUIT.
- MOUNT 2 DOUBLE GANG BACKBOXES WITH BLANK COVER PLATES ABOVE THE CEILING. MAINTAIN ACCESS TO JUNCTION BOX WHERE CEILING IS A GYPSUM BOARD CEILING, LOCATE BOXES ABOVE NEAREST LAY-IN CEILING AND EXTEND CONDUITS TO THIS LOCATION.
- PROVIDE A JUNCTION BOX FOR CARD READER. PROVIDE ONE (1) 14" CONDUIT TO ACCESS CONTROL JUNCTION BOX AS SHOWN. MOUNT BOX AT 48" AFF.



PARTIAL CABLE T.V. RISER DIAGRAM NO SCALE

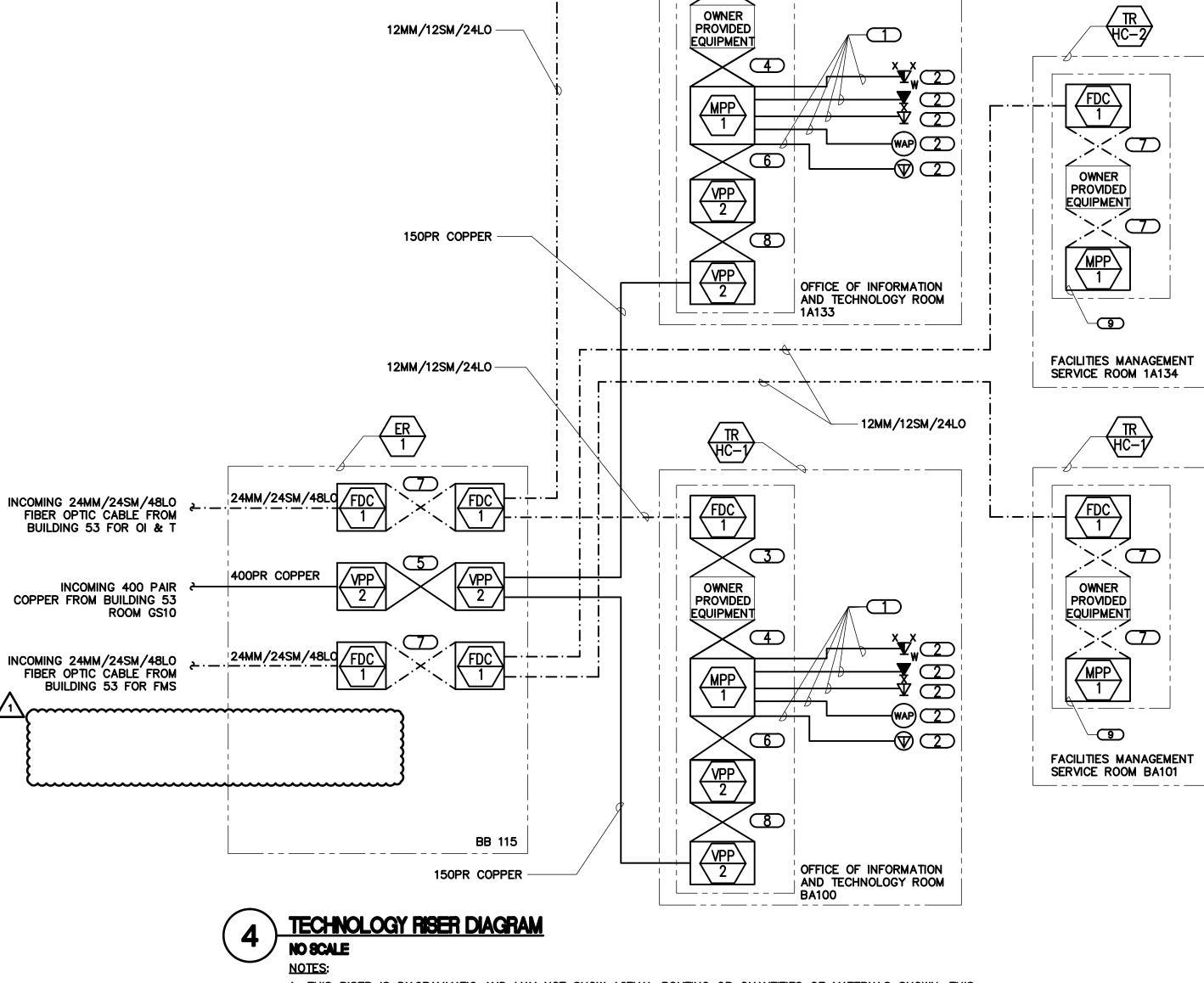
1. CONTRACTOR TO PROVIDE CATV SYSTEM TO ALLOW 6dB +/- 3dB OF OUTPUT AT ALL " $\overline{\Psi}$ " OUTLETS, ACTUAL TAP/SPLITTER SETTINGS, LAYOUT, AND AMP SIZING/QUANTITY TO BE INCLUDED IN CONTRACTOR'S FINAL DESIGN. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

2. ALL CABLING IS TO BE RG-6 COAXIAL UNLESS OTHERWISE NOTED.

3. SEE PLANS FOR QUANTITY OF CABLES AND JACKS TO BE INSTALLED AT EACH TELEVISION OUTLET " TT. M".

3/DT100 FOR APPROXIMATE LOCATION.

INCOMING CAMPUS CATV SIGNAL. CONNECT TO TAP LOCATED IN ROOM GS12 BUILDING 53. REFER TO



1. THIS RISER IS DIAGRAMMATIC AND MAY NOT SHOW ACTUAL ROUTING OR QUANTITIES OF MATERIALS SHOWN. THIS RISER IS SHOWN FOR CLARIFICATION OF CONNECTION LOCATIONS AND CABLE TYPE. ALL INFORMATION OUTLETS ARE TYPICAL OF THE OUTLETS IN THE AREA SHOWN. SEE PLANS FOR MORE SPECIFIC ROUTING INFORMATION. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

MM - MULTIMODE FIBER OPTIC CABLE (62.5μM) SM - SINGLEMODE FIBER OPTIC CABLE LO - LASER OPTIMIZED FIBER OPTIC CABLE (50µM)

OI & T - OFFICE OF INFORMATION AND TECHNOLOGY

FMS - FACILITIES MANAGEMENT SYSTEMS KEYNOTES:

- 23 GAUGE, 4-PAIR, CATEGORY 6, UNSHIELDED TWISTED PAIR CABLE TO VOICE & DATA LOCATIONS, SEE SPECIFICATIONS.
- REFER TO INFORMATION OUTLET SCHEDULE TN302 FOR DETAILS $(\stackrel{X}{\Psi}, \stackrel{X}{\Psi}, \stackrel{X}{\Psi}, \stackrel{W}{\Psi}, \stackrel{W}{\Psi})$
- 3 STRUCTURED CABLING FIBER OPTIC PATCH CORDS. REFER TO SPECIFICATIONS.
- 4 RJ-45 TO RJ-45 CATEGORY 6 UTP PATCH CORDS. REFER TO SPECIFICATIONS.
- 5 CROSS-CONNECT 100-PAIR PER BACKBONE RISER CABLE TO THE INCOMING COPPER BACKBONE CABLE.
- 6 110 TO RJ-45 CATEGORY 6 UTP PATCH CORDS. REFER TO SPECIFICATIONS.
- FIBER OPTIC PATCH CORDS LC TO LC PEFER TO SPECIFICATIONS.
- 8 24AWG CROSS CONNECT WIRE AS REQUIRED.
- 9 PATCH PANEL FOR OWNER PROVDED, OWNER INSTALLED CCTV CAMERAS.

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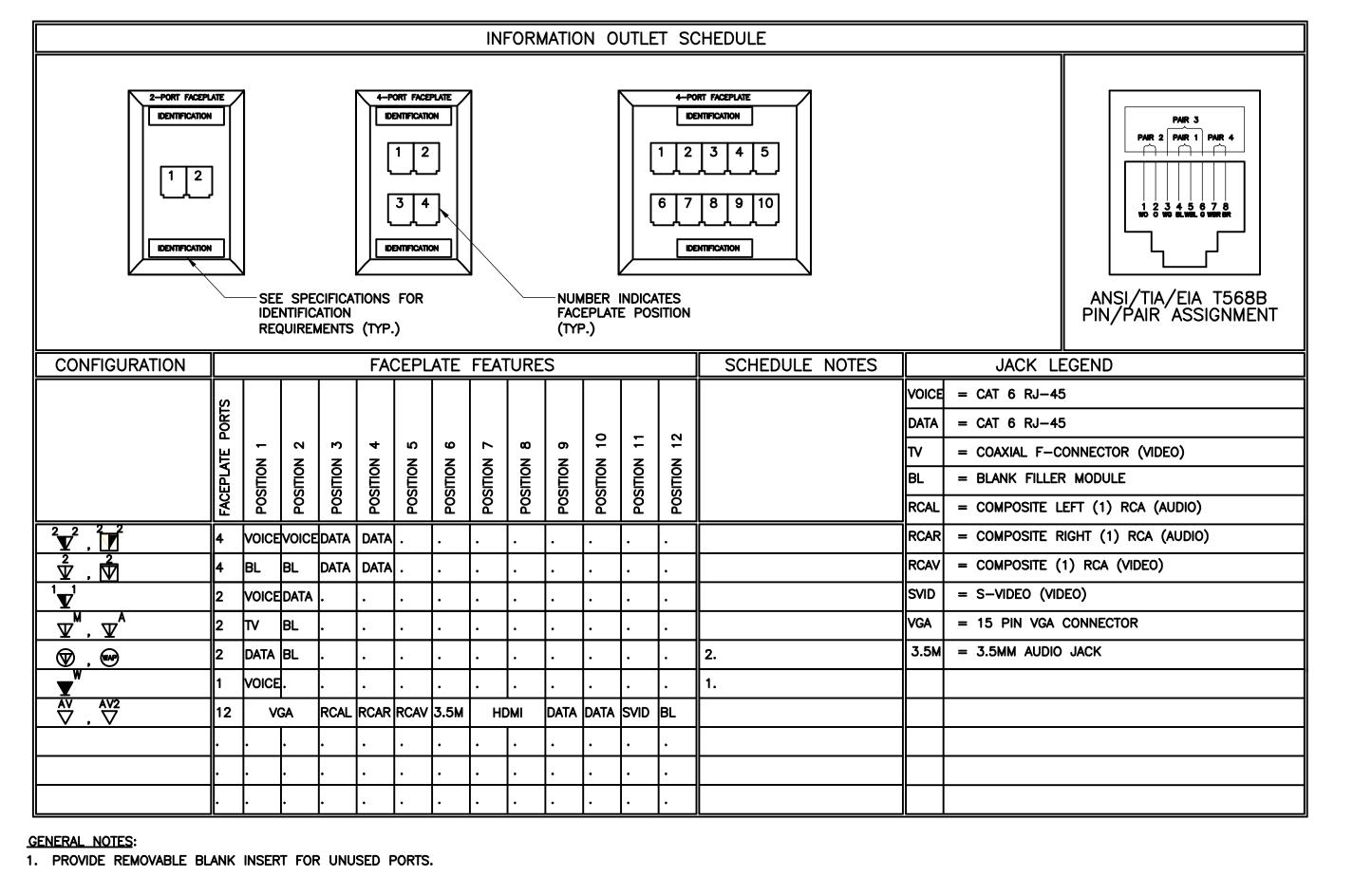
Drawing Title Project Title Project Number CONSULTANTS: ARCHITECT/ENGINEERS: Office of **REHAB BUILDING TECHNOLOGY RISER DIAGRAMS** 657-313E STRUCTURAL ENGINEER: CODE CONSULTANT/FIRE PROTECTION: **AUTOMATIC TRANSPORT:** THE SEAL (S) AND SIGNATURE(S) Construction HAZARDOUS MATERIALS: **Building Number** APPLY ONLY TO THE DOCUMENT TO KPFF CONSULTING ENGINEERS CODE CONSULTANTS, INC. LERCH BATES INC. ALTEC ENVIRONMENTAL CONSULTING, LLC. WHICH THEY ARE AFFIXED, AND WE 8089 S. LINCOLN STREET, SUITE 207 1630 DES PERES ROAD, SUITE 100 2043 WOODLAND PARKWAY, SUITE 300 P.O. BOX 17867 and Facilities CHRISTNER EXPRESSLY DISCLAIM ANY **SHREVEPORT, LA 71138-0867** ST. LOUIS, MO 63131 ST. LOUIS, MO 63146-4235 LITTLETON, CO 80122 RESPONSIBILITY FOR ALL OTHER PHONE: (318) 687-3771 PHONE: (314) 835-0524 PHONE: (314) 991-2633 PHONE: (720) 283-8182 **Drawing Number** Approved: Project Director Management PLANS, SPECIFICATIONS, ESTIMATES, REPORTS, OR OTHER **JEFFERSON BARRACKS DIVISION** MECHANICAL/ELECTRICAL/PLUMBING **CIVIL ENGINEER: ESTIMATING:** DOCUMENTS OR INSTRUMENTS COUNSILMAN HUNSAKER KJWW ENGINEERING CONSULTANTS STOCK & ASSOCIATES CONSULTING ENGINEERS, INC. KWAME BUILDING GROUP, INC. ARCHITECTS | DESIGNERS | PLANNERS | LANDSCAPE ARCHITECTS | RELATING TO OR INTENDED TO BE 10733 SUNSET OFFICE DRIVE, 4TH FLOOR 257 CHESTERFIELD BUSINESS PARKWAY 1204 WASHINGTON AVENUE, SUITE 200 #15 SUNNEN DRIVE, SUITE 104 ST. LOUIS. MO 63127 USED FOR ANY PART OF PARTS OF ST. LOUIS, MO 63143 Department of CHESTERFIELD, MO 63005 ST. LOUIS, MO 63103 Veterans Affairs THE PROJECT. #1 Feb 01, 2016 PHONE: (314) 894-0109 Amendment 3 168 N. MERAMEC AVENUE | ST. LOUIS, MISSOURI 63105 29 OCTOBER 2012 **JEFCAR KEIEVE** PHONE: (314) 645-1132 PHONE: (636) 530-9100 PHONE: (314) 862-5344 TEL 314 725 2927 | FAX 314 725 2928 | CHRISTNERINC.COM © COPYRIGHT 2010 CHRISTNER INC. lo. Date Revisions

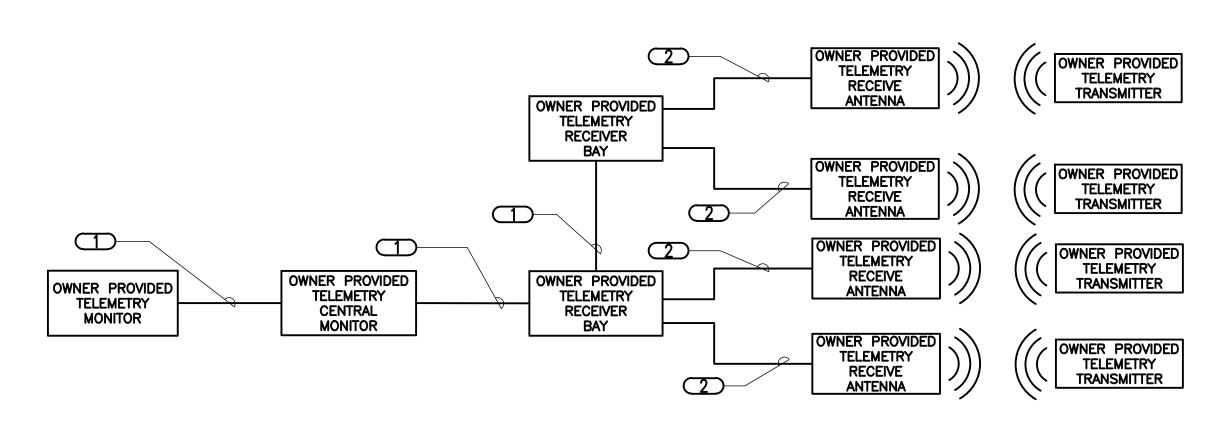
TECHNOLOGY MATERIAL LIST (CONTINUED) THE SYMBOLS AND THE MATERIAL LIST ARE FOR THE CONVENIENCE OF THE CONTRACTOR. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF QUANTITIES AND SHALL FURNISH ALL MATERIAL REQUIRED, WHETHER SPECIFIED OR NOT, TO PRODUCE A CATALOG NUMBERS SHALL NOT BE CONSIDERED COMPLETE BUT ARE GIVEN ONLY TO AID THE CONTRACTOR IN THE SEARCH FOR MATERIAL. NO MATERIAL SHALL BE ORDERED BY MANUFACTURER AND CATALOG NUMBER ONLY. EACH CONTRACTOR SHALL FIRST READ THE COMPLETE DESCRIPTION OF THE MATERIAL ON THESE DRAWINGS AND SPECIFICATIONS. THE FIRST MANUFACTURER LISTED IS THE BASIS OF DESIGN. "STANDARD COLOR" INDICATES FACTORY FINISH AVAILABLE AT NO ADDITIONAL CHARGE. SYMBOL APPROVED MANUFACTURERS DESCRIPTION **INTERCOM/PAGING DEVICES** RACK MOUNT NETWORKED AUDIO INPUT EXPANSION DEVISE. SIX AUDIO INPUT CHANNELS. 4 — DUAL RCA CONNECTORS PLUS TERMINATION BLOCK CONNECTORS FOR LINE LEVEL INPUTS. 4—CONTROL INPUTS AND 4—CONTROL OUTPUTS. 2-MICROPHONE / LINE INPUTS WITH PHANTOM POWER. SOFTWARE CONFIGURABLE LOCAL AUDIO SIGNAL PROCESSING. COBRANET AUDIO/CONTROL. POWER OVER ETHERNET VIA CATS RJ-45 JACK. 1 RU RACK MOUNTABLE. RACK MOUNT MESSAGE SERVER. RECORDED MESSAGE STORAGE AND PLAYBACK, EVENT SCHEDULING, STORAGE OF LOGGED SYSTEM DATA, VOIP PAGING INTERFACE, COBRANET AUDIO/CONTROL, STATUS LED, ETHERNET PORTS FOR TCP/IP CONTROL, COBRANET AND VOIP, 1RU RACK MOUNTABLE, 120VAC SURFACE MOUNTABLE END OF LINE NETWORK SAFETY DEVICE. LINE MONITORING, DETECTS INAUDIBLE SIGNAL FROM AMP MODULE, REPORTS SHORTS OR OPENS IN THE SPEAKER LINE TO THE NETWORK, POWER AND DATA OVER SINGLE ETHERNET CABLE. STATUS LED. REMOVABLE TERMINAL BLOCK CONNECTOR. RACK MOUNT POE MANAGED ETHERNET SWITCH. 4 - 10/100 BASE TX 802.3AF (POE) COMPLIANT ETHERNET PORTS. MODULAR FRAME CAPABLE OF 15 ADDITIONAL ETHERNET PORTS INCLUDING 10BASEFL/100BASE FX/1000BASEX FIBER AND 10/100/ 1000BASETX COPPER PORT COMBINATIONS. SUPPORTS ST, MTRJ, LC, SC, FIBER CONNECTORS.SSH/SSL 128-BIT ENCRYPTION. 48VDC POE POWER SUPPLY, 120VAC UNIT POWER SUPPLY. 1RU RACK MOUNTABLE. RACK MOUNT POE MANAGED ETHERNET SWITCH. 4 - 10/100 BASE TX 802.3AF (POE) COMPLIANT ETHERNET PORTS. MODULAR FRAME CAPABLE OF 15 ADDITIONAL ETHERNET PORTS INCLUDING 10BASEFL/100BASE FX/1000BASEX FIBER AND 10/100/ 1000BASETX COPPER PORT COMBINATIONS. SUPPORTS ST, MTRJ, LC, SC, FIBER CONNECTORS.SSH/SSL 128-BIT ENCRYPTION. 48VDC POE POWER SUPPLY, 120VAC UNIT POWER SUPPLY. 1RU RACK MOUNTABLE. PROVIDE WITH MULTIMODE FIBER MODULE TO SUPPORT BACKBONE FIBER CONNECTION. RACK MOUNTED NETWORK MULTI-CHANNEL AMPLIFIER. AMPLIFICATION MODULES WITH SOFTWARE CONFIGURABLE POWER LEVELS/LOAD OPTIONS. 8 AMPLIFICATION MODULES PER FRAME WITH 100 TO 600 WATTS PER MODULE (MAXIMUM OF 2400W PER CHASSIS). 70V OR 100V DIRECT DRIVE CAPABILITY, OR LOW IMPENDENCE 4 OHM OR 8 OHM OPERATION. FAILOVER CAPABILITY BETWEEN CHANNELS AND AMPLIFIERS. LOCAL NON VOLATILE MEMORY. LED INDICATION, SOFTWARE MONITORING, SOFTWARE CONFIGURABLE SIGNAL PROCESSING, COBRANET AUDIO/CONTROL. DUAL ETHERNET PORTS FOR REDUNDANCY, TERMINAL BLOCK CONNECTORS FOR SPEAKER 3RU RACK MOUNTABLE. 120VAC. CONTRACTOR SHALL PROVIDE (1) POWER AMP ANALOG TELEPHONE TO VOIP GATEWAY. CONNECTS UP TO (2) ANALOG POTS 117 LINES, SIP COMPLIANT. POWER OVER ETHERNET (POE) IN-LINE POWER INJECTOR. RACK MOUNTABLE, PROVIDES 24 PORTS OF POE AT 15.4 WATTS EACH. PROVIDE WITH 48VDC, 1250 WATT POWER RECTIFIERS AND RACK MOUNT KIT, PROVIDE QUANTITY AS REQUIRED TO SUPPLY ALL THE REQUIRED PATCH PANELS. VA HAS RATED PA SYSTEMS AS PUBLIC SAFETY AND LIFE SAFETY IF CARRYING CODE BLUE SIGNALS AND SHALL BE PROTECTED IN CONDUIT AND/OR TELECOMMUNICATIONS RATED PARTITIONED CABLE TRAYS (ALSO WIRE BASKETS) AND CONDUIT FROM CABLE TRAY TO LOCAL BACK BOX. FLEX CONDUIT MAY BE USED IF THE BACK BOX IS WITHIN THREE (3) FEET OF THE CABLE TRAY. PROVIDE CEILING SPEAKER SAFETY WIRES OR FLEX CONDUIT BETWEEN THE BACK BOX AND THE SPEAKER CEILING HOUSING TO SAFETY THIS REQUIREMENT. EMERGENCY CALL STATION MASTER AND AUDIO SERVER. WALL SHELF OR 19" RACK MOUNTABLE INCLUDE POWER SUPPLY PROCESSOR BOARD, PROVIDE STATION LICENSING AS REQUIRED, (MINIMUM OF 24), 524 IP STATION CAPACITY. MASTER STATION SHALL BE AN IP DESKTOP STATION. 85DB AUDIO PRESSURE 1 METER FROM SPEAKER, HIGH CONTRAST DISPLAY, 10 PROGRAMABLE SOFT KEYS, CALL QUEUING AND 256 LEVELS OF PRIORITY. HARDENED POE ETHERNET SWITCH - FIVE COPPER PORTS, ONE FIBER OPTIC PORT. 10/100 PORTS, -25°C TO 60°C TEMPERATURE RATING, DIN-CASE OR PANEL MOUNT, SW LINK LOSS, POE. PROVIDE POWER SUPPLY AS REQUIRED. FIBER OPTIC TRANSCEIVER, MULTI-MODE FIBER OPTIC LC TO RJ45 COPPER TRANSCEIVER - FULL DUPLEX, HARDENED, TEMPERATURE RANGE - 10° TO 50° C. TX DIGITAL MICROPHONE SNAKE. SIXTEEN (16) XLR INPUTS, EIGHT (8) XLR RETURNS. 123 RACKMOUNT. REQUIRES THREE (3) EIA/TIA 1-3/4" RACK UNITS FOR MOUNTING. PROVIDE WITH COBRANET DIGITAL AUDIO NETWORK MODULE. MICROPHONE SNAKE, 50-FOOT. SIXTEEN (16) XLR INPUTS, EIGHT (8) XLR RETURNS. HEAVY DUTY POWDER COATED STEEL STAGEBOX WITHINTEGRATED HANDLE. PAIRS ARE 24GA TWISTED CONDUCTORS WITH 100% FOIL SHIELD AND 24GA DRAIN WIRE. THREE FOOT FANOUT WITH MULTIPLE LAYERS OF HEATSHRINK. ENGRAVED NUMBERS AND LETTERS ON FANOUT CONNECTORS. KELLEM WIRE MESH HANGER AT FANOUT END. KELLEM STRAIN RELEIF WITH INTERNAL CABLE CLAMP ON STAGE BOX END. PROVIDE WITH GROUND LIFT CAPABILITY.

WIRELESS HEADSET CONDENSER MICROPHONE. COMPATABLE WITH MIC/RX.

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2. SEE SPECIFICATIONS FOR LABELING REQUIREMENTS.

3. SEE FLOOR PLANS FOR DEVICE QUANTITIES AND LOCATION.

4. JACKS SHALL BE CONFIGURED PER ANSI/TIA/EIA T568B REQUIREMENTS.

1. PROVIDE STAINLESS STEEL FACEPLATE WITH MATING LUGS FOR WALL HUNG PHONE.

CABLE SUPPORT FOR POSSIBLE RELOCATION AFTER FUTURE RF SURVEY.

2. LOCATION OF FUTURE WIRELESS ACCESS POINT. PROVIDE A 20' SLACK COIL AT NEAREST

X X X X S DUAL ACCESS CB-1.1 X X X X S DUAL ACCESS CB-1.2 CB-2 X X X X BB-108 STAIR 1.1 CB-1.3 CB-7.2 CB-6.2 BB114.2 BB114.1 X X X X S DUAL ACCESS BB115.1 CB-10 CB-11.1 CB-11.2 CB-12.2 X | S ROLL UP DOOR BC121.1 BC121.3 CB-7.3 STAIR 2.1 C1-14 x x x s C1-1.1 C1-1.2 C1-1.3 C1-1.4 C1-5.1 C1-5.4C1-5.2C1-5.3DIMOUNT CARD READER IN MULLION C1-2 C1-29.3 STAIR 1.2 X X X X S DUAL ACCESS C1 - 29.1X X X X S DUAL ACCESS C1-29.21A135.1 1A136.1 C1-29.41B118 C1 - 7.11A132 C1-37 C1 - 42.1C1-49 STAIR 2.3 1A148.2 1A148.3 1A148.1 C1-42.2C1 - 47STAIR 1.3

ACCESS CONTROL SCHEDULE

KEYNOTES

DOOR FEATURES

ACCESS CONTROL SCHEDULE						
DOOR #	DOOR FEATURES	KEYNOTES				
	CARD READER — IN CARD READER — OUT BIOMETRIC READER — IN BIOMETRIC READER — OUT KEYPAD — IN KEYPAD — OUT DOOR CONTACT SWITCH ELECTRIFIED DOOR HARDWARE REX — ELECTRIFIED DOOR HARDWARE REX — MOTION DETECTOR SINGLE/DOUBLE					
CB-4.1	x x x x s					
BB 115.2	x x x x s					
C1-34	x x x x s					
C1-38	X X X D					
1B 118	x x x x s					
1A 137.2	x x x x s					
1A 137.E	x x x x s					
1A 144	x x x x s					
CB-9	x x x x s					
1B 118	x x x x s					

GENERAL NOTES:

- 1. EACH LEAF'S DOOR CONTACT SWITCH SHALL OPERATE INDEPENDENTLY. DO NOT
- 2. ELECTRIC DOOR HARDWARE SUCH AS: ELECTRIC STRIKES, ELECTRONIC LATCH RETRACTION, ETC. PROVIDED BY OTHERS.

TELEMETRY RISER DIAGRAM

- 1. THIS RISER IS DIAGRAMMATIC AND MAY NOT SHOW ACTUAL ROUTING OR QUANTITIES OF MATERIALS SHOWN. THIS RISER IS SHOWN FOR CLARIFICATION OF CONNECTION LOCATIONS AND CABLE TYPE. ALL INFORMATION OUTLETS ARE TYPICAL OF THE OUTLETS IN THE AREA SHOWN. SEE PLANS FOR MORE SPECIFIC ROUTING INFORMATION. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- 2. ALL TELEMETRY CABLES SHALL BE INSTALLED IN CONDUIT.

26 PIN SDLC CABLE.

2 CONTRACTOR TO INSTALL RG-58 TO TELEMETRY OUTLETS. REFER TO FLOOR PLANS FOR LOCATIONS.

FULLY SPRINKLERED **Drawing Title Project Number ARCHITECT/ENGINEERS: CONSULTANTS:** Office of **REHAB BUILDING TECHNOLOGY SCHEDULES** 657-313E THE SEAL (S) AND SIGNATURE(S) APPLY ONLY TO THE DOCUMENT TO Construction STRUCTURAL ENGINEER: CODE CONSULTANT/FIRE PROTECTION: **AUTOMATIC TRANSPORT: HAZARDOUS MATERIALS: Building Number** KPFF CONSULTING ENGINEERS CODE CONSULTANTS, INC. LERCH BATES INC. ALTEC ENVIRONMENTAL CONSULTING, LLC WHICH THEY ARE AFFIXED, AND WE 54 8089 S. LINCOLN STREET. SUITE 207 and Facilities 1630 DES PERES ROAD, SUITE 100 2043 WOODLAND PARKWAY, SUITE 300 P.O. BOX 17867 CHRISTNER EXPRESSLY DISCLAIM ANY **SHREVEPORT. LA 71138-0867** ST. LOUIS, MO 63131 ST. LOUIS, MO 63146-4235 LITTLETON, CO 80122 RESPONSIBILITY FOR ALL OTHER PHONE: (314) 835-0524 PHONE: (314) 991-2633 PHONE: (318) 687-3771 PHONE: (720) 283-8182 **Approved: Project Director Drawing Number** Location PLANS, SPECIFICATIONS, Management ESTIMATES, REPORTS, OR OTHER **JEFFERSON BARRACKS DIVISION** MECHANICAL/ELECTRICAL/PLUMBING CIVIL ENGINEER: **ESTIMATING:** OCUMENTS OR INSTRUMENTS **COUNSILMAN HUNSAKER** STOCK & ASSOCIATES CONSULTING ENGINEERS, INC KWAME BUILDING GROUP, INC KJWW ENGINEERING CONSULTANTS ARCHITECTS | DESIGNERS | PLANNERS | LANDSCAPE ARCHITECTS | RELATING TO OR INTENDED TO BE **TN500** 10733 SUNSET OFFICE DRIVE, 4TH FLOOR Drawn Checked #15 SUNNEN DRIVE, SUITE 104 257 CHESTERFIELD BUSINESS PARKWAY 1204 WASHINGTON AVENUE, SUITE 200 USED FOR ANY PART OF PARTS OF ST. LOUIS, MO 63127 ST. LOUIS, MO 63143 ST. LOUIS, MO 63103 CHESTERFIELD, MO 63005 Amendment 3 168 N. MERAMEC AVENUE | ST. LOUIS, MISSOURI 63105 PHONE: (314) 894-0109 PHONE: (314) 645-1132

No. Date VA FORM 08-6231

Revisions

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29 OCTOBER 2012

JEFCAR KEIEVE

Department of Veterans Affairs Dwg. 148 of 164

2			
2		TECHNOLOGY	
	▼ ¹ · ▼ ·	INFORMATION OUTLET, WALL MOUNT, 2, 4 OR 6-PORT COVERPLATE AS INDICATED ON DRAWNGS, SEE INFORMATION OUTLET SCHEDULE TN500 FOR PIN CONFIGURATION.	
	⋈ A	" W " PROVIDE (1) RJ-45 JACK FOR VOICE AT +48" AFF FOR WALL HUNG PHONE. PROVIDE WITH STAINLESS STEEL FACEPLATE, MATING LUGS.	
		INSTALL INFORMATION OUTLET IN A 4" SQUARE BACKBOX WITH A SINGLE GANG PLASTER RING. INSTALL A 1" EMT CONDUIT TO THE NEAREST CABLE TRAY OR LADDER RACK. PROVIDE REMOVABLE BLANK INSERTS FOR UNUSED PORTS.	
3		IN ALL EXPOSED AREAS, CABLE SHALL BE INSTALLED IN CONDUIT. INFORMATION OUTLET, FLOORBOX OR POKE—THROUGH MOUNT, 2, 4 OR 6—PORT COVERPLATE AS INDICATED ON DRAWINGS, SEE INFORMATION OUTLET SCHEDULE	
	▼, ¥	TN500 FOR PIN CONFIGURATION. INSTALL INFORMATION OUTLET IN E.C. PROVIDED FLOORBOX. PROVIDE ADAPTER PLATE FOR 106—TYPE FACEPLATE WHERE REQUIRED. COORDINATE ADDITIONAL	
4	∇	MOUNTING REQUIREMENTS WITH E.C. PROVIDE REMOVABLE BLANK INSERTS FOR UNUSED PORTS. TECHNOLOGY ROUGH—IN, FLUSH MOUNT ON WALL OR AS NOTED IN PLANS, ALL	
		TECHNOLOGY ROUGH-INS SHALL HAVE (1) 4" SQUARE BACKBOX WITH SINGLE GANG PLATER RING, APPROPRIATE COVERPLATE, AND (1) 1" EMT CONDUIT TO ABOVE ACCESSIBLE CEILING.	
5	$\overset{\mathbf{M}}{\mathbf{\nabla}}$	INFORMATION OUTLET, WALL MOUNT CATV, SINGLE PORT COVERPLATE, POPULATE WITH THE FOLLOWING CONNECTOR AS NOTED ON THE PLANS. ONE (1) F-TYPE CONNECTOR FOR CATV SIGNAL DISTRIBUTION.	•
		INSTALL INFORMATION OUTLET IN A 4" SQUARE BACKBOX WITH A SINGLE GANG PLASTER RING. INSTALL A 1" EMT CONDUIT TO ABOVE ACESSIBLE CEILING. IN ALL EXPOSED AREAS, CABLE SHALL BE INSTALLED IN CONDUIT.	
6	WAP)	INFORMATION OUTLET, CEILING MOUNT, 4—PORT, COVERPLATE AS INDICATED ON DRAWINGS, INTENDED TO PROVIDE CONNECTIVITY FOR FUTURE WIRELESS ACCESS POINT. REFER TO DRAWING TN500 FOR INFORMATION OUTLET SCHEDULE. SEE DETAILS INFORMATION OUTLET SCHEDULE FOR PIN CONFIGURATION. IN ALL EXPOSED AREAS, CABLE SHALL BE INSTALLED IN CONDUIT.	•
		INSTALL INFORMATION OUTLET IN A 4" SQUARE BACKBOX WITH A SINGLE GANG PLASTER RING, MOUNT TO CLOSEST STRUCTURAL ELEMENT (EX. COLUMN). INSTALL A DELUXE CORD GRIP FOR STRAIN RELIEF ON UTP CABLE. PROVIDE 20' COIL OF UTP CABLE AT WIRELESS OUTLET LOCATION. PROVIDE REMOVABLE BLANK INSERTS	
7	EM	FOR UNUSED PORTS. EMERGENCY INTERCOM STATION. VANDAL RESISTANT EMERGENCY POWER. LIGHT/STROBE INSTALLED IN ACRYLIC HOUSING LED LIGHTING FOR FACEPLATE.	
	-	STEEL WITH MULTI-COAT RUST INHIBITIVE COATING. STROBE - 1.5 MILLION CANDLE POWER. 20 FLASHES PER SECOND. BLUE LIGHT - 7 WATT HIGH EFFICIENCY, 10,000 HOUR COMPACT FLUORESCENT. COLOR AND LETTERING TO BE	
		COORDINATED WITH OWNER PRIOR TO INSTALLATION. PROVIDE WITH CAMERA DOME AT THE TOP OF THE TOWER. IP—SUBSTATION. ONE BUTTON CALL INTEGRATED WEB SERVER. REMOTE SOFTWARE UPGRADEABLE AND MONITORING, WIDE BANDWIDTH FOR AUDIO, VANDAL RESISTANT. ALL CABLE SHALL BE INSTALLED IN	
8	НН	HAND HOLE. REFER TO 3/TN301 FOR EXTERIOR HAND HOLE DETAIL, REFER TO	
9	<u>CT</u>	SPECIFICATION SECTION 27 05 33. CABLE TRAY, TELECOMMUNICATIONS RATED PARTITIONED, WIRE MESH TYPE, MATTE BLACK FINISH, 4" LOADING DEPTH, 12" WIDTH, COMPLETE WITH ALL FITTINGS AND	
	1/	MOUNTING HARDWARE. PROVIDE TRAPEZE SUPPORT WITH PLASTIC RETAINER. CUTTING OF THE MESH CABLE TRAY SHALL BE DONE WITH OFFSET BOLT CUTTERS ONLY. 10' MAXIMUM SUPPORT SPAN. EITHER SPLICE WASHERS OR TERMINAL	
		GROUND SUPPORT AND JUMPER WIRE SHALL BE USED TO ATTAIN GROUNDING CONTINUITY THROUGHOUT. Z-BRACKETS SHALL BE USED FOR WALL MOUNTED APPLICATIONS. REFER TO MANUFACTURERS INSTALLATION INSTRUCTIONS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.	
0	LR 1	LADDER RACK, 18" W TUBULAR STEEL CONSTRUCTION, RUST RESISTANT ENAMEL FINISH, REMOVE SHARP BURRS FROM LADDER RACK AND REPAINT ALL AREAS THAT HAVE BEEN FIELD MODIFIED, CUT OR EXPOSED. U.L. LISTED.	
11	EK	EQUIPMENT RACK, 84" HIGH, STANDARD 19" MOUNTING SPACE, 4" WIDE x 6" DEEP	
	1	UPRIGHTS FEATURING PASS—THRU HOLES ON FRONT AND SIDES FOR CABLE MANAGEMENT PROVIDE TWO PER RACK, MODULAR D—RINGS ON FRONT OF VERTICAL ORGANIZERS, METAL HINGED DOORS PROVIDE TWO PER RACK, TOP CENTER WATERFALL, TOP CHANNEL PATHWAY FOR LADDER RACK, DURABLE BLACK POWDER	
_		COAT FINISH, MEETS EIA-310-E REQUIREMENT, PROVIDES (45) 1.75" MOUNTING SPACES.	
2	MPP 1	MODULAR PATCH PANEL, 48 MODULAR RJ-45 TERMINATIONS, MOUNTS DIRECTLY TO EIA/TIA STANDARD 19" RELAY RACK, PORT IDENTIFICATION NUMBERS, PROVIDED WITH COLOR CODING AND LABEL HOLDER KITS, U.L. LISTED. REQUIRES (2) 1.75" MOUNTING SPACES.	•
3	EK	WALL MOUNTED EQUIPMENT RACK, 48"H x 19.75"W x 25" D, OPENS TO LEFT OR RIGHT, TOP QUALITY 6061-T6 STRUCTURAL GRADE ALUMINUM, VELCRO STRAPS	•
	2	INCLUDED, 75 POUND EQUIPMENT CAPACITY, UNIVERSAL MOUNTING HOLE PATTERN, BLACK POWDER COAT FINISH, MEETS EIA-310-E REQUIREMENTS. PROVIDES (26) 1.75" MOUNTING SPACES.	
4	EK 3	WALL MOUNTED EQUIPMENT RACK, 48"H x 19.75"W x 25" D, OPENS TO LEFT OR RIGHT, TOP QUALITY 6061-T6 STRUCTURAL GRADE ALUMINUM, VELCRO STRAPS INCLUDED, 75 POUND EQUIPMENT CAPACITY, UNIVERSAL MOUNTING HOLE PATTERN,	*
5	(100)	BLACK POWDER COAT FINISH, MEETS EIA—310—E REQUIREMENTS. PROVIDES (26) 1.75" MOUNTING SPACES. VOICE PATCH PANEL, 110—TYPE 900 PAIR, PROVIDE WITH MOUNTING BLOCKS,	
	VPP 2	CONNECTING BLOCKS, HORIZONTAL JUMPER TROUGHS, DUCT ASSEMBLIES, HARDWARE, LABEL HOLDERS, AND BLANK INSERTS, SEE SPECIFICATIONS. ALSO PROVIDE WITH 110-TYPE PATCH PANEL SYSTEM BACKBOARD.	•
6	FDC 1	OPTICAL FIBER DISTRIBUTION CABINET, HIGH DENSITY, MINIMUM 96 FIBER CAPACITY, PROVIDE WITH CLAMP AND GROUNDING KIT, (24) PORT COUPLING PANELS, LC CONNECTORS, COUPLINGS AND JUMPERS. REQUIRES (2) 1.75" MOUNTING SPACES.	•
7	GND 1	WALL-MOUNT GROUND BAR. 4" H X 12" L X 1/4" D COPPER, ELECTRICALLY ISOLATED BY INSULATORS INTEGRAL TO MOUNTING BRACKETS. PROVIDE UNIT CONFIGURED WITH SIXTEEN (16) SETS OF 5/16" HOLES SPACED 5/8" ON CENTER	
		TO ACCOMMODATE "A" SPACED TWO—HOLE COMPRESSION LUGS AND THREE (3) SETS OF 7/16" HOLES SPACED 1" ON CENTER TO ACCOMMODATE "C" SPACED TWO—HOLE COMPRESSION LUGS. ANSI/EIA/TIA—607 AND BICSI COMPLIANT. UL LISTED. REFER TO 3/TN300 FOR ADDITIONAL INFORMATION.	
8	(TTB)	TELECOMMUNICATIONS TERMINAL BOARD, 4' X 8' X 3/4" A-C GRADE FIRE-RATED PLYWOOD. EXPOSED SIDE SHALL BE SMOOTH. MOUNT VERTICALLY WITH TOP OF	
9		PLYWOOD AT 8'6" A.F.F. HORIZONTAL WIRE MANAGEMENT, 3" X 3" RIGID FRONT FINGERS WITH FLEXIBLE RETENTION TABS, 2" X 5" FLEXIBLE REAR FINGERS. REMOVABLE FRONT COVER	*
	\17	RETENTION TABS, 2" X 5" FLEXIBLE REAR FINGERS. REMOVABLE FRONT COVER HINGES 180 DEGREES UP OR DOWN. INTEGRAL BEND RADIUS CONTROL. PASS THROUGH HOLES ALLOW FRONT TO REAR CABLING. REQUIRES (2) 1.75" MOUNTING SPACES.	
20	UPS 2	UNINTERRUPTIBLE POWER SUPPLY RACK MOUNTABLE. 3200W/4000VA, 208V INPUT VOLTAGE, 120V/208V OUTPUT, (4)NEMA L5-20R, (2)NEMA L14-30R, (1) HARD-WIRE OUTPUT CONNECTIONS. HARD-WIRE (2PH+N+G) 208V INPUT CONNECTION.	*
21	CPW 1	FIRE STOPPING PATHWAYS. DESIGNED FOR NEW OR EXISTING CABLE INSTALLATIONS UP TO 9" THICK WALLS OR FLOORS. CAN BE GANGED FOR ADDITIONAL CAPACITY. PATHWAY KITS INCLUDE PATHWAY, WALL PLATES, GASKETS, LABELS, REQUIRED SET	•
	_ 	SCREWS AND ALLEN KEY. THE TWO GANG KIT IS DESIGNED TO ALLOW TWO (2) SERIES 33 PATHWAYS TO BE INSTALLED IN A 3" X 6" OPENING. INSTALLS IN FINISHED WALLS.	
	TR HC-#	TELECOMMUNICATIONS ROOM, REFER TO PLANS FOR LOCATIONS AND LAYOUT.	•
22	<u> </u>		,

5	CSS	ACCESS CONTROL ACCESS CONTROL SECURITY SYSTEM, SYMBOL INDICATES THAT DOOR HAS SECURITY	
•	[555]	FUNCTIONALITY, REFER TO ACCESS CONTROL SYSTEM DOOR SCHEDULE FOR COMPLETE REQUIREMENTS FOR EACH DOOR. REFER TO SPECIFICATION SECTION 28 13 00 FOR COMPLETE INFORMATION.	
6	REX	REQUEST TO EXIT DEVICE, UNLOCKS OR SHUNTS DOOR AUTOMATICALLY, CONTROLLED BY ACCESS CONTROL PANEL. INFARED DETECTION COUPLED WITH DSP PREVENTS FALSE "DOOR FORCED OPEN" ALARMS. 12—28VDC, FIXED 3/4 SECOND OFF. RED/GREEN LED	SOFTWARE HOUSE T-REX OR APPROVED EQUAL
7	DC	DOOR POSITION INDICATOR SWITCH. INTEGRAL PART OF ACCESS CONTROLSYSTEM, 1/4" DIAMETER, MAGNETIC, STANDARD GAP, RECESSED IN DOOR FRAME. COORDINATE INSTALLATION WITH GENERAL CONTRACTOR AND DOOR SUPPLIER. REFER TO SPECIFICATION SECTION 28 13 11.	
8	$\Box_{s}^{w} \Box_{sk}^{w}$	CARD READER, PROVIDED AS INTEGRAL PART OF SECURITY MANAGEMENT SYSTEM, REFER TO ACCESS CONTROL SYSTEM DOOR SCHEDULE FOR COMPLETE INFORMATION, CARD READERS SHOWN ON PLANS TO IDENTIFY INTENDED MOUNTING LOCATION, REFER TO SPECIFICATION SECTION 28 13 00 FOR COMPLETE INFORMATION.	
9	□P □P	DURESS BUTTON, SPDT, 12VDC SWTCH WITH LATCHING LED LIGHT INDICATING SWTCH ACTIVATION, LED TO PROVIDE GREEN LIGHT GLOW FOR VISIBILITY OF SWTCH, SMALL FORM FACTOR WHITE ABS PLASTIC HOUSING (2"W X 3"H X 1"D) CONTAINING ELECTRONICS AND MAGNETIC CONTACT. SWTCH SHALL ALARM AT APPROXIMATELY 1" MOVEMENT OF ARM (APPROXIMATELY 20 DEGREES) FROM RESTING POSITION, SWITCH SHALL BE RESET ONLY FROM THE SECURITY MANAGEMENT WORKSTATION.	GE SECURITY 1055 SERIES OR APPROVED EQUAL
		EACH DURESS BUTTON SHALL BE WRED TO THE NEAREST ACCESS CONTROL SYSTEM CONTROLLER AS A SYSTEM INPUT. EACH DURESS SWITCH SHALL INITIATE A BREAKOUT ALARM ON THE SECURITY MANAGEMENT WORKSTATION INDICATING UNIQUE SWITCH LOCATION.	
0	⊠ ^D C	MOTION DETECTOR, CEILING MOUNTED, DUAL TECHNOLOGY MICROWAVE/PIR. FORM C, 25' RADIUS RANGE. INSTALL ACCORDING TO MANUFACTURES SPECIFICATIONS.	BOSCH DS937 OR APPROVED EQUAL
1	ADA 1	ADA DOOR SEQUENCER. SEQUENCES DOOR RELEASE BETWEEN CARD READERS AND ADA RELEASE EQUIPMENT. MICROPROCESSOR CONTROL FOR RELIABLE TIMING FUNCTIONS. PROGRAMMABLE DOOR CONTROL CONFIGURATIONS INCLUDING MAGNETIC LOCKS, ELECTRIC STRIKES AND PANIC BARS. DUAL STAGE CONTROL FOR VESTIBULE DOOR OPERATOR OUTPUTS.	*
2	SEC WS	SECURITY MANAGEMENT SYSTEM WORKSTATION, FOR USE WITH INTEGRATED SECURITY MANAGEMENT SYSTEM, REFER TO SPECIFICATION SECTION 28 13 00 FOR COMPLETE INFORMATION.	•
3	SMS	SECURITY MANAGEMENT SYSTEM SERVER, FOR USE WITH INTEGRATED SECURITY MANAGEMENT SYSTEM, REFER TO SPECIFICATION SECTION [17830][28 13 00] FOR COMPLETE INFORMATION.	
4	SMS	SECURITY MANAGEMENT SYSTEM VIDEO BADGING WORKSTATION. WORKSTATION TO INCLUDE PC FOR SECURITY MANAGEMENT SYSTEM DATABASE ACCESS, CAMERA, CARD PRINTER, AND ALL OTHER ACCESSORIES. REFER TO SPECIFICATION SECTION 28 13 00 FOR COMPLETE INFORMATION.	
5	SEC	SECURITY MANAGEMENT SYSTEM CONTROLLER. NETWORK CONNECTIVITY, MULTI-CARD READER CONTROLLER. PROVIDE WITH LOCKABLE POWER SUPPLY ENCLOSURE, BATTERIES AND ALL NECESSARY ACCESSORIES FOR A COMPLETE INSTALLATION. REFER TO SPECIFICATION SECTION 28 13 00 FOR ADDITIONAL INFORMATION. NURSE CALL DEVICES	•
7		INTERCOM CENTRAL STATION, MULTICHANNEL, MICROPROCESSOR CONTROLLED TWO—WAY VOICE COMMUNICATIONS SYSTEM. CENTRAL STATION TO INLCUDE NECESSARY VOICE CARDS, SWITCHING CARDS, CENTRAL CONTROL UNIT, POWER	
	₽	SUPPLY AND AMPLIFIERS ALL MOUNTED IN A STANDARD 19" EQUIPMENT CABINET. POWER SUPPLY AND AMPLIFIER SHALL BE SIZED TO HANDLE AN ADDITIONAL [6] INTERCOM STATIONS. THE CENTRAL CONTROL UNIT SHALL BE CAPABLE OF UP TO 64 REMOTE STATIONS. FEATURES TO INCLUDE: SIMULTANEOUS PROGRAM DISTRIBUTION TO ALL STATIONS, TIME CLOCK WITH 8 SCHEDULES ALLOWING TIME—BASED ROUTING OF STATION CALLS TO SPECIFIC RECEIVING STATIONS, ABILITY TO PLACE VOICE CALLS ON THE LOCAL 'POTS' SYSTEM WITH PRE—RECORDED MESSAGES. PROVIDE BUILT—IN DIAGNOSTICS AND MONITORING OF SYSTEM OPERATION TO INCLUDE SUPERVISION OF STATION WIRING, VOLATLE MEMORY BACKUP AND BATTERY BACKUP.	
В	© #, ©	SPEAKER, GENERAL PURPOSE, RECESS CEILING MOUNT ASSEMBLY, CONSISTING OF AN 8" LOUDSPEAKER, 90-15000Hz FREQUENCY RANGE, 12 WATTS PROGRAM RATING, 8 WATTS NORMAL WATTAGE, 8 OHMS VOICE COIL IMPEDANCE, 4.8 OUNCE MAGNET, UNIVERSAL MATCHING TRANSFORMER, 2 PRIMARY TRANSFORMER TAPS (25 VOLT AND 70 VOLT) AND THREE SECONDARY TRANSFORMER TAPS, PROVIDE A 9 13/16" ROUND SPEAKER BACKBOX WITH STRAPS AND WITH A RUST PREVENTATIVE COATING TO ACCEPT FIELD PAINTING BY OTHERS, PROVIDE A SPEAKER SUPPORT BRIDGE FOR LAY-IN CEILINGS, PROVIDE A 12 7/8" ROUND WHITE STEEL GRILLE AND	
~~ 9	NCS NCS	NURSE CALL MASTER STATION, DESK MOUNT, MICROPROCESSOR BASED WITH L.C.D. READOUT, REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.	
0	虱	MICROPROCESSOR FOR A/V. NURSE CALL DUTY VISUAL STATION, PROVIDES L.E.D. INDICTION OF PATIENT ASSIST, ROUTINE AND EMERGENCY CALLS. MOUNT AT +42" A.F.F. PROVIDE 4" SQUARE BACKBOX WITH A SINGLE GANG PLASTER TING. INSTALL A 1" CONDUIT TO ABOVE ACCESSIBLE CEILING. PROVIDE 4" SQUARE BACKBOX WITH A SINGLE GANG PLASTER RING. INSTALL A 1" CONDUIT TO ABOVE ACCESSIBLE CEILING.	
a	ENE	PATIENT ASSIST PULL CORD STATION, SINGLE GANG STATION WITH RESET BUTTON AND PULL CORD TYPE SWITCH, MOUNT AT +42" A.F.F.	
lb	®	NURSE CALL DUTY VISUAL STATION, PROVIDES L.E.D. INDICATION OF PATIENT ASSIST, ROUTINE AND EMERGENCY CALLS. PROVIDE 4" SQUARE BACKBOX WITH A SINGLE GANG PLASTER RING. INSTALL A 1" CONDUIT TO ABOVE ACCESSIBLE CEILING. CORRIDOR VISUAL STATIONS SHALL BE MOUNTED 6" ABOVE DOOR FRAME. PATIENT CALL DOME LIGHT WITH VISUAL ALARM AND AUDIBLE BUZZER. WALL MOUNT, U.L. LISTED. PROVIDE 4" SQUARE BACKBOX WITH SINGLE GANG PLASTER RING. INSTALL A 1" CONDUIT TO ABOVE ACCESSIBLE CEILING.	
2	(PS) 2	12 VOLT DC POWER SUPPLY: EIGHT 12-VOLT DC OUTPUTS, 4.0 AMPS TOTAL, EIGHT 2-PIN CAPTIVE SCREW CONNECTORS, NO PER-PORT AMPERAGE LIMITATION, PLENUM-RATED, RACK-MOUNTABLE METAL ENCLOSURE.	*
4	TVA 1	BROADBAND DISTRIBUTION AMPLIFIER, 47-750 MHZ FREQUENCY RANGE, +44 dBmV OUTPUT LEVEL, POWER DOUBLING CAPABILITY, ALUMINUM CHASSIS, STANDARD EIA/TIA 19" RACK MOUNTABLE, BUILT—IN VARIABLE GAIN AND SLOPE CONTROLS WITH 15 dB GAIN CONTROL RANGE AND 10 dB SLOPE CONTROL RANGE, INPUT AND OUTPUT TEST PORTS, PROVIDES TEMPERATURE STABILITY, LINE TRANSIENT PROTECTION, FRONT PANEL ACCESS TO ALL CONTROLS. SEE SPECIFICATIONS. REQUIRES (1) 1.75" MOUNTING SPACE.	
5	(TVT)	2-WAY DIRECTIONAL COUPLER/TAP, 5-1000 MHz FREQENCY RANGE, RF SHIELDING, DIE CAST HOUSING. ISOLATION OUTPUTS AND THRU-LINE LOSSES WILL VARY,	*
6 7	TVT 4	4-WAY DIRECTIONAL COUPLER/TAP, 5-1000 MHz FREQENCY RANGE, RF SHIELDING, DIE CAST HOUSING. ISOLATION OUTPUTS AND THRU-LINE LOSSES WILL VARY, CATV PATCH PANEL, 48 PORT PATCH PANEL. MOUNT PANEL ON WALL WITH SWING-FZ WALL MOUNT RACK (SIEMON # SBH-2) INSERT FLAT 'F' CONNECTOR	
В	1 AM	SWING-EZ WALL MOUNT RACK. (SIEMON # SBH-2) INSERT FLAT 'F' CONNECTOR MODULES INTO PATCH PANEL AND PROVIDE ICONS (SIEMON # CT-ICON-07). FILL ALL EMPTY SPACES ON PANEL WITH BLANKS (SIEMON # MX-BL-01). CATV MODULATOR.	*
	1/	AUDIO/VIDEO	
0	SCR 1	FRONT PROJECTION SCREEN, MOTORIZED ELECTRIC 16:10 FORMAT. 87"(H) X 139" (W), 9" EXTRA BLACK DROP, RECESSED INTO CEILING. HIGH POWER SCREEN SURFACE GAIN OF 1 AND VIEWING ANGLE OF 60 DEGREES. SCREEN SHALL BE SEAMLESS. REFER TO DRAWINGS FOR QUANTITIES AND LOCATION. PROVIDE WITH LOW VOLTAGE INTERFACE. REFER TO ARCHITECTURAL FOR MOUNTING DETAILS.	*
1	SCR 2	FRONT PROJECTION SCREEN, MOTORIZED ELECTRIC 16:10 FORMAT. 50"(H) X 80" (W), 9" EXTRA BLACK DROP, RECESSED INTO CEILING. SCREEN GAIN OF 1 AND VIEWING ANGLE OF 60 DEGREES. SCREEN SHALL BE SEAMLESS. REFER TO DRAWINGS FOR QUANTITIES AND LOCATION. PROVIDE WITH LOW VOLTAGE INTERFACE. REFER TO ARCHITECTURAL FOR MOUNTING DETAILS.	*
2	PRO 1	VIDEO PROJECTOR, LCD. LAMP: 3000 ANSI LUMENS, 6000 HOUR LIFE, RS-232 BI DIRECTIONAL CONTROL. VIDEO CHARACTERISTICS: 2000:1 CONTRAST RATIO, 15 TO 100 KHz H-SYNC RANGE, 50 TO 100 Hz V-SYNC RANGE, SIGNAL TYPE NTSC, 480p, 720p, 1080i, 1080p. ASPECT RATIO: 4:3, AND 16:9 SUPPORT. RESOLUTION IS XGA (1024 X 768). INPUTS: (2) HD15 WITH AUDIO, (1) HDMI, (1) 3-RCA WITH AUDIO. CEILING MOUNTED, PROVIDE WITH CEILING MOUNT, PROVIDE PITCH AND ROLL OR +/- 20 DEGREES AND 360 DEGREE YAW.	OWNER PROVIDED/ CONTRACTOR INSTALLED
3	PRO 2	VIDEO PROJECTOR, 3 LCD. LAMP: 15000 ANSI LUMENS, 2000 HOUR LAMP LIFE, FOUR 380W LAMPS. RS-232 BI DIRECTIONAL CONTROL. VIDEO CHARACTERISTICS: 3000:1 CONTRAST RATIO, 15 TO 100 KHz H-SYNC RANGE, 50 TO 100 Hz V-SYNC RANGE, SIGNAL TYPE 480i, 480p, 720p, 1080i, 1080P AND 1080psf. RESOLUTION	OWNER PROVIDED/ CONTRACTOR INSTALLED

54	/22 2	TECHNOLOGY MATERIAL LIST (CONTINUI WIDEO PROJECTOR, SINGLE CHIP DLP. LAMP: 8000 ANSI LUMENS, 2000 HOUR LIFE,	,
34	PRO 3	VIDEO PROJECTOR, SINGLE CHIP DLP. LAMP: 8000 ANSI LUMENS, 2000 HOUR LIFE, RS-232 BI DIRECTIONAL CONTROL. WIDEO CHARACTERISTICS: 7500:1 CONTRAST RATIO, 15 TO 100 KHz H-SYNC RANGE, 48 TO 100 Hz V-SYNC RANGE, SIGNAL TYPE NTSC, 480p, 720p, 1080i, 1080P AND 1035i SUPPORT. ASPECT RATIO: 5:3, 4:3, AND 16:9 SUPPORT. RESOLUTION IS XGA TO WUXGA. INPUTS: (1) DVI-D, (1) 5-BNC, (1) COMPOSITE NTSC, (1) S-VIDEO, (1) 3-RCA.	OWNER PROVIDED/ CONTRACTOR INSTALLE
55	MIX	REFER TO ARCHITECTURAL PLANS FOR MOUNTING DETAILS. REFER TO TECHNOLOGY FLOOR PLANS FOR LOCATION. DIGITAL MIXING CONSOLE. 17.2 X 5.9 X 21.3 INCH MIXING CONSOLE WITH 24—BIT/96—KHZ AUDIO INCLUDING 16 MICROPHONE/LINE INPUTS WITH A 40 INPUT 18 BUS MIX CAPACITY. EFFECTS LIBRARY INCLUDES REVERB, DELAY, CHORUS, FLANGE, CHORUS, PHASER, AUTO—PAN, TREMOLO, HQ PITCH, DUAL PITCH, ROTARY, RING MOD, MOD FILTER, DISTORTION, AMP SIMULATE, DYNA FILTER, DYNA FLANGE, DYNA PHASER, REV+CHORUS, REV+FLANGE, REV->FLANGE, REV+SYMPHONIC, REV+PAN, DELAY+ER, DELAY->ER, DELAY+REV, DIST->DELAY, MULTI FILTER, FREEZE, STEREO REVERB, AND M BAND DYNA. PROVIDE WITH RACK MOUNT KIT. PROVIDE ONE DIGITAL MY16C-II 16 CHANNEL COBRANET CARD.	*
56	FO TX	FIBER OPTIC TRANSCEIVER, MULTI-MODE FIBER OPTIC LC TO RJ45 COPPER TRANSCEIVER - FULL DUPLEX, HARDENED, TEMPERATURE RANGE - 10° TO 50° C.	
57	(CD)	COMPACT DISC PLAYER. 2U RACK MOUNTABLE COMPACT DISC PLAYER WITH INTEGRATED DOCK FOR IPOD .	*
58	LSM	LOUD SPEAKER MANGEMENT SYSTEM. COMPLETE PA 1U RACK MOUNTABLE LOUDSPEAKER MANAGEMENT SYSTEM, WITH AUTO EQ 28 BAND RTA AND AFS TO ELIMINATE FEEDBACK. STEREO FEEDBACL ELIMINATION WITH 12 FEEDBACK NOTCH FILTERS. 24—BIT ADC/24—BIT DAC WITH TWO CHANNEL XLR INPUT AND SIX CHANNEL XLR OUTPUT. PROVIDE WITH RTA REFERANCE OMNIDIRECTIONAL MICROPHONE AND 50' MICROPHONE CABLE.	*
59	RIG1	PORTABLE ROLLING RACK SYSTEM WITH 14U TOP RACK TO ACCOMMODATE DEEP MIXERS, AND 6U FRONT RACK RAILS AND 6U OF REAR RACK RAILS.	*
60	RIG2	PORTABLE ROLLING RACK SYSTEM WITH 8U VERTICAL RACK PROVIDE WITH EIGHT 3' MICROPHONE PATCH CABLES AND SIX 50' MICROPHONE CABLES.	*
61	SPK 1	SPEAKER, DUAL 15" TWO WAY POWERED SPEAKER WITH +3dB FLAT 55 TO 17.5KHZ BOOST 39 TO 19.5KHZ FREQUENCY RESPONSE, 90 BY 50 DEGREE COVERAGE PATTERN, CLASS D CROWN AMP DESIGN, AND 1500W POWER RATING. DIMENSIONS 41.47H X 46.71W X 16.27D, NET WEIGHT 60LBS. PROVIDE POLE MOUNT.	*
62	SUB	SUBWOOFER, 18" POWERED COMPACT SUBWOOFER WITH A +3dB 50 TO 100HZ FREQUENCY RESPONSE, 133dB PEAK MAXIMUM SPL OUTPUT, 120HZ CROSSOVER FREQUENY AND 600W CLASS D CROWN AMP DESIGN. DIMENSIONS 27H X 20.9w X 24.2D INCHES, NET WEIGHT 70.5LBS.	*
63	MON	SPEAKER, 12" TWO WAY POWERED MONITOR WITH +3dB 60HZ TO 17.5KHZ FREQUENCY RESPONSE, 90 X 50 DEGREE COVERAGE PATTERN, CLASS D CRWON AMP DESIGN AND 1000W POWER RATING. DIMENSIONS 23.3H X 13.9W X 13.4W, NET WEIGHT 34.5LBS.	*
64	DIB	DIRECT BOX WITH 1/4" IN AND THROUGH JACKS, INCLUDES PAD FOR HOT SIGNAL SOURCES AND GROUND LIFT SWITCH.	*
65	MKIT	MICROPHONE PACKAGE; INCLUDES 12 MIC SPACE HARD CASE, SIX MICROPHONES, SIX 20' MICROPHONE CABLES, 6 WND SCREENS, AND SIX MICROPHONE D CLIPS. TWO OF THE MICROPHONES INCLUDED ARE DYNAMIC CARDIOID INSTRUMENT MICROPHONES WITH A 40 TO 15,000HZ FREQUENCY RESPONSE, FOUR OTHERS ARE DYNAMIC CARDIOID MICROPHONES WITHA 50 TO 15,000HZ FREQUENCY RESPONSE. PROVIDE WITH SIX MICROPHONE STANDS AND MICROPHONE STAND GIG BAG.	*
66	DKIT	MICROPHONE PACKAGE FOR DRUMS, KIT INCUDES SIX MICROPHONES, THREE MICROPHONE DRUM MOIUNTS, SIX 15FT MICROPHONE CABLES, AND A MICROPHONE CARRYING CASE. THREE INCLUDED MICROPHNES ARE DYNAMIC CARDIOID SNARE/TOM MICROPHONES WITH A HZ TO ,HZ FREQUENCY RESPONSE, ONE INCLUDED MICROPHONE IS A DYNAMIC CARDIOID KICK DRUM/INSTRUMENT MICROPHONE WITH A C68HZ TO C91,HZ FREQUENCY RESPONSE, TWO INCLUDED MICROPHONE ARE CONDENSER CARDIOID INSTRUMENT MICROPHONES WITH A 40HZ TO 18000HZ FREQUENCY RESPONSE.	*
67	MD	WALL PLATE. TWO GANG DECORA STYLE UNIVERSAL TWISTED PAIR TRANSMITTER. CONNECTIVITY INCLUDES ONE (1) HD15 RGBHV WITH 3.5MM STEREO FEMALE, ONE (1) YPBPR COMPONENT VIDEO ON RCA'S, ONE (1) S-VIDEO, AND STEREO RCA'S. AUTOMATICALLY SWITCHES TO THE HIGHEST QUALITY ACTIVE VIDEO INPUT BUT PROVIDES A CONTACT CLOSURE FOR REMOTE SELECTION OF AV INPUTS. MOUNT IN TRIPLE GANG BACK BOX WITH DOUBLE GANG PLASTER RING. REFER TO 5/TN300 FOR TECHNOLOGY ROUGH—IN MOUNTING DETAIL.	*
68	VGA	WALL PLATE. TWO GANG SIX BUTTON CONTROL PLATE WITH WITH INTEGRATED VOLUME CONTROL, IR, AND UNIDIRECTIONAL RS-232 CONTROL. INCLUDES ONE (1) VOLUME KNOB, AND SIX CONFIGURABLE BUTTONS FOR CONTROL OF DISPLAY, POWER, INPUT SELECTION OR ANY OTHER IR/RS-232 COMMAND. WHERE NOTED ON FLOOR PLANS PROVIDE WITH SMB 102 TWO GANG SURFACE MOUNT BOX SUITABLE FOR EXTERNAL WALL MOUNTING AND TABLE TOP APPLICATIONS.	
69	НДМІ	WALL PLATE. SINGLE GANG DECORA STYLE WALL PLATE UNIVERSAL TWISTED PAIR TRANSMITTER. CONNECTIVITY INCLUDES ONE (1) HDMI, STEREO RCA'S, AND ONE (1) RS-232 RX/TX PASS THROUGH. MOUNT IN DOUBLE GANG BACK BOX WITH SINGLE GANG PLASTER RING. REFER TO 5/TN300 FOR TECHNOLOGY ROUGH-IN MOUNTING DETAIL.	
70	ANT 2	ASSISTED LISTENING SYSTEM IR RADIATOR/EMITTER. SINGLE CARRIER TRANSMITTING AREA OF 10,000 SQUARE FEET. THREE (3) LED INDICATORS FOR POWER, NO CARRIER PRESENT AND CARRIER PRESENT. RADIATOR/EMITTER SHALL DEACTIVATE AFTER THIRTY (30) MINUTES IF THERE IS NO AUDIO SIGNAL PRESENT FROM THE TRANSMITTER. WALL OR CEILING MOUNT.	
71	MLC	WALL PLATE. TWO GANG SIX BUTTON CONTROL PLATE WITH WITH INTEGRATED VOLUME CONTROL, IR, AND UNIDIRECTIONAL RS-232 CONTROL. INCLUDES ONE (1) VOLUME KNOB, AND SIX CONFIGURABLE BUTTONS FOR CONTROL OF DISPLAY, POWER, INPUT SELECTION OR ANY OTHER IR/RS-232 COMMAND. WHERE NOTED ON FLOOR PLANS PROVIDE WITH SMB 102 TWO GANG SURFACE MOUNT BOX SUITABLE FOR EXTERNAL WALL MOUNTING AND TABLE TOP APPLICATIONS.	
72	ХТР	XTP WALLPLATE. LONG DISTANCE, FOUR (4) INPUT XTP TRANSMITTER. TRANSMITS HDMI, DIGITIZED ANALOG VIDEO, AUDIO AND ETHERNET MAX 330 FEET OVER CAT 5 CABLE. HDMI, VGA, COMPOSITE AND COMPONENT VIDEO INPUTS. DIGITAL CONVERSION OF ANALOG VIDEO FORMATS, INPUT SENSING. MOUNT IN DEEP 3—GANG BACK BOX.	
73	SCM 810	EIGHT CHANNEL MICROPHONE MIXER. 1U AUTO-MIXING EIGHT CHANNEL MICROPHONE MIXER, WITH BALANCED INPUT CHANNELS AND ONE UNBALANCED AUX INPUT CHANNEL, SELECTABLE 48V PHANTOM POWER, DB25 CONNECTOR MICROPHONE LOGIC FOR EACH CHANNEL, AND LINK CONNECTOR ALLOWING UP TO 50 MIXERS TO LINK TOGETHER.	*
74	DSP 1	AUDIO PROCESSOR, TWO CHANNEL 24—BIT/48KHZ DIGITAL SIGNAL PROCESSOR FEATURING FEEDBACK REDUCTION, PARAMETIC AND GRAPHIC EQUALIZERS, CUT/SHELF EQUALIZERS, COMPRESSORS/LIMITERS, AUTOMATIC GAIN CONTROL, GATE/DOWNWARD EXPANSION, DUCKER, 2—WAY CROSSOVER, AND DELAY. the RPROCESSOR HAS A 20HZ TO 20KHZ FREQUENCY RESPONSE ±1dB.	*
75	w ₩	MICROPHONE WALL PLATE. SINGLE GANG WALL PLATE WITH ONE (1) BULKHEAD STYLE, THREE PIN MALE XLR. REFER TO 5/TN300 FOR TECHNOLOGY ROUGH—IN MOUNTING DETAIL.	•
76	MIC MIC TX	WRELESS MICROPHONE SYSTEM. FREQUENCY AGILE, UHF BAND BASE STATION RECEIVER (MIC/RX) WITH AUTOMATIC FREQUENCY SELECTION. INCLUDES BODY BACK TRANSMITTERS (MIC/TX) WITH LAPEL STYLE SUPERCARDIOID LAVALIER ELECTRET CONDENSER MICROPHONE AND HAND HELD MICROPHONE TRANSMITTER WITH HANDHELD MICROPHONE. PROVIDE WITH RACKMOUT KIT.	*
77	ADS 1	ANTENNA DISTRIBUTION SYSTEM. WIDEBAND UHF (470-952 MHZ) FOUR-WAY ACTIVE ANTENNA SPLITTER AND POWER DISTRIBUTION SYSTEM. DISTRIBUTES ONE PAIR OF ANTENNAS TO MULTIPLE RECEIVERS. COMPENSATES FOR INSERTION LOSS. SUPPORTS FOUR (4) WIRELESS RECEIVERS.	*
78	ANT	ANTENNA DISTRIBUTION SYSTEM. DISTRIBUTES ONE PAIR OF ANTENNAS TO MULTIPLE RECEIVERS. COMPENSATES FOR RESULTING INSERTION LOSS. SUPPORTS FOUR WIRELESS RECEIVERS. REQUIRES {ANT}.	
79	SCM 410	FOUR (4) CHANNEL AUTOMATIC MICROPHONE MIXER. FOUR (4) BALANCED MIC LEVEL INPUTS (XLR), ONE (1) BALANCED MIC/LINE LEVEL OUTPUT. AUTOMATIC GAIN ADJUSTMENT, LAST MIC LOCK ON, ADJUSTABLE EQ FOR EACH CHANNEL, 12 VDC PHANTOM POWER. REQUIRES ONE 1.75" EIA/TIA RACK SPACE.	
80	AMP 1	TWO CHANNEL AMPLIFIER, 600W PER CHANNEL INTO 80HM WITH 70/100V AUDIO DISTRIBUTION.	*
81	AMP ³ 2	COMMERCIAL POWER AMPLIFIER, 65-WATTS PER CHANNEL INTO 4 OHMS, 130-WATTS MONO-BRIDGE INTO 8 OHMS. 25V, 70V, AND 100V CAPABILITIES WITH THE USE OF AUTOFORMERS. FREQUENCY RESPONSE +0/-1dB, INPUT SENSITIVITY .775 Vrms. PEAK INDICATORS ON EACH CHANNEL, TURN-ON MUTING, PASSIVELY COOLED, FIVE YEAR WARRANTY.	*
82	AMP	COMMERCIAL POWER AMPLIFIER, 800-WATTS PER CHANNEL INTO 8 OHMS, 2800-WATTS MONO-BRIDGE INTO 8 OHMS. 10 HZ - 100 KHZ FREQUENCY RESPONSE +/-2dB, TOTAL HARMONIC DISTORTION (2 X 8 OHMS) <0.1% AT 1150W PER CHANNEL FROM 20 HZ TO 20,000 HZ. CLIP LIMITING, SIGNAL PRESENCE, TEMPERATURE LIMIT, AND ACTIVIVE INDICATORS ON EACH CHANNEL. BACK TO FRONT COOLING, RECESSED STEPPED ATTENUATORS, MODE SELECT, AND GAIN SELECT. THERMAL, DC, TURN-ON, SUBSONIC, AND INCORRECT LOAD PROTECTION. FIVE YEAR PARTS AND LABOR WARRANTY.	*
83	ADA 6	AUDIO DISTRIBUTION AMPLIFIER. ANALOG STEREO INPUT, SIX STEREO OUTPUTS. SELECTABLE 0 dB OR +6 dB GAIN. INTERNAL POWER SUPPLY.	

		ARRAY, INCLUDES EIGHT (8) X 4 INCH LOW FREQUENCY DRIVERS AND EIGHT (8) X 1 INCH HIGH FREQUENCY DRIVERS. PROVIDES A NOMINAL VERTICAL BEAM WIDTH OF 120 DEGREES HORIZONTAL COVERAGE AND A DIGITALLY VARIABLE VERTICAL COVERAGE AND A DIGITALLY VARIABLE VERTICAL COVERAGE AND A DIGITALLY VARIABLE VERTICAL COVERAGE METHADUSED OF THE PROVIDED BY THE PROVIDED	
		COVERAGE WITHAMPLIFIER OUTPUT IS 28.3V, 50W @ 160HM. INCLUDES INTEGRAL SIGNAL PROCESSING FOR BEAMWOTH CONTROL. AND AMPLIFICATION AND BUILT—IN DRIVER PROTECTION AND WALL MOUNTING HARDWARE.	
85	S	LOUDSPEAKER, 2-WAY FULLRANGE WITH 8 INCH DRIVER AND 1 INCH DOME TWEETER. INCLUDES TRANSFORMER 70V/100V WITH 7.5W 15W 30W AND 60W TAPS. NOMINAL COVERAGE ARE IS 90 DEGREES BY 90 DEGREES, WITH 175W CONTINUOUS PROGRAM POWER AND A FREQUENCY RESPONSE OF	*
86	(SA)	LOUDSPEAKER, FULL RANGE 15". SINGLE POINT SOURCE POWERDUAL TRANSDUCER. INTERNAL PASSIVE CROSSOVER OPERATING AT 1.3KHZ, SELECTION OF FULL RANGE PASSIVE OR BI-AMPED TWO-WAY POWERING. FREQUENCY RESPONSE IN FULL RANGE MODE MEASURED AT 1METER ON AXIS WITH SWEPT SINE WAVE 70HZ —	•
		25000HZ (-3dB). SENSITIVITY 99dB (ANECHOIC) 1 WATT • 1 METER. PEAK OUTPUT LEVEL 131 dB (ANECHOIC) ON AXIS AT 1 METER. TUNED VENTED ENCLOSURE. 400 WATTS CONTINUOUS POWER HANDLING AT 8 OHMS.	
87	SW	LOUDSPEAKER, WEATHERPROOF, MIL—SPEC 810E AND ATA—III COMPLIANT, TWO—WAY TYPE CONSISTING OF ONE 15" LOW FREQUENCY CONE TYPE TRANSDUCER IN A VENTED DIRECT RADIATING ENCLOSURE AND 2" COMPRESSION DRIVER. 50—20000Hz FREQUENCY RANGE, 500 WATT RATING, 8 OHMS VOICE COIL IMPEDANCE. 120" HORIZONTAL AND VERTICAL HIGH FREQUENCY DISPERSION, PASSIVE INTERNAL CROSSOVER. PROVIDE HARDWARE AND RIGGING TO PERMANENTLY FLY SPEAKER.	*
88	PS 124	POWER SUPPLY: EIGHT(8) 12VDC OUTPUTS; TOTAL OF 4.0 AMPS ACROSS ALL OUTPUTS, NO PER-PORT LIMITATION; RACK MOUNTABLE. MEETS UL2043 PLENUM RATING WITH ADAPTER KIT.	*
89	MTP HDMI	UNIVERSAL TWISTED PAR RECIEVER, ACCEPTS DIGITAL AND ANALOG VIDEO FORMATS, AUDIO, AND CONTROL SIGNALS OVER CATEGORY CABLES. OUTPUTS INCLUDE RGB ON HD15, YPBPR COMPONENT VIDEO ON THREE (3) BNC'S, S-VIDEO, COMPOSITE VIDEO BNC, HDMI, AND CAPTIVE SCREW CONNECTORS FOR BALANCED OR UNBALANCED DUAL MONO AUDIO AND RS-232. MEETS UL 2043 PLENUM RATING.	*
90	ALS TX	ASSISTED LISTENING SYSTEM IR TRANSMITTER. CAPABLE OF BROADCASTING ON FOUR (4) MONO OR STEREO CARRIERS (2.3, 2.8, 3.3, 3.8 MHZ). THE CHANNEL SELECTION SHALL BE CAPABLE OF BEING LOCKED. MULTIPLE TRANSMITTERS SHALL BE CAPABLE OF BEING DAISY—CHAINED TOGETHER TO TRANSMIT UP TO FOUR (4) CHANNELS SIMULTANEOUSLY. THE TRANSMITTER SHALL HAVE A TIMER THAT SHUTS OFF THE CARRIERS AFTER 30 MINUTES WHEN NO AUDIO IS PRESENT AT THE TRANSMITTER. SIGNAL TO NOISE RATIO OF 60db, FREQUENCY RESPONSE OF 63 HZ—15 KHZ. TWO (2) MIXING AUDIO INPUTS, ONE (1) BALANCED XLR/PHONE INPUT AND ONE (1) UNBALANCED RCA INPUT. CONTROLS FOR INPUT LEVEL, TRANSMIT LEVEL, CONTOUR LEVEL AND STEREO ON/OFF. AUDIO PROCESSOR CAPABLE OF AUTOMATIC GAIN CONTROL AND LIMITING. POWER FOR TWO (2) RADIATORS OVER	*
91	ALS RX	ASSISTED LISTENING SYSTEM IR RECEIVER. STETHOSCOPE IR RECEIVER CAPABLE OF RECEIVING ON FOUR (4) CARRIERS (2.3, 2.8, 3.3, 3.8 MHZ) AND THE CHANNEL SHALL BE DISPLAYED ON ONE (1) OF FOUR (4) FRONT PANEL LEDS. THE RECEIVER SHALL BE CAPABLE OF BEING LOCKED ON A CHANNEL. THE RECEIVER SHALL BE CAPABLE OF RECEIVING A STEREO SIGNAL ON EACH OF THE FOUR CARRIERS. SIGNAL TO NOISE RATIO OF 60db, BUILT IN SQUELCH, FREQUENCY RESPONSE OF 63 HZ TO 15 KHZ, AND SHALL OPERATE FOR THIRTY (30) HOURS WITH TWO (2) AAA NIMH RECHARGABLE BATTERIES.	*
92	ADA 4D	AUDIO DISTRIBUTION AMPLIFIER, FOUR (4) STEREO OUTPUTS, INPUT AND OUTPUT LEVEL TRIMMERS, VU METER ON EACH INPUT. 10 Hz TO 35 kHz FREQUENCY RESPONSE (+/- 0.01 dB). PROVIDE WITH GROUND REFERENCED 24VDC POWER SUPPLY.	*
93	HDMR	HDMI RECEIVER WALL PLATE. SINGLE GANG DECORA STYLE WALLPLATE. UNIVERSAL TWISTED PAIR RECEIVER. CONNECTIVITY INCLUDES ONE (1) HDMI, STEREO RCA'S, AND ONE (1) RS-232 RX/TX PASS THROUGH.	*
94	TPL	7" WALL MOUNT TOUCH PANEL. TEN BACKLIT BUTTONS FOR EXPANDED CONTROL, FULL MOTION VIDEO, ETHERNET CONTROL.	*
95	TPL 2	7" TABLETOP TOUCH PANEL. TEN BACKLIT BUTTONS FOR EXPANDED CONTROL, FULL MOTION VIDEO, ETHERNET CONTROL.	•
96	DVD 1	UNIVERSAL BLU-RAY/DVD/CD PLAYER. PLAYBACK SUPPORT OF BD-VIDEO, BD-R, BD-RE, DVD-VIDEO, DVD-AUDIO, DVD+R, DVD+RW, DVD-R, DVD-RW, SUPER AUDIO CD, AUDIO CD, CD-R, CD-RW. HDMI, COMPONENT, AND COMPOSITE VIDEO OUTPUTS. COAXIAL DIGITAL (RCA), STEREO ANALOG (RCA), 7.1 ANALOG SURROUND (RCA) AUDIO OUTPUTS. REQUIRES TWO (2) 1.75" EIA/TIA RACK SPACES.	•
97	MPA VC	AMPLIFIER VOLUME CONTROL. RS232 TO VOLTAGE OR 10k-OHM FOR CONTROL AMPLIFIER VOLUME AND MUTE. CONTRACTOR SHALL MOUNT IN PROJECTOR MOUNT KIT (PMK/350).	*
98	PMK 350	PROJECTOR MOUNTING KIT. CEILING MOUNT ENCLOSURE, CONCEALS SMALL EQUIPMENT ABOVE DISPLAY, POLE MOUNT. 2"H X 13.6"W X 11.4"D.	*
99	(IPCP) 305	AV SYSTEM CONTROL PROCESSOR. SIX RS-232 COMMUNICATION PORTS, TWO (2) RS-232/RS-422/RS-485 COMMUNICATION PORTS. EIGHT (8) IR/SERIAL PORTS, EIGHT (8) RELAYS. INTERNAL POWER SUPPLY.	•
100	MTP 15	MTP CONTROLLER	*
101	CTS 1	CAMERA TRACKING SYSTEM. HD PTZ CAMERA, SIMULTANEOUS YPEP AND HDMI VIDEO OUTPUTS, 720p, 1080i AND 1080p OUTPUT RESOLUTIONS. HIGH TORQUE MICRO STEPPER MOTORS, PRESET CAMERA POSITIONS, RS-232 CONTROL, 11 ELEMENT GLASS LENS, 1/3" CMOS IMAGE SENSOR, 3.27M PIXELS, MINIMUM ILLUMINATION 1.6 LUX. PAN RANGE: +170 TO -170 DEGREES, TILT RANGE: +90 TO -30 DEGREES, 20X OPTICAL ZOOM LENS. IR LANYARD, BELTPACK, HD PTZ CAMERA WITH IR FILTERS, DUAL WALL MOUNT PRACKET AND HARDWARE HDM! INTERFACE ALLTO TRACK DOD CONTROL ADAPTERS	*
102	XTP	BRACKET AND HARDWARE, HDMI INTERFACE, AUTO TRACK POD, CONTROL ADAPTERS AND POWER SUPPLY. 16X16 DIGITAL MATRIX SWITCHER. EIGHT (8) SLOT FRAME, ETHERNET CONTROL PORT, RS-232 CONTROL PORT, FRONT PANEL CONTROLS. REQUIRES FIVE (5) 1.75"	*
107	16	EIA/TIA RACK SPACES. PROVIDE WITH REDUNDANT POWER SUPPLIES. PROVIDE WITH INPUT AND OUTPUT CARDS AS SPECIFIED. REFER TO TN402 CONFERENCE ROOM PRESENTATION SYSTEM RISER DIAGRAM. TABLE TOP VIDEO CONFERENCE MICROPHONE. PRESSURE ZONE, ELECTRET	
103	MIC	CONDENSER. FREQUENCY RESPONSE FROM 80 HZ — 20 KHZ, SENSITIVITY OF —43dBV/Pa, 150 dB SPL WITH LESS THAN 3% TOTAL HARMONIC DISTORTION. CEILING MOUNT VIDEO CONFERENCE MICROPHONE. PRESSURE ZONE, ELECTRET	*
iU#	MIC	CONDENSER. FREQUENCY RESPONSE FROM 80 HZ - 20 KHZ, SENSITIVITY OF -43dBV/Pa, 150 dB SPL WITH LESS THAN 3% TOTAL HARMONIC DISTORTION.	
105	ST DA3	LINE LEVEL AUDIO DISTRIBUTION AMPLIFIER. ONE (1) INPUT, THREE (3) OUTPUT. BALANCED OR UNBALANCED INPUT AND OUTPUTS. ADJUSTABLE GAIN +/- 17dB. PROVIDE WITH (PS/24AS).	•
106	ST MX2	TWO CHANNEL MIC MIXER. LINE OR MIC LEVEL INPUTS. BALANCED OR UNBALANCED INPUTS AND OUTPUTS. 25HZ TO 50 kHZ (+/- 1dB) FREQUENCY RESPONSE05% TOTAL HARMONIC DISTORTION. PROVIDE WITH (PS/24AS).	•
107	PS 24AS	DC SWITCHING POWER SUPPLY, 24VDC, 500mA.	*
108	AUD	AUDIO SERVER.	*
109	MPS 409	MULTI-FORMAT SWITCHER, THREE (3) HDMI, TWO (2) DVI, TWO (2) VGA/HDTV COMPONENT VIDEO, TWO (2) COMPOSITE VIDEO, AND 9x1 STEREO ANALOG AUDIO. HDMI OUTPUT. EDID AND HDCP COMPLIANT.	*
110	GENERAL NOTE	VA HAS RATED PA SYSTEMS AS PUBLIC SAFETY AND LIFE SAFETY IF CARRYING CODE BLUE SIGNALS AND SHALL BE PROTECTED IN CONDUIT AND/OR TELECOMMUNICATIONS RATED PARTITIONED CABLE TRAYS (ALSO WIRE BASKETS) AND CONDUIT FROM CABLE TRAY TO LOCAL BACK BOX. FLEX CONDUIT MAY BE USED IF THE BACK BOX IS WITHIN THREE (3) FEET OF THE CABLE TRAY. PROVIDE CEILING SPEAKER SAFETY WIRES OR FLEX CONDUIT BETWEEN THE BACK BOX AND THE SPEAKER CEILING HOUSING TO SAFETY THIS REQUIREMENT.	*

TECHNOLOGY MATERIAL LIST (CONTINUED)

*** REFER TO TN500 FOR MATERIAL LIST CONTINUATION. ***

Location

29 OCTOBER 2012

FULLY SPRINKLERED

			CONSULTANTS
			STRUCTURAL ENGINEER: KPFF CONSULTING ENGINEERS
			1630 DES PERES ROAD, SUITE 100 ST. LOUIS, MO 63131 PHONE: (314) 835-0524
			MECHANICAL/ELECTRICAL/PLUMBING:
			KJWW ENGINEERING CONSULTANTS #15 SUNNEN DRIVE, SUITE 104
1	Feb 01, 2016	Amendment 3	ST. LOUIS, MO 63143

PHONE: (314) 645-1132

one eighth inch = one foot

0 4 8 16

No. Date

VA FORM 08-6231

Revisions

CODE CONSULTANT/FIRE PROTECTION: CODE CONSULTANTS, INC. 2043 WOODLAND PARKWAY, SUITE 300 ST. LOUIS, MO 63146-4235 PHONE: (314) 991-2633 CIVIL ENGINEER: STOCK & ASSOCIATES CONSULTING ENGINEERS, INC.

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ARCHITECT/ENGINEERS: CHRISTNER ARCHITECTS | DESIGNERS | PLANNERS | LANDSCAPE ARCHITECTS | RELATING TO OR INTENDED TO BE

TECHNOLOGY MATERIALS LIST THE SEAL (S) AND SIGNATURE(S)
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Approved: Project Director

Project Title REHAB BUILDING JEFFERSON BARRACKS DIVISION

Checked

JEFCAR

Drawn

KEIEVE

Project Number 657-313E **Building Number** Drawing Number

TN600

Dwg. 149 of 164

Office of Construction and Facilities Management

Department of Veterans Affairs