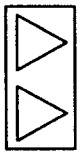
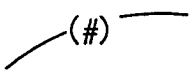
AUDIO SYMBOL LEGEND

SYMBOL	DESCRIPTION
AM	AUTOMATIC MIXER
TSI	TELEPHONE SYSTEM INTERFACE
K#	RELAY
HPA	HEADPHONE AMPLIFIER
	POWER AMPLIFIER, 70 V, DUAL CHANNEL
MOD	MODULATOR
EP	EMITTER PANEL
	SPEAKER ASSEMBLY: SPEAKER SPEAKER ENCLOSURE TRANSFORMER GRILLE
V	VOLUME CONTROL
CP#	CONNECTION PANEL
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSER
EC	EQUIPMENT CABINET, SIESMIC RATED
PR	POWER RELAY
PS	POWER SUPPLY
	CABLE, NUMBER INSIDE PARENTHESIS IDENTIFIES QUANTITY IF MORE THAN ONE

PROJECT: -JUDGE GREGG-
GRAND RAPIDS
U.S. BANKRUPTCY COURT FOR THE
WESTERN DISTRICT OF MICHIGAN

SHEET TITLE:
AUDIO SYMBOL LEGEND

SCALE:
NTS

SHEET NO.
A/V
001

VIDEO SYMBOL LEGEND

SYMBOL	DESCRIPTION
RS	RGBHV SWITCHER
RSA	RGBHV SWITCHER W/STEREO AUDIO
SCL	SWITCHER/SCALER
RDA	RGBHV DISTRIBUTION AMPLIFIER
ANN	ANNOTATION SYSTEM
SC	SCAN CONVERTER – DUAL OUTPUT
PTR	PRINTER, VIDEO
M15	MONITOR, 15"
TP	TOUCH PANEL
CS	CONTROL SYSTEM
CODEC	VIDEO CONFERENCE CODEC
	CAMERA
VS	VIDEO SWITCH

PROJECT: –JUDGE GREGG–
GRAND RAPIDS
U.S. BANKRUPTCY COURT FOR THE
WESTERN DISTRICT OF MICHIGAN

SHEET TITLE:
VIDEO SYMBOL LEGEND

SCALE:
NTS

SHEET NO.
A/V
002

GENERAL PROJECT NOTES

1. INSTALL ALL ELECTRONIC SYSTEMS EQUIPMENT IN COMPLIANCE WITH THE MANUFACTURERS WRITTEN INSTRUCTIONS, SEISMIC CODES, AND INDUSTRY WIDE ACCEPTED PRACTICES. SUPPORT EQUIPMENT WEIGHT FROM BUILDING STRUCTURE. DURING THE SUBMITTAL PROCESS, PROVIDE SHOP DRAWINGS WHICH DETAIL PROPOSED MOUNTING AND FASTENERS FOR ALL SUCH EQUIPMENT.

2. PROVIDE MANUFACTURER RECOMMENDED POWER SUPPLIES AND/OR TRANSFORMERS FOR ALL SPECIFIED EQUIPMENT.

3. PROVIDE ALL NECESSARY CABLE AND CONNECTORS TO COMPLETE MANUFACTURER RECOMMENDED CABLE TO EQUIPMENT TERMINATION TO FORM A COMPLETE AND FULLY FUNCTIONAL SYSTEM AS SHOWN. SELECT CONNECTORS WHICH PASS FULL BANDWIDTH CAPABILITY OF SPECIFIED CABLE.

4. PROVIDE PATCH CABLES TO FULLY INTERCONNECT ALL INTENDED EQUIPMENT WITH THE SPECIFIED CONNECTION PANELS, SYSTEM INTERFACES, AND MISCELLANEOUS EQUIPMENT. LABEL ALL PATCH CABLES FOR IDENTIFICATION OF SPECIFIC USE.

5. PROVIDE MANUFACTURER RECOMMENDED, AND INDUSTRY STANDARD, SIGNAL LEVELS THROUGHOUT ENTIRE SYSTEM. PROVIDE ALL REQUIRED DISTRIBUTION AND PROCESSING EQUIPMENT, INCLUDING BUT NOT LIMITED TO SIGNAL DISTRIBUTION AMPLIFIERS, WHETHER SHOWN IN THE SINGLE LINE DIAGRAM OR NOT.

6. PROVIDE RACK MOUNT KITS FOR ALL RACK MOUNTED EQUIPMENT. WHERE MANUFACTURERS DO NOT PROVIDE RACK MOUNT KITS, PROVIDE CUSTOM RACK MOUNT KITS.

7. FILL ALL UNUSED RACK SPACE WITH BLANK/VENT PANELS.

8. PROVIDE UNSWITCHED POWER TO THE CONTROL SYSTEM CARD FRAME. PROVIDE SWITCHED POWER VIA THE SPECIFIED POWER RELAY TO ALL REMAINING VIDEO/CONTROL EQUIPMENT.

9. INSTALL THE SPECIFIED DOCUMENT CAMERA, COMPUTER INTERFACE, TOUCH PANEL, AND MONITOR IN THE GOVERNMENT FURNISHED LECTERN AND/OR A/V CART.

PROJECT: -JUDGE GREGG- GRAND RAPIDS U.S. BANKRUPTCY COURT FOR THE WESTERN DISTRICT OF MICHIGAN	SHEET TITLE: GENERAL PROJECT NOTES	SHEET NO. A/V 003
	SCALE: NTS	

CABLE TYPES AND CONNECTION PLATE (CP) REQUIREMENTS

TYPE	FUNCTION	DESCRIPTION
M	MICROPHONE LEVEL	WEST PENN 25291B–22 GAUGE, 1 PAIR, SHIELDED
L	LINE LEVEL	WEST PENN 25291B–22 GAUGE, 1 PAIR, SHIELDED
V	VIDEO (COMPOSITE)	WEST PENN 25814–16, RG–59 VIDEO GRADE COAX
S	SPEAKER LEVEL	WEST PENN 25225B–16 GAUGE, 1 PAIR UNSHIELDED
X	EMITTER PANEL (RF)	WEST PENN 25812–RG 58, 50 OHM COAX.
SV	S–VIDEO	EXTRON 22–123–XX, 2 CONDUCTOR COAXIAL CABLE
C	CONTROL CABLE	WEST PENN D252402–24 GAUGE, 2 PAIR SHIELDED
RGB	RGBHV VIDEO	EXTRON 22–020–XX, 5 MINI COAXIAL CABLE, HIGH RESOLUTION

CP3A
- 3– M CABLES
- 2– RGB CABLES
- 5– L CABLES (DEFENSE TABLE ONLY)

CP4
- 2– M CABLES
- 2– C CABLES

CP4A
- 1– RGB CABLE
- 1– M CABLE
- 1– L CABLE

CP6
- 3– M CABLES
- 6– L CABLES

CP7
- 1– RGB CABLE
- 1– M CABLE
- 5– L CABLES
- 4– C CABLES

CP8
- 1– RGB CABLE

CP9
- 1– M CABLE
- 2– C CABLES

CP9A
- 3– RGB CABLES
- 1– M CABLE
- 1– SV CABLE
- 2– L CABLES
- 4– C CABLES
- 1– V CABLE

CP10
- 1– V CABLE

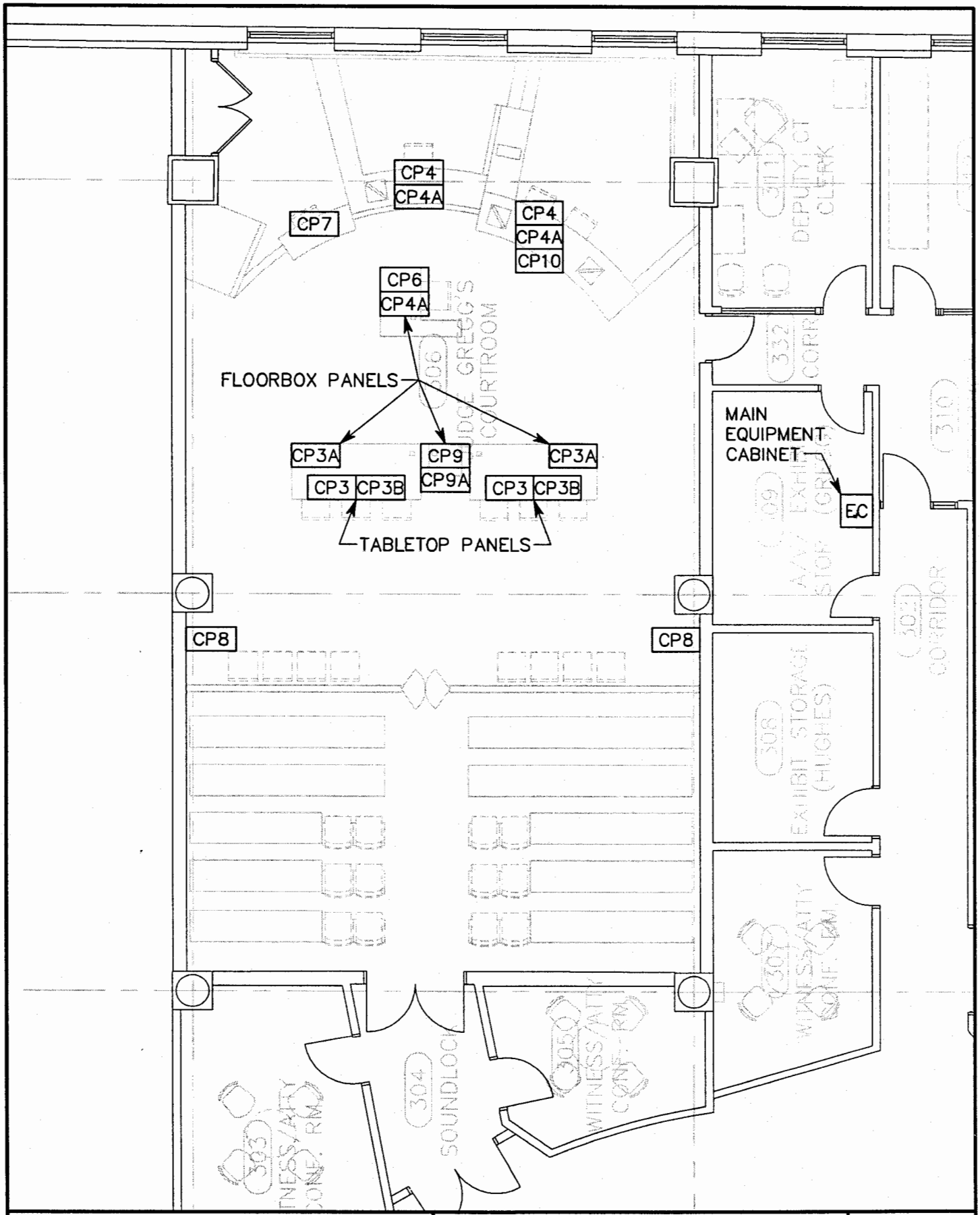
CP11
- 1– V CABLE

PROJECT: –JUDGE GREGG–
GRAND RAPIDS
U.S. BANKRUPTCY COURT FOR THE WESTERN DISTRICT OF MICHIGAN

SHEET TITLE: CABLE LEGEND

SCALE: NTS

SHEET NO. A/V 004



PROJECT: -JUDGE GREGG-

GRAND RAPIDS

U.S. BANKRUPTCY COURT FOR THE WESTERN DISTRICT OF MICHIGAN

SHEET TITLE: COURTROOM FLOOR PLAN

SCALE: 1/8"=1'-0"

SHEET NO. A/V 101

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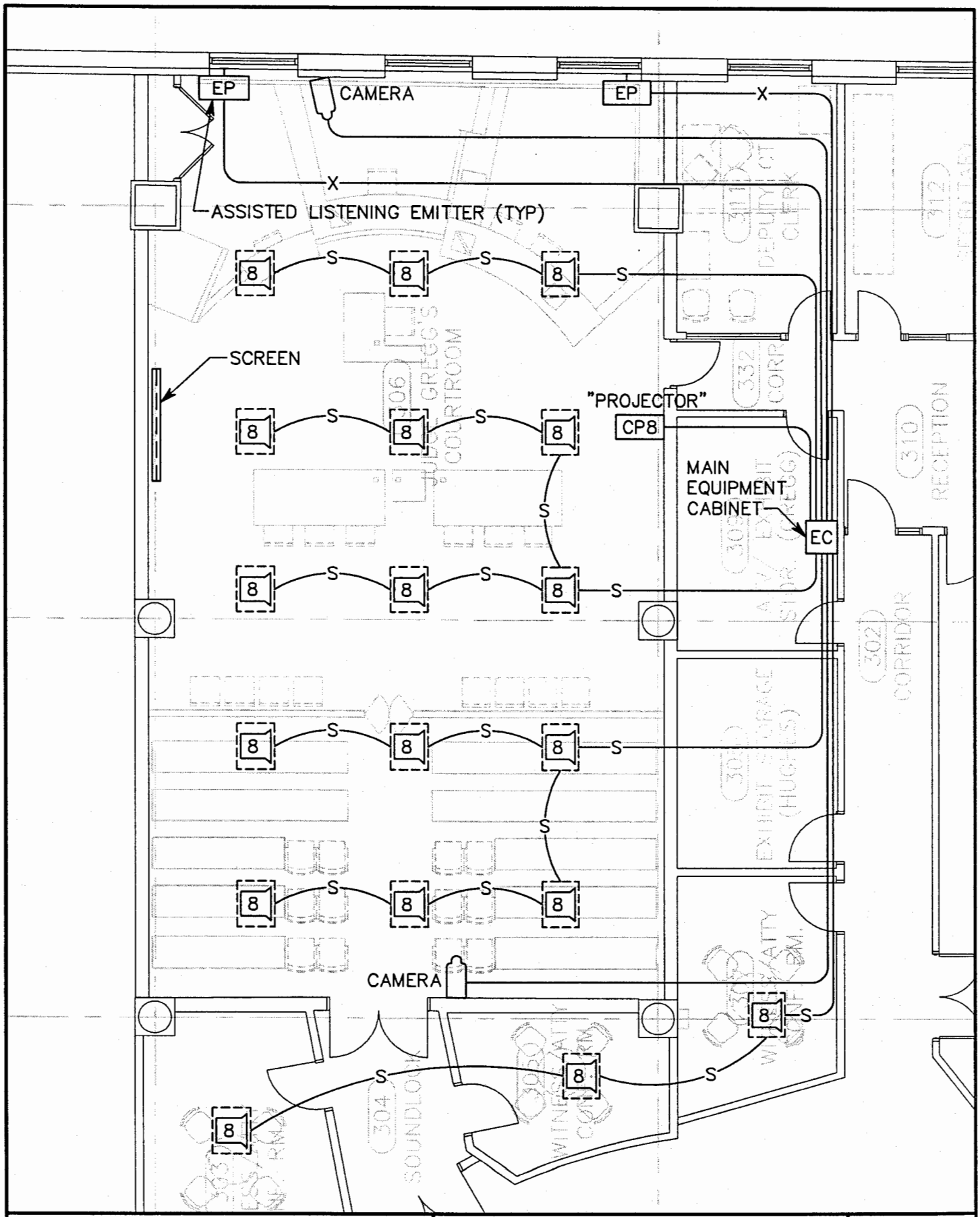


PROJECT: -JUDGE GREGG-

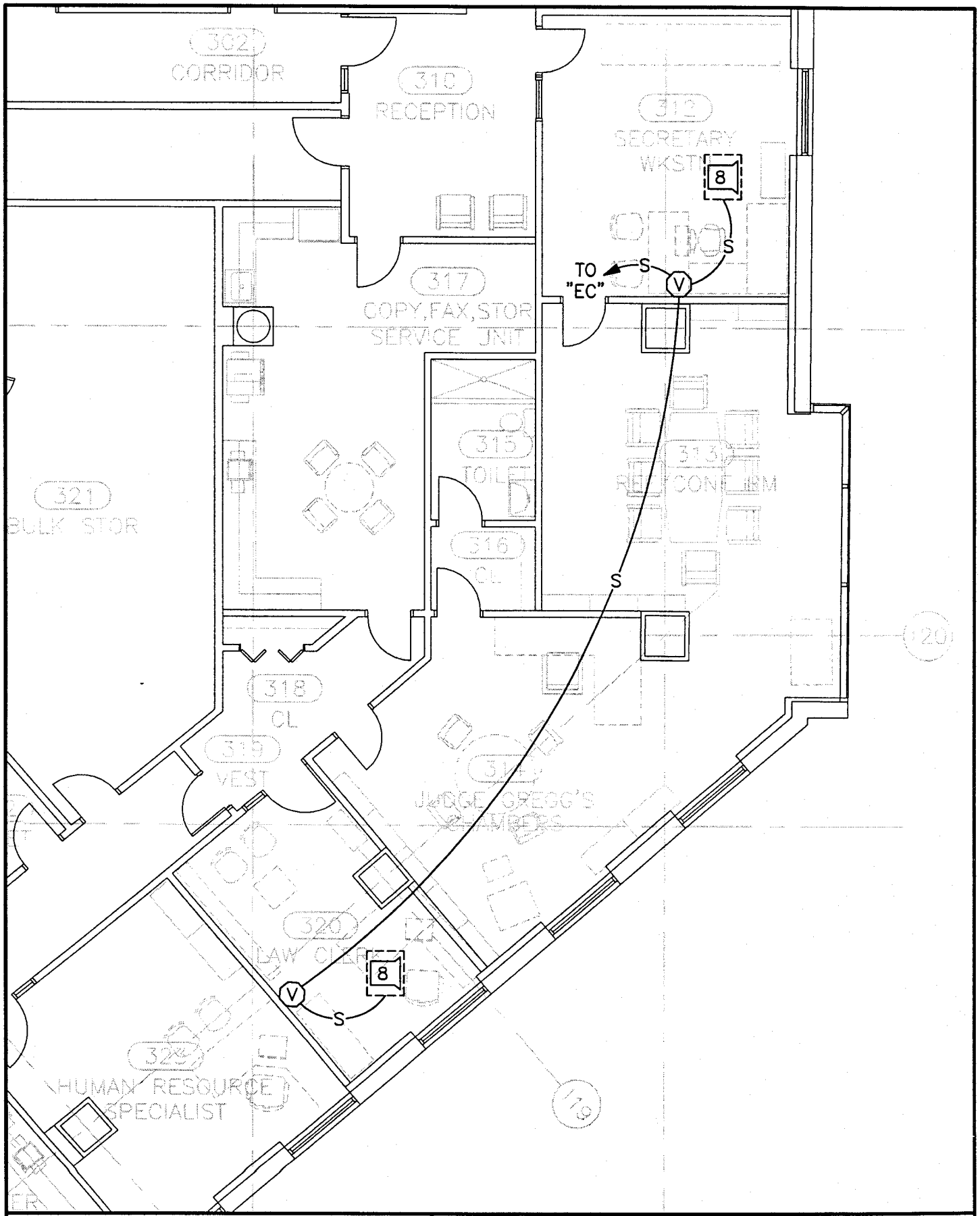
GRAND RAPIDS

U.S. BANKRUPTCY COURT FOR THE WESTERN DISTRICT OF MICHIGAN

SHEET TITLE: COURTROOM CEILING PLAN

SCALE: 1/8"=1'-0"

SHEET NO. A/V 102



PROJECT: -JUDGE GREGG-

GRAND RAPIDS

U.S. BANKRUPTCY COURT FOR THE
WESTERN DISTRICT OF MICHIGAN

SHEET TITLE:
CHAMBERS LAYOUT PLAN

SCALE:
1/8"=1'-0"

SHEET NO.
A/V
103

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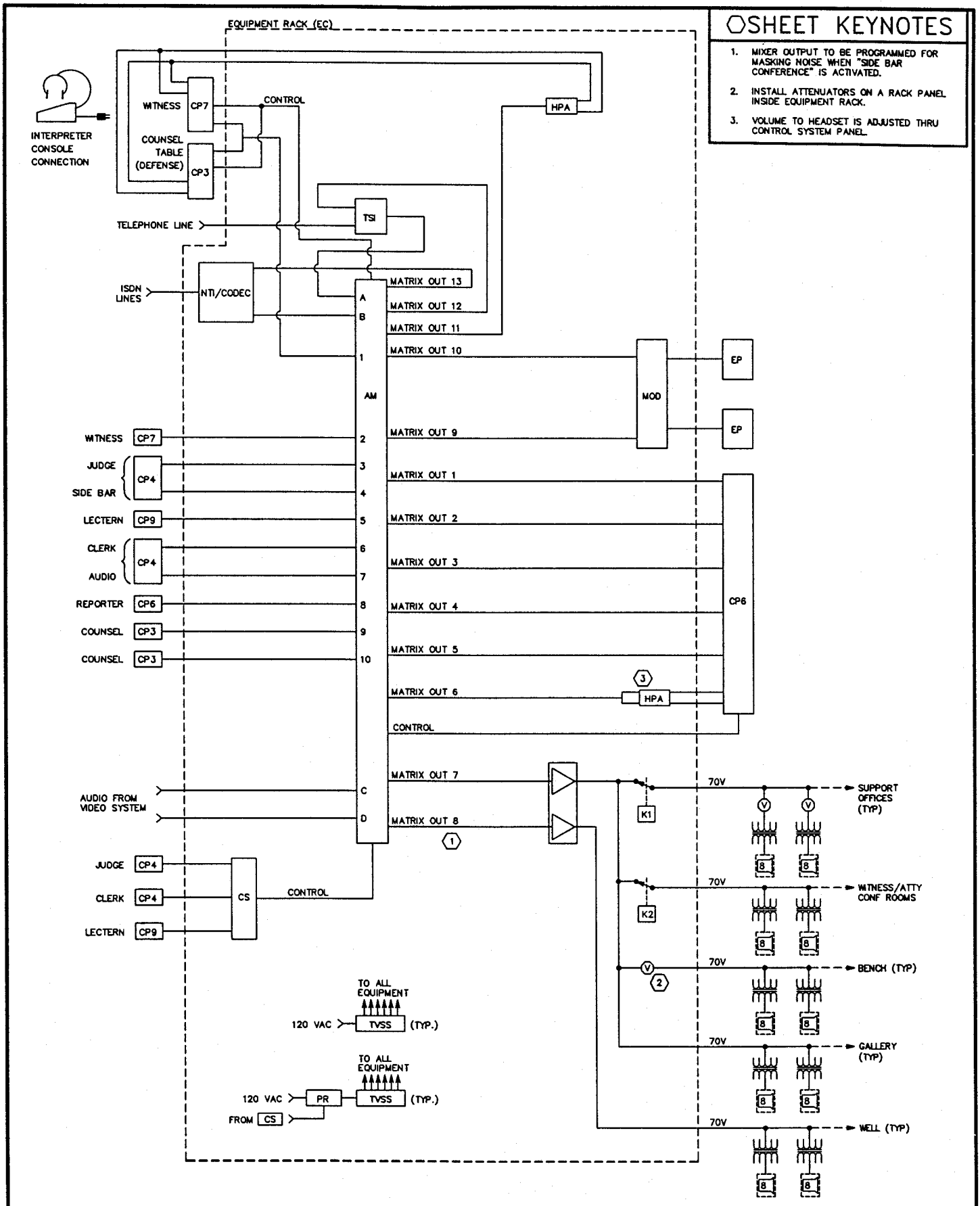


SHEET KEYNOTES

1. MIXER OUTPUT TO BE PROGRAMMED FOR MASKING NOISE WHEN "SIDE BAR CONFERENCE" IS ACTIVATED.
2. INSTALL ATTENUATORS ON A RACK PANEL INSIDE EQUIPMENT RACK.
3. VOLUME TO HEADSET IS ADJUSTED THRU CONTROL SYSTEM PANEL.

PROJECT: -JUDGE GREGG-

GRAND RAPIDS

U.S. BANKRUPTCY COURT FOR THE WESTERN DISTRICT OF MICHIGAN

SHEET TITLE: AUDIO SYSTEM SINGLE LINE DIAGRAM

SCALE: NTS

SHEET NO. A/V 601

	INPUT ID	MATRIX OUT 1	MATRIX OUT 2	MATRIX OUT 3	MATRIX OUT 4	MATRIX OUT 5	MATRIX OUT 6	MATRIX OUT 7	MATRIX OUT 8	MATRIX OUT 9	MATRIX OUT 10	MATRIX OUT 11	MATRIX OUT 12,13
ATTORNEY DEFENSE	9		X			X	X	X	X	X	X	X	X
ATTORNEY PLAINTIFF	10			X		X	X	X	X	X	X	X	X
LECTERN	5				X	X	X	X	X	X	X	X	X
JUDGE	3	X				X	X	X	X	X	X	X	X
WITNESS	2	X				X	X	X	X	X	X	X	X
CLERK (MIC)	6	X				X	X	X	X	X	X	X	X
CLERK (AUDIO)	7		X			X	X	X	X	X	X	X	X
INTERPRETER	1				X	X	X	X	X	X	X	X	X
REPORTER	8	X				X	X	X	X	X	X	X	X
TELEPHONE	A		X			X	X	X	X	X	X		
SIDE BAR CONFERENCE	4	X				X	X						
* NOISE GENERATOR									X *				
VIDEO SYSTEM AUDIO IN	C,D				X	X	X	X	X	X	X	X	X
VIDEO CONF. CODEC	B		X			X	X	X	X	X	X	X	

NOTE:
VERIFY FINAL MATRIX MIX DOWN FOR RECORD OUTPUTS WITH THE GOVERNMENT PRIOR TO PROGRAMMING.

* WHEN A "SIDE BAR" CONFERENCE COMMAND IS ISSUED. ROUTE THE AUTOMATIC MIXERS NOISE GENERATOR ONLY TO THE INDICATED MATRIX OUTPUT, AND THE SIDE BAR MICROPHONE INPUT TO THE INDICATED MATRIX OUTPUTS. RESTORE THE ORIGINAL ROUTING COMMANDS WHEN "SIDE BAR" CONFERENCE COMMAND IS TERMINATED.

PROJECT: -JUDGE GREGG-
GRAND RAPIDS
U.S. BANKRUPTCY COURT FOR THE WESTERN DISTRICT OF MICHIGAN

SHEET TITLE: AUTOMATIC MATRIX MIXER ROUTING SCHEDULE

SCALE: NTS

SHEET NO. A/V 602

COST SCHEDULE / GOVT ESTIMATE - AUDIO SYSTEM - BANKRUPTCY COURT
GRAND RAPIDS - THREE COURTROOMS - FEBRUARY 2005

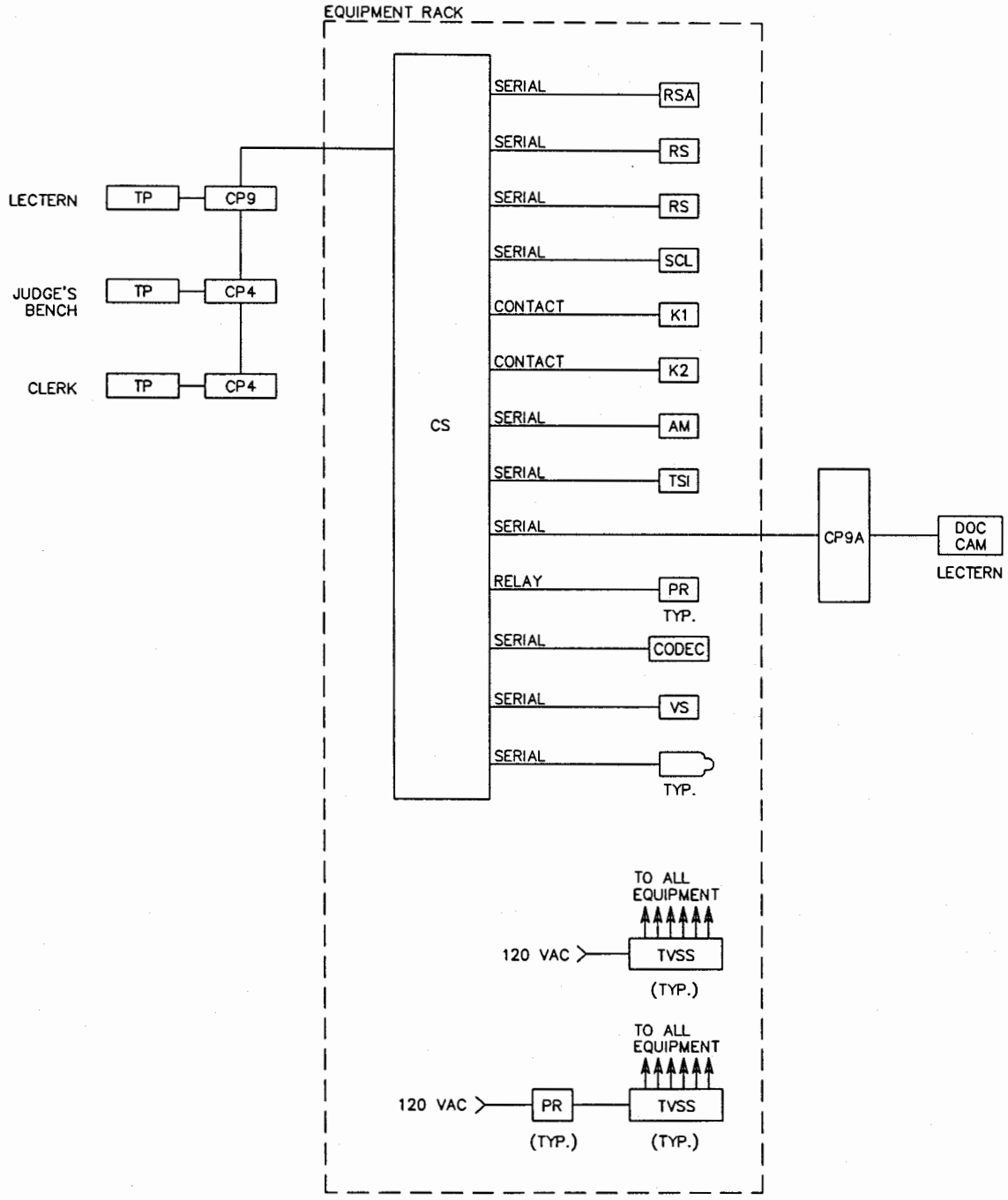
AUDIO

CLIN	KEY	ITEM	MAKE	MODEL	QTY	UNIT PRICE	TOTAL PRICE
1001		Microphone, w/ gooseneck (portable)	SHURE	MX418D/S w/cord	15	$240.00	$3,600.00
1002		Microphone, w/ gooseneck (fixed/shock)	SHURE	MX418C5 w/cord	3	$240.00	$720.00
1003		Microphone, Boundary	SHURE	MX392/C w/cord	3	$200.00	$600.00
1004		Microphone Cord	Pro Co	C-CM series	3	$35.00	$105.00
1005		Multi-input Adaptor	Emtech	EJ-8	3	$165.00	$495.00
1006		Boom Headset (Interpreter)	Sennheiser	HMD 25	3	$350.00	$1,050.00
1007		Headphones (Reporter)	Sennheiser	HD-25 SP	3	$90.00	$270.00
1008	HPA	Headphone Amplifier	Radio Design	ST-SH2	6	$105.00	$630.00
1009	AM	Mixer, Automatic	Polycom	EF2280	6	$3,570.00	$21,420.00
1010	PA	Power Amplifier	QSC	ISA-300T	3	$630.00	$1,890.00
1011		Speaker, w/transformer & Grille	Soundolier	C803A-T87/T720-8A	57	$72.00	$4,104.00
1012	V	Volume Control	Soundolier	AT Series	15	$20.00	$300.00
1013	TSI	Telephone System Interface	Polycom	EF2201	3	$765.00	$2,295.00
1014	MOD EP	Listening/Translation System	Sennheiser	Provide one modulator with two emitter panels. (2)SZI1015T/NT,(1)SI1015/NT (Powered thru coax)	3	$2,600.00	$7,800.00
1015		Listening/Translation Receivers	Sennheiser	Provide 3 each HDI 302 units with charger for each room.	9	$225.00	$2,025.00
1016	VCA	Voltage Controlled Amplifier	Radio Design	ST-VCA2	3	$150.00	$450.00
1017	PAD	Line to MIC Attenuator	Radio Design	STP-1	15	$60.00	$900.00
1018		Bridging Isolation Transformers	Shure	A 15BT	15	$65.00	$975.00
1019		Control Panel, Interpreter	Custom		3	$360.00	$1,080.00
1020	TP	Touch Panel, Color (Black)	AMX	AXT-CV10	6	$3,850.00	$23,100.00
1021	TP	Touch Panel, Color (Black)	AMX	AXT-CV6	3	$2,400.00	$7,200.00
1022	CS	Main Control System	AMX	Acent3 Pro	3	$1,350.00	$4,050.00
1023		Control card	AMX	AXC	12	$385.00	$4,620.00
1024		Power Relay	AMX	PC1/PC2	9	$540.00	$4,860.00
1025		Programming (Lot)	AMX	See Specs	3	$0.00	$0.00
1026	TVSS	Transient Voltage Surge Supp.	TrippLite	IBAR 12 Ultra	6	$100.00	$600.00
1027	CP#	Connection Panel	Custom		42	$150.00	$6,300.00
1028		Equipment Rack	Middle Atlantic	WRK 44SA-32 with CBS-WRK-32 caster option. Provide with power strip,vent and blank panels,shelving, and	3	$1,200.00	$3,600.00
1029		Total Misc.			3	$500.00	$1,500.00
1030		Cable, Connectors (Lot)	West Penn, Belden	Plenum audio cable WP 25291, Speaker cable WP 25225B, Control cable Belden 1585A	3	$850.00	$2,550.00
SUB TOTAL							$109,089.00
3001		TOTAL LABOR					$34,500.00
4001		TRAVEL					$17,400.00
ROOM TOTAL							$160,989.00

COST SCHEDULE / GOVT ESTIMATE - VIDEO/CONTROL SYSTEM - BANKRUPTCY COURT GRAND RAPIDS - THREE COURTROOMS - FEBRUARY 2005

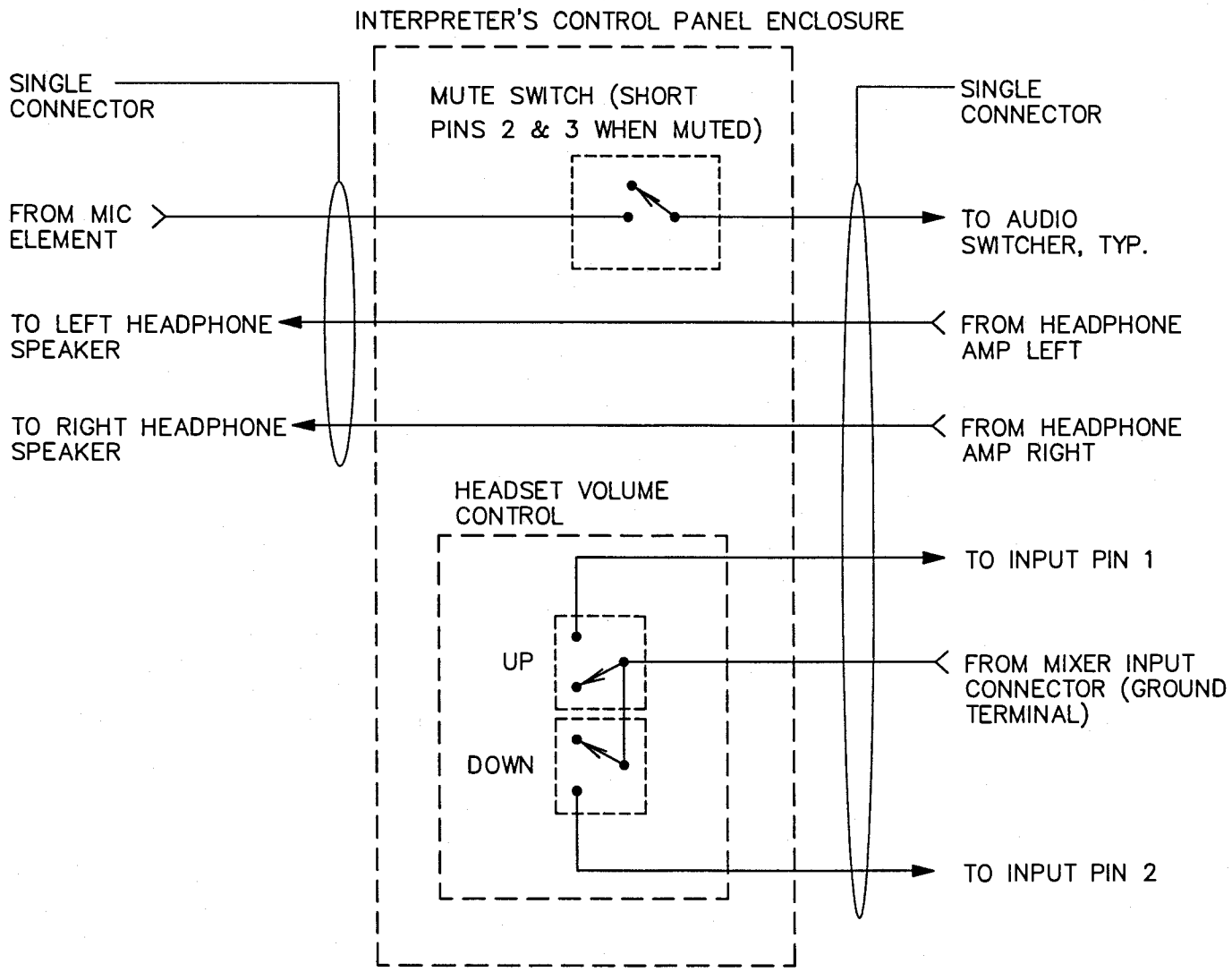
VIDEO

CLIN	KEY	ITEM	MAKE	MODEL	QTY	UNIT PRICE	TOTAL PRICE
1040	SCL	Switcher/Scaler	Extron	DVS 406	3	$2,425.00	$7,275.00
1041	RSA	RGBHV Switcher w/audio	Extron	System 10	3	$2,500.00	$7,500.00
1042	RS	RGBHV Switcher	Extron	SW2 VGArs	6	$345.00	$2,070.00
1043	RDA	RGBHV Distribution Amplifier	Extron	P/2 DA2xi	3	$175.00	$525.00
1044	RDA	RGBHV Distribution Amplifier	Extron	P/2 DA4 PLUS	6	$380.00	$2,280.00
1045	RDA	RGBHV Distribution Amplifier	Extron	P/2 DA6 PLUS	3	$450.00	$1,350.00
1046	SC	Scan Converter - Dual Output	Extron	VSC 500	3	$975.00	$2,925.00
1047	CP#4A	Connection Panel w/computer int.	Extron	RGB 460xi	9	$575.00	$5,175.00
1048	CP#3B	Connection Panel w/computer int.	FSR	CI-5BWPA w/ power supply	9	$230.00	$2,070.00
1049	CP#	Connection Panels	Custom	Included on Audio Schedule	42	$0.00	$0.00
1050		Annotation System	Boeckeler	PVI-83D w/COM4	3	$3,450.00	$10,350.00
1051	DC	Document Camera	Wolfvision	VZ 9	3	$5,415.00	$16,245.00
1052	M15	Monitor, 15" (Black)	Viewsonic	VG 150	12	$500.00	$6,000.00
1053	M15	Monitor, 15" Touch Screen (Black)	ELO	Trimline 15.1	6	$860.00	$5,160.00
1054		Video Projector	NEC	MT1065 w/ Mt60-26ZL lens	3	$6,950.00	$20,850.00
1055		Projection screen	Stewart	VE090V w/ Greyhawk material	3	$2,275.00	$6,825.00
1056		Video Conferencing CODEC	Polycom	VS4000 w/BRI module and NT4	3	$10,400.00	$31,200.00
1057		Video Conferencing Camera	SONY	EVI-D100	6	$950.00	$5,700.00
1058	VS	Video Switcher	Extron	SW 4AV	3	$550.00	$1,650.00
1059	PTR	Printer	Olympus	P330	3	$490.00	$1,470.00
1060		Power Sequence Controller	Middle Atlantic	USC-6R	3	$360.00	$1,080.00
1061		Misc. Interface (Lot)	Custom	Lot	3	$600.00	$1,800.00
1062		Cable	Extron, Covid, Belden	Plenum rated. Covid 3800 (RGBHV), Covid 3240 (S-Video), Belden 88281 (Video), Belden 1585A (Control)	3	$5,500.00	$16,500.00
1063		Connectors, Lot	Misc	Lot	3	$600.00	$1,800.00
SUB TOTAL							$157,800.00
3002		TOTAL LABOR					$55,500.00
4002		TRAVEL					$28,200.00
ROOM TOTAL							$241,500.00



PROJECT: -JUDGE GREGG- GRAND RAPIDS U.S. BANKRUPTCY COURT FOR THE WESTERN DISTRICT OF MICHIGAN	SHEET TITLE: CONTROL SYSTEM DIAGRAM SCALE: NTS	SHEET NO. A/V 603

PROJECT: -JUDGE GREGG- SHEET TITLE: SHEET NO.



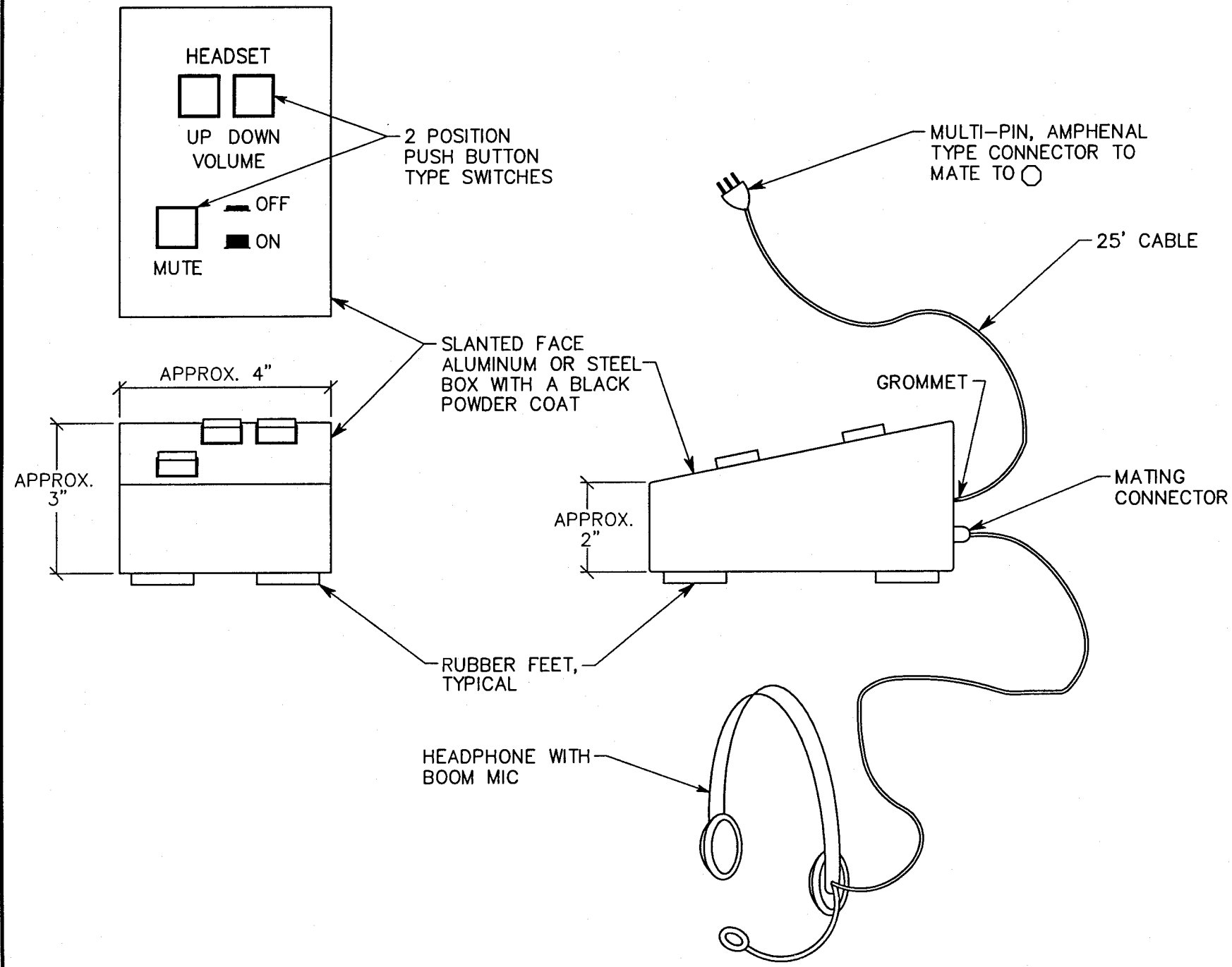
PROJECT: -JUDGE GREGG- GRAND RAPIDS U.S. BANKRUPTCY COURT FOR THE WESTERN DISTRICT OF MICHIGAN	SHEET TITLE: INTERPRETER'S CONTROL PANEL DIAGRAM SCALE: NTS	SHEET NO. A/V 604

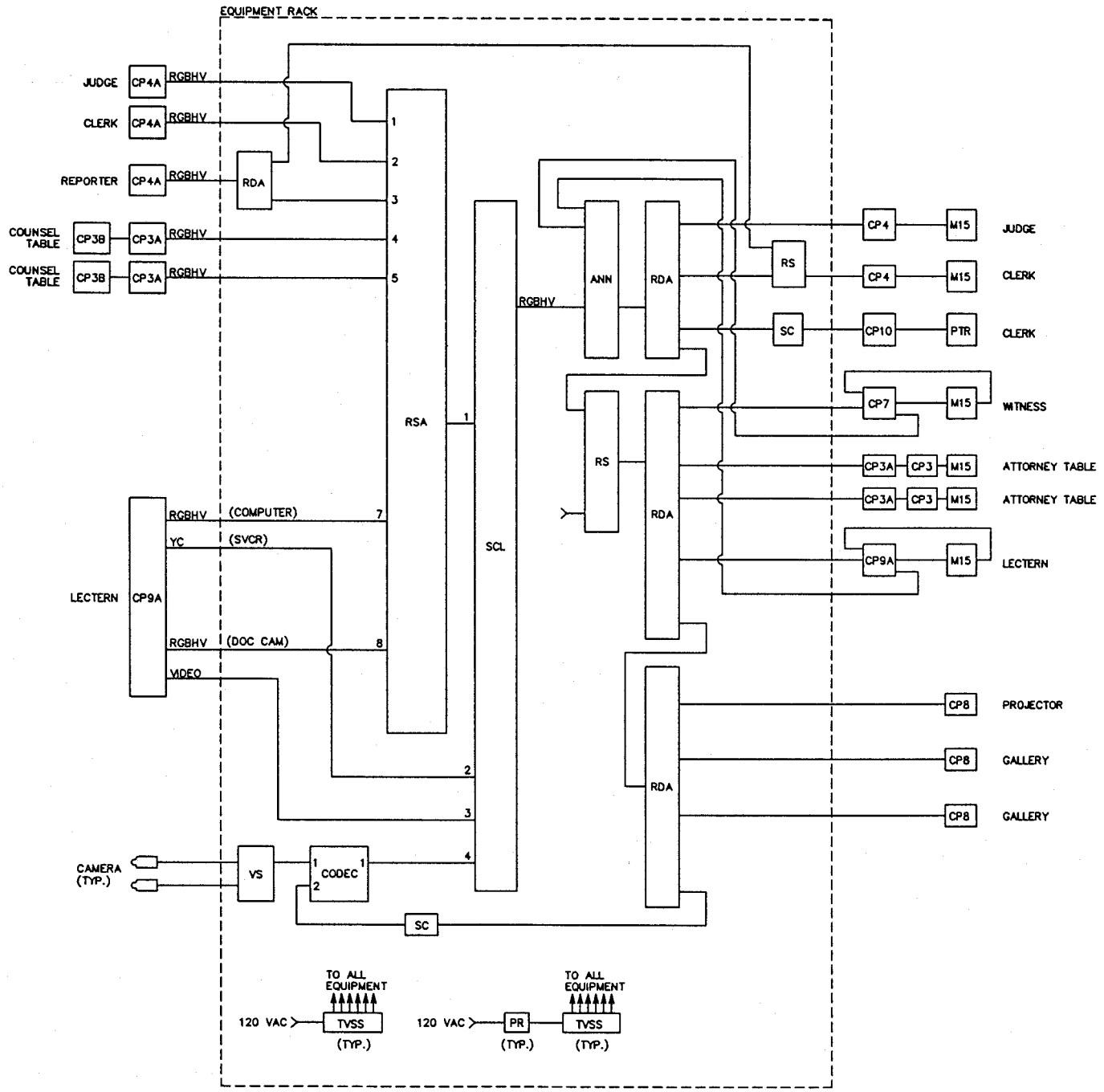
PROJECT:
GRAND RAPIDS
-JUDGE GREGG-
U.S. BANKRUPTCY COURT FOR THE
WESTERN DISTRICT OF MICHIGAN

SHEET TITLE:
INTERPRETER'S CONTROL PANEL DETAIL

SCALE:
NTS

SHEET NO.
A/V
605





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PROJECT: -JUDGE GREGG-

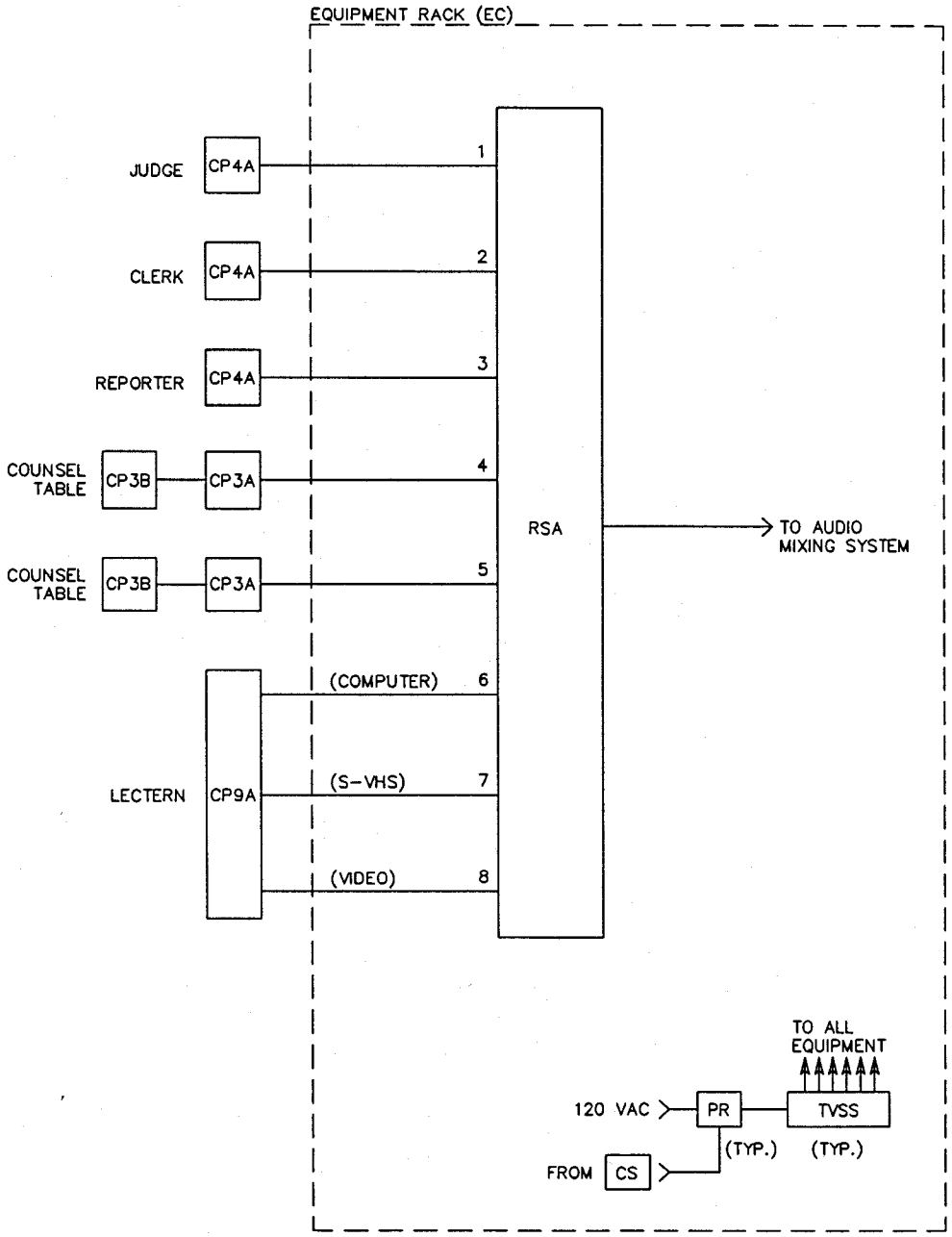
GRAND RAPIDS

U.S. BANKRUPTCY COURT FOR THE WESTERN DISTRICT OF MICHIGAN

SHEET TITLE: VIDEO SYSTEM SINGLE LINE DIAGRAM

SCALE: NTS

SHEET NO. A/V 606

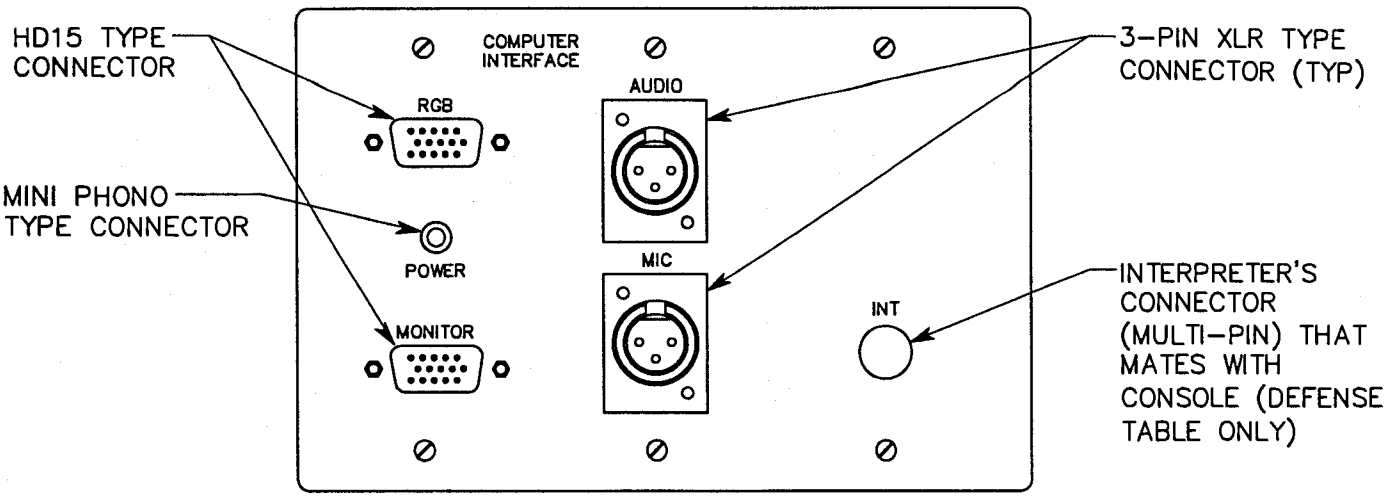


PROJECT: -JUDGE GREGG-
GRAND RAPIDS
U.S. BANKRUPTCY COURT FOR THE WESTERN DISTRICT OF MICHIGAN

SHEET TITLE: AUDIO PORTION OF VIDEO SYSTEM SINGLE LINE DIAGRAM

SCALE: NTS

SHEET NO. A/V 607



FLOOR PANEL (CP3A) DETAIL

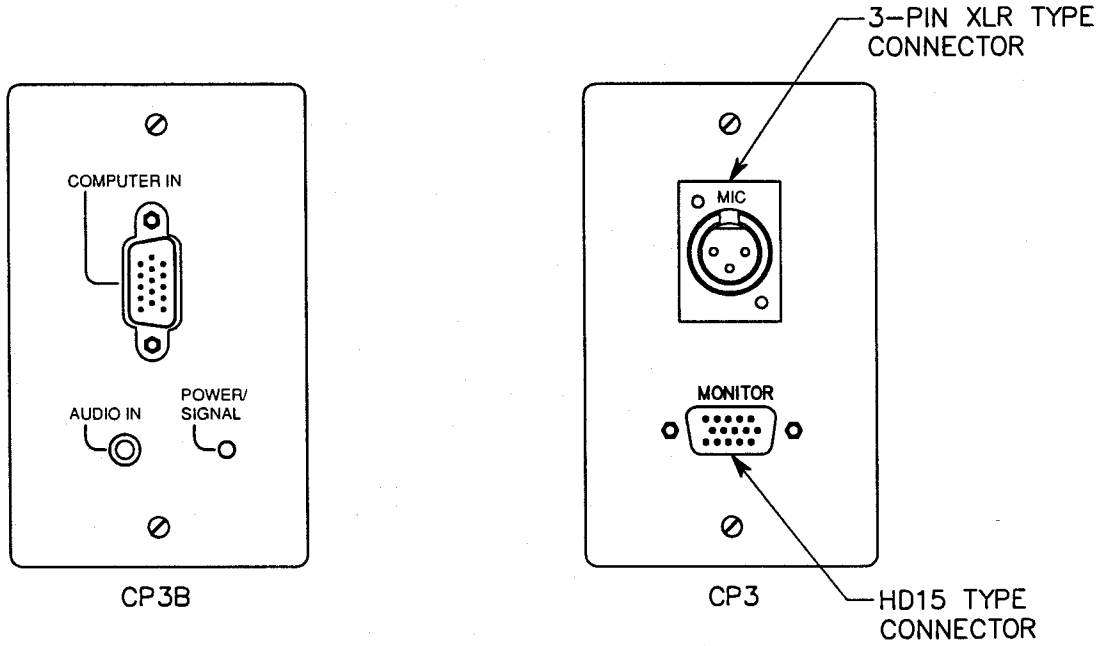
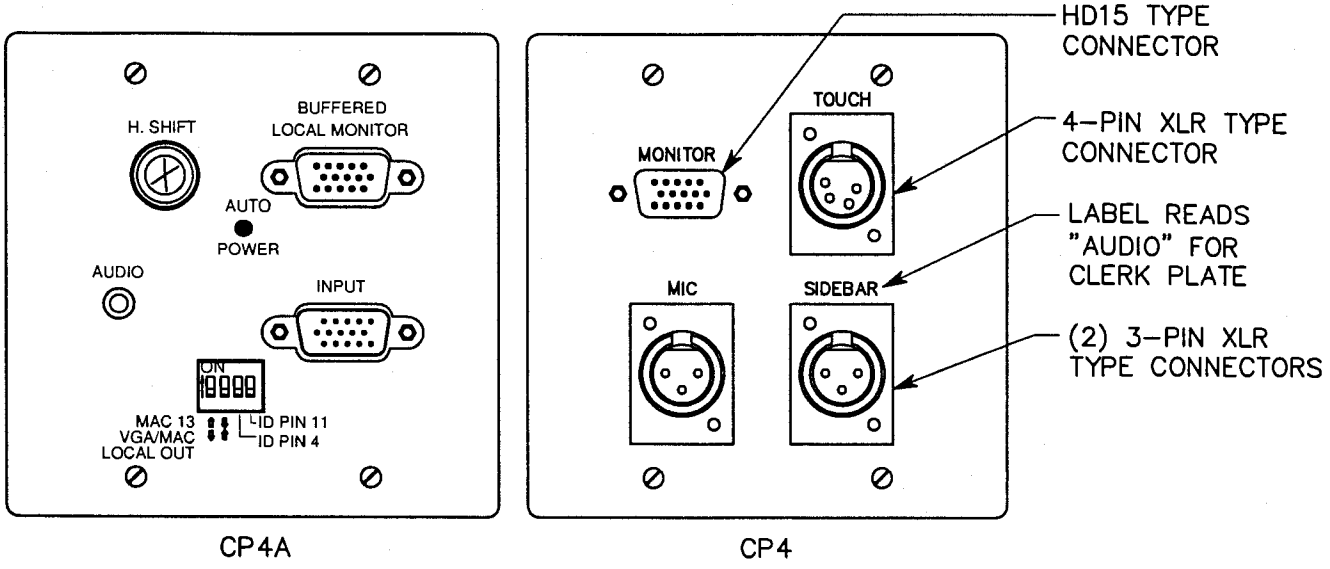
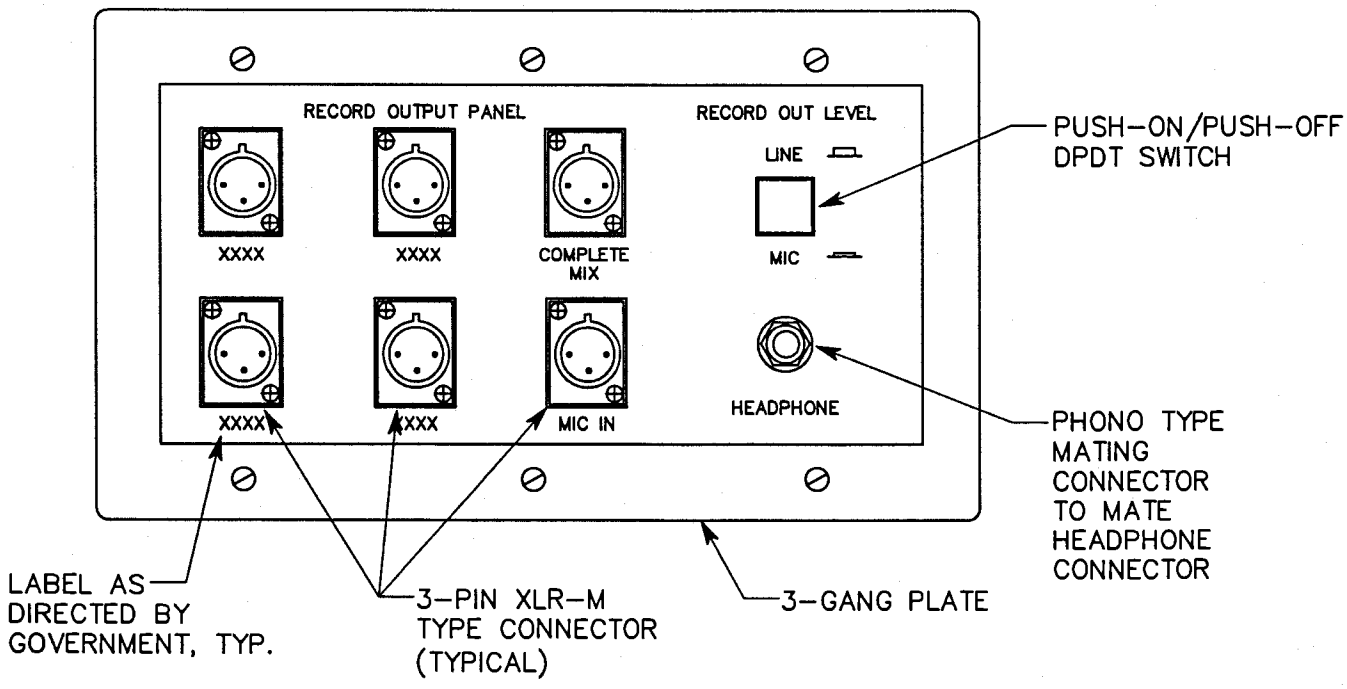


TABLE PANELS (CP3/3B) DETAILS

PROJECT: -JUDGE GREGG- GRAND RAPIDS U.S. BANKRUPTCY COURT FOR THE WESTERN DISTRICT OF MICHIGAN	SHEET TITLE: CONNECTION PANEL DETAILS SCALE: NTS	SHEET NO. A/V 701

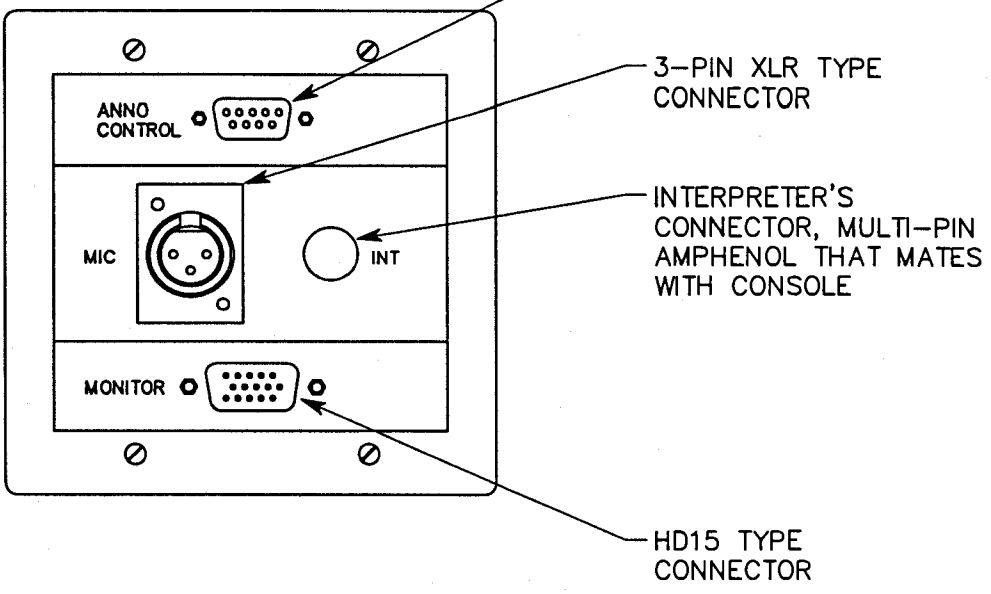


PLATES FOR JUDGE AND CLERK (CP4/4A) DETAILS

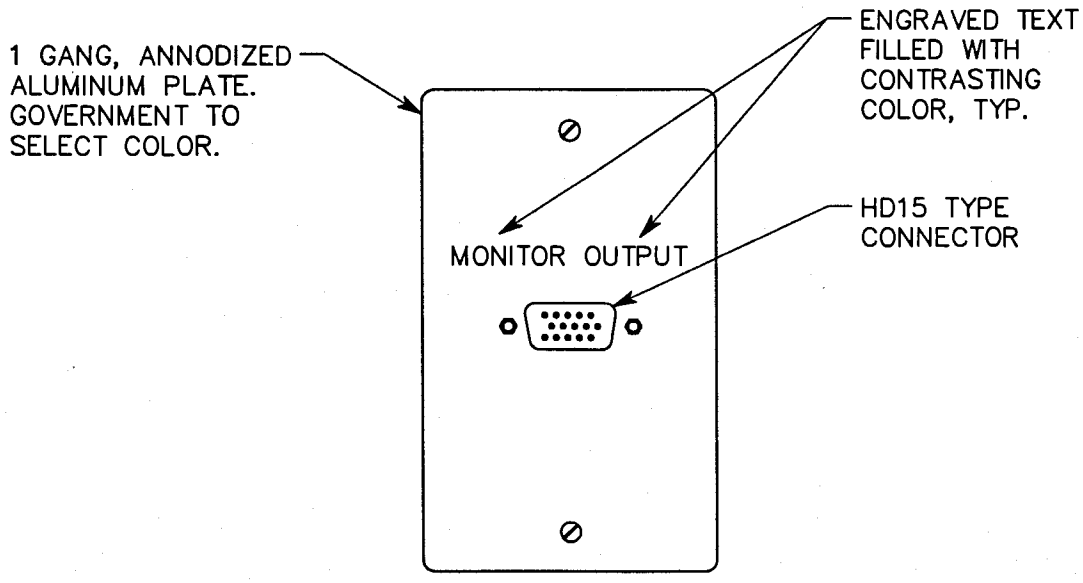


REPORTER FLOOR PANEL (CP6) DETAIL

PROJECT: -JUDGE GREGG- GRAND RAPIDS U.S. BANKRUPTCY COURT FOR THE WESTERN DISTRICT OF MICHIGAN	SHEET TITLE: CONNECTION PANEL DETAILS SCALE: NTS	SHEET NO. A/V 702

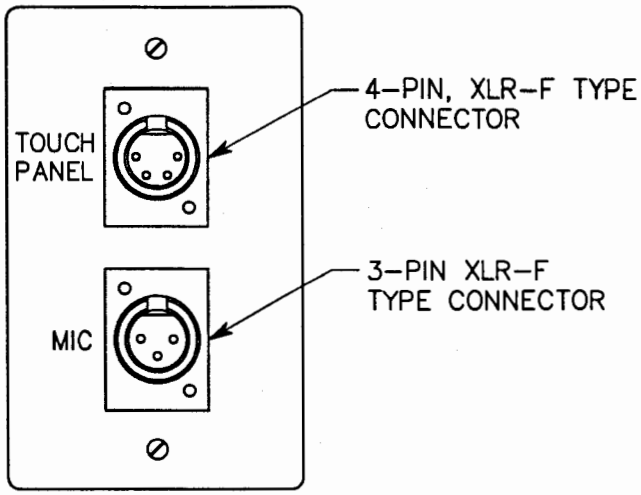


WITNESS PLATE (CP7) DETAIL

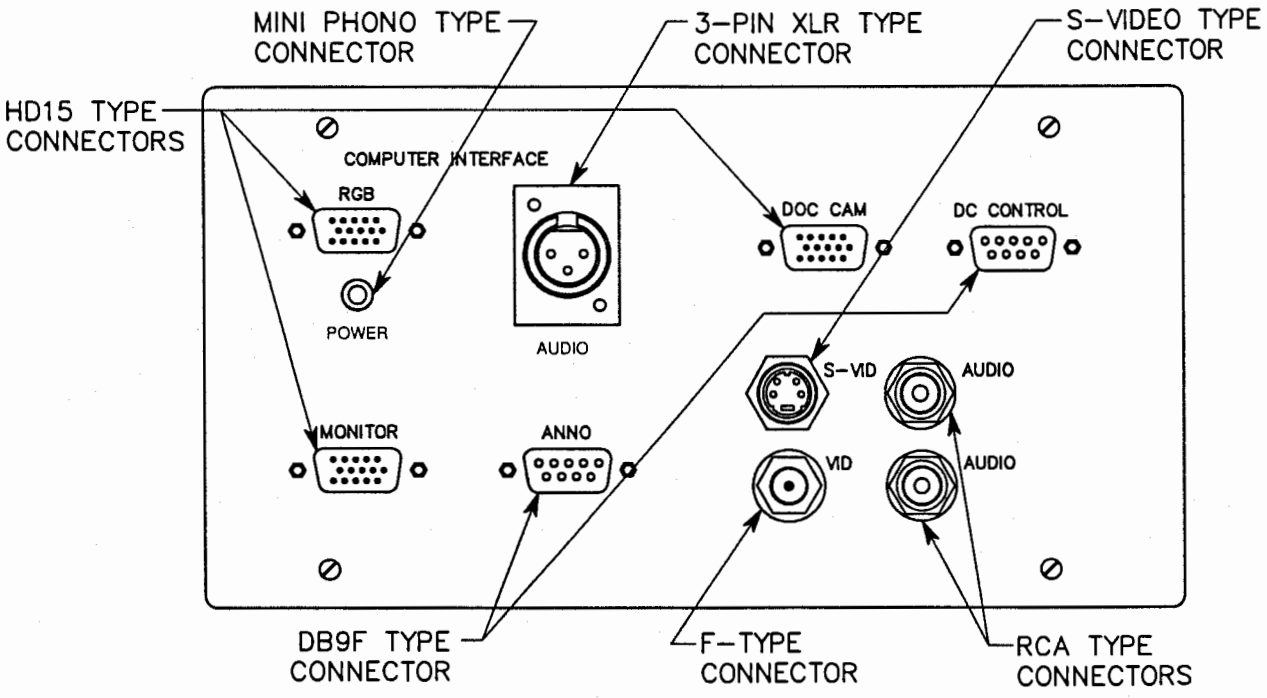


CONNECTION PANEL (CP8) DETAIL

PROJECT: -JUDGE GREGG- GRAND RAPIDS U.S. BANKRUPTCY COURT FOR THE WESTERN DISTRICT OF MICHIGAN	SHEET TITLE: CONNECTION PANEL DETAILS SCALE: NTS	SHEET NO. A/V 703

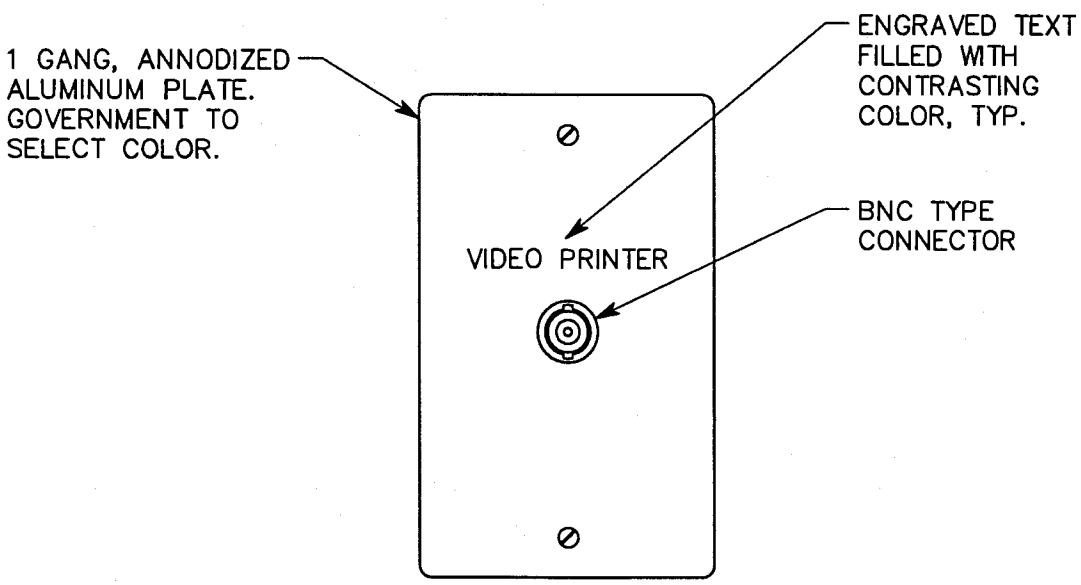


LECTERN PANEL (CP9) DETAIL



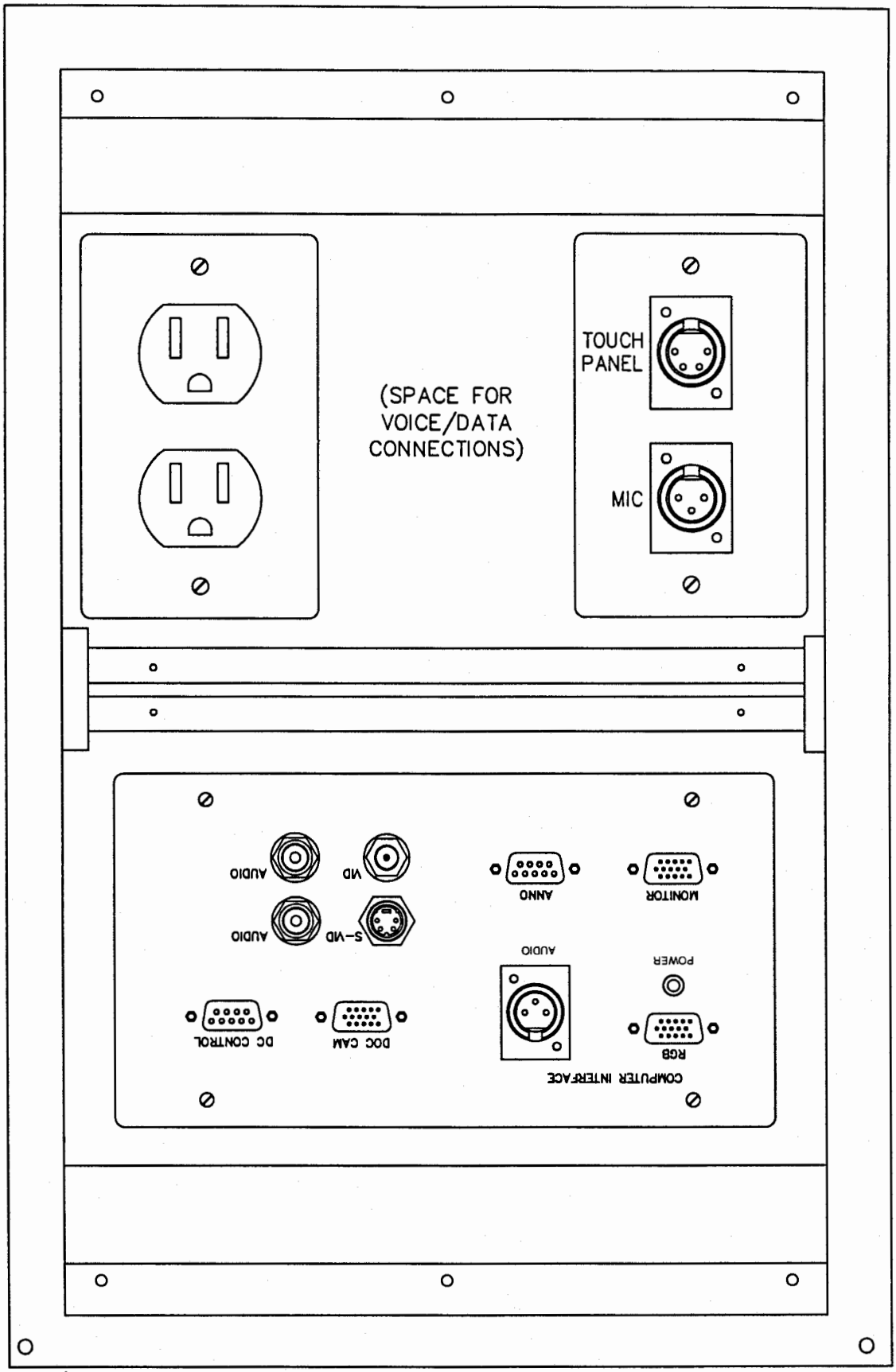
LECTERN (FLOOR) (CP9A) DETAIL

PROJECT: -JUDGE GREGG- GRAND RAPIDS U.S. BANKRUPTCY COURT FOR THE WESTERN DISTRICT OF MICHIGAN	SHEET TITLE: CONNECTION PANEL DETAILS SCALE: NTS	SHEET NO. A/V 704

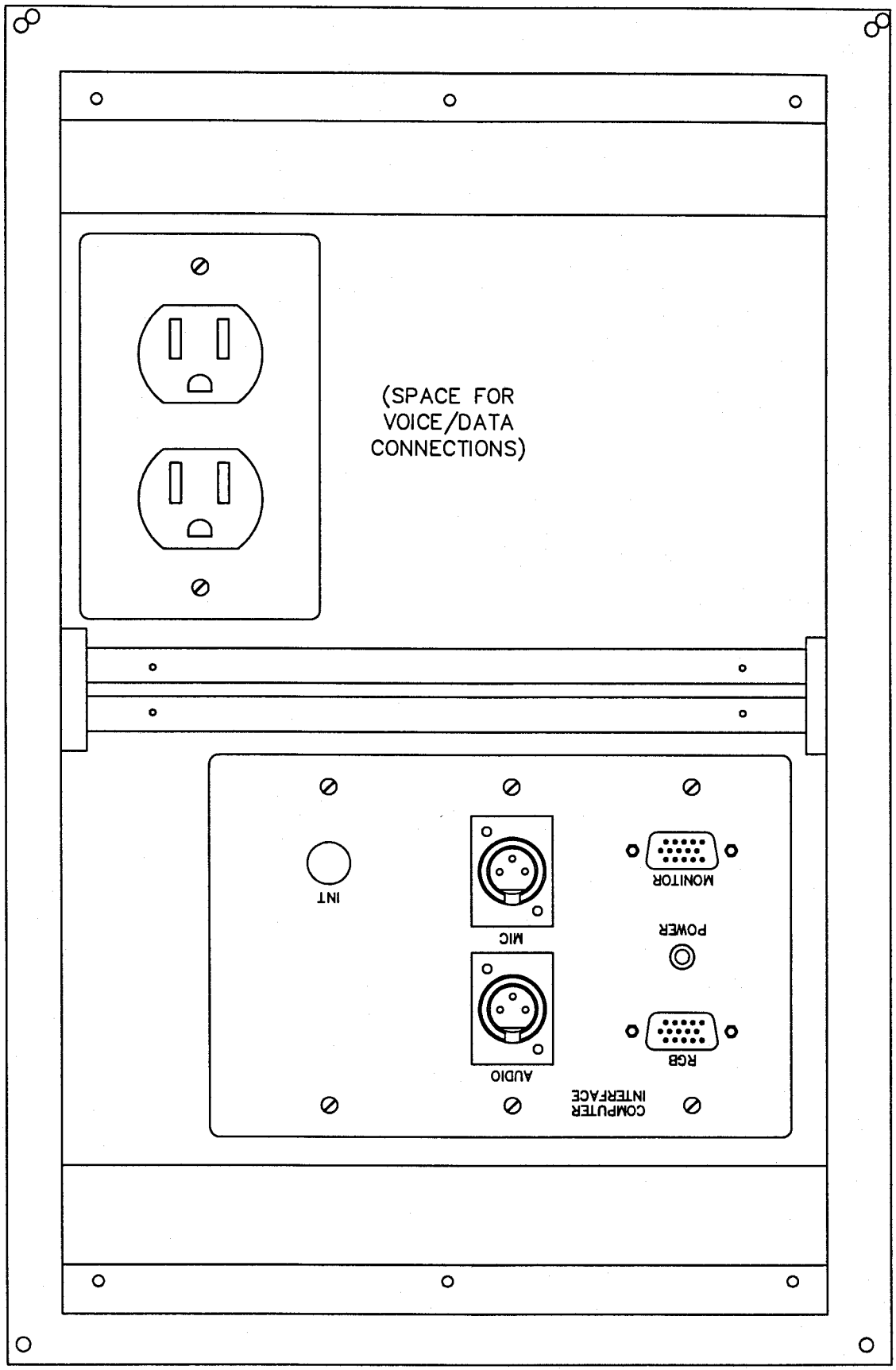


CONNECTION PANEL (CP10) DETAIL

PROJECT: -JUDGE GREGG- GRAND RAPIDS U.S. BANKRUPTCY COURT FOR THE WESTERN DISTRICT OF MICHIGAN	SHEET TITLE: CONNECTION PANEL DETAILS SCALE: NTS	SHEET NO. A/V 705



PROJECT: -JUDGE GREGG- GRAND RAPIDS U.S. BANKRUPTCY COURT FOR THE WESTERN DISTRICT OF MICHIGAN	SHEET TITLE: FLOOR BOX PLATE DETAILS - LECTERN SCALE: NTS	SHEET NO. A/V 706



CP3A

PROJECT: -JUDGE GREGG-
GRAND RAPIDS
U.S. BANKRUPTCY COURT FOR THE
WESTERN DISTRICT OF MICHIGAN

SHEET TITLE:
FLOOR BOX PLATE DETAILS - COUNSEL

SCALE:
NTS

SHEET NO.
A/V
707

File name: P:\2003\20030793\1Drawings\AV GREGG\93AV707.dwg Last Plotted: 05/24/2004 @ 10:31 By: mei

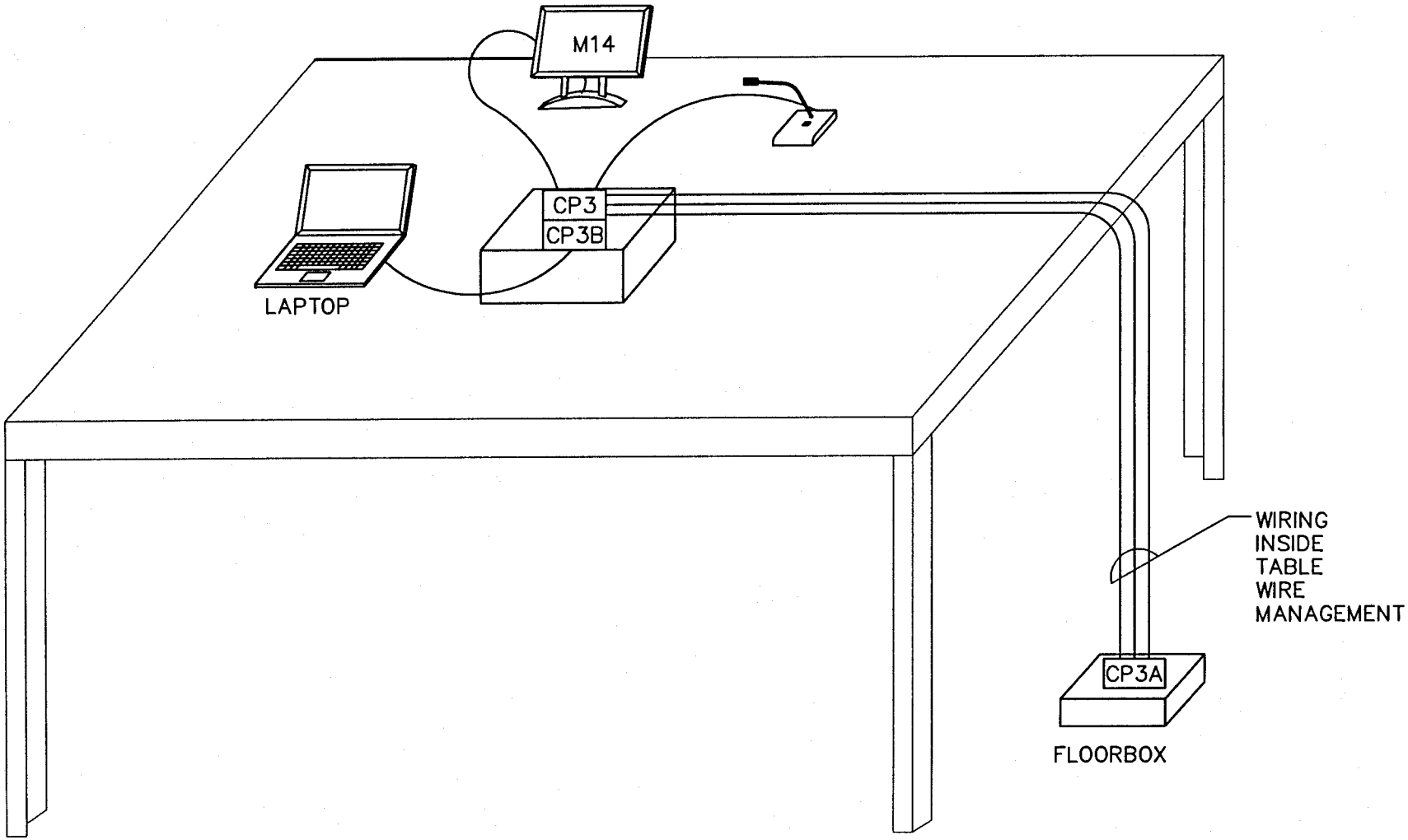
File name: P:\2003\20030793\1Drawings\AV GREGG\93AV708.dwg Last Plotted: 05/24/2004 @ 10:31 By: mei

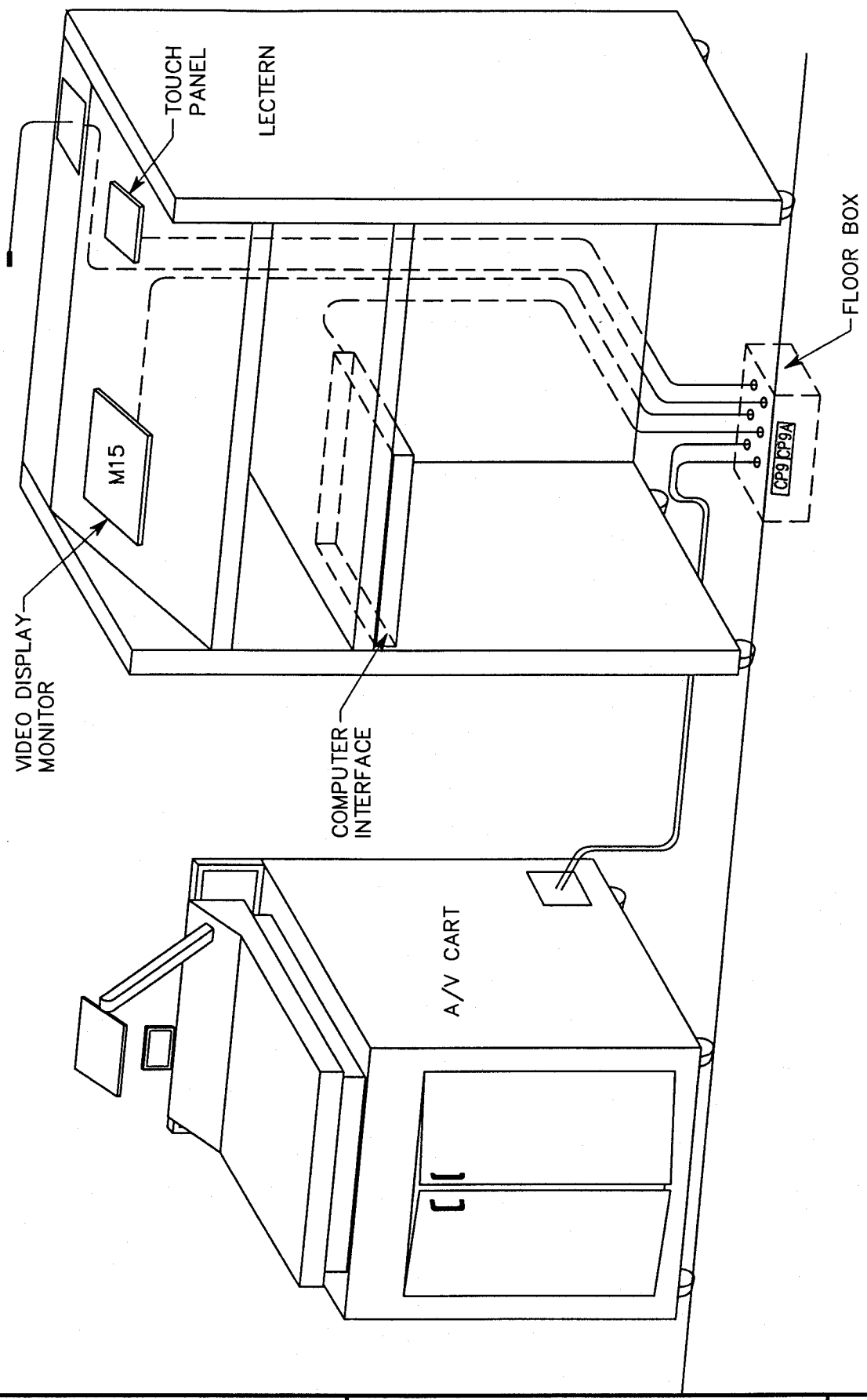
PROJECT:
GRAND RAPIDS
-JUDGE GREGG-
U.S. BANKRUPTCY COURT FOR THE
WESTERN DISTRICT OF MICHIGAN

SHEET TITLE:
ATTORNEY'S TABLE DETAIL

SCALE:
NTS

SHEET NO.
A/V
708





PROJECT: -JUDGE GREGG-
GRAND RAPIDS
U.S. BANKRUPTCY COURT FOR THE WESTERN DISTRICT OF MICHIGAN

SHEET TITLE:
LECTERN CABLE DETAIL

SCALE:
NTS

SHEET NO.
A/V 709

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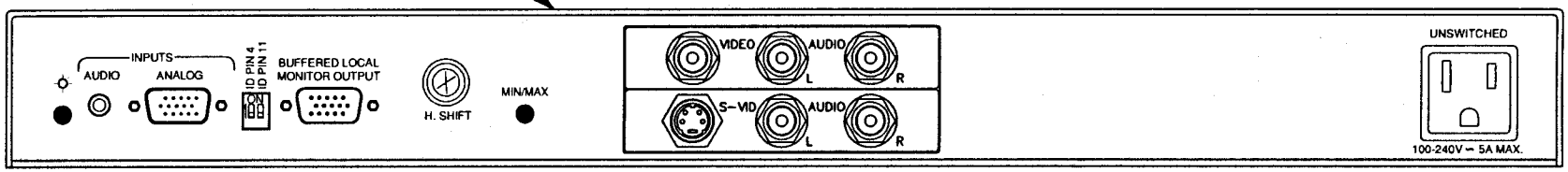
PROJECT:
GRAND RAPIDS -JUDGE GREGG-
U.S. BANKRUPTCY COURT FOR THE WESTERN DISTRICT OF MICHIGAN

SHEET TITLE:
COMPUTER INTERFACE DETAIL - LECTERN

SCALE:
NTS

SHEET NO.
A/V 710

EXTRON RGB 168xi



NOTE: PROVIDE "LEFT" AND "RIGHT" AUDIO SUMMING FOR BOTH VIDEO AND S-VIDEO AUDIO INPUTS. FLOOR PLATE HAS A SINGLE CHANNEL AUDIO CONNECTOR FOR EACH.

COMPUTER INTERFACE - LECTERN MOUNTED

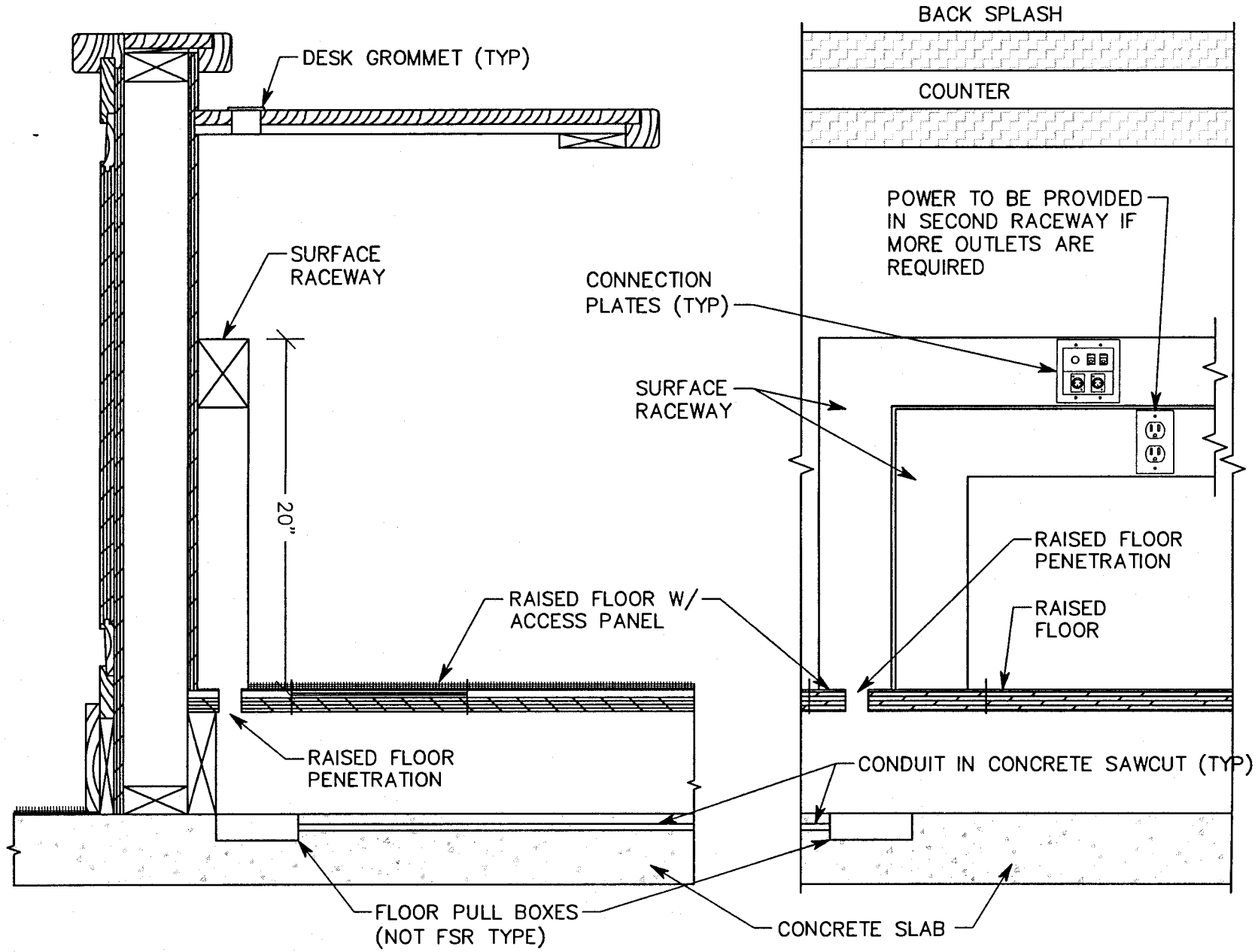
File name: P:\2003\20030793\1Drawings\AV GREGG\93AV711.dwg Last Plotted: 05/24/2004 @ 10:32 By: mei

PROJECT:
GRAND RAPIDS
-JUDGE GREGG-
U.S. BANKRUPTCY COURT FOR THE WESTERN DISTRICT OF MICHIGAN

SHEET TITLE:
SURFACE RACEWAY DETAIL - JUDGE

SCALE:
NTS

SHEET NO.
A/V 711



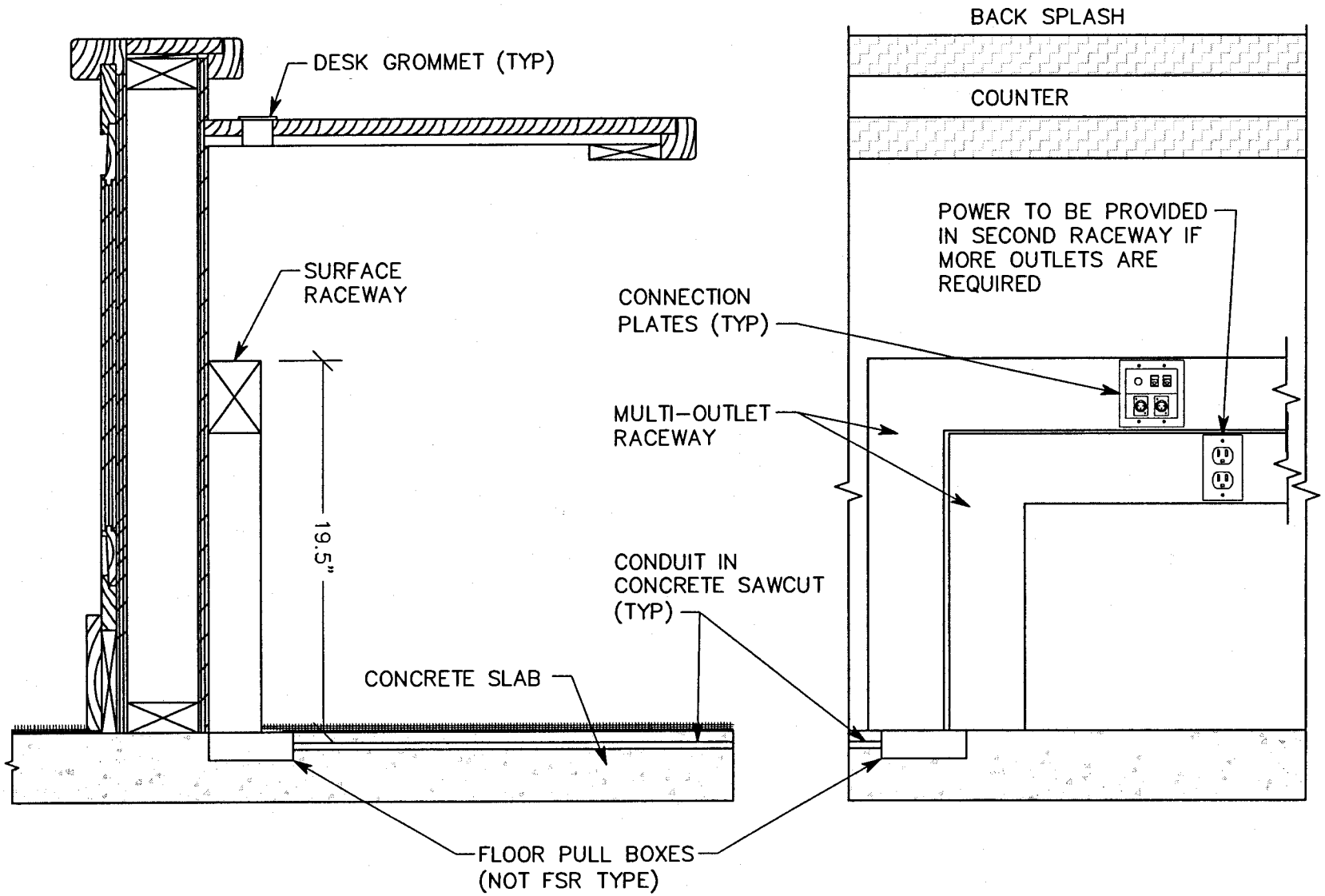
JUDGE'S BENCH AREA

PROJECT:
GRAND RAPIDS
-JUDGE GREGG-
U.S. BANKRUPTCY COURT FOR THE WESTERN DISTRICT OF MICHIGAN

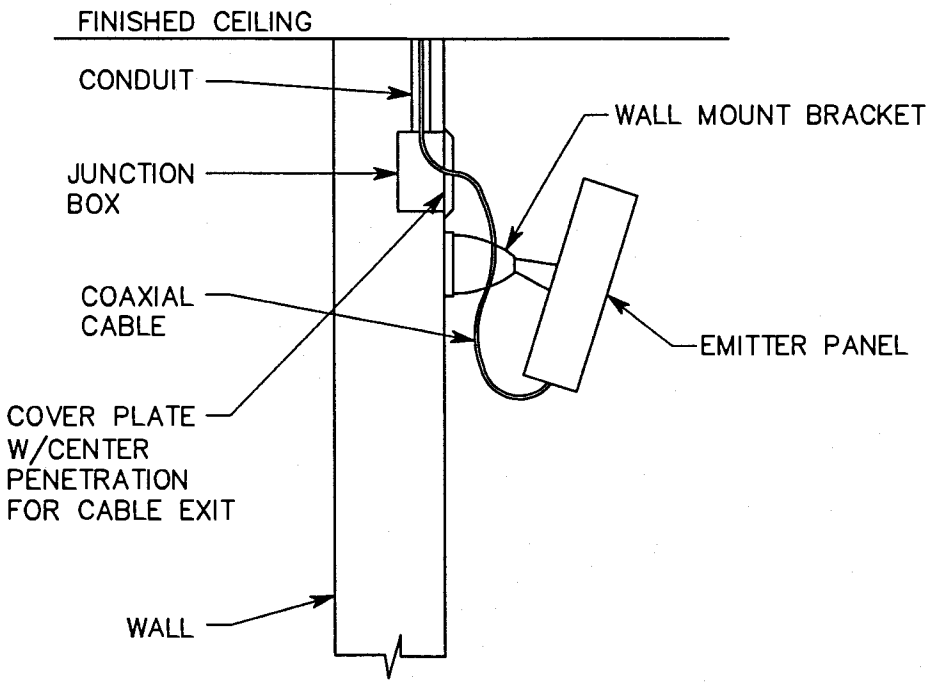
SHEET TITLE:
SURFACE RACEWAY
DETAIL - CLERK, WITNESS

SCALE:
NTS

SHEET NO.
A/V 712



CLERK AND WITNESS DESK



PROJECT: -JUDGE GREGG-
GRAND RAPIDS
U.S. BANKRUPTCY COURT FOR THE WESTERN DISTRICT OF MICHIGAN

SHEET TITLE:
EMITTER PANEL MOUNTING DETAIL

SCALE:
NTS

SHEET NO.
A/V 713

2. The Government requires manufacturer's original specification tests. The Government will evaluate and approve the substitutions.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine conditions, with the Installer present, for compliance with requirements and other conditions affecting the performance of the systems work.

B. Do not proceed until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. General: Wire all systems in accordance with Standard Broadcast Practices and the National Electrical Code, NFPA, SMPTE, NAB, UL, EIA, FCC, NTSC, Design and Installation (SAMS) and any other authority having jurisdiction. When a conflict occurs, follow that most stringent (which is generally recognized to be the most costly) requirements. Refer to schematic and block diagrams.

B. **Control System Programming Outline**: Provide complete control system programming services including but not limited to the creation of custom software required to meet all contract document requirements including but not limited to the programming outline specified below. Include manufacturer direct services and on site support. Please note that not all equipment, functions, and/or controls may not be specified or required for all rooms. Program software based on the following programming outline as applicable to individual single line diagrams identified in the accompanying drawings.

1. SYSTEM ACTIVATION: When the A/V system has been deactivated by the system off button, or when the touch panel has entered its "time out" mode, display the following message on the touch screen: "TOUCH SCREEN TO ACTIVATE". This message will remain constantly on, and shift positions if recommended by the manufacturer to prevent burn in.

2. BUTTON HIGHLIGHTING: When any button is engaged on any touch panel control page, that button shall be highlighted for the duration of physical contact between the finger and touch screen. In addition, when any system function is activated/selected, the button will remain highlighted to identify the active status of the control system. In addition, comply with additional button highlighting requirements stated in the programming outline.

3. ICONS: The programming outline is a written description of buttons, pages, and commands. Even though the buttons are described with words, it is required that the installer make a reasonable use of icons when programming the touch panel pages.

4. GREETING PAGE: Upon first touching the screen a GREETING PAGE shall be displayed. This page will contain the court's seal, a welcome message, the DATE, the TIME, and SYSTEM ON button.

   a. BUTTON - SYSTEM ON: Selecting will bring up the Post Greeting Page, with common button bars. In addition, selecting will energize the power controllers at the equipment rack with a 3 second delay between them. The last power controller circuit turned on shall be the audio amplifiers. In addition, all A/V applicable system parameters shall be set to default values. As an example only, without implying limitation, all volume levels shall be set to default values; the audio and video mutes shall be disengaged if previously left on; etc....

5. POST GREETING PAGE: The Post Greeting Page will contain the Common Button Bar and the court's seal.

6. COMMON BUTTON BAR (top of page): With the exception of the greeting page, all control system touch panel pages will contain all "common button bar(s)" for the purpose of allowing access to fundamental control functions from any location in the touch panel page/software program. When a button in the common button bar group is selected, that button shall become highlighted, and remain highlighted until interaction with the corresponding page is terminated. At a minimum, without implying limitation, the common button bar shall contain the following:

   a. BUTTON - AUDIO: Selecting brings up the audio control page.
   b. BUTTON - VIDEO: Selecting brings up the video control pages.
   c. BUTTON - TELE-CONFERENCING: Selecting brings up the tele-conferencing control page.
   d. BUTTON - VIDEO CONFERENCING: Selecting brings up the video conferencing control page.
   e. BUTTON - SYSTEM OFF: Selecting shall display a text prompt asking "Are you sure?" with buttons YES, and NO. IF YES, the system shall power off the AC power controllers in reverse order of turn on, turning the audio amplifiers off first, followed, three (3) seconds later, by the rest of the designated A/V equipment. IF NO, the system shall return the touch panel back to the previous page with no action taken.
   f. DISPLAY - DATE: Will display the correct date.
   g. DISPLAY - TIME: Will display the correct time of day.

7. AUDIO CONTROL PAGE:

   a. BUTTON - MEDIA SOURCE VOLUME UP: Selecting shall increase the output level of the media source electronics. Minimum and maximum levels shall be programmed into the volume control which shall prevent feedback. Button shall operate incrementally and continuously. When selected incrementally, the volume shall increase incrementally within the preprogrammed minimum and maximum parameters. When touched continuously, the volume shall increase continuously within the preprogrammed minimum and maximum parameters. If the media source electronics were muted prior to selection, disengage the mute function, display the bar graph, and engage the volume up control.
   b. BUTTON - MEDIA SOURCE VOLUME DOWN: Selecting shall decrease the output level of the media source electronics. Minimum and maximum levels shall be programmed into the volume control which shall prevent complete inaudibility. Button shall operate incrementally and continuously. When selected incrementally, the volume shall decrease incrementally within the preprogrammed minimum and maximum parameters. When touched continuously, the volume shall decrease continuously within the preprogrammed minimum and maximum parameters. If the media source switching electronics were muted prior to selection, disengage the mute function, display the bar graph, and engage the volume down control.
   c. DISPLAY - MEDIA SOURCE VOLUME UP AND DOWN BAR GRAPH: Bar graph shall be continuously displayed adjacent to volume up and down buttons. Bar graph shall graphically display the window between the preprogrammed minimum and maximum volume settings. The bar graph shall be divided into a minimum of 10 segments which shall incrementally or continuously appear or disappear according to the volume button selected. The bar graph display shall be removed from the screen when the mute function is selected. The bar graph shall be restored to its previous setting when the mute function is toggled off.
   d. BUTTON - MEDIA SOURCE MUTE (Toggle function): Selecting shall highlight and flash the button, and mute the output of the media source electronics. Mute shall be defined as a minimum 60 dBA decrease in sound pressure level. Bar graph display shall be removed. Selecting again will discontinue button flash and highlight, un-

mute the media source electronics, and the bar graph display will be restored showing its previous setting.

e. BUTTON - AUDIO SYSTEM MUTE (Toggle function): Selecting shall highlight and flash the button, and mute all audio system inputs and outputs such that no audio in audible or recordable. Mute shall be defined as a minimum 60 dBA decrease in sound pressure level. Selecting again will discontinue button flash and highlight, and will un-mute all audio system inputs and outputs. An alternative to this is the JUDGE OVERRIDE. This mutes all inputs EXCEPT the Judge's microphone.

f. BUTTON - BENCH CONFERENCE (Toggle function): Selecting shall highlight and flash the button, mute all court PA microphones, un-mute the judge's bench conferencing microphone, and shall switch the jury speakers to receive masking noise. Selecting again will discontinue button flash and highlight, un-mute all court PA microphones, mute the judge's bench conference microphone, and switch the jury speakers back to court system output.

g. BUTTON - EXTERNAL SPEAKERS (Toggle function): Selecting shall highlight and flash the button, and mute all speakers located outside of the courtroom. Selecting again will discontinue button flash and highlight, and un-mute all speakers located outside of the courtroom.

h. BUTTON - CLOSE: Selecting will close the Audio Control Page, and return the user to the Post Greeting Page.

8. VIDEO CONTROL PAGE: The Video Control Page will identify with separate buttons, all possible video input locations in the court, including the judge's bench, clerk's work area, lectern, and each attorney table. Each button will function as specified below.

a. BUTTON - JUDGE'S BENCH: Selecting will bring up a pop-up window containing icon buttons for each input source available at the judge's bench. In addition, a button will be provided to switch the judge's monitor between his/her own CPU and the video system output. The pop-up window will time out, and be removed from the screen 10 seconds after a control command. In addition, a CLOSE button will be provided to remove the pop-up window from the screen.

b. BUTTON - CLERK'S WORK AREA: Selecting will bring up a pop-up window containing icon buttons for each input source available at the clerk's work area. In addition, a button will be provided to switch the clerk's monitor between his/her own CPU and the video system output.

c. BUTTON - LECTERN: Selecting will bring up a pop-up window containing icon buttons for each input source available at the lectern, including the document camera. The pop-up window will time out, and be removed from the screen 10 seconds after a control command. In addition, a CLOSE button will be provided to remove the pop-up window from the screen.

d. BUTTON - ATTORNEY TABLE - PROSECUTION: Selecting will bring up a pop-up window containing icon buttons for each input source available at the attorney table. The pop-up window will time out, and be removed from the screen 10 seconds after a control command. In addition, a CLOSE button will be provided to remove the pop-up window from the screen.

e. BUTTON - ATTORNEY TABLE - DEFENSE: Selecting will bring up a pop-up window containing icon buttons for each input source available at the attorney table. The pop-up window will time out, and be removed from the screen 10 seconds after a control command. In addition, a CLOSE button will be provided to remove the pop-up window from the screen.

f. BUTTON - CLOSE: Selecting will close the Video Control Page, and return the user to the Post Greeting Page.

In addition, the Video Control Page will contain a Common Button Bar for video related functions. The Common Button Bar will be located on the left side of the page, and will contain the buttons specified below.

g. BUTTON - MONITORS OFF (toggle function): Selecting shall highlight and flash the button, and will route a dead signal (Black) to all monitors except the Judge's Bench areas. Selecting again will discontinue button flash and highlight, and will route regular output of the video system to all monitors.

h. BUTTON - DOC CAMERA CONTROLS: Selecting brings up a pop up window with all appropriate document camera controls. At a minimum, without implying limitation, provide all buttons necessary to control the selected device/system. As a general rule, provide touch panel buttons which mimic those buttons provided in/on the device/system front panel, remote control device, and/or control software. The pop-up window will time out, and be removed from the screen 10 seconds after a control command. In addition, a CLOSE button will be provided to remove the pop-up window from the screen.

9. TELE-CONFERENCING PAGE AND VIDEO CONFERENCING PAGES:

a. BUTTONS - At a minimum, without implying limitation, provide all buttons necessary to control the selected device/system. As a general rule, provide touch panel buttons which mimic those buttons provided in/on the device/system front panel, remote control device, and/or control software.

b. BUTTON - CLOSE: Selecting will close the Tele-Conferencing Page or Video Conferencing Page, and return the user to the Post Greeting Page.

END OF PROGRAMMING OUTLINE

C. The installation of all work must be in accordance with commonly accepted industry standards and practice. A qualified Engineer shall exercise engineering supervision over the entire installation and inspect the installation at least twice prior to Acceptance Testing. It is the responsibility of the Contractor to cooperate with other trades in order to achieve well-coordinated progress and satisfactory final results. The Contractor must watch for conflicts with work of other contractors on the job and execute moderate moves or changes as are necessary to accommodate other equipment or preserve symmetry and pleasing appearance.

D. All equipment shall be firmly secured in place unless requirements of portability dictate otherwise. Fastenings and supports shall be adequate to support their loads with a safety factor of at least three times the weight of the equipment being installed. Any structural mounting that is not able to meet this requirement due to the specific nature of the equipment, manufacturer's requirements or limitations of the facility, shall not be installed without prior approval of the Architect. Install all boxes, equipment, hardware, and other materials plumb, level, and square.

E. Install all electronic equipment and support equipment in all podiums, and the other millwork in a neat and cosmetically dressed-out manner. All saw cuts, holes and recesses into laminates and woodwork shall be straight, all radius and circular cuts shall be consistent, and all uneven surfaces shall be corrected. This shall include the use of moldings, grommets, bushings, laminates, and wood products as required to dress out the installation of equipment. Assure that the installation of equipment and panels in the electronics racks and podiums are completed by using matching screws, hardware and grommets.

F. Electronics:

1. Assure sufficient ventilation for adequate cooling of equipment.
2. Install vent rack panels in unused spaces.
3. Securely fasten relays and small components. Do not use sticky-back tape for fasteners.
4. Build out or terminate all circuits containing passive components to provide matching impedances. Record values of all pads.
5. Connect powered components to 120 VAC outlets on transient voltage surge suppressors. Do not connect to outlets on other components.
6. Leave sufficient service loops of uniform length on cables to allow operation of system with chassis outside cabinet.

G. Cable, Wire, and Connectors:

1. All cable and wire shall be new and unspliced. All cables in conduits must be insulated and shielded from each other and from the conduit for the entire length.
2. Run all microphone level circuits and line level circuits (up to +30 dBm) in separate ferrous conduits dedicated to these purposes. Use electrical ducts within racks. Separation between system cables and all other services shall be maximized to prevent and/or minimize the potential for electro-magnetic interference (EMI). Particular care shall be taken to ensure at least a 12" separation from electrical lines whenever feasible. At points where separation is unavoidable, distribution cables shall cross other services at right angles whenever practical to minimize EMI.
3. Ground all line shields at the amplifier end of the respective circuits only. Use "wedge on" connectors or heat-shrink tubing to insulate the other end.
4. Ground all audio grounds effectively at one earth connection. Water pipes do not suffice as grounds. Use earth ground or approved equal. Use rosin core solder or standard mechanical connections and terminal strips for all joints and terminations.
5. No connectors shall be installed in non-accessible locations or used for splicing cables. All connectors shall be new. Terminal blocks, boards, strips or connectors, shall be furnished by the installer for all cables which interface with racks, cabinets, consoles, or equipment modules.
6. All cables, regardless of length, shall be marked with wrap-around, or better, number or letter cable markers at both ends. These labels shall be self laminating to ensure durability. The label format used shall be equal, or better than, the system detailed.
7. Racks shall have power on one side and low voltage on the other side and shall be harnessed for clean appearance.
8. On all XLR connectors: Pin one is common/ground, pin two is high, and pin three is low.

3.3 FIELD QUALITY CONTROL (ACCEPTANCE TESTING)

A. System Performance, Tests, and Adjustments:

1. Report:

a. Upon completion of the tests and necessary adjustments, submit two (2) copies of a written report presenting test results, including numerical values for all measurements, for review by the Government prior to demonstration and "Acceptance Testing".

b. With the above report, submit written certification that the installation conforms to specifications, is complete, and is ready for inspection and testing by the Government.

2. Picture shall be evaluated for brightness, convergence, sharpness and color. System shall conform to NTSC, FCC, TASL specifications, and RS-170A. Provide waveform generator and vector scope tests. All video signals shall be 1 volt peak-to-peak.

3. Monitor Hum and Noise Level: Test overall hum and noise to be at least 50 dB below rated power output with amplifier controls set for optimum signal-to-noise, using input from cassette, VCR, and goose neck microphones.

4. Electronic Distortion:

a. Load power amplifiers with resistors matching nominal impedance of output terminals used in system in place of actual loudspeaker loads.

b. Adjust gain controls as for hum and noise level test.