

ENGINEERING NOTES

51. INFORMATION FURNISHED PER THIS DRAWING IS IN ACCORDANCE WITH LUCENT TECHNOLOGIES PRACTICES - NONE.
52. DOLLAR SIGNS (\$) IN FRONT OF AND BEHIND WORDS, SENTENCES, PARAGRAPHS AND/OR CHARACTERS INDICATE HORIZONTALLY LINED OUT INFORMATION.
53. THE MAINTENANCE TERMINAL, RO PRINTER, TAPE UNITS ETC. REQUIRE AC POWER. IT IS THE USING SYSTEMS RESPONSIBILITY TO PROVIDE THE NECESSARY AC, CONDUIT RACEWAY MATERIAL ETC. FOR TERMINATING THIS EQUIPMENT. THE NATIONAL ELECTRICAL CODE AND LOCAL BUILDING CODES SHALL BE FOLLOWED.
54. NO. 14GA THWN SOLID WIRE SHALL BE USED FOR LOADS REQUIRING 120 VOLT OR 220 VOLT SINGLE PHASE GROUNDED AC SUPPLY.
55. THE LOADS ON THE "ESSENTIAL AC BUS" ARE THOSE WHICH TOLERATE MORE THAN 5 SECONDS INTERRUPTION IN THE EVENT OF A COMMERCIAL AC POWER FAILURE.
56. ESSENTIAL POWER SHOULD BE PROVIDED FOR MAINTENANCE TERMINALS AND THE LINE PRINTER IN OFFICES (LINKED) WITH A SWITCHING CONTROL CENTER.
57. PROTECTED POWER SHOULD BE PROVIDED FOR MAINTENANCE TERMINALS AND THE LINE PRINTER IN OFFICES (NOT LINKED) WITH A SWITCHING CONTROL CENTER.
58. 208A DATA SETS ASSOCIATED WITH SWITCHING CONTROL CENTER LINKS ARE TO BE POWERED FROM PROTECTED AC.
59. THE NEUTRAL WIRES FROM EITHER PROTECTED OR ESSENTIAL AC POWER CABLE MUST NOT BE CONNECTED TO ESS GROUND.
61. TERMINATE CABINET GROUND CABLE TO AN EQUIPMENT MOUNTING HOLE ON EITHER REAR UPRIGHT. THIS TERMINATION SHALL BE MADE WITHIN THE TOP FIVE MOUNTING POSITIONS. THE PRIME POSITION BEING THE SECOND MOUNTING HOLE DOWN. SEE FIGURE C, F AND G FOR HARDWARE REQUIRED FOR TERMINATION.
62. WHEN LOOP LEAD LENGTH EXCEEDS LENGTH SHOWN IN "MAX LOOP TO PDC" COLUMN IN TABLE A, THE LEAD MUST BE JOB ENGINEERED. WHEN JOB CONDITIONS REQUIRE LARGER THAN 10 GAUGE FEEDER WIRE, A SECTION OF 10 GAUGE FEEDER WIRE (ED5A079-30, G38) MUST BE SPLICED TO THE LARGER CABINET FEEDER AT THE EQUIPMENT CABINET END. THE SPLICE SHOULD BE MADE IN THE CABLE RACK WITH A THOMAS & BETTS "C" TAP. THE MAXIMUM SIZE EQUIPMENT FRAME POWER FEEDERS THAT CAN TERMINATE ON THE PD CABINET IS 10 GAUGE STRANDED. IF JOB CONDITIONS REQUIRE LARGER THAN 10 GAUGE FEEDERS, A SECTION OF 10 GAUGE FEEDER WIRE MUST BE SPLICED TO THE LARGER CABINET FEEDER. THE SPLICE SHOULD BE MADE IN THE CABLE RACK ABOVE THE PD CABINET USING A THOMAS & BETTS "C" TAP. THE PD CABINET PROVIDES KS-15977, L23 TERMINALS FOR TERMINATING 10 GAUGE RETURN FEEDERS AND THOMAS & BETTS C52 FLAG TERMINALS FOR TERMINATING 10 GAUGE -48 VOLT FEEDERS. A GROUP ON THE PD CABINET CAN BE ORDERED TO PROVIDE ALL TERMINALS REQUIRED PER PANEL. IF THE TERMINALS ARE NOT ORDERED WITH THE PD CABINET, THEY MUST BE ORDERED ON A JOB CONDITION BASIS AS REQUIRED.

ISSUE NOTES

- ORIG ISS: 01/18/93 NDD NBR: 3T061IH-1 CHANGE CLASS: NEW
- | | | | | |
|------------|-----------|-----------|---------------------|----------|
| DRAFT: KAG | ENGR: KAG | SUPV: PCF | CERTIFIED: 01/18/93 | ISSUE: 1 |
|------------|-----------|-----------|---------------------|----------|
- IN GRAPHICS, FIG. 1, C, F, G, H; CHANGED.
- ORIG ISS: 01/18/93 CHANGE CLASS: M
- | | | | | |
|------------|-----------|-------|---------------------|----------|
| DRAFT: RJB | ENGR: RJB | SUPV: | CERTIFIED: 11/30/93 | ISSUE: 2 |
|------------|-----------|-------|---------------------|----------|
- TABLE A NOTE 3 ADDED. TABLES A AND B CHANGED.
- ORIG ISS: 01/18/93 NDD NBR: 3T061NW-57 CHANGE CLASS: B
- | | | | | |
|------------|-----------|-----------|---------------------|----------|
| DRAFT: KAG | ENGR: KAG | SUPV: CDH | CERTIFIED: 06/20/97 | ISSUE: 3 |
|------------|-----------|-----------|---------------------|----------|
- DWG REISSUED TO CORRECT ERROR IN GRAPHICS.
- ORIG ISS: 01/18/93 CHANGE CLASS: M
- | | | | | |
|------------|-----------|-----------|---------------------|----------|
| DRAFT: TPS | ENGR: TPS | SUPV: CDH | CERTIFIED: 07/15/97 | ISSUE: 4 |
|------------|-----------|-----------|---------------------|----------|

SHEET INDEX

SHT NBR	A1 THRU A1					ISSUE 4
ISSUE						
SHT NBR	D1 THRU D2					ISSUE 4
ISSUE						
SHT NBR	E1	E2	E3	E4	E5	
ISSUE	4	4	4	4	4	
SHT NBR						
ISSUE						
SHT NBR						
ISSUE						
SHT NBR						
ISSUE						
SHT NBR						
ISSUE						
SHT NBR						
ISSUE						
SHT NBR						
ISSUE						
SHT NBR						
ISSUE						
SHT NBR						
ISSUE						
SHT NBR						
ISSUE						
SHT NBR						
ISSUE						

TABLE OF CONTENTS	
DESCRIPTION	SHT
SHEET INDEX	A1
ISSUE NOTES	A1
ENGINEERING-NOTES	A1
E SECTION GRAPHICS	E1
MANUFACTURING NOTES	D1
MISCELLANEOUS TABLES	D1

LUCENT TECHNOLOGIES- PROPRIETARY
THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF
LUCENT TECHNOLOGIES AND IS NOT TO BE DISCLOSED OR USED
EXCEPT IN ACCORDANCE WITH APPLICABLE AGREEMENTS.

COPYRIGHT © 1997 LUCENT TECHNOLOGIES
UNPUBLISHED & NOT FOR PUBLICATION
ALL RIGHTS RESERVED

RN98

COMMON SYSTEMS
3B21D COMPUTER
AC AND DC POWER DISTRIBUTION

	DWG SIZE C2	ISSUE 4
--	----------------	------------

LUCENT TECHNOLOGIES INC ED3T080-10 SHEET A1 OF 8

TABLE A1

TABLE A (PART 1 OF 2)		NEG 48 VOLT REQUIREMENTS							
CABINET OR UNIT	FLOOR PLAN DESIG	FIG	LOOP VOLT DROP	LEAD DESIG	LEAD SIZE (2)	FUSE SIZE (1)	NUMBER OF FEEDERS	AVG CURRENT DRAIN AT -52V	PK CURRENT DRAIN AT -39.6V
PROCESSOR CABINET J3T060A-1	CSPC		.5 VOLT	-48A0	10	20	1	4	6
				-48A1	10	20	1	5	7
				-48A2	10	20	1	5	7
				-48A3	10	20	1	3	6
				-48A4	10	20	1	4 (3)	6.5 (3)
				-48A5	10	20	1	8	13
				-48B0	10	20	1	4	6
				-48B1	10	20	1	5	7
				-48B2	10	20	1	5	7
				-48B3	10	20	1	3	6
				-48B4	10	20	1	4 (3)	6.5 (3)
				-48B5	10	20	1	8	13

NOTES:

- STANDARD 20A FUSE ARE USED FOR 5E US. 16A SLOW BLOW FUSES ARE USED IN 5E INTERNATIONAL TO AVOID FUSE CLEARING DURING AUTO-RESTART POWER RESTORAL.
- LEAD SIZE MUST BE ENGINEERED FOR 0.5 VOLT DROP FROM THE POWER DISTRIBUTION CABINET TO THE 3B21D CABINET WHEN LOOP LEAD LENGTHS ARE GREATER THAN THE MAXIMUM LOOP LENGTHS SPECIFIED.
- AVE CURRENT DRAIN 1.8 AMPS AND PK CURRENT DRAIN 5.6 AMPS WHEN EQUIPPED WITH J3T061A-1, L41. MAX LOOP TO PDC IS 44 (88FT).

TABLE A2

TABLE A (PART 2 OF 2)		NEG 48 VOLT REQUIREMENTS						REMARKS
NUMBER OF GRD FEEDERS	LEAD DESIG	LEAD SIZE (2)	TOTAL CABINET DRAIN	FEEDER CABLE GROUP	TERMINAL TYPE AT PDC	MAX LOOP TO PDC (2) (FEET)		
1	RINA0	10	45.5 AMPS AT 39.5V	ED5A079-30,G38	NOTE 62	42 (84 FT)	A BUS	
1	RINA1	10		ED5A079-30,G38	NOTE 62	36 (72 FT)		
1	RINA2	10		ED5A079-30,G38	NOTE 62	36 (72 FT)		
1	RINA3	10		ED5A079-30,G38	NOTE 62	42 (84 FT)		
1	RINA4	10		ED5A079-30,G38	NOTE 62	38 (76 FT)		
1	RINA5	10	45.5 AMPS AT 39.5V	ED5A079-30,G38	NOTE 62	20 (40 FT)	B BUS	
1	RINB0	10		ED5A079-30,G38	NOTE 62	42 (84 FT)		
1	RINB1	10		ED5A079-30,G38	NOTE 62	36 (72 FT)		
1	RINB2	10		ED5A079-30,G38	NOTE 62	36 (72 FT)		
1	RINB3	10		ED5A079-30,G38	NOTE 62	42 (82 FT)		
1	RINB4	10		ED5A079-30,G38	NOTE 62	38 (76 FT)	NOTE 3	
1	RINB5	10		ED5A079-30,G38	NOTE 62	20 (40 FT)		

S
H
O
PI
N
S
T
X
X
X
X
X
X
X
X
X
X

MANUFACTURING NOTES

- F DENOTES PAIRED LEADS.
- TERMINATE CABINET GROUND CABLE TO AN EQUIPMENT MOUNTING HOLE ON EITHER REAR UPRIGHT. THE INSTALLER SHALL SELECT UNUSED MOUNTING HOLES AS NEAR THE TOP OF THE UPRIGHT AS POSSIBLE THAT WILL ALLOW DRESSING THE GROUND CABLE WITHOUT ANY SHARP BENDS. THIS TERMINATION SHALL BE MADE WITHIN THE TOP FIVE MOUNTING POSITIONS. THE PRIME POSITION BEING THE SECOND MOUNTING DOWN. (SEE FIG. C, F AND G FOR MATERIAL AND METHOD OF ASSEMBLY).
- DEPENDING ON THE FLOOR PLAN LAYOUT, THE NO. 6 BARE TINNED COPPER WIRE, STRANDED, 7 STRANDS MAY BE USED IN ONE PIECE TO GROUND TWO ADJACENT CABINET FRAMEWORKS TO THE BARE NO. 6 LINE-UP GROUND WIRE.
- CONNECT ALL 3B21D COMPUTER CABINETS TO 6 GAUGE GROUNDING STRAPS PER ED1A200-10, ED4A081-10 OR ED5D022-11.
- USE THOMAS & BETTS #54136 LUGS, THOMAS & BETTS #035-71153-1 GROUND CLAMPS AND #6 INSULATED CONDUCTOR TO SPLICE PLATES. LENGTH OF #6 CONDUCTOR SHALL NOT EXCEED 3 FEET.
- THE EQUIPMENT CABINETS SHALL BE BOLTED TO AND INSULATED FROM THE BUILDING FLOOR AND REINFORCING RODS IN THE FLOORING FOLLOWING THE METHODS SPECIFIED IN ED1A210-20 EXCEPT IN CASES OF POWER FRAMES AND BATTERY DISTRIBUTION FRAMES WHICH USE A DIFFERENT METHOD OF BOLTING AND INSULATING FROM THAT COVERED BY THE ED1A210-20. THE BOLTING AND INSULATING INFORMATION FOR THE BATTERY DISTRIBUTION AND POWER FRAMES IS PROVIDED ON THE EQUIPMENT DRAWINGS FOR THE INDIVIDUAL FRAMES.

SEE PROPRIETARY NOTICE ON SHEET ONE
 COPYRIGHT © 1997 LUCENT TECHNOLOGIES
 UNPUBLISHED & NOT FOR PUBLICATION
 ALL RIGHTS RESERVED

RN98

COMMON SYSTEMS
 3B21D COMPUTER
 AC AND DC POWER DISTRIBUTION

DWG SIZE
C2

ISSUE
4

ED3T080-10

LUCENT TECHNOLOGIES INC ED3T080-10

SHEET D1
OF
8

PRINTED IN U.S.A.

TABLE B

120 VOLT AC LOADS (SEE NOTES 53 TO 59)							
LOAD	TYPE	BUS	AMP DRAIN	FUSE OR CKT BRKR AMP RATING	CODE	LEAD SIZE	REMARKS
READ ONLY PRINTER ROP DOMESTIC	120 VOLTS SINGLE PHASE	PROTECTED	3.0	7.5	ATT/NCR #577	NO. 14	
READ ONLY PRINTER ROP INTERNATIONAL	220 VOLTS SINGLE PHASE	PROTECTED	2.0	5.0	ATT/NCR #577	NO. 14	
MAINTENANCE TERMINAL MTTY DOMESTIC	120 VOLTS SINGLE PHASE	PROTECTED	2.0	5.0	KS23996 \$L1,\$L2	NO. 14	
MAINTENANCE TERMINAL MTTY INTERNATIONAL	220 VOLTS SINGLE PHASE	PROTECTED	2.0	5.0	KS23996 \$L5,\$L6	NO. 14	
TAPE UNIT KS23909, L10 OR L21 (MTD IN J3T059A-1)	120 VOLTS SINGLE PHASE	COMMERCIAL OR ESSENTIAL	3.0	15.0		NO. 14	100-120 VAC @ 60 HZ INRUSH = 9 AMPS
TAPE UNIT KS23909, L10 OR L21 (MTD IN J3T059A-1)	220 VOLTS SINGLE PHASE	COMMERCIAL OR ESSENTIAL	1.5	15.0		NO. 14	220-240 VAC @ 50 HZ INRUSH = 9 AMPS

SEE PROPRIETARY NOTICE ON SHEET ONE
 COPYRIGHT © 1997 LUCENT TECHNOLOGIES
 UNPUBLISHED & NOT FOR PUBLICATION
 ALL RIGHTS RESERVED

RN98

COMMON SYSTEMS
 3B21D COMPUTER
 AC AND DC POWER DISTRIBUTION

DWG SIZE
C2

ISSUE
4

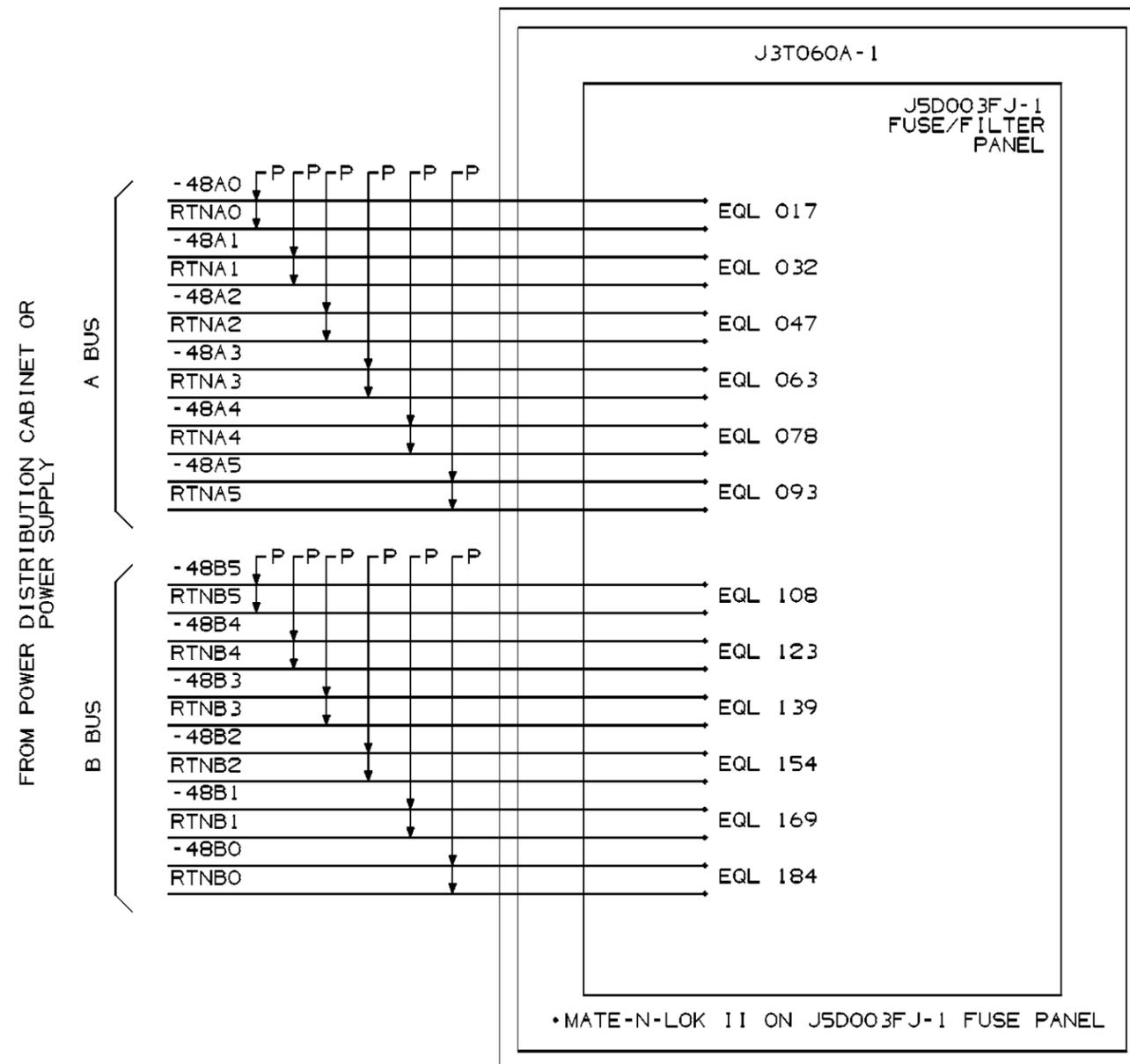


FIG. 1
 3B21D BASIC CABINET
 E/W J5D003FJ-1 MODULAR FUSE FILTER PANEL,
 6 'A' FEEDERS AND 6 'B' FEEDERS

SEE PROPRIETARY NOTICE ON SHEET A1		
COPYRIGHT © 1997 LUCENT TECHNOLOGIES UNPUBLISHED & NOT FOR PUBLICATION ALL RIGHTS RESERVED		
AC & DC POWER DISTRIBUTION CIRCUIT		DWG SIZE
		ISSUE
LUCENT TECHNOLOGIES INC	ED3T080-10	4
		SHEET E1

ED3T080-10

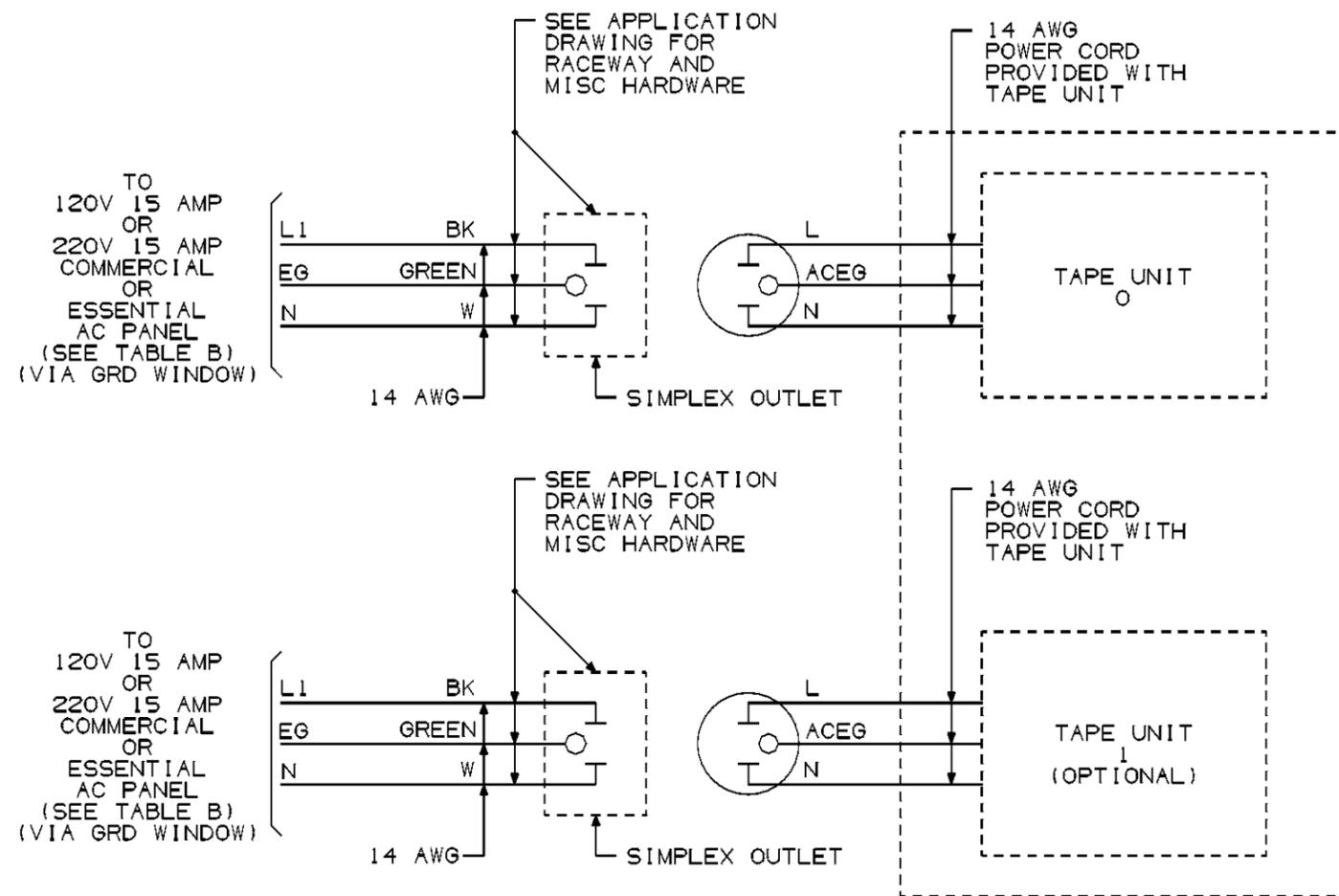


FIG. 2
INITIAL PERIPHERAL GROWTH CABINET
PER J3T059A-1
ARRANGED FOR ONE OR TWO
TAPE UNITS

SEE PROPRIETARY NOTICE ON SHEET A1		
COPYRIGHT © 1997 LUCENT TECHNOLOGIES UNPUBLISHED & NOT FOR PUBLICATION ALL RIGHTS RESERVED		
AC & DC POWER DISTRIBUTION CIRCUIT		
DWG SIZE c2	ISSUE 4	
LUCENT TECHNOLOGIES INC	ED3T080-10	SHEET E2

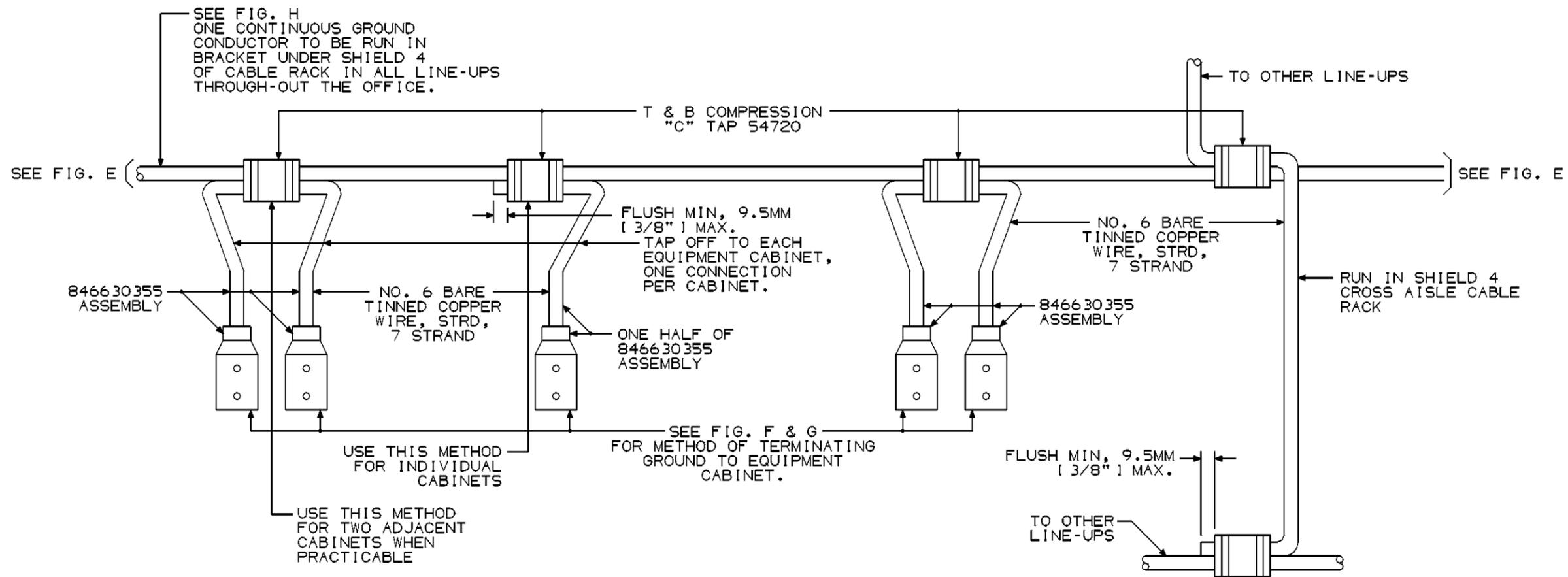


FIG. C
TYPICAL ELECTRICAL GROUND
CONNECTION TO ALL CABINETS

SEE PROPRIETARY NOTICE ON SHEET A1		
COPYRIGHT © 1997 LUCENT TECHNOLOGIES UNPUBLISHED & NOT FOR PUBLICATION ALL RIGHTS RESERVED		
AC & DC POWER DISTRIBUTION CIRCUIT		
DWG SIZE C2	ISSUE 4	
LUCENT TECHNOLOGIES INC	ED3T080-10	SHEET E3

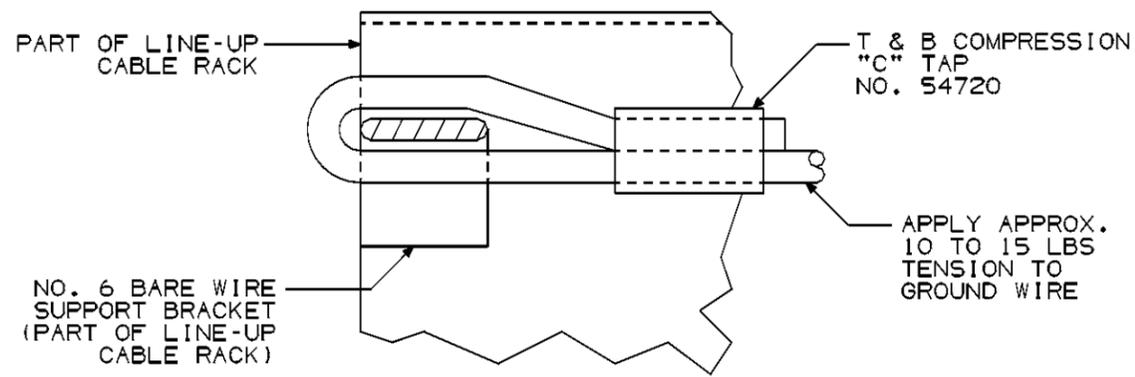


FIG. E
TYPICAL METHOD OF SECURING GROUND
CABLE TO CABLE RACK. SAME FOR EITHER
END OF LINE-UP. (LEFT REAR CONNECTION SHOWN)

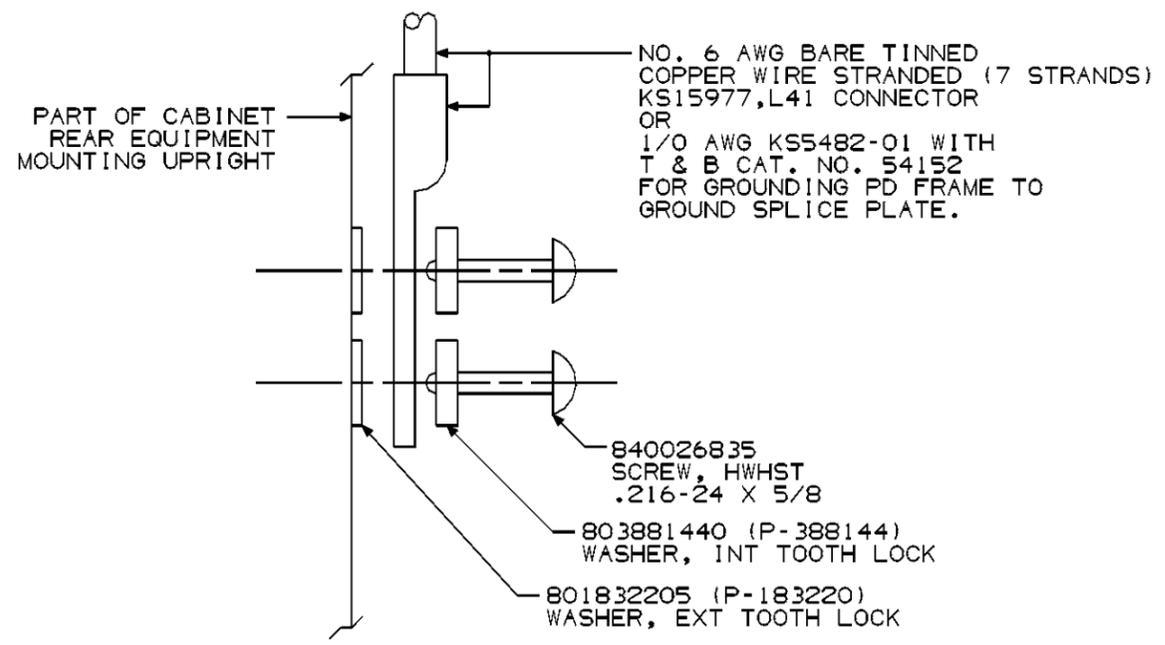


FIG. F
METHOD OF ATTACHING
CABINET GROUND CONDUCTOR
TO
CABINET UPRIGHT
(SEE FIG. G AND NOTE 61)

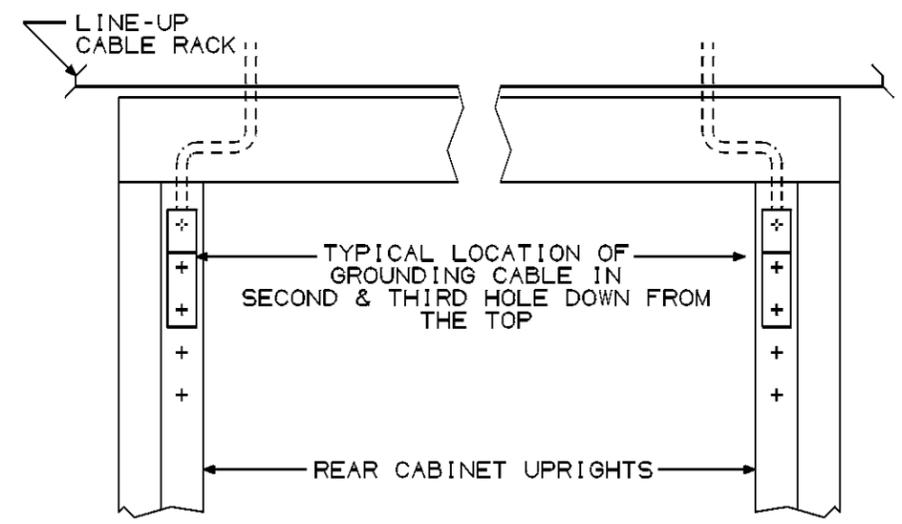


FIG. G
TYPICAL LOCATION OF CABINET
GROUND BONDS
(SEE FIG. C, & E AND NOTE 61)

SEE PROPRIETARY NOTICE ON SHEET A1		
COPYRIGHT © 1997 LUCENT TECHNOLOGIES UNPUBLISHED & NOT FOR PUBLICATION ALL RIGHTS RESERVED		
AC & DC POWER DISTRIBUTION CIRCUIT		DWG SIZE C2
		ISSUE 4
LUCENT TECHNOLOGIES INC	ED3T080-10	SHEET E4

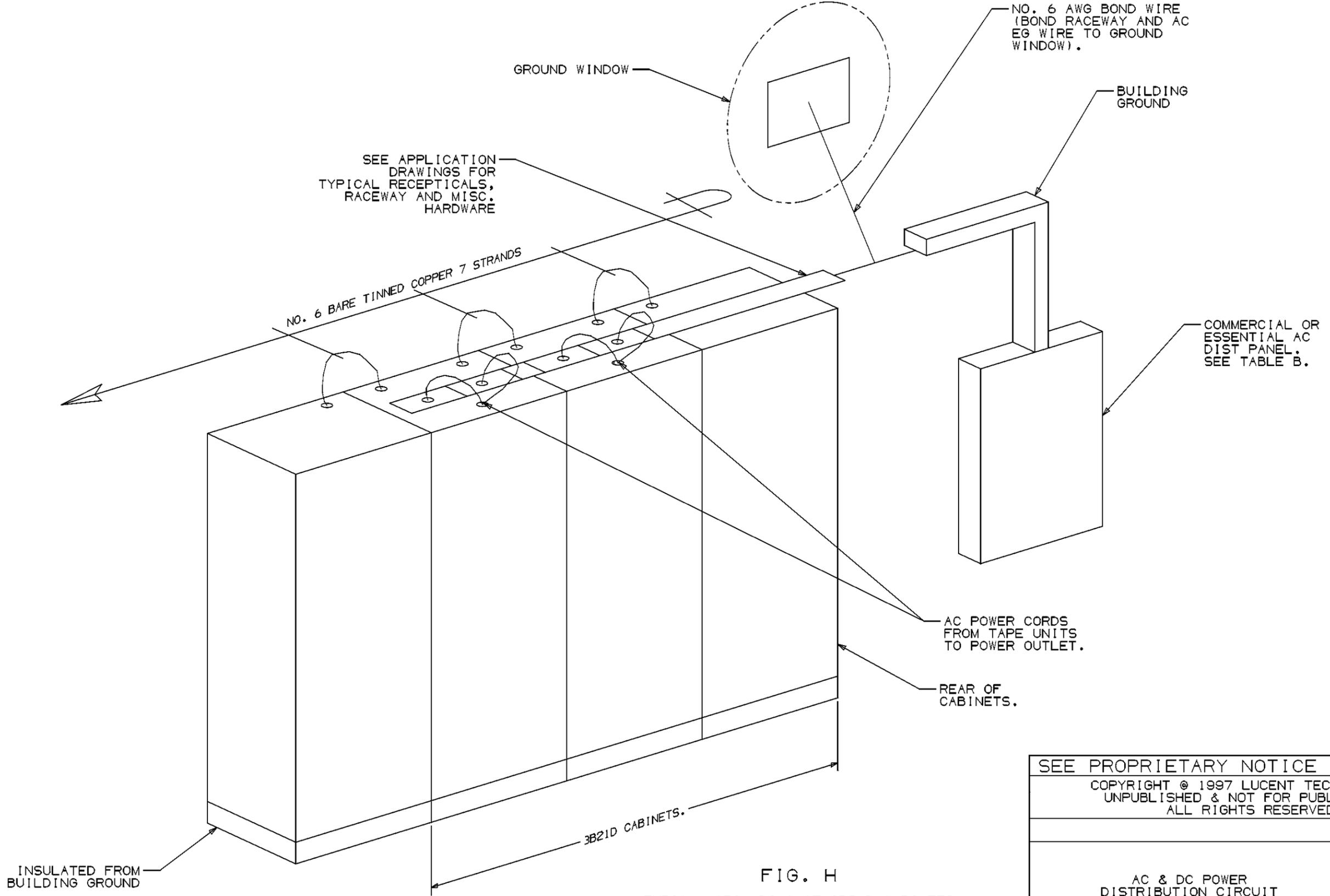


FIG. H
 TYPICAL GROUNDING OF 3B21D CABINETS TO LINEUP GROUND WIRE AND AC RACEWAY FOR 3B21D TAPE UNITS ON J3T059A-1 PERIPHERAL GROWTH CABINETS.

SEE PROPRIETARY NOTICE ON SHEET A1		
COPYRIGHT © 1997 LUCENT TECHNOLOGIES UNPUBLISHED & NOT FOR PUBLICATION ALL RIGHTS RESERVED		
AC & DC POWER DISTRIBUTION CIRCUIT		
DWG SIZE	ISSUE	
C2	4	
LUCENT TECHNOLOGIES INC	ED3T080-10	SHEET E5

ED3T080-10