

REV	CHANGE	ER NO.	DFTS	CHECK	APPD	DATE						
(A)	RELEASED TO PRODUCTION.	35-07166	—	—	—	—						
(B)	ADDED ITEM 40. ITEM 2 WAS 315-0522331 ITEM 39 WAS 007-8953102, ITEM 11 WAS 007-9502000.	35-07671	PR 4-19-74	NWC 5-9-74	RFD	5-13-74						
<table border="1"> <tr><td>M05-01-STD</td></tr> <tr><td>M05-01-399</td></tr> <tr><td>M05-01-721</td></tr> <tr><td>M05-01-726</td></tr> <tr><td>M05-01-734</td></tr> <tr><td>M05-01-754 MODULES</td></tr> </table>							M05-01-STD	M05-01-399	M05-01-721	M05-01-726	M05-01-734	M05-01-754 MODULES
M05-01-STD												
M05-01-399												
M05-01-721												
M05-01-726												
M05-01-734												
M05-01-754 MODULES												
MO			RFC NO.		PLANT LOC	DESCRIPTION						
MANUFACTURING OPTION FOR USE ONLY AT PLANT SHOWN												
INTERPLANT USAGE (CODE)			REQD	NEXT ASSEMBLY								
1			315-0524791									
REPLACES DWG			315-0524788									
THIS DRAWING AND ANY ATTACHMENTS THERETO AND INFORMATION THEREON ARE THE PROPERTY OF THE NATIONAL CASH REGISTER COMPANY AND ALL UNAUTHORIZED USE AND REPRODUCTION IS PROHIBITED.			<b>NCR</b> DATA PROCESSING DIVISION RANCHO BERNARDO, CALIFORNIA									
CLASS	MODEL	PLANT	CLASS	MODEL	PLANT	CLASS: M05						
M05	01	35	M05	01	21	UNIT: GPMC						
START: '28 70		FINISH: '28 74		NAME: BOARD-PLUGIN, PROCESSOR 4								
DFTS: <i>S.P. Helms</i>												
DRAWING OF THE ASSEMBLY			CHKR: <i>RFD</i>		315-0531444							
SHEET NO. 5 & 6		SIZE: D	DESIGNER: D. NORDEN		REV B							
REV	A	B	APPD: <i>RFD</i>	APPD:	CODE: 2-9045	COVER SHEET SHEET 1 OF 6						

ITEM	REQD	SIZE	PART NO.	DESCRIPTION	PARTS LIST CHG. ER NO.	REMARKS
1	1	D	315-0525484	BOARD-PRINTED	35-07671	
2	1	D	315-0529100	STIFFENER		
3	REF	D	315-0531441	SCHEMATIC-LOGIC		
4	1	B	315-0523289	TAB-IDENTIFICATION		
5	1	D	315-0523127	LABEL		
6	11	D	315-0520640	BUS BAR		
7	2	D	315-0520639	BUS BAR		
8	5	A	007-6951204	RIVET-HOLLOW BRASS		
9	REF	A	007-9999148	PERFORMANCE SPECIFICATION		
10	REF	A	007-9506300	ASSEMBLY SPECIFICATION		
11	REF	A	007-9502002	MARKING, GENERAL	35-07671	
12	A/R	A	007-8900811	TUBING-INSULATION		
13	4	A	006-6020401	RESISTOR, 300Ω, 1/4W, ±5% R5,6,13,18		
14	6	A	006-6020402	RESISTOR, 1K, 1/4W, ±5% R1,2,4,17,19,20		
15	1	A	006-6020407	RESISTOR, 2K, 1/4W, ±5% R8		
16	1	A	006-6020421	RESISTOR, 43K, 1/4W, ±5% R12		
17	3	A	006-6020458	RESISTOR, 5.1K, 1/4W, ±5% R10,15,16		
18	2	A	007-6785410	RESISTOR, VARIABLE, 5K, 1/2W, ±20% R3,7		
19	2	A	007-6785412	RESISTOR, VARIABLE, 20K, 1/4W, ±20% R9,14		
20	2	A	007-1131508	CAPACITOR, 22PF, 100V, ±10% C35,37		
21	2	A	007-1131513	CAPACITOR, 56PF, 100V, ±10% C33,41		
<b>NCR</b> UNIT: GPMC NAME: BOARD-PLUGIN, PROCESSOR 4				315-0531444		REV B
				NCR PROPRIETARY		PARTS LIST SHEET 2 OF 6

ITEM	REQD	SIZE	PART NO.	DESCRIPTION	PARTS LIST CHG. ER NO.	REMARKS
22	1	A	007-1131522	CAPACITOR-330PF, 100V, ±10% C38		
23	33	A	007-1158901	CAPACITOR, 12UF, 6V, +100%, -20% C2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 39, 40		
24	1	A	007-1160119	CAPACITOR, 51PF, 500V, ±5% C34		
25	1	A	007-1172109	CAPACITOR, .015UF, 80V, ±10% C36		
26	1	A	007-1675101	CIRCUIT-TTL, NAND GATE (DUAL 4-INPUT OC) M10		
27	22	A	007-1695001	CIRCUIT-TTL, NAND GATE (QUAD 2-INPUT) A2, A3, A9, B8, B10, D10, F3, F8, F10, H3, H4, H10, J1, K2, K7, M2, M5, M6, N2, N3, N5, N9		
28	3	A	007-1695101	CIRCUIT-TTL, NAND GATE (DUAL 4-INPUT) A7, B7, H7		
29	7	A	007-1695201	CIRCUIT-TTL, NAND GATE (SINGLE 8-INPUT) B9, D9, F2, F9, H2, H9, K6		
30	10	A	007-1695301	CIRCUIT-TTL, HEX INVERTER D6, D8, F5, H5, H6, H8, K3, K8, K10, M3		
31	8	A	007-1695401	CIRCUIT-TTL, FLIP-FLOP (DUAL) A1, A4, A8, E1, G1, L1, M1, N1		
32	3	A	007-1695701	CIRCUIT-TTL, NAND BUFFER (DUAL 4-INPUT) N6, N7, M8		
33	7	A	007-1695901	CIRCUIT-TTL, NAND GATE (TRIPLE 3-INPUT) A5, B6, F4, F7, K4, K5, M9		
34	11	A	007-1696201	CIRCUIT-TTL, NOR GATE (QUAD 2-INPUT) B2, B3, B4, B5, D2, D3, D4, D5, K9, N4, N10		

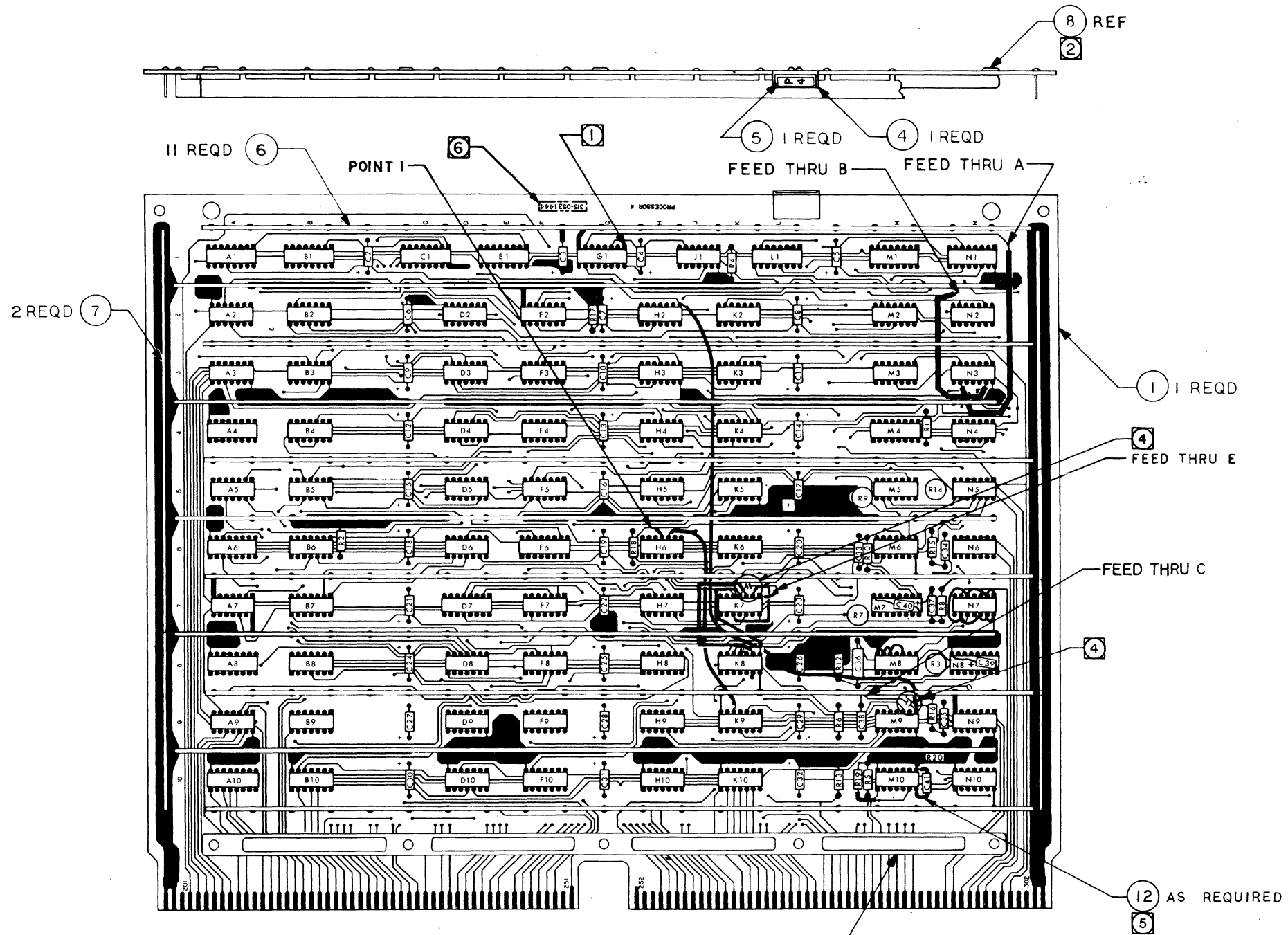
<b>NCR</b>	UNIT: GPMC	315-0531444	REV
	NAME: BOARD-PLUGIN, PROCESSOR 4		B
NCR PROPRIETARY		PARTS LIST	SHEET 3 OF 6

ITEM	REQD	SIZE	PART NO.	DESCRIPTION	PARTS LIST CHG. ER NO.	REMARKS
35	4	A	007-1697201	CIRCUIT-TTL, 1 OF 10 DCD A10, B1, C1, D7		
36	1	A	007-1697301	CIRCUIT-TTL, MULTIPLEXER (8-INPUT) A6		
37	2	A	007-1697401	CIRCUIT-TTL, BINARY CO F6, M4		
38	2	A	007-1698101	CIRCUIT-TTL, MULTIVIBRATOR (DUAL MONOSTABLE) N8, M7		
39	A/R	A	007-9000001	WIRE-ELECTRICAL, INSULATED W1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18	35-07671	
40	1	C	315-0529089	INSULATOR, CARD STIFFENER	35-07671	

<b>NCR</b>	UNIT: GPMC	315-0531444	REV
	NAME: BOARD-PLUGIN, PROCESSOR 4		B
NCR PROPRIETARY		PARTS LIST	SHEET 4 OF 6

③

WIRE LIST					
REF DES	START TERM	END TERM	P/L ITEM	COMP SIDE	SLD SIDE
W1	FEED THRU A	N3-9	39	X	
W2	FEED THRU B	N3-13	39	X	
W3	H6-11	POINT I	39	X	
W4	K9-5	H6-10	39	X	
W5	H2-8	M9-1	39	X	
W6	M8-10	M8-12	39	X	
W7	M8-12	M8-13	39	X	
W8	M8-13	M8-14	39	X	
W9	N7-1	N7-2	39	X	
W10	N7-2	N7-5	39	X	
W11	N7-5	N7-9	39	X	
W12	N7-9	N7-12	39	X	
W13	N7-12	N7-13	39	X	
W14	N7-13	N7-14	39	X	
W15	K7-1	FEED THRU E	39	X	
W16	K7-2	K7-10	39	X	
W17	K7-3	K8-9	39	X	
W18	K7-4	K8-8	39	X	



- ⑥ RE-IDENTIFY PER ITEM 11. APPROXIMATELY AS SHOWN.
- ⑤ ITEM 12 TO BE USED ON R19, R20 AND C41.
- ④ CUT CONDUCTOR APPROXIMATELY AS SHOWN PER ITEM 10.
- ③ ROUTE JUMPERS (WIRE)/COMPONENTS APPROXIMATELY AS SHOWN PER ITEM 10.
- ② INSTALL FROM THIS SIDE.
- ① ■ INDICATES PIN NUMBER 1.

NOTES (UNLESS OTHERWISE SPECIFIED)

- 1 REQD ②
- 5 REQD ⑧
- 1 REQD ④0

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<b>NCR</b> DATA PROCESSING DIVISION RANCHO BERNARDO, CALIFORNIA		
UNIT: GPMC		
NAME: BOARD-PLUGIN, PROCESSOR 4		
SHEET	5 OF 6	DWG SIZE
		D 315-0531444

315-0531444

G

F

E

D

C

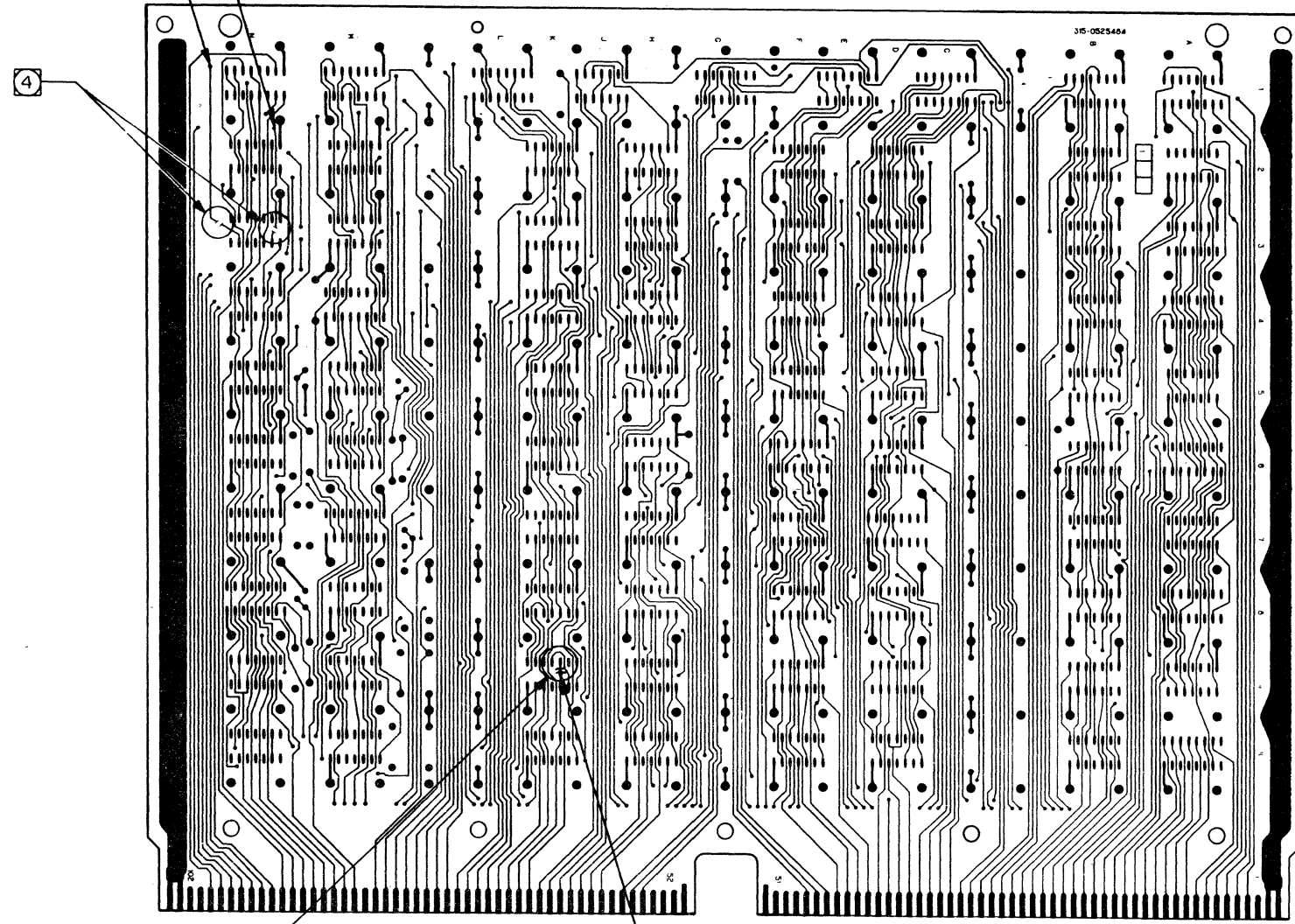
B

A

④

CONDUCTOR CUT LIST			
CUT NO	CUT BETWEEN	COMP SIDE	SLD SIDE
1	M9-1	FEED THRU C	X
2	N3-9	FEED THRU B	X
3	N3-13	FEED THRU A	X
4	K9-5	FEED THRU D	X
5	K7-4	FEED THRU E	X

FEED THRU B  
FEED THRU A



FEED THRU D

④

315-0531444

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<b>NCR</b>		DATA PROCESSING DIVISION RANCHO BERNARDO, CALIFORNIA
UNIT:	GPMC	
NAME:	BOARD-PLUGIN, PROCESSOR 4	
SHEET	6 OF 6	DWG SIZE <b>D</b> 315-0531444

FUNCTION	INPUT PIN	OUTPUT PIN	PAGE/ZONE	REMARKS
AMA01		220	6-A3	
AMA02		236	6-A5	
AMA03		41	6-A7	
AMA04		260	6-A9	
B		19	6-D3	
CA16	56		5-F5	
CCR01-A	9		5-G1	
CCR02-A	10		5-G2	
CCR03-A	211		5-G2	
CCR04	267		5-D1	
CCR05	269		5-D2,6-D10,	
			7-G6	
CCR06	223		5-D2,6-D4,	
			7-G8	
CCR07	38		5-D2,6-D6,	
			7-G9	
CCR08	44		5-D3,6-D8,	
			7-G9	
CCR09-A	265		5-D3,6-D9,	
			7-F7,7-G10	
CCR10	26		4-D7,6-D4,	
			7-F3,7-G3	
CCR11	37		4-D7,6-D6,	
			7-F3,7-G4	
CCR12	43		4-D8,6-D8,6-F11	
			7-F3,7-F5	
CDS02	263		5-G8,5-G10	
CL1-A		290	8-A4	

FUNCTION	INPUT PIN	OUTPUT PIN	PAGE/ZONE	REMARKS
CL2-B		292	8-A6	
CORCL		67	5-A10	
E		217	6-D7	
EOS	278		4-D3	
ERR		297	4-A11	
ERR02		96	4-A11	
ET		71	4-A3	
ETT		76	4-D10	
ETT		98	4-D10	
F16	17		6-G7,6-G10	
G		16	6-D5	
GPC	45		5-F6	
G16	23		6-G6,6-G9	
HSC		291	8-A8	
IP		275	4-D4	
IP		75	4-D4	
J07	208		6-G10	
J08	205		6-G8	
J09	216		6-G6	
J10	206		6-G3	
J12	79		4-G4	
J13	95		4-G6	
J14	78		4-G7	
J15	64		4-G9	
J16	36		4-G11,6-G5,	
			6-G11	

FUNCTION	INPUT PIN	OUTPUT PIN	PAGE/ZONE	REMARKS
KA		230	5-B4	
KAT		239	7-A4	
KAE		277	9-B2	
KB		88	5-B5	
KCCR05	298		5-G10,8-G10	
KCCR06	72		5-F9	
KCCR07	283		6-D10,7-F6	
KCCR08	284		6-D9,7-F7	
KCCR10	219		7-F8	
KCCR11	218		7-F7	
KCCR23		251	4-B7	
KCCR24		233	4-B7	
KCCR26		235	4-B8	
KFFL		18	7-E2	
KJ01-16	20		5-F7,6-G2,	
			6-G4,6-G8	
KKB		248	5-D7	
KMD01	58		5-F11	
KN11		258	4-B9	
KN12		259	4-B9	
KTT		282	7-A9	
KTT		80	7-A8	
KTTF		5	4-B5	
KXFL25	210		6-G6,6-G8	
KXFL79	21		6-G5,6-G8,	
			6-G11	

315-0531441

F  
E  
C  
3

G  
F  
E  
D  
C  
B

- 2. +5 VOLT PINS 1, 2, 201, 202.
- 1. GROUND PINS 101, 102, 301, 302.

NOTES UNLESS OTHERWISE SPECIFIED:

CHANGES: **A** RELEASED TO PRODUCTION.

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**NCR** DATA PROCESSING DIVISION  
RANCHO BERNARDO, CALIFORNIA

CLASS: **M05** UNIT: **GPMC**  
 START: 12/28/78 FINISH: 1/28/79 NAME: **SCHEMATIC-LOGIC, PROCESSOR 4**

INTERPLANT USAGE CODE: DFTS: *S.C. Roberts* CHKR: *J. Boone* SHEET 1 OF 9 DWG SIZE: **D**  
 REPLACES DWG: **315-0524790** DESIGNER: **J. BOONE** APPD: **315-0531441**

S1

M05	01	21							
M05	01	08							
M05	01	35	A	35ER07166					
CLASS	MODEL	PLANT	REV	RELEASE NO.	DFTS	DATE	CHECK	APPD	

FUNCTION	INPUT PIN	OUTPUT PIN	PAGE/ZONE	REMARKS
KXS01		237	9-A6	
KXS02		247	9-A7	
KXS03		90	9-A8	
KXS04		240	9-A9	
KXS07		73	9-A11	
KXS07		231	9-A11	
L		209	6-D9	
MAE	276		4-D2,4-F7	
MCA	70		9-C2	
MCR		280	5-A8	
MCX	286		5-D10,8-G4	
MDR16	74		5-E7	
MDR16	63		5-G8	
MPE	256		4-D2,4-F5	
MPF		97	4-D5	
MR	66		4-B3,4-C4,4-F3	
			4-E4,4-E7,4-F4	
			4-F5,4-F7,4-F8	
			4-F10,5-C4,5-C6	
			5-C8,6-E3,6-E5	
			6-E7,6-E9,7-D2	
			7-D6,7-C10	
NXM		77	4-D7	
N1	31		9-G2	
N2	224		9-G2	
N3	229		9-G2	
N4	28		9-G3	
N5	228		9-G3	
N6	30		9-G3	
N7	29		9-G3	

FUNCTION	INPUT PIN	OUTPUT PIN	PAGE/ZONE	REMARKS
PFF		204	4-D8	
PWF		255	4-F8	
PWF	257		4-G8	
RDIROUT	57		5-F9	
SC		6	4-B6	
SMB7		69	5-C2	
SMB8		68	5-C3	
SMB9		266	5-C3	
SPOS1		268	5-C1	
SPOS2		270	5-C2	
SPOS3		271	5-C2	
SPT00		11	5-E1	
SPT01		12	5-E1	
SPT02		13	5-E2	
SPT03		14	5-E2	
SPT04		15	5-E2	
SPT05		213	5-E2	
SPT06		214	5-E2	
SPT07		215	5-E2	
SRF16	4		4-C6	

FUNCTION	INPUT PIN	OUTPUT PIN	PAGE/ZONE	REMARKS
SSE	281		8-G5	
SSS	82		8-F5	
SSTB		85	5-E3	
STERM		87	5-E3	
T1		81	7-A9	
T2		279	7-A9	
T3		92	7-A10	
T4		93	7-A10	
XA23	225		7-F8	
XA43	245		7-D5	
XA57	24		7-G3	
XA71	42		7-F5,7-F7	
XAUX31	285		6-D9	
XAUX44	27		6-D4	
XAUX49	244		6-D4,6-D6,6-D8	
XAUX50	222		6-D4,6-D6	
XAUX51	241		6-D8	
XAUX52	262		6-D9	
XAUX53	40		6-D6	
XAUX58	25		6-D3,6-D5,	
			6-D7	
XAUX67	242		6-D8	
XAUX68	61		6-D11	
XAUX72	221		6-D3,6-D5,6-D7	
XAUX75	60		6-D10	
XAUX78	261		6-D10	
XB 27	207		6-G4	
XFL46	264		6-D2	

315-0531441

S2

REV	A	SEE SHEET ONE FOR CHANGES
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<b>NCR</b> DATA PROCESSING DIVISION RANCHO BERNARDO, CALIFORNIA		
UNIT: GPMC		
NAME: SCHEMATIC-LOGIC, PROCESSOR 4		
SHEET	2 OF 9	DWG SIZE <b>D</b> 315-0531441

FUNCTION	INPUT PIN	OUTPUT PIN	PAGE/ZONE	REMARKS
XI065	89		5-G3	
XI066	86		5-G3	
XIP28	273		4-G5	
XKA30	246		5-D4	
XKB69	47		5-F6	
XMCR20	46		5-F11	
XMCR47	65		5-F10	
XN40	272		5-F10	
XS-N00		293	9-F4	
XS-N00		294	9-F5	
XS-N01		32	9-F5	
XS-N02		35	9-F6	
XS-N04		34	9-F7	
XS-N05		238	9-F8	
XS-N06		274	9-F9	
XS-N07		33	9-F10	
XS-N41		39	9-D5	
XS-N44		22	9-D5	
XS-N46		8	9-D6	
XS-N50		232	9-D7	
XS-N61		7	9-D9	
XS-N62		226	9-D10	
XS-N65		249	9-D11	
XS-N67		227	9-B3	
XS-N76		62	9-B4	
XT 24	84		7-B11	
XT 26	91		7-D3,7-G11	

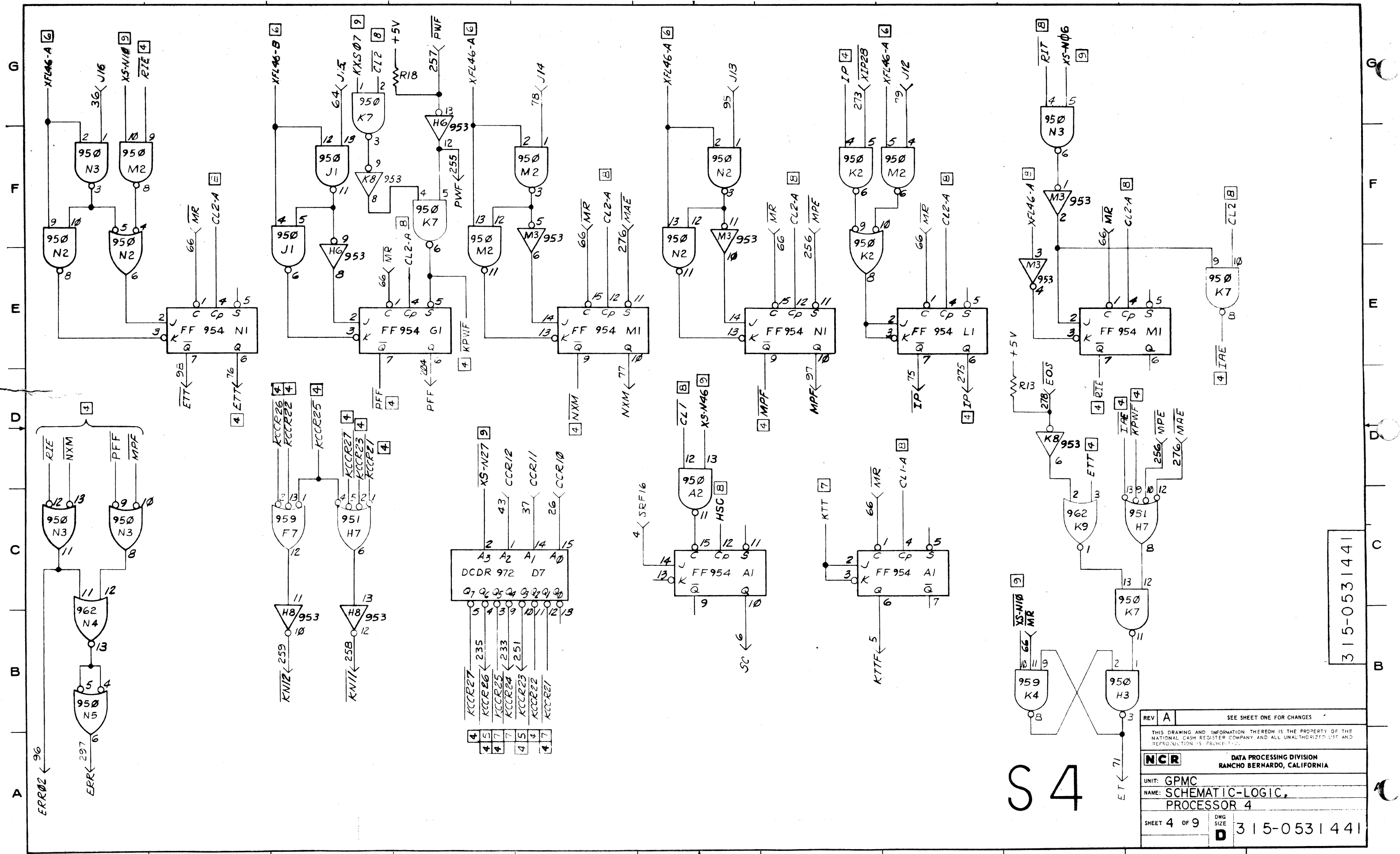
FUNCTION	INPUT PIN	OUTPUT PIN	PAGE/ZONE	REMARKS
XT 45	94		7-C10	
XT 74	295		7-G10	

FUNCTION	INPUT PIN	OUTPUT PIN	PAGE/ZONE	REMARKS
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315-0531441

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<b>NCR</b>	DATA PROCESSING DIVISION RANCHO BERNARDO, CALIFORNIA
UNIT: GPMC	
NAME: SCHEMATIC-LOGIC, PROCESSOR 4	
SHEET 3 OF 9	DWG SIZE D 315-0531441

S3

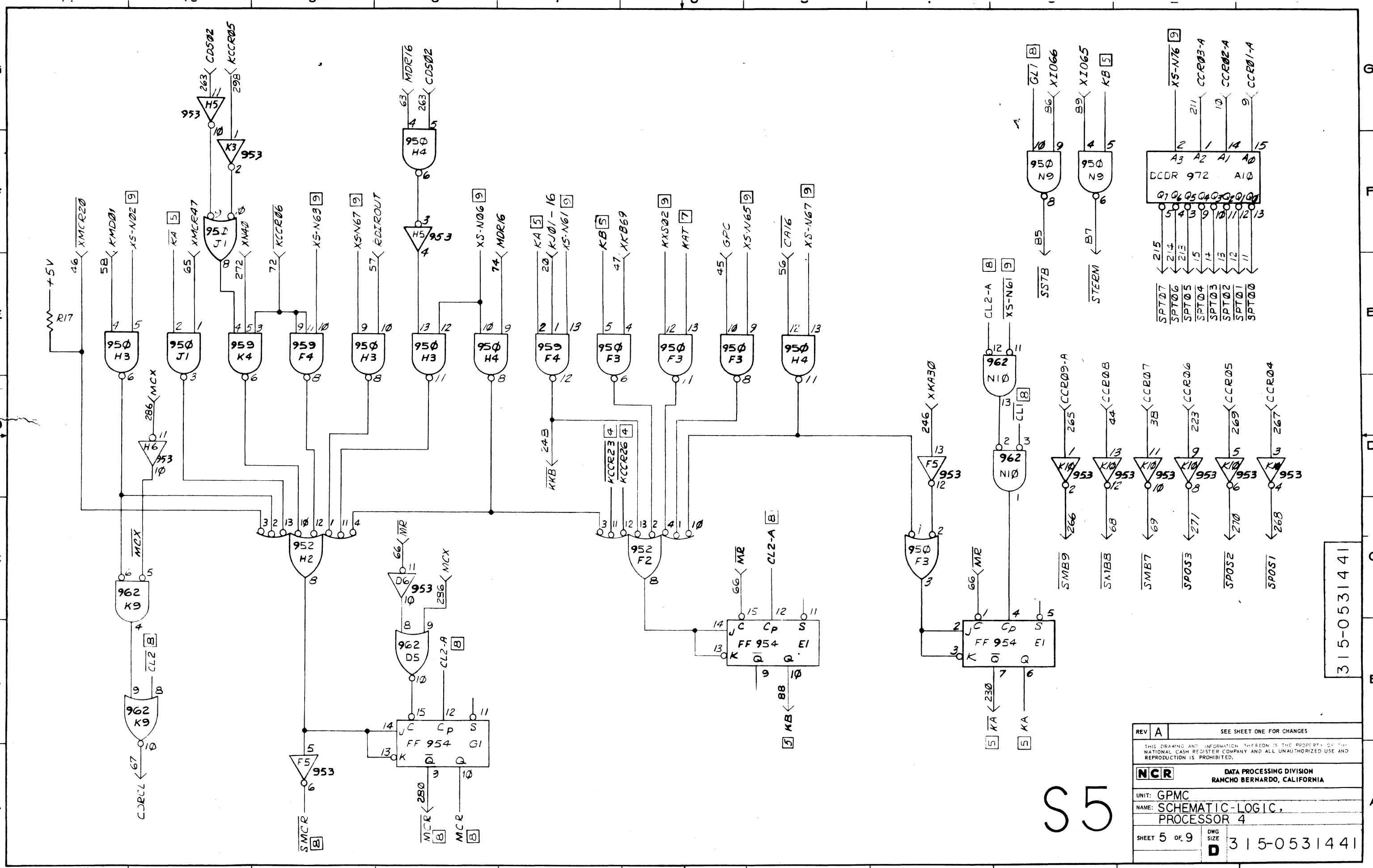


315-0531441

S 4

REV	A	SEE SHEET ONE FOR CHANGES
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<b>NCR</b>		DATA PROCESSING DIVISION RANCHO BERNARDO, CALIFORNIA
UNIT: GPMC		
NAME: SCHEMATIC-LOGIC, PROCESSOR 4		
SHEET	4 OF 9	DWG SIZE
		315-0531441

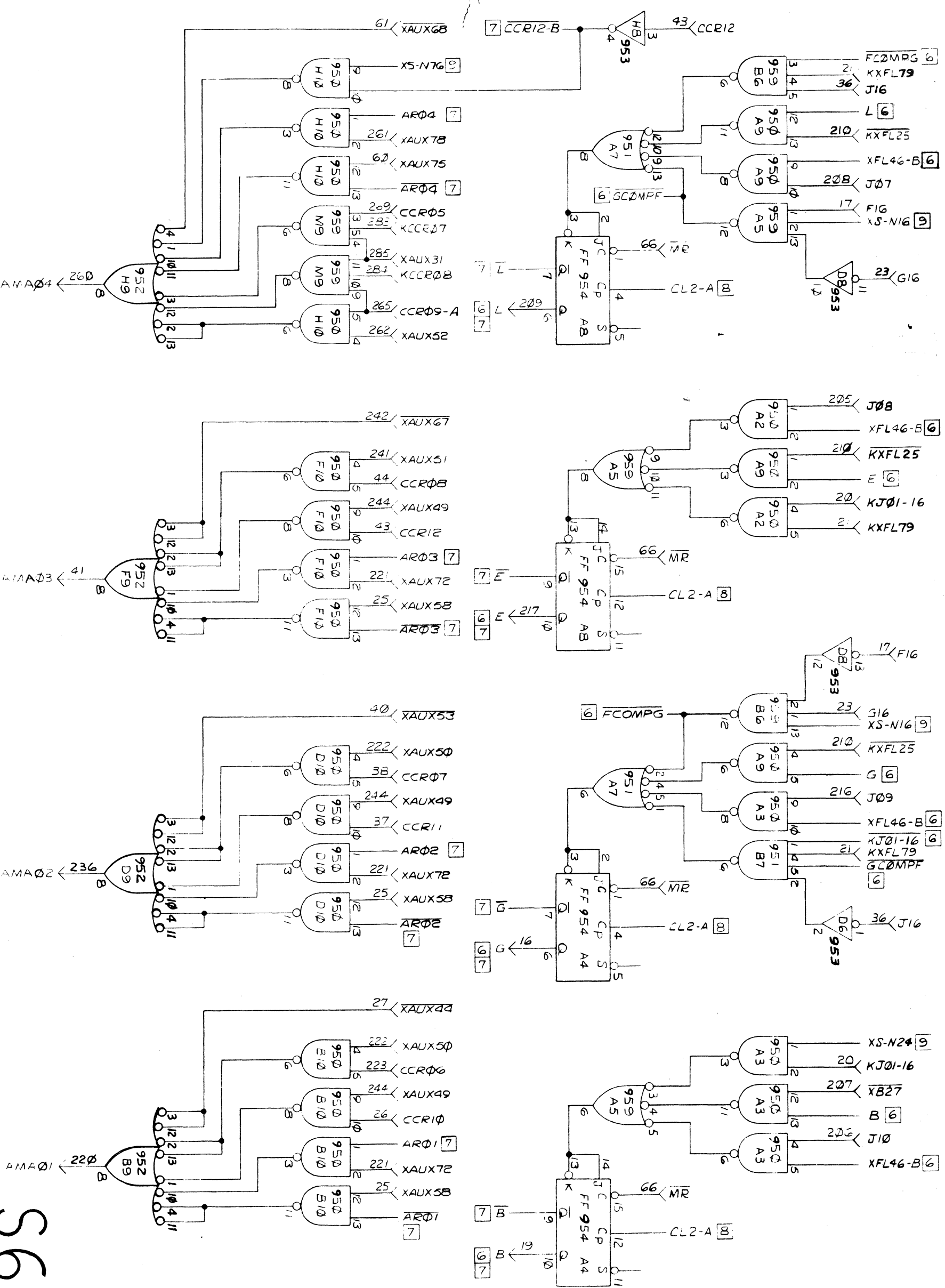




315-0531441

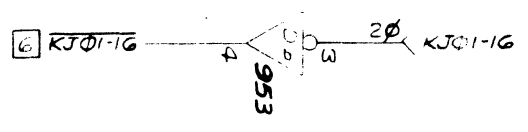
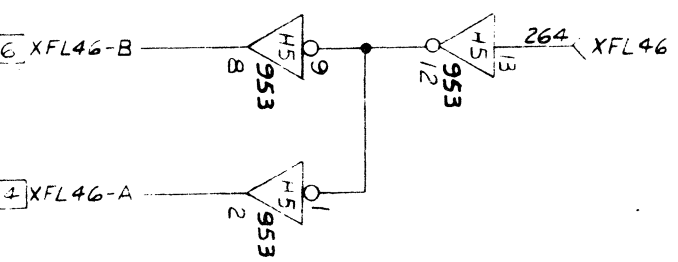
S5

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UNIT: GPMC	
NAME: SCHEMATIC-LOGIC, PROCESSOR 4	
SHEET 5 OF 9	DWG SIZE 315-0531441

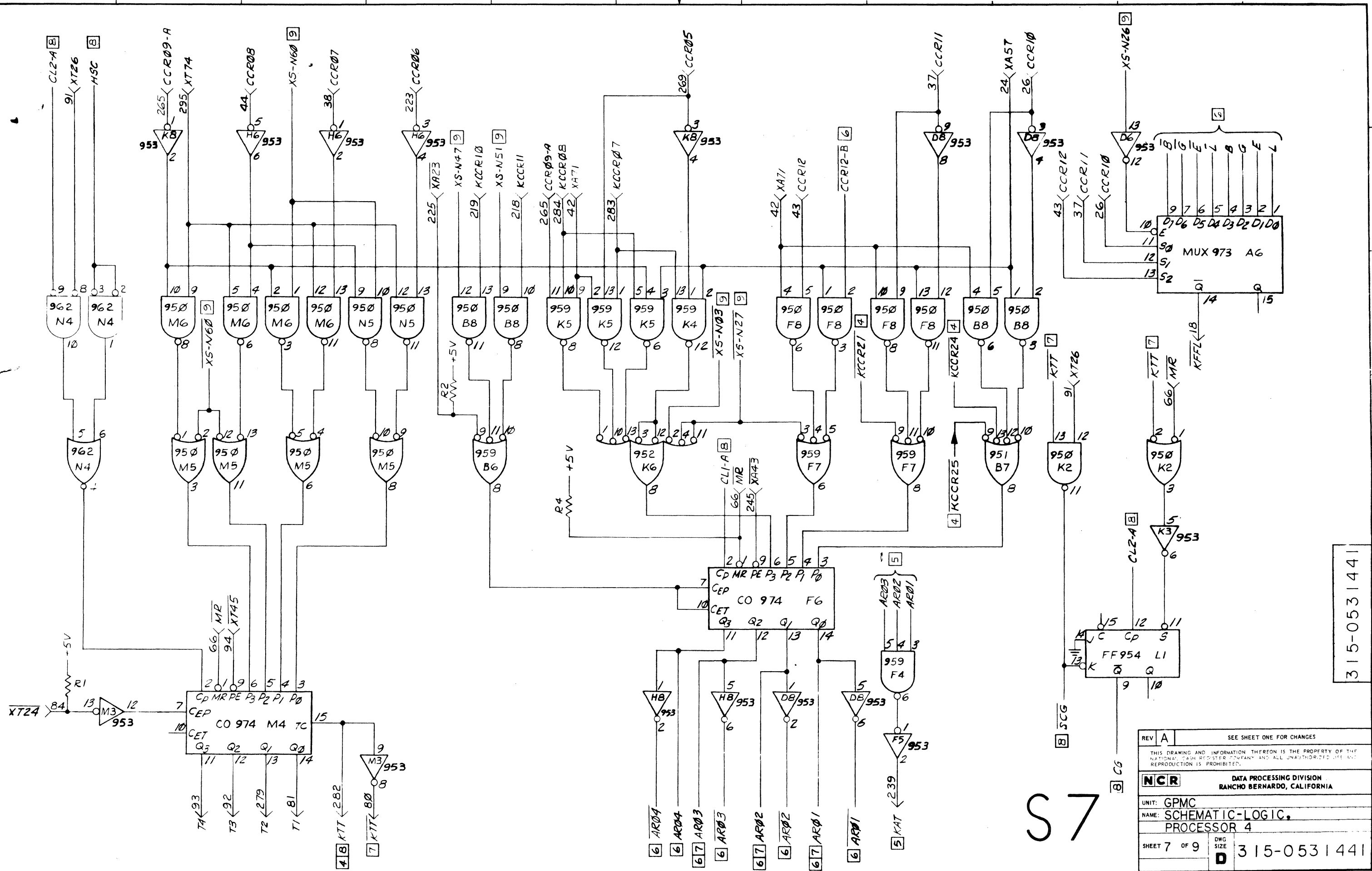


56

REV	A	SEE SHEET ONE FOR CHANGES
UNIT:	GPMC	
NAME:	SCHEMATIC-LOGIC,	
	PROCESSOR 4	
NCR DATA PROCESSING DIVISION		RANCHO BERNARDO, CALIFORNIA
SHEET 6 OF 9		DWG SIZE 3 1/2-5-053 1441



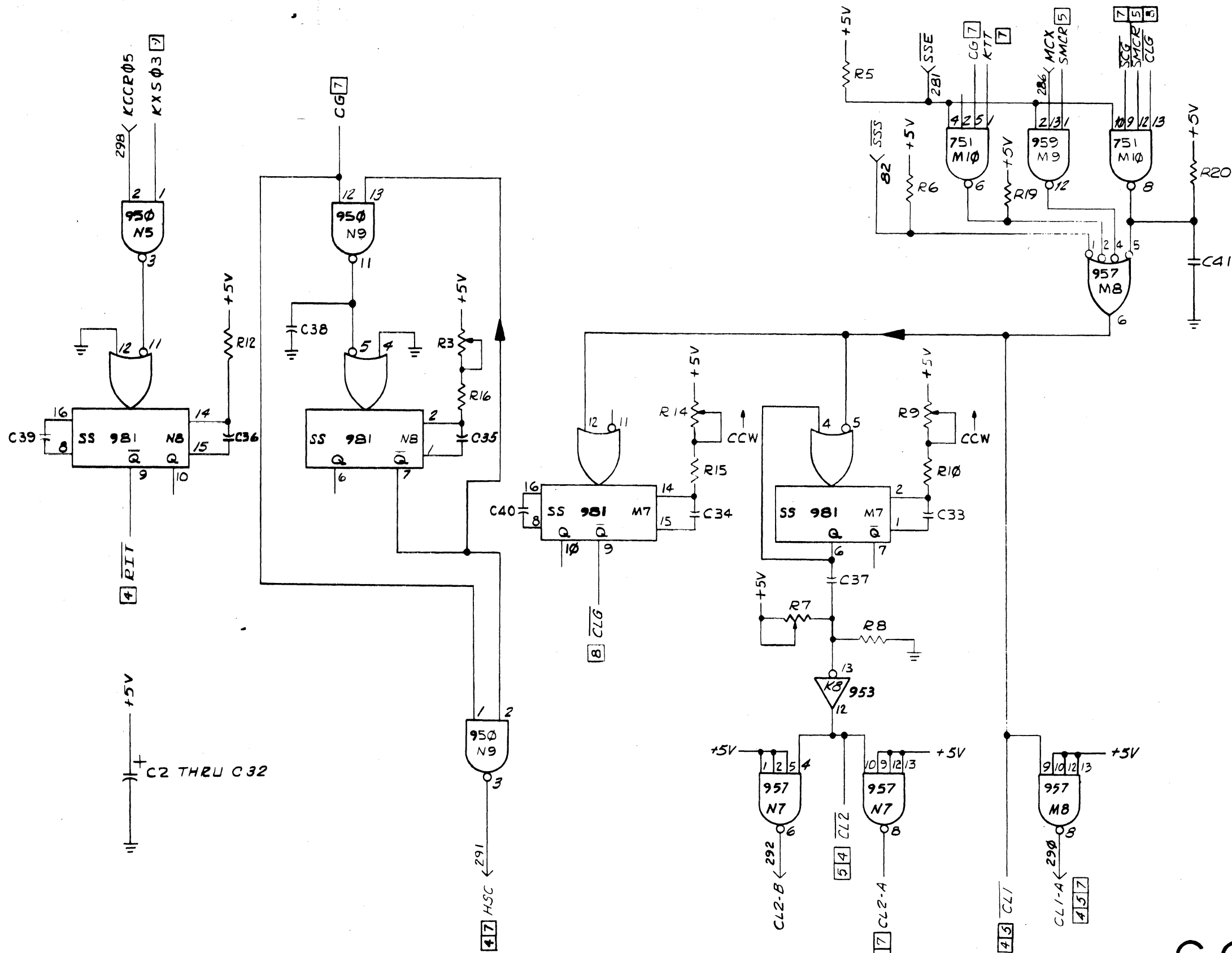
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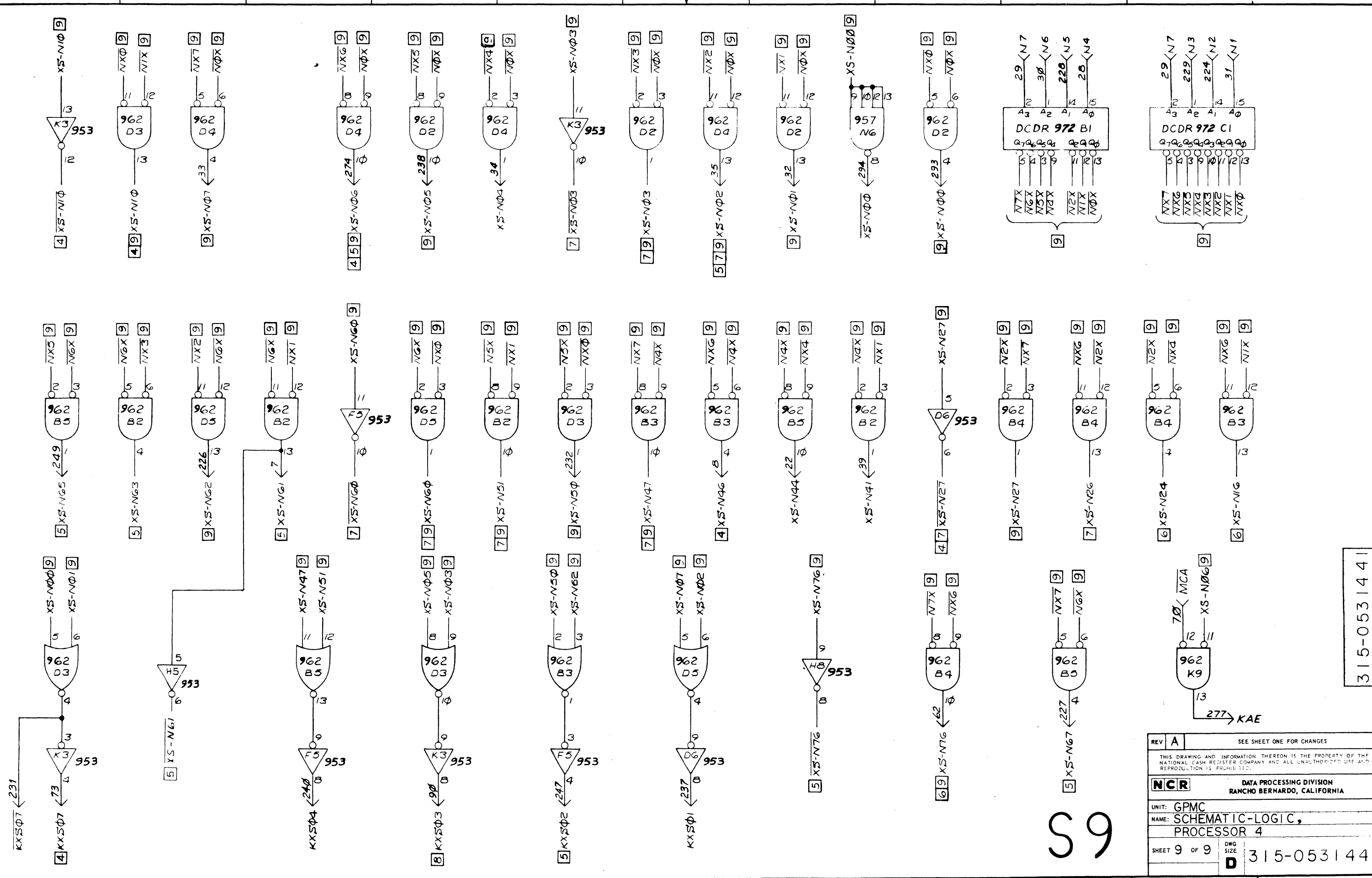
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NAME:	SCHEMATIC-LOGIC, PROCESSOR 4	
SHEET	9 OF 9	DWG SIZE
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