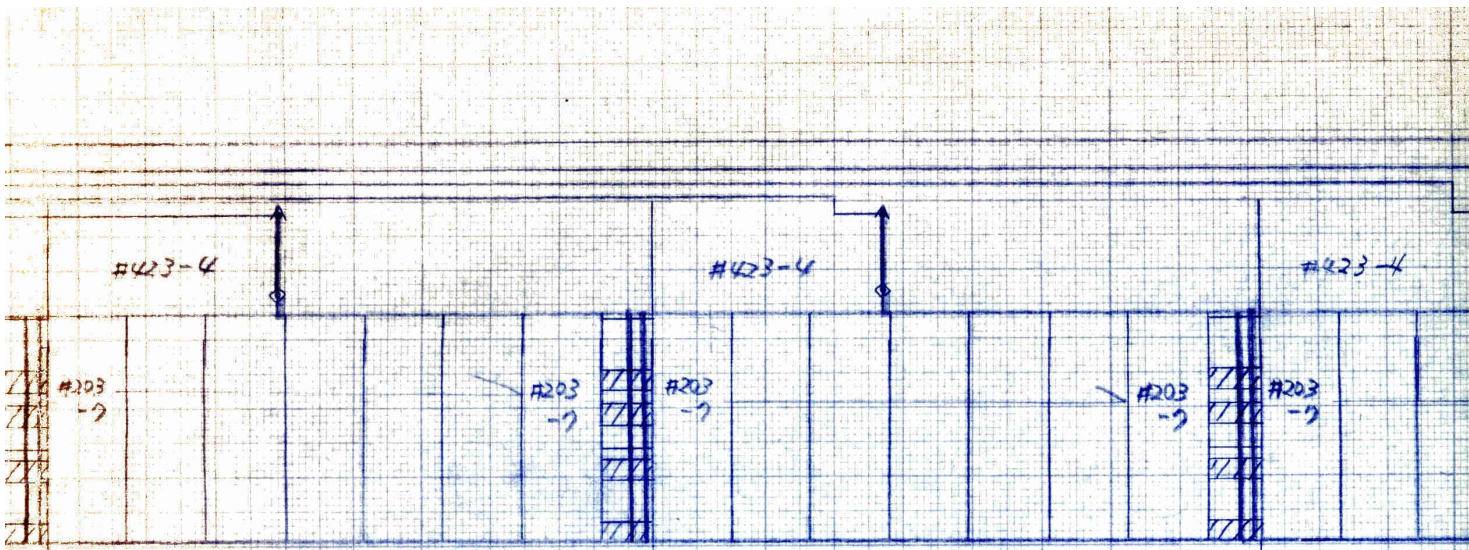


74

#439-4

85

86



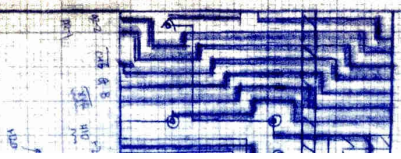
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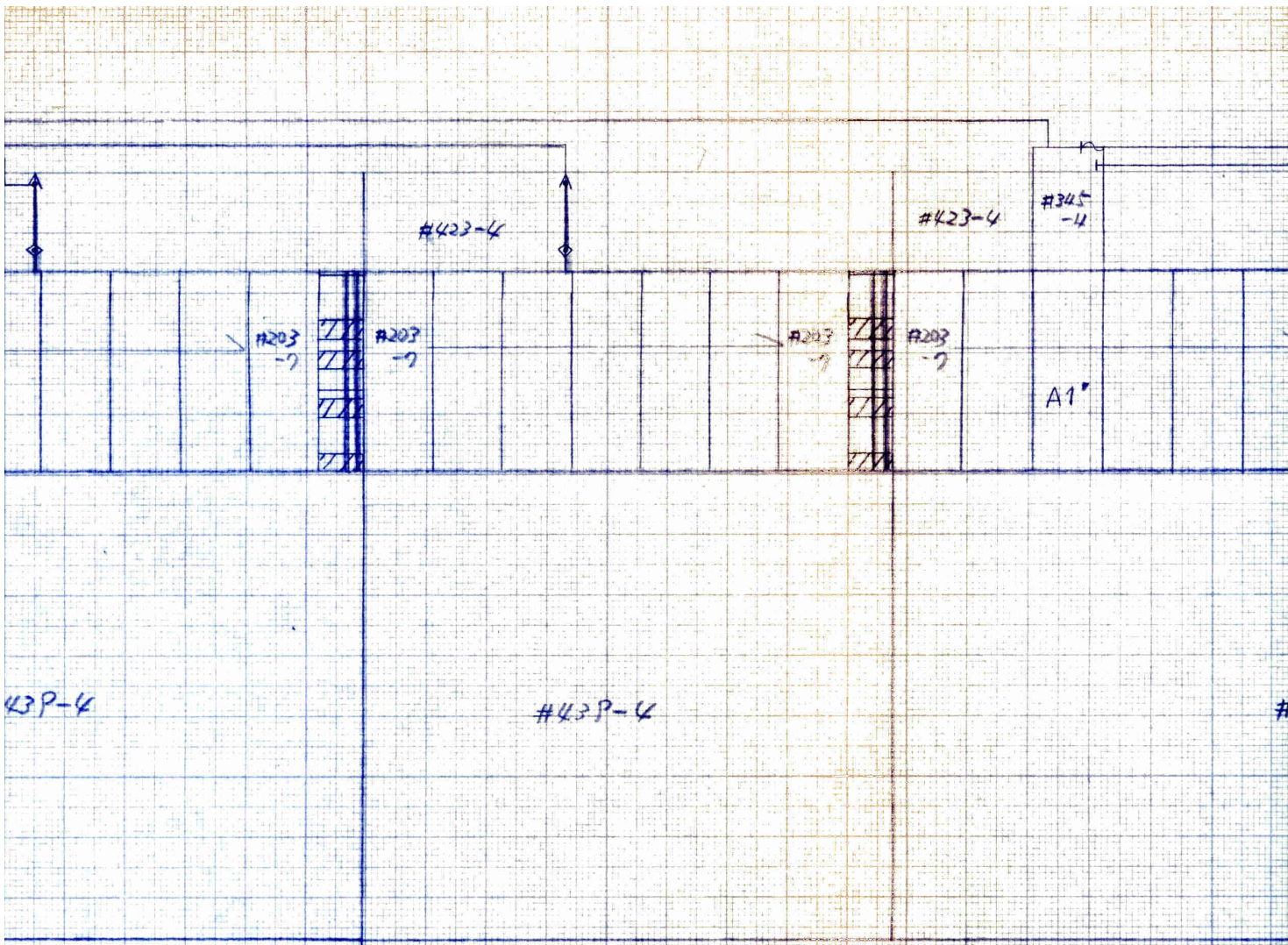
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#4

#455-4

1-3

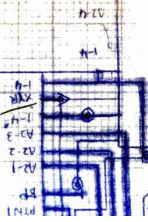
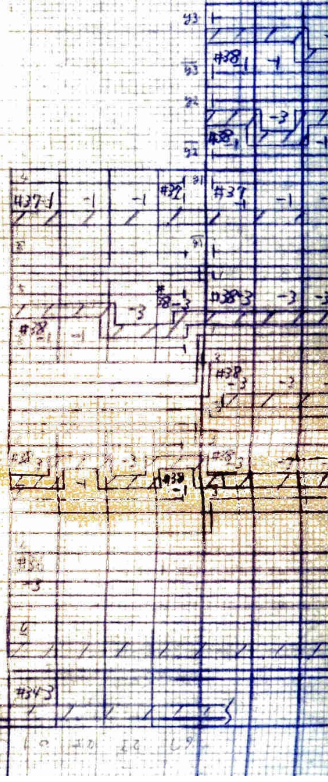


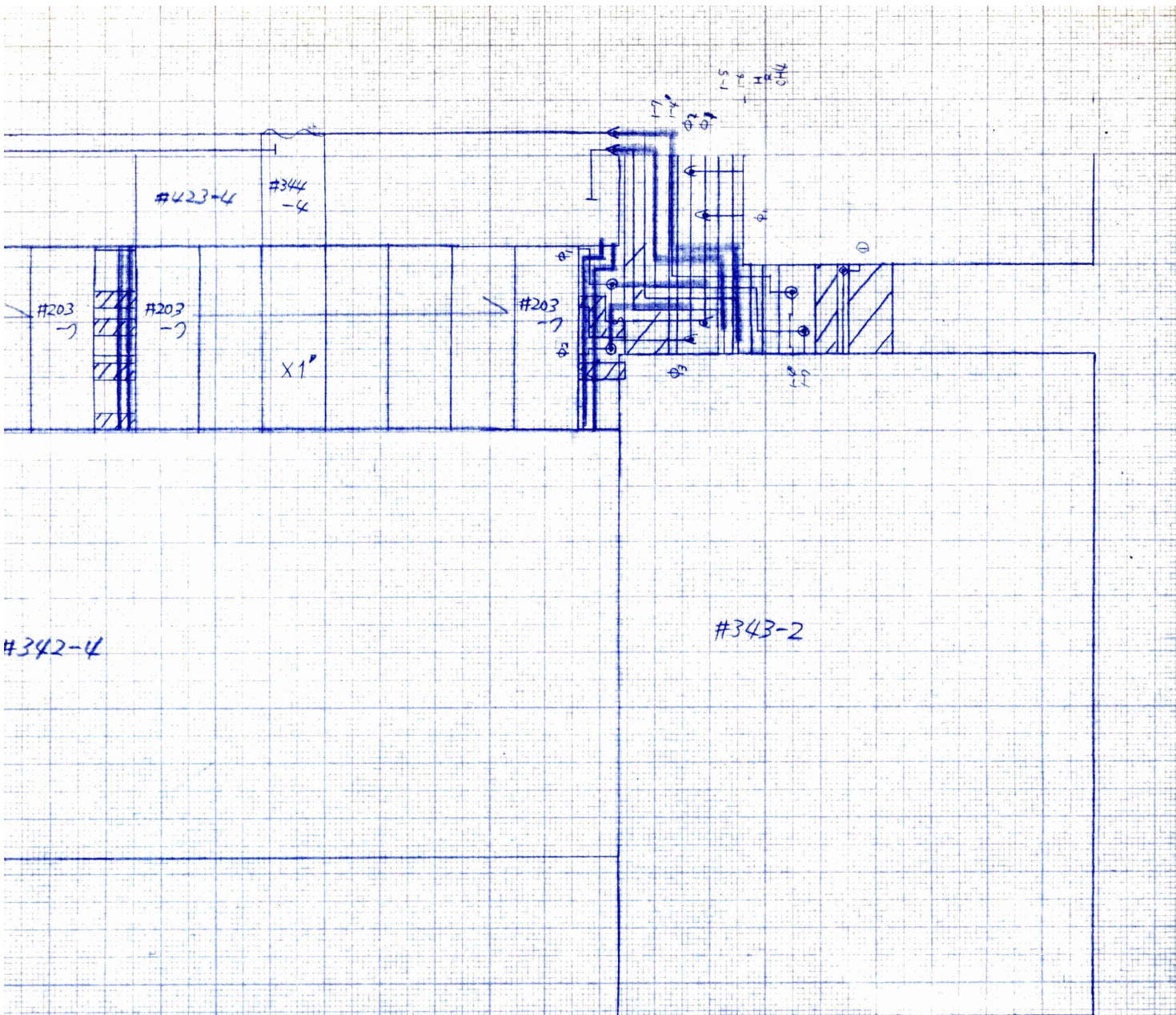


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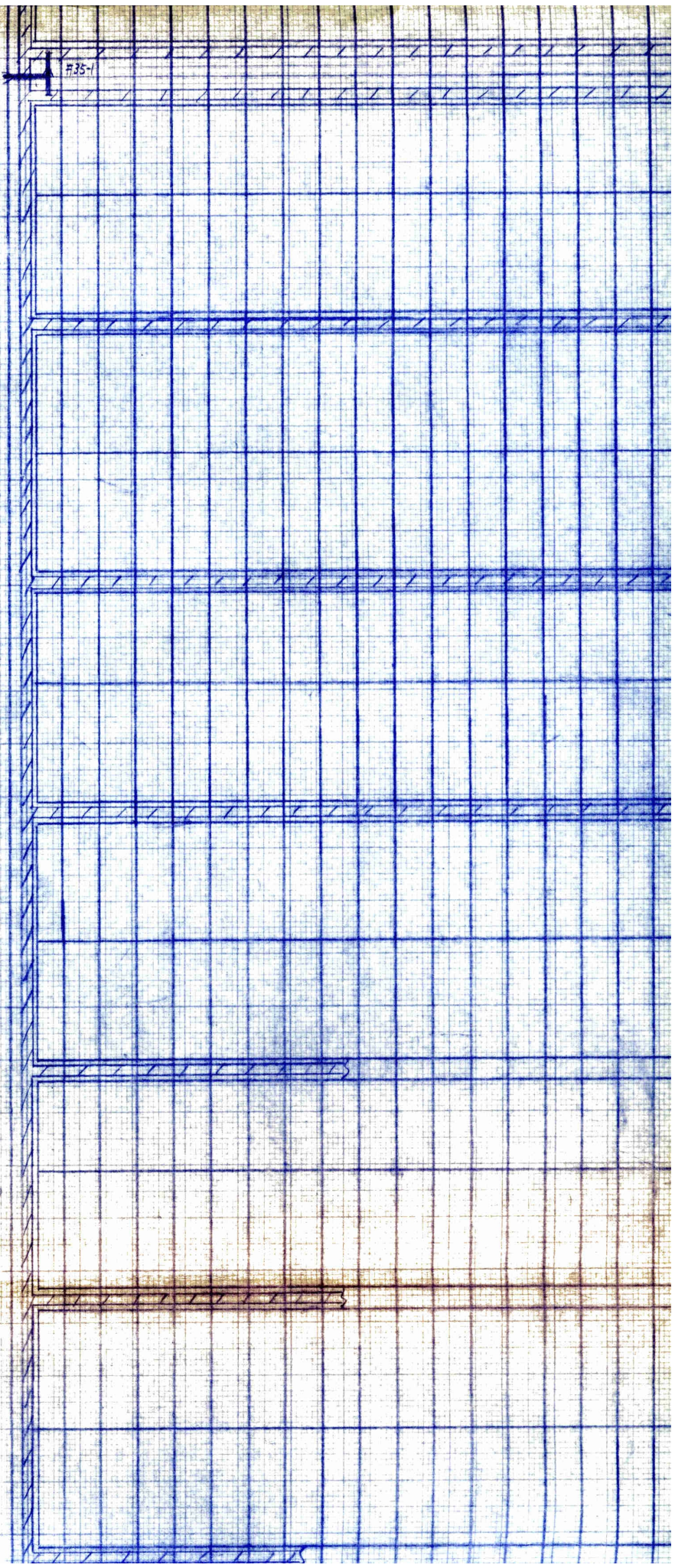
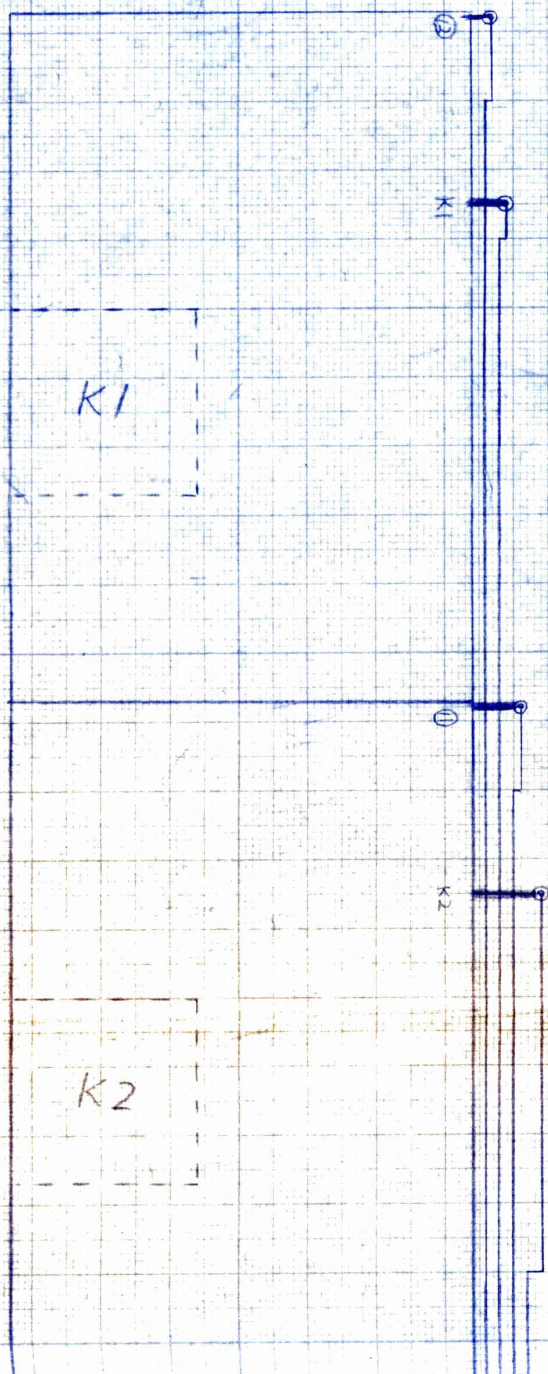
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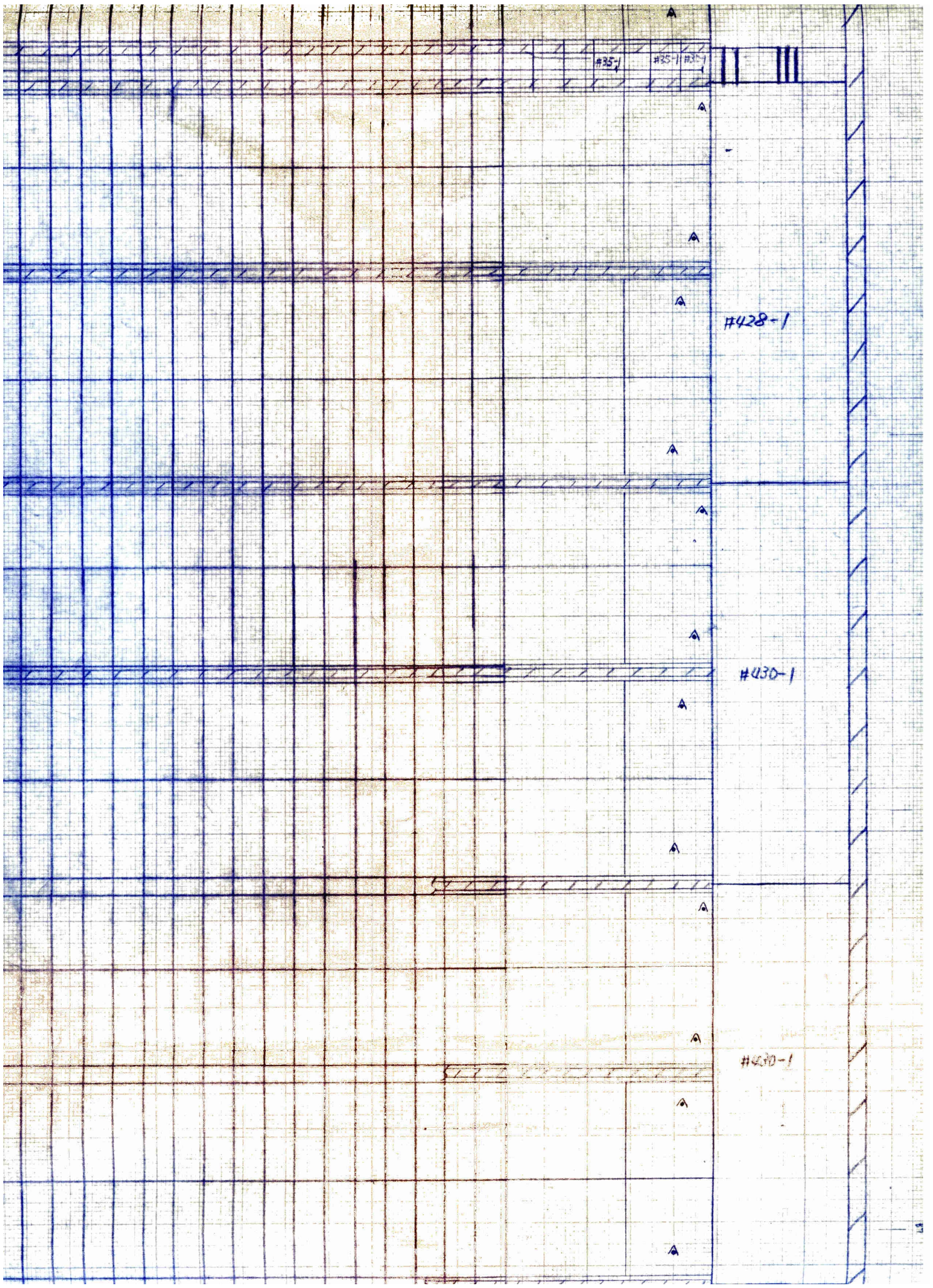
#351-4





#35-





#35-1

#35-1

#35-1

#428-1

#430-1

#430-1

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A

A

A

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#456-4

#438-2

#407-4

#407-6

#407-4

#407-6

#407

✓

✓

✓

✓

✓

#407-4

#407-6

#407-4

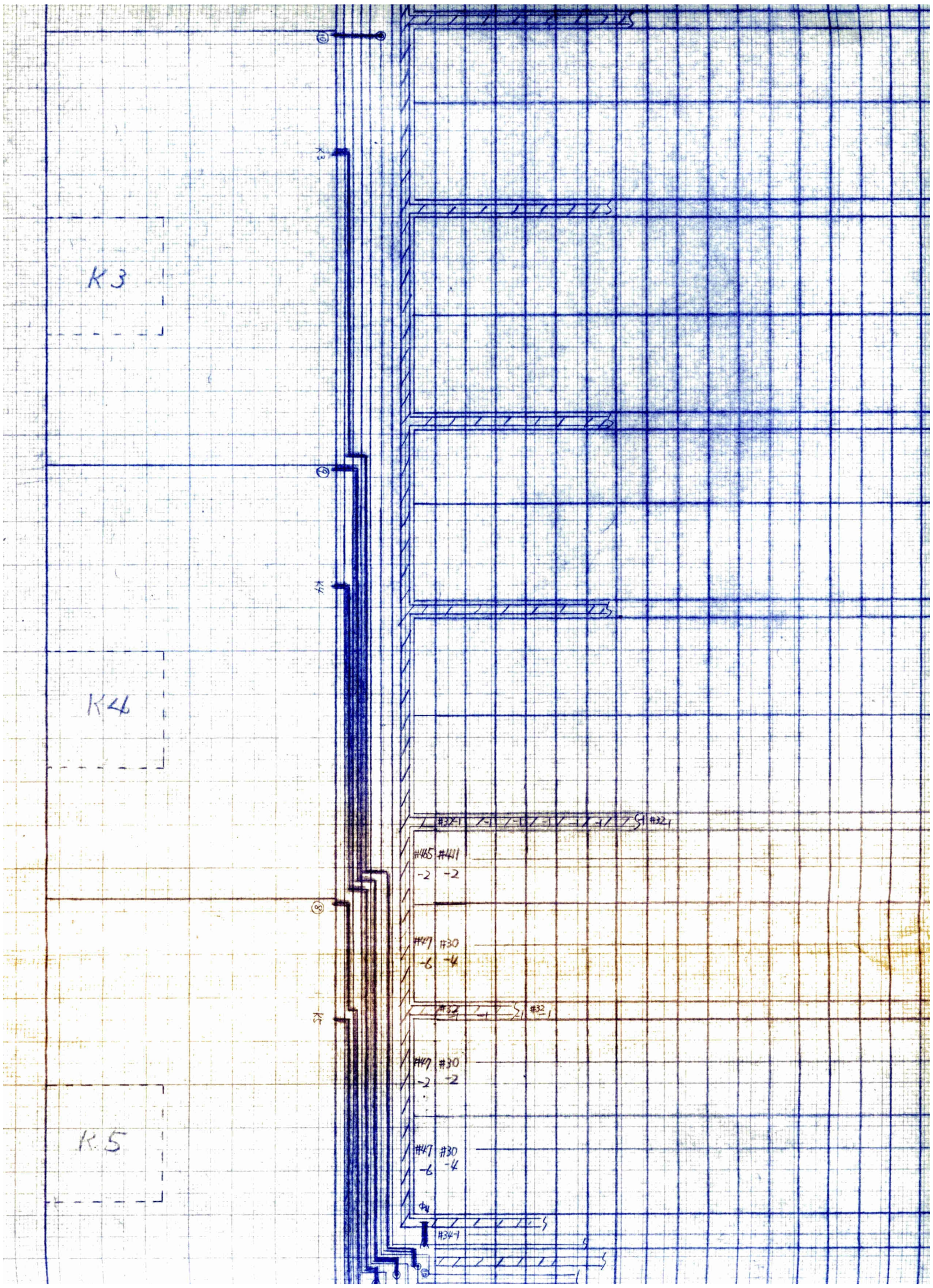
#407-6

#407









K3

K4

K5

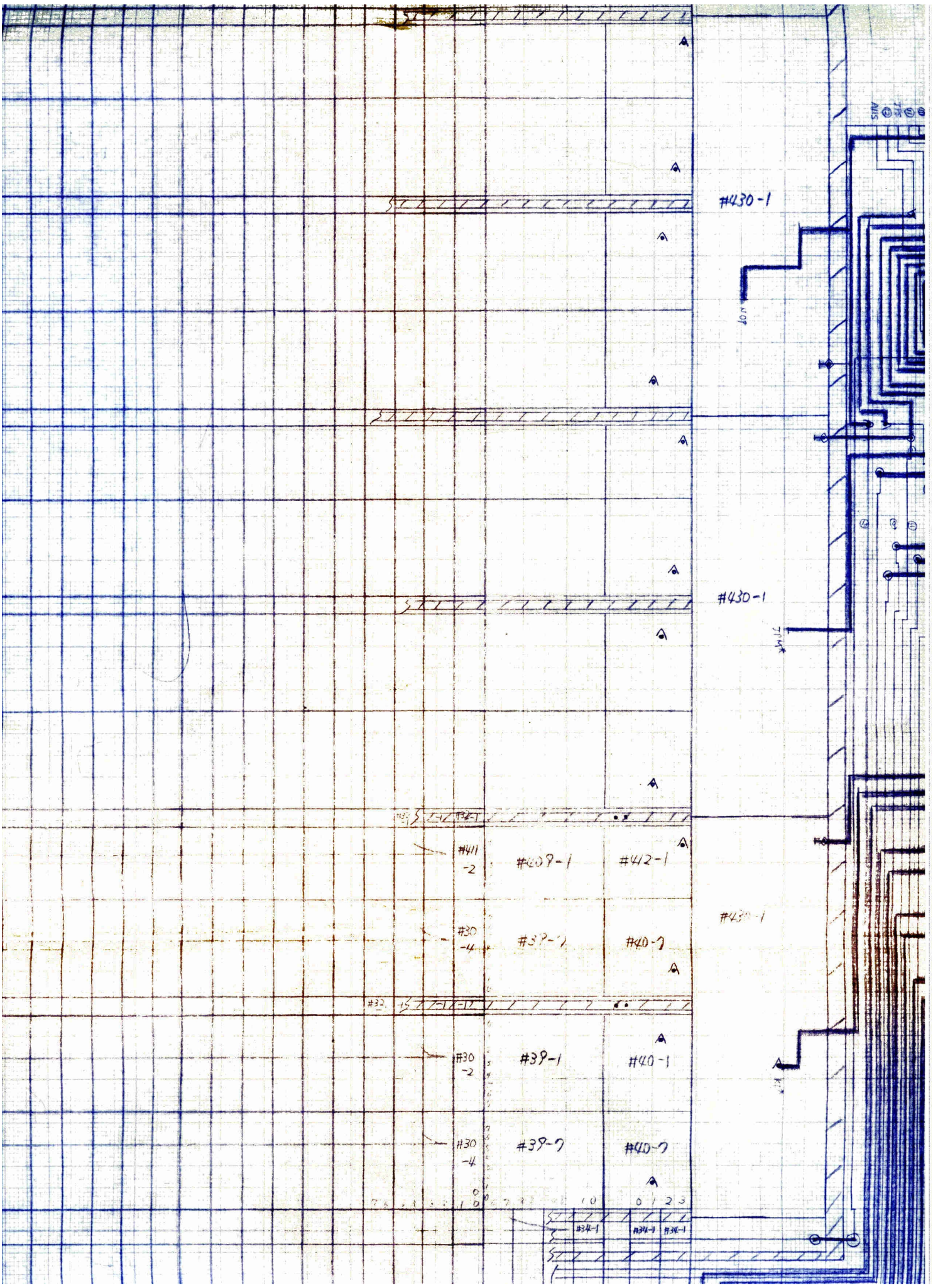
#45 #41  
-2 -2

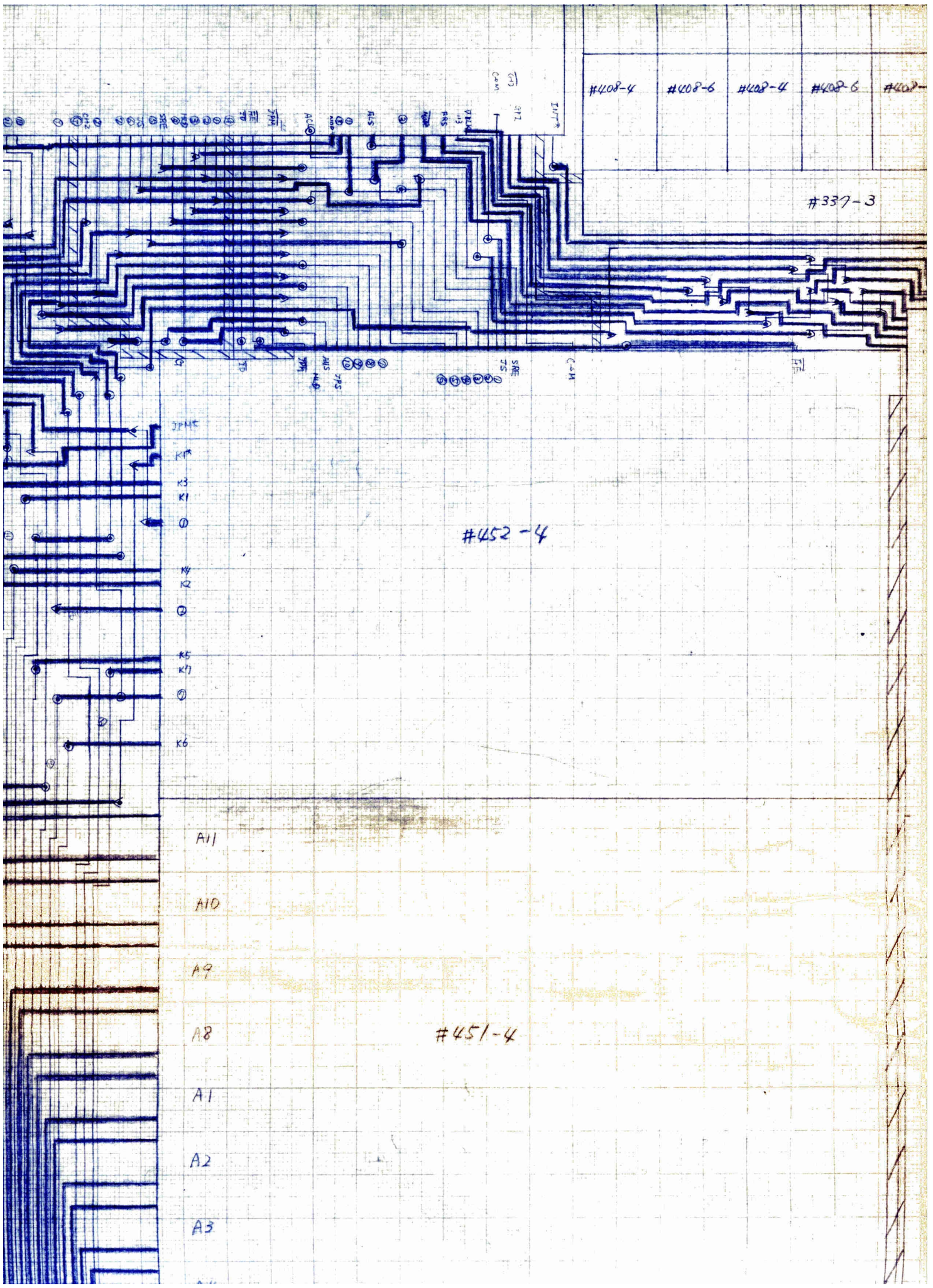
#47 #30  
-6 -4

#47 #30  
-2 -2

#47 #30  
-6 -4

#24





#408-4 #408-6 #408-4 #408-6 #408-6

#337-3

#452-4

#451-4

A11

A10

A9

A8

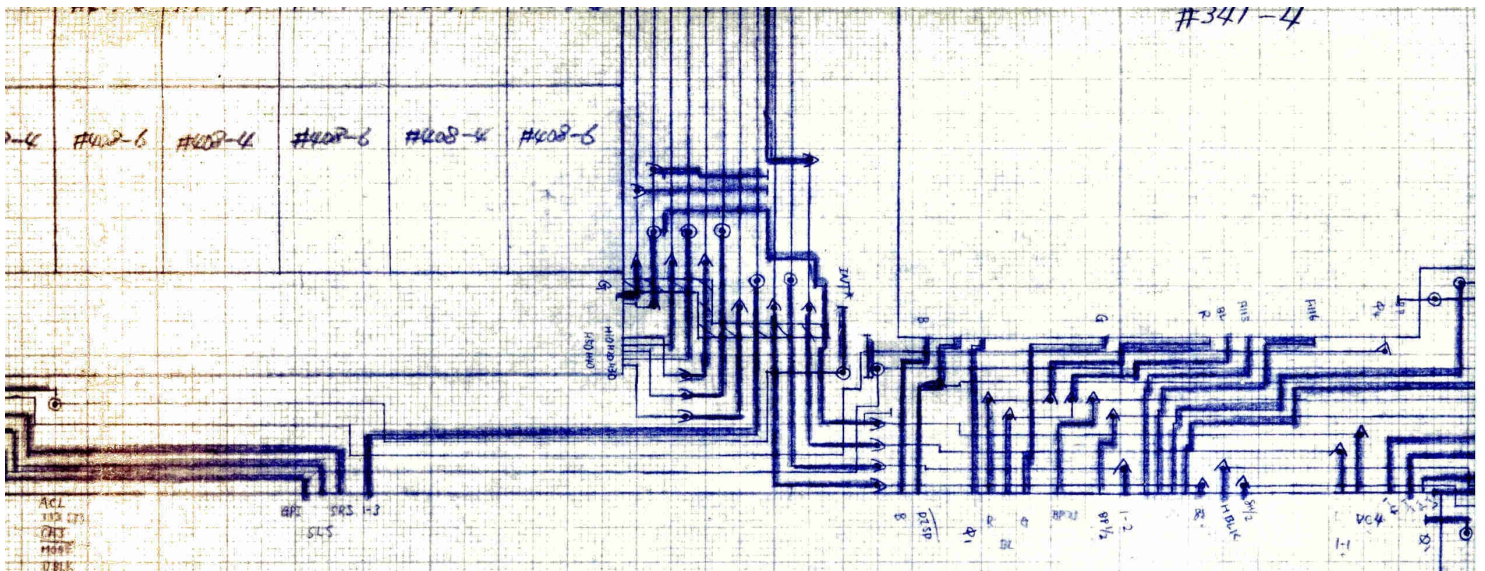
A1

A2

A3

#341-4

#402-6 #402-4 #402-6 #402-4 #402-6



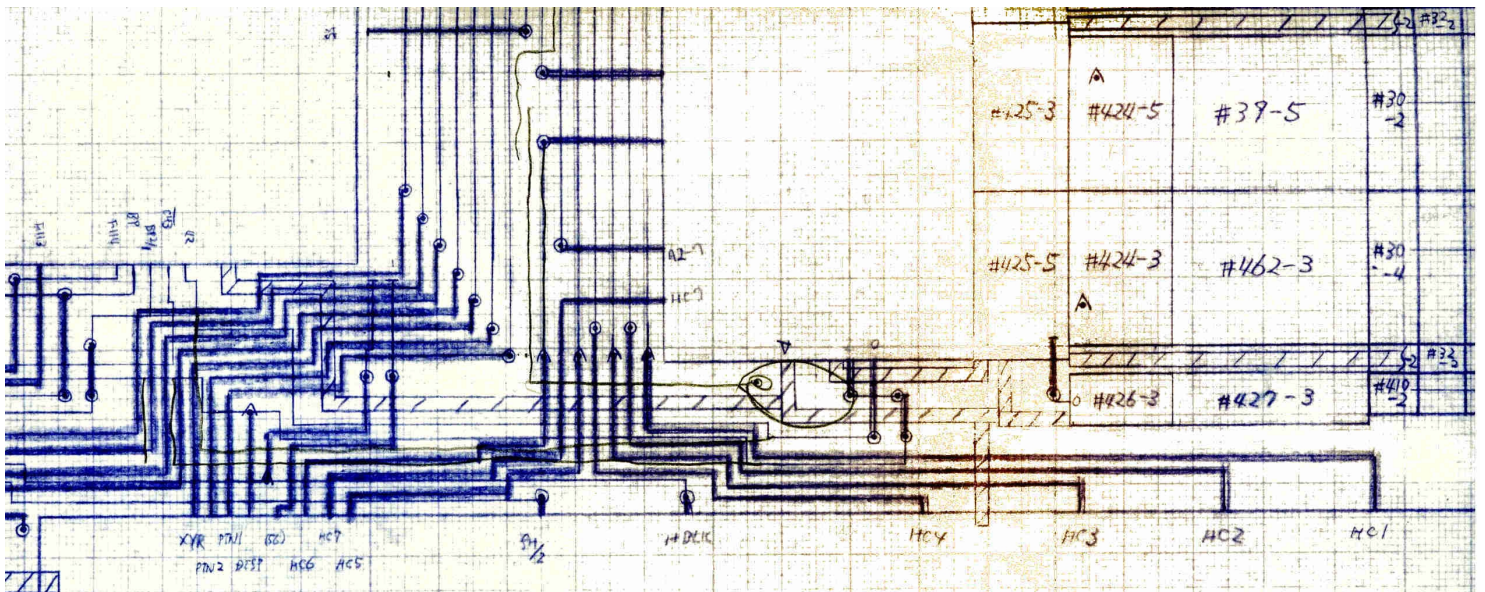
ACL  
 112 127  
 131  
 140  
 150

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 1-3

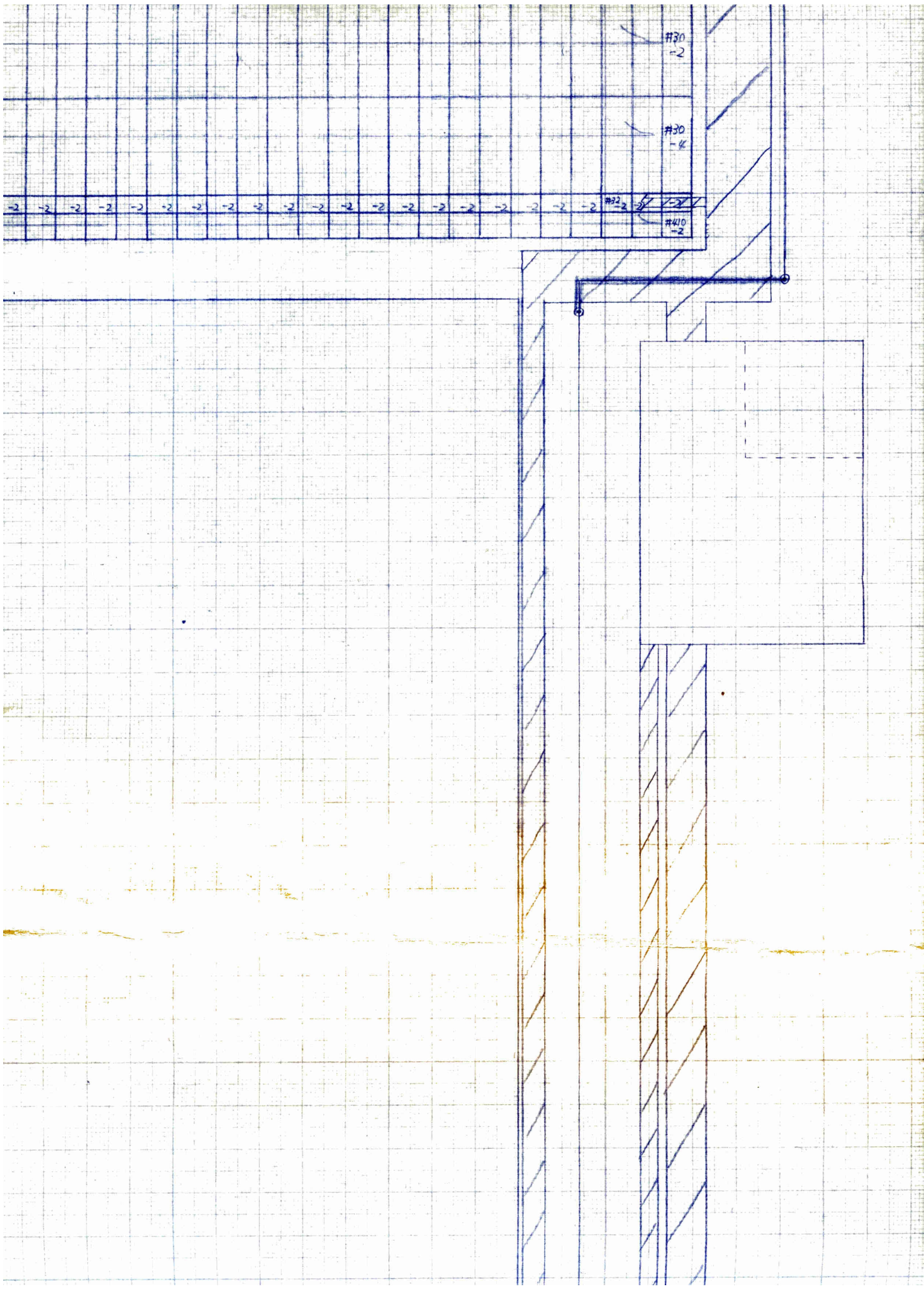
8  
 1-2  
 1-1

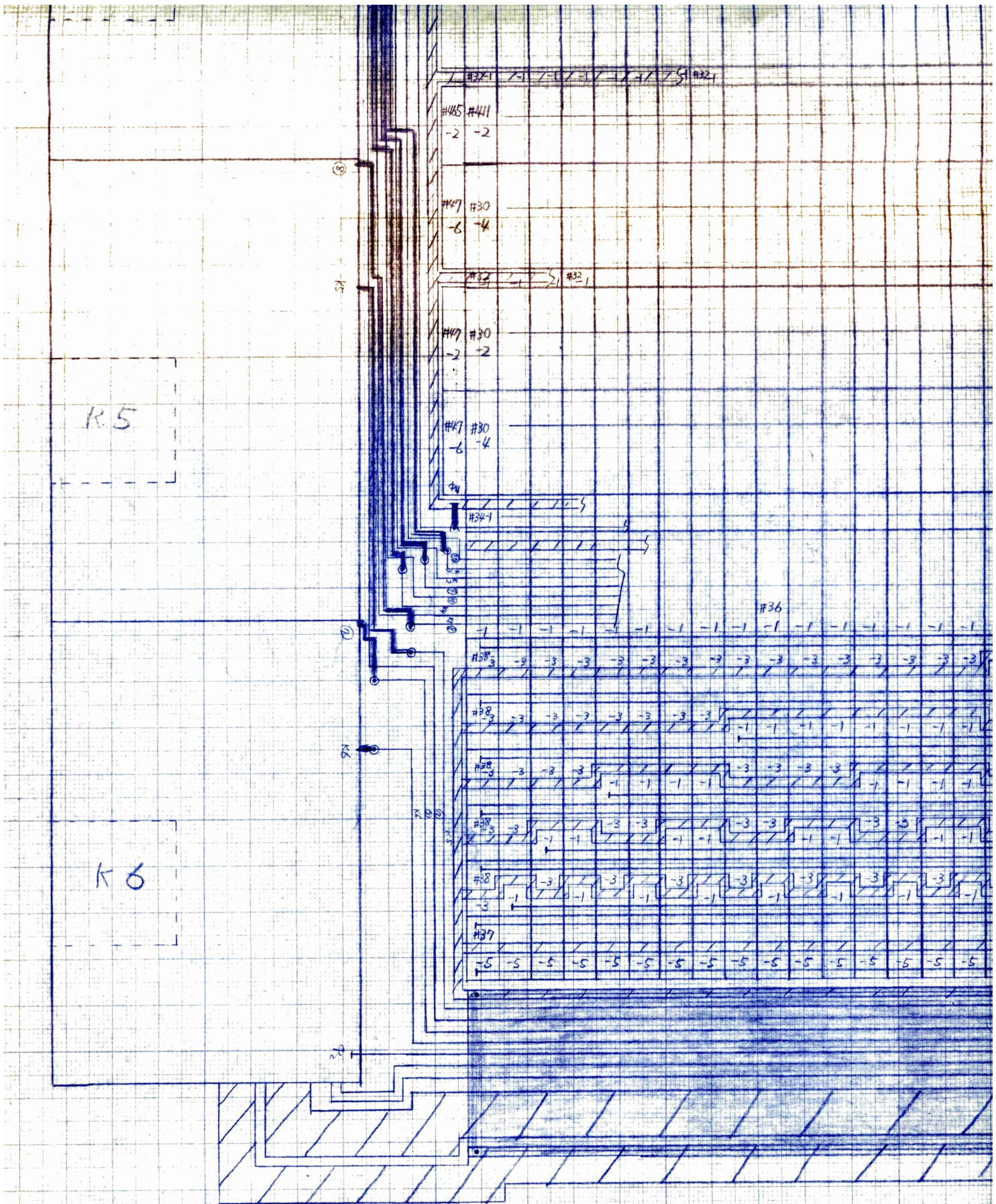
#336-1





#457-1





K5

K6

#45 #41  
-2 -2

#47 #30  
-6 -4

#47 #30  
-2 -2

#47 #30  
-6 -4

#36	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
#33	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3
#38	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3
#38	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3
#37	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5

#16



A11

A10

A9

A8

#451-4

A1

A2

A3

A4

A5

B

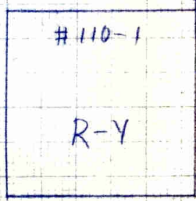
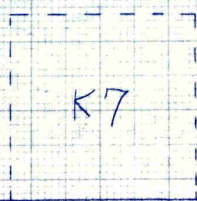
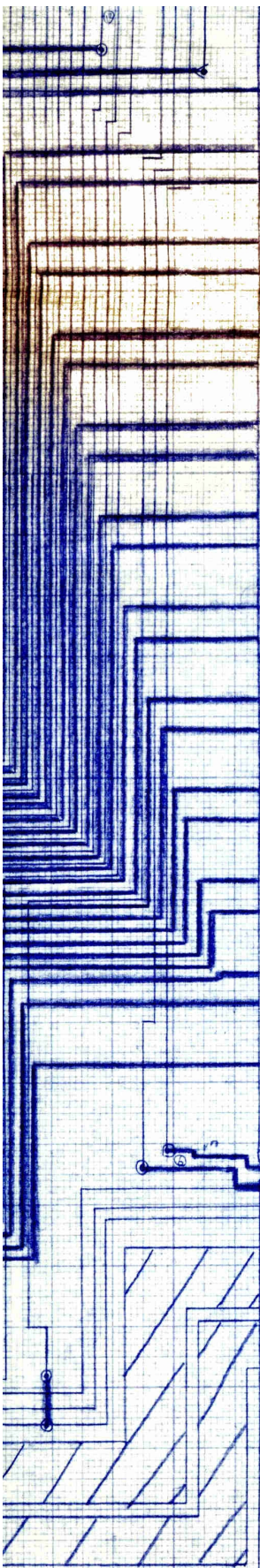
A6

T

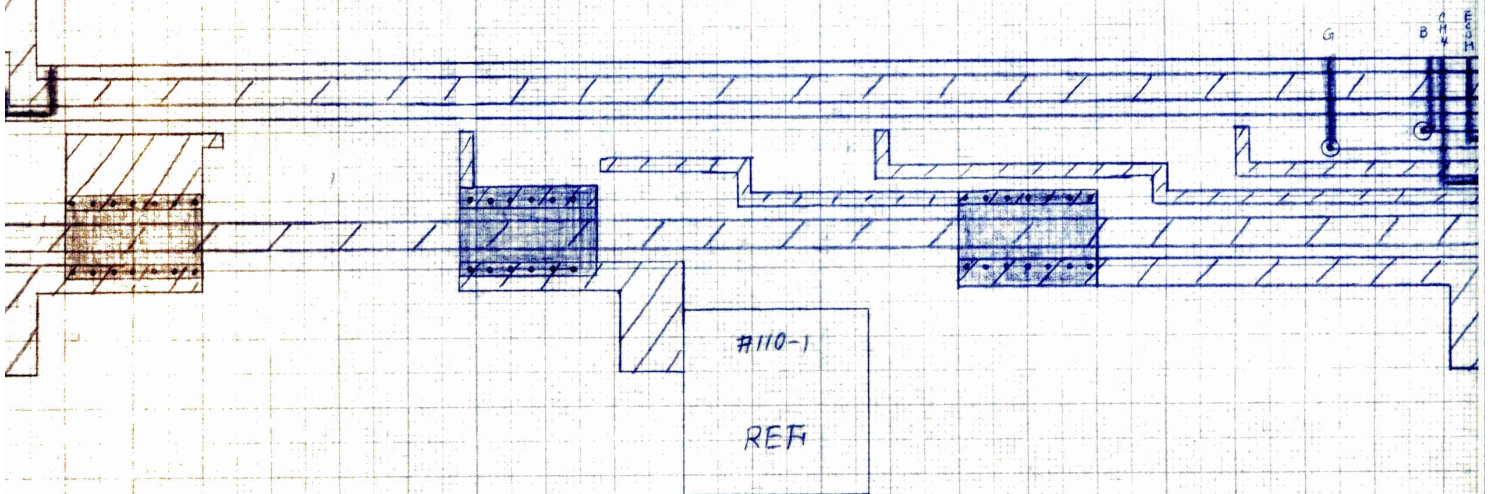
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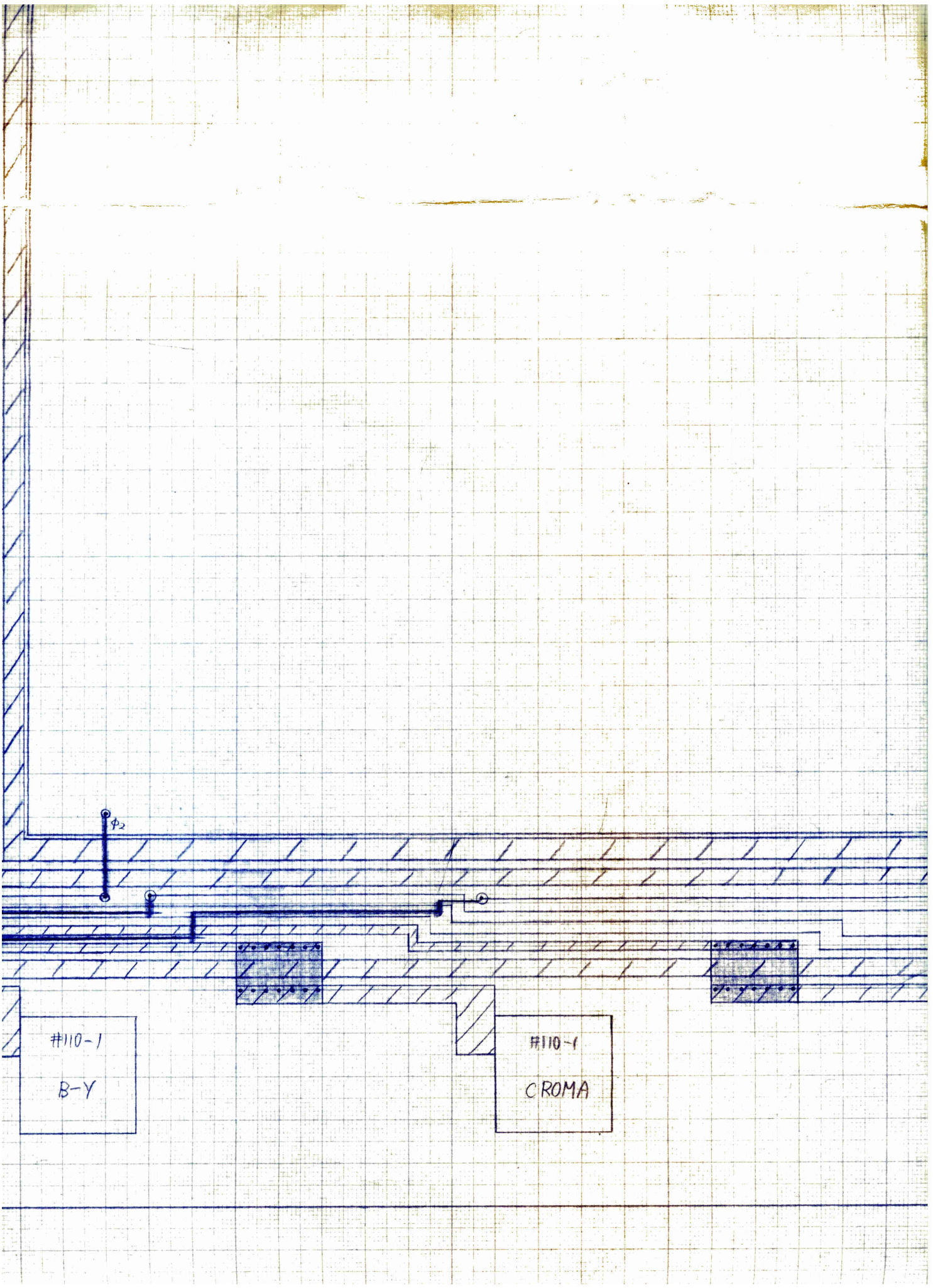
A7

T



#336-1

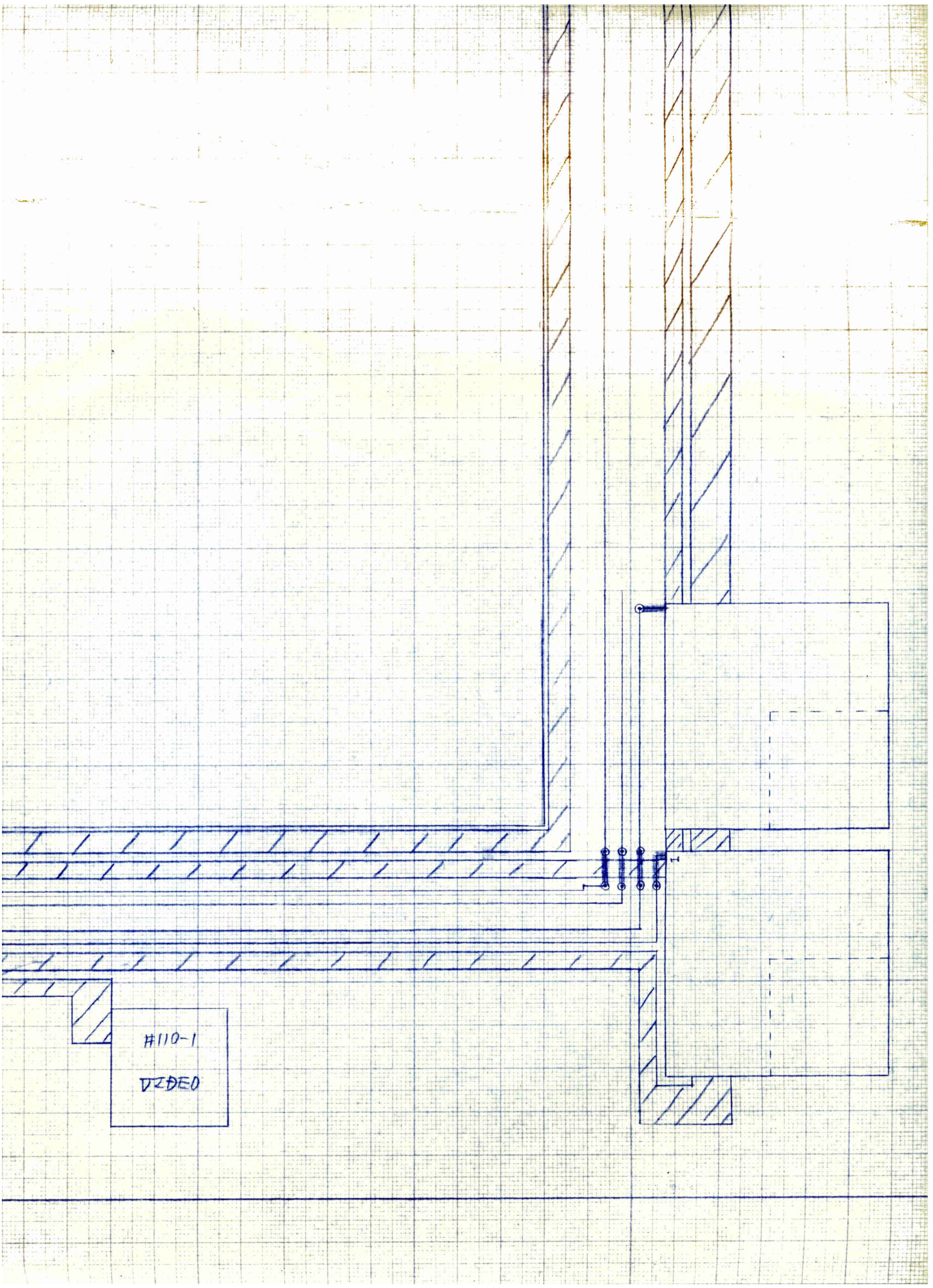




$\phi_2$

#110-1  
B-Y

#110-1  
CROMA



#110-1  
DZDEO



**Page layout of  $\mu$ PD777 mask layout top level schematics**

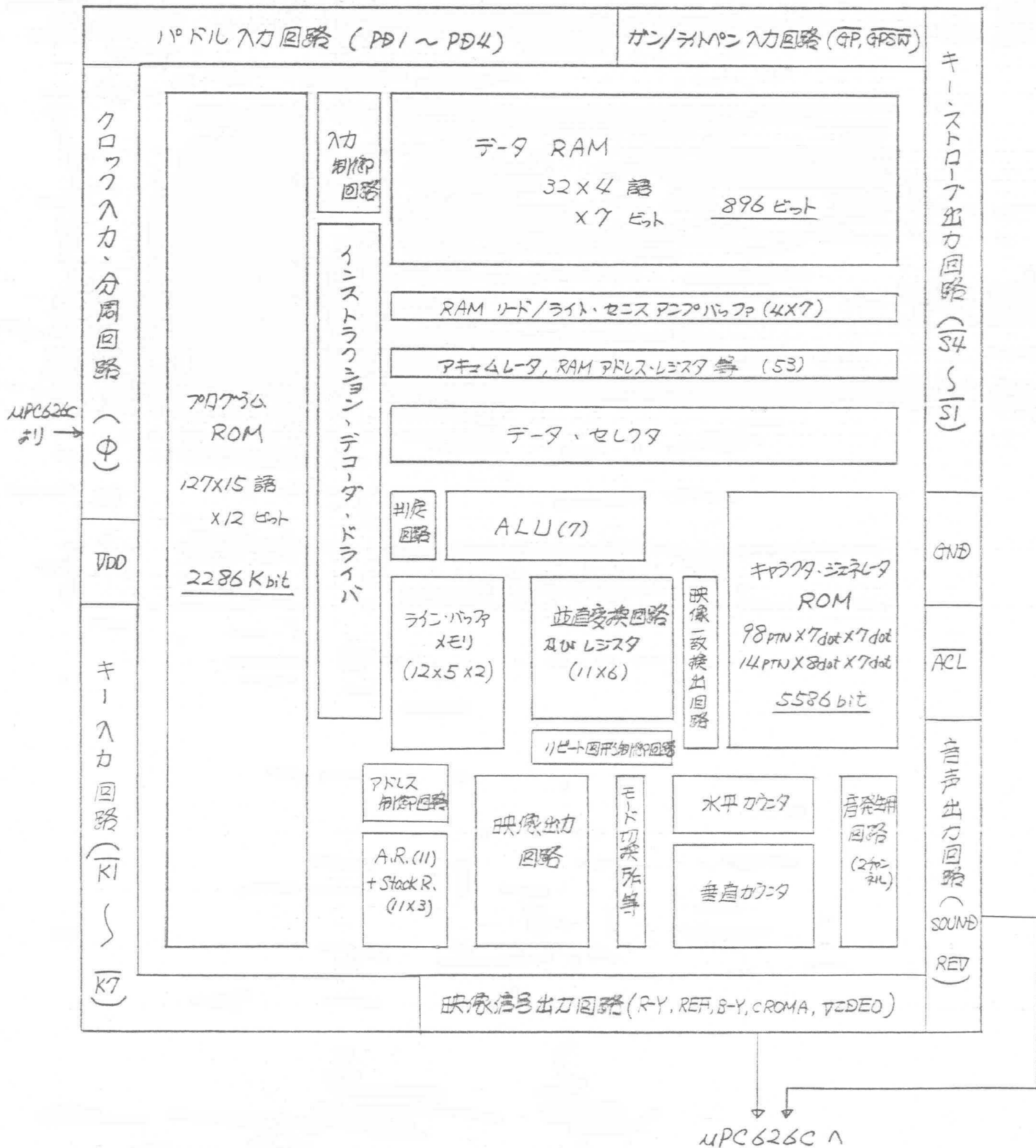
Page 1	Page 2	Page 3	Page 4	Page 5	Page 6
Page 7	Page 8	Page 9	Page 10	Page 11	Page 12
Page 13	Page 14	Page 15	Page 16	Page 17	Page 18
Page 19	Page 20	Page 21	Page 22	Page 23	Page 24

777 mask layout top level

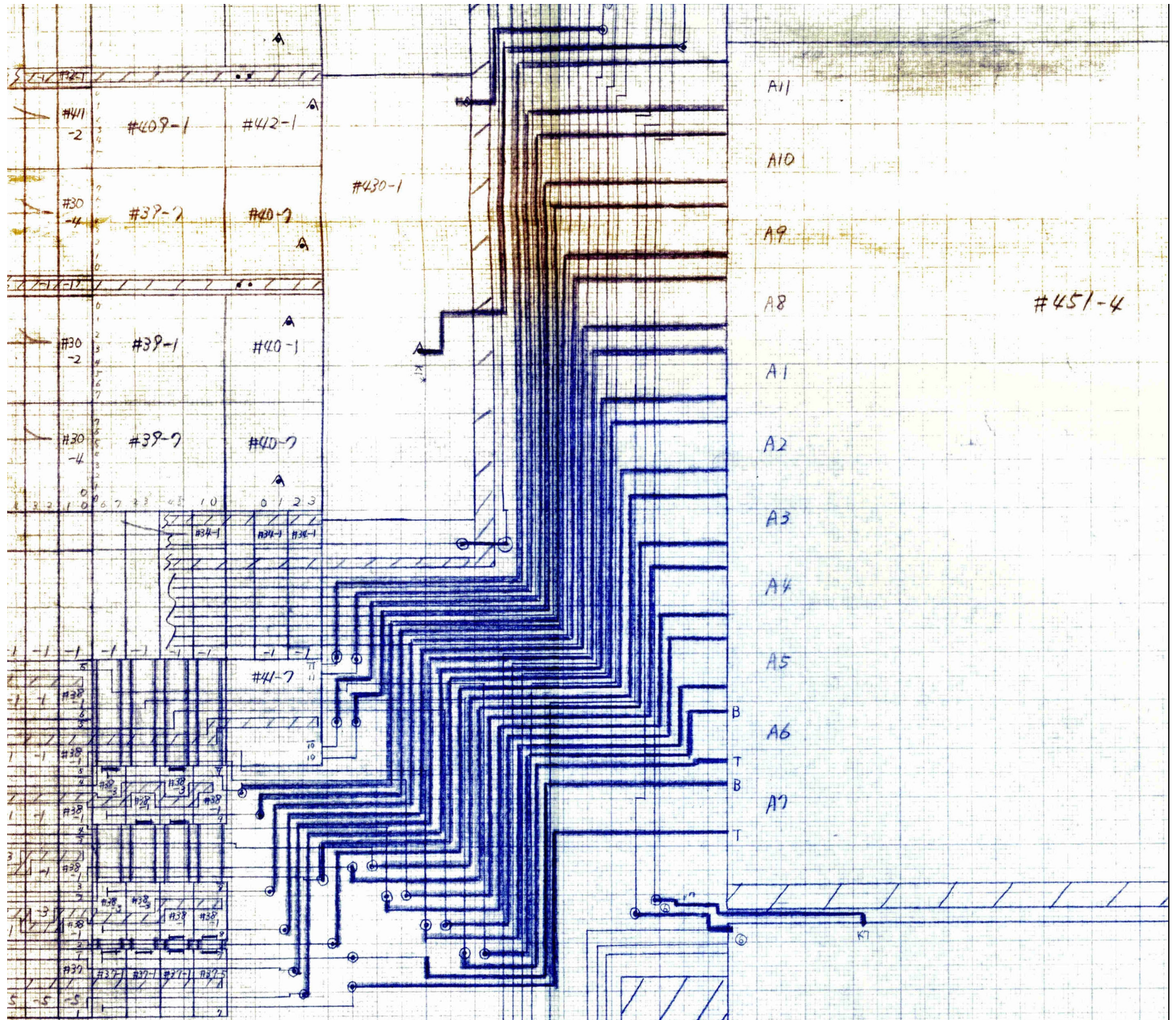
Utilize "Two page view" on PDF viewer.

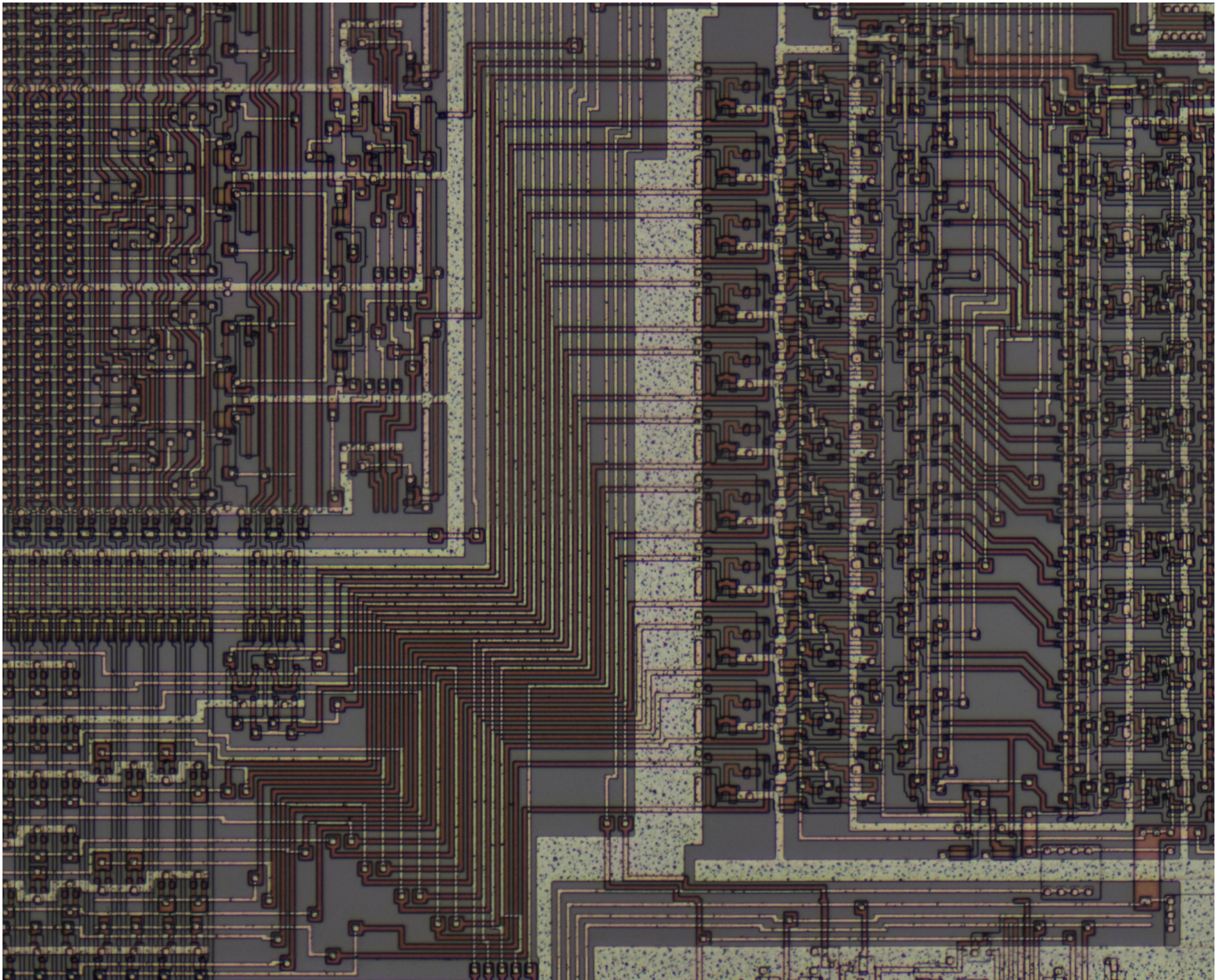
Micrograph of [μPD777D \(Ceramic DIP\)](#) based upon this mask layout design

# Block Diagram of I/O Pads & Buffers and Functional Blocks



In the middle of the logic design, LSI test pins (Input pins of CH1, CH2, CH3, CH4, CH6 and output pins of R(I-3), G(I-2)) were added.  $\mu$ PD777 was finally encapsulated in 42 pin plastic DIP and shipped.





**Explanation for prior two pages (p27 & p28)**

P27 : An image after combining P20 and P21 selected

P28 : A micrograph which area is same as p27

This area implements the following.

- Lower 7 bit program ROM address polynomial counter and upper 4 bit page address registers
  - 11 bit program ROM address stack register (only lowest stack register shown)
  - Part of program ROM X address decoder
  - Part of program ROM Y address decoder
  - Part of program ROM tri-state output buffers
- and
- Mutual interconnects

**Assignment definition ("-1" through "-8") of functional block rotation & reverse**

<table border="1"> <tr> <td></td> <td></td> </tr> <tr> <td>-1</td> <td>-5</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td>-2</td> <td>-6</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td>-3</td> <td>-7</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td>-4</td> <td>-8</td> </tr> </table>			-1	-5			-2	-6			-3	-7			-4	-8	<table border="1"> <tr> <td></td> <td></td> </tr> <tr> <td>#39-1</td> <td>#39-5</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td>#39-2</td> <td>#39-6</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td>#39-3</td> <td>#39-7</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td>#39-4</td> <td>#39-8</td> </tr> </table>			#39-1	#39-5			#39-2	#39-6			#39-3	#39-7			#39-4	#39-8		
-1	-5																																		
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#39-3	#39-7																																		
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<p><b>General Spec</b></p>	<p><b>Concrete Example</b></p>																																		