GHQ/SCAP Records (RG 331, National Archives and Records Service)

Description of contents

---

(1) Box no. 2894

(2) Folder title/number: (8)
Teikoku Kako - Osaka Plant

(3) Date: **Aug. 1946 - Sept. 1949**

(4) Subject:

Classification	Type of record
9230, 9621	z

(5) Item description and comment:

1) Osaka
11) Includes Contents Lists (Divided)

(6) Reproduction: (Yes) No

(7) Film no. Sheet no.

(Compiled by *National Diet Library*)

I-A

SECTION I — I-A

DATE	SUBJECT
10 Mar 47 1 Copy	Inventory Made by General Contractor's Association of Japan

Name: Tokukuko Code No. 32-125

Date 19 July 49

SECTION I
INVENTORY DATA

1.	Total items originally inventoried:	101
2.	Originally inventoried items not available for allocation:	
	a. MX items	
	(1) Originally inventoried MX	0
	(2) Subsequently deleted from MX classification	0
	(3) Total (line a(1) less line d(2))	0
	b. Subsequently released from custody	0
	(1) Woodworking*	3
	(2) Others*	27
	c. Destroyed SP*	0
	d. Subsequent losses from fire, theft, etc*	0
	e. Released from dispersed location*	0
	f. Shipped to TID*	0
	g. Removed under PD*	0
	h.	0
	i.	0
3.	Total deduction from original inventory	27
4.	Items missed from original inventory-subsequently picked up	66
5.	Adjusted original inventory total (line 1 less line 3, plus line 4)	140
6.	Subsequent additions to inventory	
	a. Returned PD'd items*	0
	b. Added on evaluation N/E	0
	c.	0
	d.	0
7.	Inventory total	140
8.	"U" items	
9.	Total items available for allocation (line 7 less line 8)	140

SECTION II
MISCELLANEOUS

1. Non-inventoried items shipped to TID 0
2. Items inventoried under other plant code numbers: 0 (Not included in line 9, SEC I)
3. Authorized transformer capacity _____ KW
4. MX items subsequent to original inventory 0

* See reverse side

2 b. 28 items removed from Reparations custody by

see attached list

INVENTORY FORM FOR SULPHURIC ACID PLANT

Date 9 July 1949

Name of Company Teikoku Kako K. K. Related No. 1132

Name of Plant Osaka Factory Code No. 125

Adoress of Plant 10 Funamachi Taishoku Osaka

I. Chemcal Manufacturing 111

A Equipment 111

1. Roaster 7
2. Gas Cleaning Equipment 26
3. Contact Equipment 13
4. Blower 8
5. All Other chemical Mamufacturing Equipment 57

II. All Other Equipment 29

A. Equipment 29

1. Store Tank 6
2. Pump 8
3. Transformer 4
4. Switch Board 4
5. Discharging Equipment 6
6. Oil Swich 1

LIST OF ADDITIONAL INVENTORIED ACCESSORIES

NAME OF PLANT: Teikoku Kako K.K. Osaka Plant

CODE No. ; 32 - 125

LOCATION ; No.10, Funamachi Taisho-ku, Osaka.

Main Machine	Code No.	Item of Accessories	Accessories Kept Separately Box
Roaster	IA1-1(b)	Power Transmission	
	IA1-2(b)	"	
	IA1-3(b)	"	
	IA1-3(a)	Motor 220V 7½HP	
Converter & Heat Exchanger	IA3-1(b)	Heat Exchanger	
	IA3-1(c_1)	Sluice Valve	
	IA3-1(c_2)	"	
	IA3-1(c_3)	"	
	IA3-2(c_1)	"	
	IA3-2(c_2)	"	
	IA3-2(c_3)	"	
Blower	IA4-1(a)	Motor 3,300V 75HP	
	IA4-1(b_1)	Sluice Valve	
	IA4-1(b_2)	"	
	IA4-2(a)	Motor 3,300V 75HP	
	IA4-2(b_1)	Sluice Vaive	
	IA4-2(b_2)	"	
Pump	IA5-8(a)	Motor 220V 10HP	
	IA5-9(a)	"	
	IA5-10(a)	"	
	IA5-11(a)	"	
	IA5-12(a)	"	
	IA5-13(a)	"	

Preheater	IA5-20(b_1)	Blower
	IA5-20(b_2)	Air Fan
	IA5-20(c_1)	Sluice Valve
	IA5-20(c_2)	"
Pump	IA5-36(a)	Motor 10HP 220V
	IIA1-9(a)	Motor 220V 2HP
	IIA1-10(a)	Motor 220V 3HP
Discharging Equipment	IIA1-20(b)	Switch Board
	IIA1-20(c)	Voltage Regulater
	IIA1-21(b)	Switch Board
	IIA1-21(c)	Voltage Regulater

Shinji Izu
Custodian
Teikoku Kako K.K. Osaka Plant

HEADQUARTERS
OSAKA MILITARY GOVERNMENT TEAM
APO 560

dnn/mh

10 March 1947

SUBJECT: Inventory Made by General Contractor's Association of Japan

THROUGH: Osaka Liaison Office

TO: **Fukuoka Farm Co., Ltd, Osaka Factory**
(Code No. M-124)

1. During the month of January the General Contractor's Association of Japan made an inventory of your plant. This inventory listed "Stock-piled and Installed Material and Supplies" which may eventually be removed.

2. Before a final decision is reached, this headquarters requests a list of all those inventoried items which you have any objection to removal, or which are necessary for the maintenance and custody of reparations machinery. Next to each item should be a short explanation outlining the reason for retaining.

3. It is requested that you submit your list in four copies by the 25th of March 1947.

FOR THE COMMANDING OFFICER:

Edward L. Miller
Major, F.A.
Adjutant

47

INVENTORY FORM FOR SULPHURIC ACID PLANTS

Date 9 April 1947

Name of Company Teikoku Kako K.K. Related SCAPIN # 1132

Name of Plant Osaka Plant Code # 125

Address of Plant 10 Funamachi, Taisho-ku, Osaka-shi

		Number Marked
I.	CHEMICAL MANUFACTURING	81
	A. Equipment	81
	1. Roaster	4
	2. Gas cleanin, equipment	11
	3. Contact equipment	2
	4. Blower	2
	5. All other chemical manufacturing equipment	62
II.	ALL OTHER EQUIPMENT	20
	A. Equipment	20
	1. Items	20
	Storage tank	6
	Pump	4
	Transformer	4
	Switchboard	4
	Discharging Equipment	1
	Oil Switch	1

CJM/yi

HEADQUARTERS
OSAKA MILITARY GOVERNMENT TEAM
APO 25

5 August 1947

SUBJECT: Inventory of Sulphuric Acid Plant
Teikoku Kako K.K., Osaka Plant, 32-125

TO: Commanding General
I Corps, APO 301
ATTENTION: Mil Gov Sec

1. Reference letter, this headquarters, subject: "Inventory of Sulphuric Acid Plants," dated 16 April 1947.

2. Inclosed are corrected copies of inventory forms covering the inventory of the contact sulphuric acid set at subject plant. The Osaka Military Government Team had erroneously inventoried parts of a lead chamber set also located at the plant.

FOR THE COMMANDING OFFICER:

1 Incl:
Inventory Forms
(3 copies)

EDWARD F. MILLETT
Major, F. A.
Adjutant

OSAKA M.G
RES-COM-IND
FILE 14443

HEADQUARTERS
OSAKA MILITARY GOVERNMENT TEAM
APO 25

CJM/yi

5 August 1947

SUBJECT: Inventory of Sulphuric Acid Plant
Teikoku Kako K.K., Osaka Plant, 32-125

TO: Osaka Liaison Office

1. Reference letter, this headquarters, subject: "Inventory of Sulphuric Acid Plants," dated 16 April 1947.

2. Inclosed is a corrected copy of the inventory form covering the inventory of subject plant.

FOR THE COMMANDING OFFICER:

1 Incl:
Inventory Form

EDWARD B. MILLETT
Major, F. A.
Adjutant

OSAKA M.G
RES-COM-IND
FILE 1442

I-B

DATE	SUBJECT

I-B

DATE	SUBJECT

I - D

DATE	SUBJECT

I - E

DATE	SUBJECT

I-E

SECTION II — II

DATE	SUBJECT
17 Aug 49	Application for Recommendation Regarding the Application for Reconversion Permit
26 Sept 49	Reconversion Permit

plant file
32 - 125
II

HCK/ras/lmp

HEADQUARTERS
OSAKA CIVIL AFFAIRS TEAM
APO 25

26 September 1949

MEMORANDUM FOR: Osaka Prefectural Government
ATTN: Chief, Commerce & Industry Section

THROUGH: Kinki Liaison Office

SUBJECT: Reconversion Permit - Teikoku Kako K.K.,
Reparations Plant 32-125

1. Inclosed herewith is reconversion permit for the Teikoku Kako K.K.

2. For your information and transmittal tp subject plant.

FOR THE CHIEF:

1 Incl:
Reconversion Permit

FRED N. ALEXANDER
WOJG USA
Asst Adjutant

OSAKA M.G.
PL 1 M. IND
FILE 5884

GENERAL HEADQUARTERS
SUPREME COMMANDER FOR THE ALLIED POWERS
Economic and Scientific Section

8 September 1949
Date

TO: Osaka Civil Affairs Team

SUBJECT: Reconversion Permit for Reparations Plant

1. Inclosed is an Operating Permit for Teikoku Kako K. K.
Name of Company

Osaka Plant — No. 10 Funa-machi, Taisho-ku, Osaka City
Plant Name — Address

2. This permit will be granted the company unless the company is not fully complying with current directives effecting operation of the Reparations Plants.

3. If the permit is not given the Supreme Commander will be notified immediately of the reasons for the withholding of the permit and recommendations as to continued operation of the plant. An information copy will be sent direct to the Supreme Commander (Attn: ESS/IN) and action copies forwarded through command channels.

FOR THE CHIEF, ECONOMIC AND SCIENTIFIC SECTION:

W. S. VAUGHAN
Chief, Industry Division

OSAKA M.G
RES COM-IND
FILE 15872

9/6/49

GENERAL HEADQUARTERS
SUPREME COMMANDER FOR THE ALLIED POWERS
Economic and Scientific Section

8 September 1949
Date

SUBJECT: Reconversion Permit for Reparations Plant

TO: Teikoku Kako K. K., Osaka Plant
No. 10 Funa-machi, Taisho-ku, Osaka City

1. In accordance with Memorandum from the Supreme Commander for the Allied Powers to the Japanese Government, dated 22 November 1946 (SCAPIN-1355), the Teikoku Kako K. K. is permitted to produce at their Osaka Factory located at Osaka City the following additional items:

Item	Maximum Quantity
98% Sulphuric Acid	1,500 tons/month

2. The temporary use of the following additional reparations machinery is authorized:

Contact Sulphuric Acid Plant	
Consisting of	117 items

3. A program will be immediately initiated to substitute non-reparations machinery for reparations machinery in temporary use.

4. The acquisition of material, parts and sub-assemblies as well as the disposition of finished products and the establishment of sales prices will be in accordance with the regulations of the Japanese Government.

5. This permit is issued subject to any and all directives affecting reparations plants which have been issued or may hereafter be issued by the Supreme Commander for the Allied Powers. Reports will be rendered as required by current directives and instructions.

FOR THE CHIEF, ECONOMIC AND SCIENTIFIC SECTION:

W. S. VAUGHAN
Chief, Industry Division

OSAKA M.G
RE[illegible] IND
FILE 1-5884

9/1.6 OCAT

KINKI

OSAKA LIAISON & COORDINATION OFFICE

Prefectural Building
OSAKA

17 August 1949

KKLCO NO 700 ER

TO : Chief,
Osaka Civil Affairs Team

SUBJECT: Application for Recommendation Regarding the Application for Reconversion Permit of Teikoku Kako K.K., Osaka Plant (32-125)

For your consideration

S. Shima

Director

Incl: Letter from Osaka Prefectural Government 12 August 1949, subject as stated above.

G AKA M G
F E L-5741

OSAKA PREFECTURAL GOVERNMENT
REPARATIONS SECTION

12 August 1949

SUBJECT: Application for Recommendation Regarding the Application for Reconversion Permit of Teikoku Kako K.K., Osaka Plant (32-125)

TO : Osaka Civil Affairs Team
ATTN: Economics Section

THRU : Osaka Liaison & Coordination Office.

1. Attached herewith is copies of the petition submitted by Teikoku Kako K.K., Osaka Plant (32-125), addressed to the Minister of Trading and Industry regarding the re-opening of contact system sulphuric acid plant.

As the result of an discreet investigation made by this office we have come to believe it urgently necessary to reopen the contact system sulphuric acid production as soon as possible by reason of the circumstances stated below.

We beg you will favorably consider the petition and recommend it to ESS., GHQ., SCAP.

2. The Reasons:

(1) The sulphuric acid to be used for producing fertilizer is, as you know, generaly lead chamber process sulphuric acid ; this sulphuric acid can not be used for producing artificial fibres, medicines and other chemical products as it is mingled with much impurities. For the production of the latter the contact system sulphuric acid is absolutely needed.

(2) Unlike the metal or machine processing factories, the chemical industrial factories are generally adopting twenty four hours system. Therefore, the chemical industrial factories must always keep ample quantity of materials. For instance, it is a matter of common knowledge for the artificial fibre manufacturers to-day that they do not dare to continue the operation without the stock of sulphuric acid sufficient for more than one month's operation.

(3) Although there are many factories of artificial fibres, medicines and chemicals in Kinki region, most of them have to depend on sulphuric acid supplied from other regiones, for most of the contact system sulphuric acid plants in Kinki region are now suspending their operation.

The subject plant has already received inquiries from Toyo Rayon Co., Ltd. and a factory in Yamaguchi Prefecture, who learned by hearsay that the subject plant had been making investigations concerning the re-operation of the plant, requesting to conclude a contract that the subject plant would supply 500 tons of sulphuric acid to each factories.
It will give you some idea of the fact that how the contact system sulphuric acid are thirsted for by the consumers of it.

(4) Among the non-operating contact system sulphuric acid plants in Kinki region, Kansai Ryusan K.K., Amagasaki Plant, Nihon Jukagaku Kogyo K.K., Amagasaki Plant and Kanegafuchi Kogyo K.K., Amagasaki Plant are in such a state that they can hardly be rehabilitated.

Re Toyo Rayon K.K., Shiga Plant, even if it might resume its operation some day, the shoule of the product would assuredly be applied to the plant's own use.

Re Teikoku Kako K.K., Owada Plant, the facility of the plant was once heavily damaged by the flood soon after the termination of the war, and a vast quantity of materials and much expenses will be required to rehabilitate it.

Such being the case, the applicant, the Osaka Plant of Teikoku Kako K.K. is decidedly the only one which can shortly be restored to the perfect state with comparatively a little expenses and materials.

(5) The output of iron sulphide ore, or the raw material of sulphuric acid, has remarkably been increasing of late. The goal of its output in this year is as follows:

a) estimate made by the managements: 1,160,000 tons
b) goal made by E.S.B. : 1,400,000 "
b) goal made by the laborers unions: 1,550,000 "

The output of it in last July is reported to be about 130,000 tons, so that the goal made by L.U. will certainly be attained so faw as all goes on well. Therefore, the supply of the raw material for producing sulphuric acid is very promising, and the subject plant will never meet with difficulties in acquiring the iron sulphide ore in case of the reopening of sulphuric acid production. (The yearly output of iron sulphide ore before the war was about 2,000,000 tons)

(6) The subject plant has lately ~~even~~ decided to commence the restoration works of the plant from the beginning of next September, and is expected to be completed by the end of this year. Therefore, if this petition is approved, the subject plant may start the production of sulphuric acid from the beginning of next year.

(7) About 30% of the estimated shortage of sulphuric acid supply in Kinki region next year will be ~~covered~~ by the subject plant if the plant be authorized to reoperate on the plan stated in the inclosed petition, and accrodingly a great quantity of the fuel for the transportation may be saved, and at the same time, the transportation facilities can efficiently be used.

FOR THE GOVERNOR OF OSAKA PREFECTURE:

Sadao Kobayashi

SADAO KOBAYASHI
Head of 1st Commerce &
Industry Section.

July 25, 1949

To: Mr. Heitaro Inagaki
Minister of International Trade and Industry.

FROM: Shizuo Nakano
Director & President of Teikoku Kako K.K.
No. 10, Funa-machi, Taisho-ku, Osaka City.

SUBJECT: Application for Re-conversion of Designated Reparation Plant.

I. Name of plant:
Contact sulphuric acid plant, Osaka Works, Teikoku Kako K.K.

2. Location of plant:
No. 10, Funa-machi, Taisho-ku, Osaka City.

3. Name of product planned:
98% sulphuric acid

4. Experience of the production planned:
We produced it during the term from October, 1938 to January 1945.

5. 1939-----1945 production:
(a) Name of product: 98% sulphuric acid
(b) Output (Below list includes partly surmised quantity due to the burning-out of our records in the war time.)

Year	Quantity (in ton)
1939	16,800
1940	16,200
1941	15,600
1942	15,000
1943	14,800
1944	12,307
1945	64

6. Period of desired permission:
From the day of permission to that of reparation removal.

7. Scale of production planned by month for period on the application:
Monthly 1,500 tons (100% computation)

8. Name of location to which product is to be delivered:
The distrubution of this product is now under control by the Government concerned. In view of the shortage of

this product in Kinki District, we intend to supply greater part of our products towards the important chemical circles who need them as raw marerial for the manufacture of rayon, staple fibre and other chemicals. The remaining part will be consumed by ourselves for multiplying the ferilizer products on our own plant.

9. Scale of proposed changes in physical facilities:
We are going to sue the designated equipments, without making any alternation in shape or quality, but they need some repairs in advance in case of operation.

10. Intended expense for reconversion:
It would be very difficult to restore this production afer reparation remova. However, the suspension of this production would fatally affect to the chemical industry which consumes this product as essential material for their manufacture. We intedd, therefore, to continue this production by all means even after reparation removal.

12. Reasons of applying for reconversion.

(A) Demand and supply of sulphuric acid in Kinki District is remarkably unbalanced: In Kinki District, there are a large number of those industrial plants, for which the concentrated sulphuric acid is an essential material. Even in Hanshin District alone we have 127 plants of this kind.,i.e.

25 plants----manufacturing oil and fat, paints and other productive coatings.
6----------manufacturing celluloid
21 ----------manufacturing medicine
19 ----------manufacturing chemicals
9 ----------manufacturing dyestuff and pigment
5 ----------manufacturing leather
8 ----------manufacturing rayon and staple fiber
19 ----------manufacturing metals
6 ----------manufactuirng battery
9 ----------others

As to the supply of this product in the same District, there are 9 contact sulphulic acid factories, as shown in Table I. However, Hirohata Plant, Nihon Seitetsu K.K. is only one maker that is currently in operation to supply its products for these consumers. (We have two more makers, currently in operation, Befu Kagaku Kogyo K.K. and Nissin Kagaku Kogyo K.K., but their products are consumed solely for

their respective manufacture of ammonium sulphate and other chemicals.) All the others are now in suspension. Accordingly, the demand and the supply of this product in the above District, is remarkably unbalanced as shown in Table II. The estimated shortage of the supply in coming years advances as follows:

1948	56,140	(tons)
1949	61,500	
1950	76,400	
1951	89,600	
1952	94,000	

We fear that such shortage of supply would have adverse effect in considerable degree upon those chemical industries which need the sulphuric acid as their essential raw material. Even hitherto, we had to bring a great deal of this product therein from other areas to fill the unbalance between the supply and the demand. For example, in last quarter of 1947 fiscal year, about 1,400 tons per month were introduced into this District from far places, as shown in Table III.

In view of these records, such advancement of unbalance between demand and supply in the coming years will undoubtedly necessitate the introduction of this product in greater quantities in to this District from other distant manufacturers. However, the transportation of sulphuric acid in the long distance is not only difficult but also very costly. It is, therefore, urgently needed that the demanded sulphuric acid in Kinki District be self supported as much as practicable with the products produced in the same area for rationalization of this production as well as for the advantage of the consumers concerned. Now, a large number of consumers thereof in this area, earnestly desire the reporting of this contact sulphuric acid facility of this Works so that this product may be supplied both economically and constantly for their benefits.

Table I. List of contact sulphuric acid plants in Kinki District.
(computed at 100% sulphuric acid)

name of plant	set	authorized capacity	designated for reparation or not	in operation or in suspension
Osaka Plant, Teikoku Kako K.K.	1	1,500(tons)	designated	in suspension
Owada Plant, Teikoku Kako K.K.	1	1,950	ditto	ditto
Amagasaki Plant, Kansai Ryusan K.K.	1	3,000	ditto	ditto
Befu Kagaku Kogyo K.K.	1	3,000	not designated	in operation
Osaka Seizosho, Nissin Kagaku K.K.	2	600	designated	I set in operation
Hirohata Plant, Nihon Seitetsu K.K.	1	1,500	ditto	in operation
Amagasaki Plant, Kanegafuchi Boseki	1	3,000	ditto	in suspension
Amagasaki Plant, Nihon Jukagaku Kogyo K.K.	1	900	ditto	ditto
Shiga Plant, Toyo Reiyon K.K.	1	1,500	ditto	ditto

Remarks: The products in Befu Kagaku Kogyo K.K. and Nissin Kagaku K.K. are consumed solely for their own use.

Table II. Demand and supply of concentrated sulphuric acid consumed for industrial purpose in Kinki District.

DEMAND	1948	1949	1950	1951	1952
light metals	3,300	3,700	4,400	5,000	5,300
inorganic metals	22,700	26,000	31,200	36,000	37,900
coal tar distillatin products	1,300	1,500	1,800	2,200	2,300
celluloid and nitro cellulose	8,000	9,000	10,800	12,400	13,000
chemical textile	7,500	8,500	10,200	11,700	13,500
medicine for public welfare	2,100	2,400	2,900	3,300	4,500
intermediate for paint	25,000	28,000	33,600	38,600	40,500
others	4,800	5,400	6,500	7,500	7,900
Total	74,700	84,500	101,400	116,700	124,800

SUPPLY

	1948	1949	1950	1951	1952
Hirohata Plant, Nihonseitetsu	15,200	18,000	20,000	22,000	25,000
Osaka Plant, Nissin Kagaku	3,360	5,000	5,000	5,100	5,600
Total	18,560	23,000	25,000	27,100	30,600
DEFICIT OF SUPPLY	56,140	61,500	76,400	89,000	94,200

Table III. Quanitities of concentrated sulphuric acid brought into Kinki District in last quarter of 1947.

District of origin	Jan.	Feb.	Mar.	Total
Kanto	285	198	148	631
Tokai	369	49	729	1,147
Chugoku	513	1,299	467	2,277
Tohoku	0	24	49	73
Total	1,165	1,570	1,393	4,128

(B) Repairing work can be completed within short term and with small expenditure.

With respect to the productive efficiency and the repairs, this plant has considerably advantageous terms, compared with others: namely

1. This plant is the most newly established plant in Kinki District and has not been operated for long time. As a result, those equipments installed therein can be most efficiently operated still now.

2. Main repairing work of this plant was already started with expenditure of ¥2,970,000 in April of 1946 and 70% thereof had been completed when this plant was disignated for reparation. Accordingly, the remaining repairs of this plant would be completed, if permitted, at least within 4 months.

In addition, the expenditure thereof would not be more than 19,612,000 yen.

(C) This plant is favored geographically as well as economically.

This plant is located along the big canal. Such geographical situation facilitates the arrival of raw material thereat as well as forwarding of products therefrom. Especially, the pyrites, an essential raw material for the manufacture of sulphuric acid, could be transported by ship from Yanahara Kogyosho, Dowa Kogyo K.K., Okayama Pref., which is located in so short distance from Osaka City that the transportation cost of this raw material would be considerably economized. In addition, as this plant is located in the industrial centre of Osaka City, the products thereby produced can be supplied to those consumers which are concentrated in Hanshin District, more economically than those sent from far districts,---especially in these days of high transportation cost.

In this connection, the pyrites is one of the most hopeful raw materials to be self supported in this country. The production goal thereof in 1948 fiscal year was 1,450,000 tons, but in coming years increased production is expected. In view of such advancement of this raw materials, it is the time to increase the production of sulphuric acid.

(D) This plant keeps excellent technical staff for this applied production. Even though the operation of the contact sulphuric facility in the plant has been suspended since Jan. 1945, excellent technical staff thereof has remained still in this plant. Those 4 engineers and 7 workers who particip ted in the establishment of this facility in 1938, and those 3 engineers and 15 workers who have actual experience of this production more than 5 years, are now working in chamber sulphuric acid facility or for maintenance of this suspended facility. If the operation of the latter facility be permitted with your favor, we are convinced of that we would be able to produce the prominent products same as pre-war, by means of utilization of their excellent technique and experience.

In view of the above stated reasons, it ti respectfully requested that the prompt authorizstion of this applied production be given with your special favor.

Attached List No. 1

Detailed List of Designated Equipments, to be Used.

Name of Machinery and Equipment	Total No.	Number of Machinery and Equipment to be Used.
1. Chemical Equipment.		
Ore Roaster	3	3
Elevator	4	4
Hot Cottrell's Precipitator	1	1
Washing Tower	1	1
Cooling Tower	1	1
Mist Cottrell's Precipitator	4	4
Intermediate Tower	1	1
First Drying Tower	1	1
Second " "	1	1
Ceramic Filter	2	2
Heat Exchanger	2	2
Convertor	2	2
Preheater	1	1
Cooler forSO3	2	2
Absorbing Tower	2	2
Total	28	28
II. Tanks & Pipes.		
Acid Cooling Tank (Steel Tank)	1	1
" " " (Lead ")	9	9
Intermediate Tank (Lead)	1	1
" " (Steel)	3	3
" " (Lead)	4	4

(Cont'd.)

Acid Mixing Tank (Coil Type)	2	2
" " " (Jacket Colling Type)	1	1
Operation Tank	4	4
Storing Tank	4	4
Sales Tank	2	2
Underground Tank (Small)	1	1
" " (Large)	1	1
Irrigation Coller	1	1
Gas Leading Pipes	1 set	1 set
Acid Circulation Pipe	1 "	1 "
Cooling Pipes	1 "	1 "
Total	37	37

III. Electrical Machinery and Apparatus.

Electrue Motor 75 H.P.	2	2
" " 10 "	7	7
" " 7.5 "	1	1
" " 5 "	2	2
" " 3 "	1	1
" " 2 "	1	1
Transformer 150 K.V.A.	3	3
" 20 "	1	1
Switch Boards	4	4
Shifting Switch	1	1
Discharge Apparatus	1 set	1 set
Total	24	24

IV. Pump

Reducing Gear Boxes	3	3

(Cont'd.)

Acid Lifting Pump (of Ariron, Lifting volume: 3,665 cub. meter)	9	9
" " " (of "Oremen")	4	4
" " " (of Ariron, Lifting volume: 1,605 cub. meter)	1	1
" " " (of Hard-Lead)	1	1
Water Lifting Pump	4	4
Blowers (Wind Volume 200 cub. meter)	2	2
" (" " 80 " ")	1	1
Turbo Blower	2	2
Blower	1	1
Total	28	28
GRAND TOTAL	117	117

II.
Attached List No. 2

Machinery and Equipments, newly enlarged.

(A) Ore Conveying Equipment:
- Ore Hopper ---------- 1
- Seeling Machine ---------- 1
- Ore Transpoting Truck ------ 6

(B) Ore Crushing Equipments:
- Roll Crushers ---------- 1
- Rotation Sieve ---------- 1
- Belt Conveyor ---------- 1
- Hopper ---------- 1
- Bucket Elevator ---------- 1

Attached List No. 3

List of Emploee

	workman	engineer	clerk	Total
Persons under present employment	8	2	2	12
Intended increase for applied production	31	0	0	31
Total	39	2	2	43

Signed Shizuo Nakano

Shizuo Nakano

Director President
Teikoku Kako K.K.
(Teikoku Chemical Industry Co., Ltd.)

The Teikoku Kakō (

Ōsaka Fact

Plan

Scale 1 : 40(

INDICATES UNDER OPE

INDICATES REPARATIO

INDICATES BUILDINGS
ASHES BY BOMBING IN

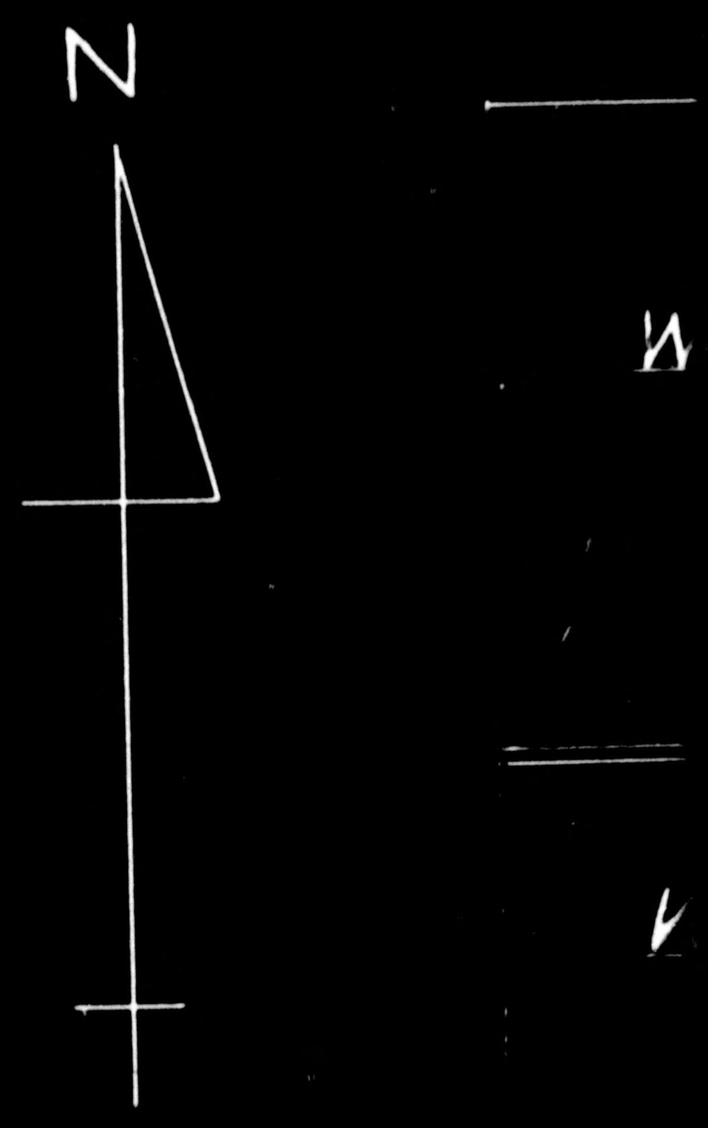
The Canal Kizug

roku Kakō Co. & Ltd

aka Factory

Plan

ale 1:400



INDICATES UNDER OPERATION.

INDICATES REPARATION EQUIPMENTS.

INDICATES BUILDINGS & FACTORIES, BURNT TO ASHES BY BOMBING IN JUNE 1945.

...nal Kizugawa

N

Warehouse
No 9

Warehouse
No 10

Warehouse
No 12

Storage

No 8 | No 7 | No 6 | No 5 | ...

Warehouse

Warehouse

Fertilizer Shop

No 13

Finish Works | Manufacture Works | Sto... S...

Teacher's room | Fur...e room

Acid boil works

Warehouse

№7 | №6 | №5 | №4

Warehouse

Fertilizer Shop

Finish works | Manufacture Works | Storage | Storage

Dry works

Store tank

's room | Furnace room

Workmen room

Acid boil works

Acid boil works

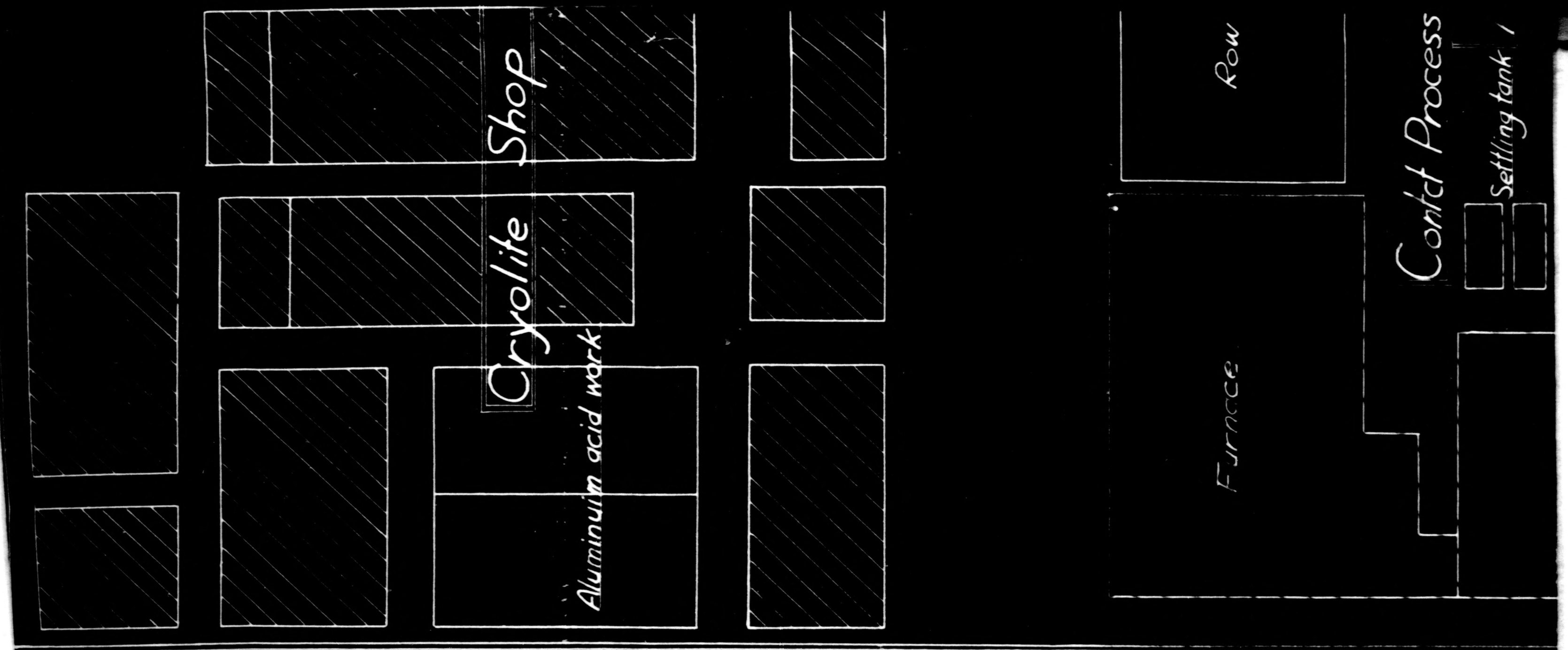
No 4

Warehouse

Dry works

Store tank

Workmen room



The Nissan Kagaku Co & Ltd.

Tower

Lead Chamber

Dust yard

Shop

Tower

Pum

Analyse room Wa

Row matered yard

Flo
aci

Storage

Storage

t Process Sulphurce

ettling tank Acid Shop

Teacher's room | Furnace room

Workmen room

Acid boil works

Acid boil works

Tower

Furnace

hamber

Lead Chamber Shop

Dust Cottrel | Furnace | Row material yard

Tower

Workmen room

Iron work

Pump room

Mending works | Transformer room

Workmen room

Dry works

Aluminuim acid works

Analyse room | Warehouse

Boiler room

Reaction works

Aluminium Flouride Shop

Natrium flouride works

Flouride acid works

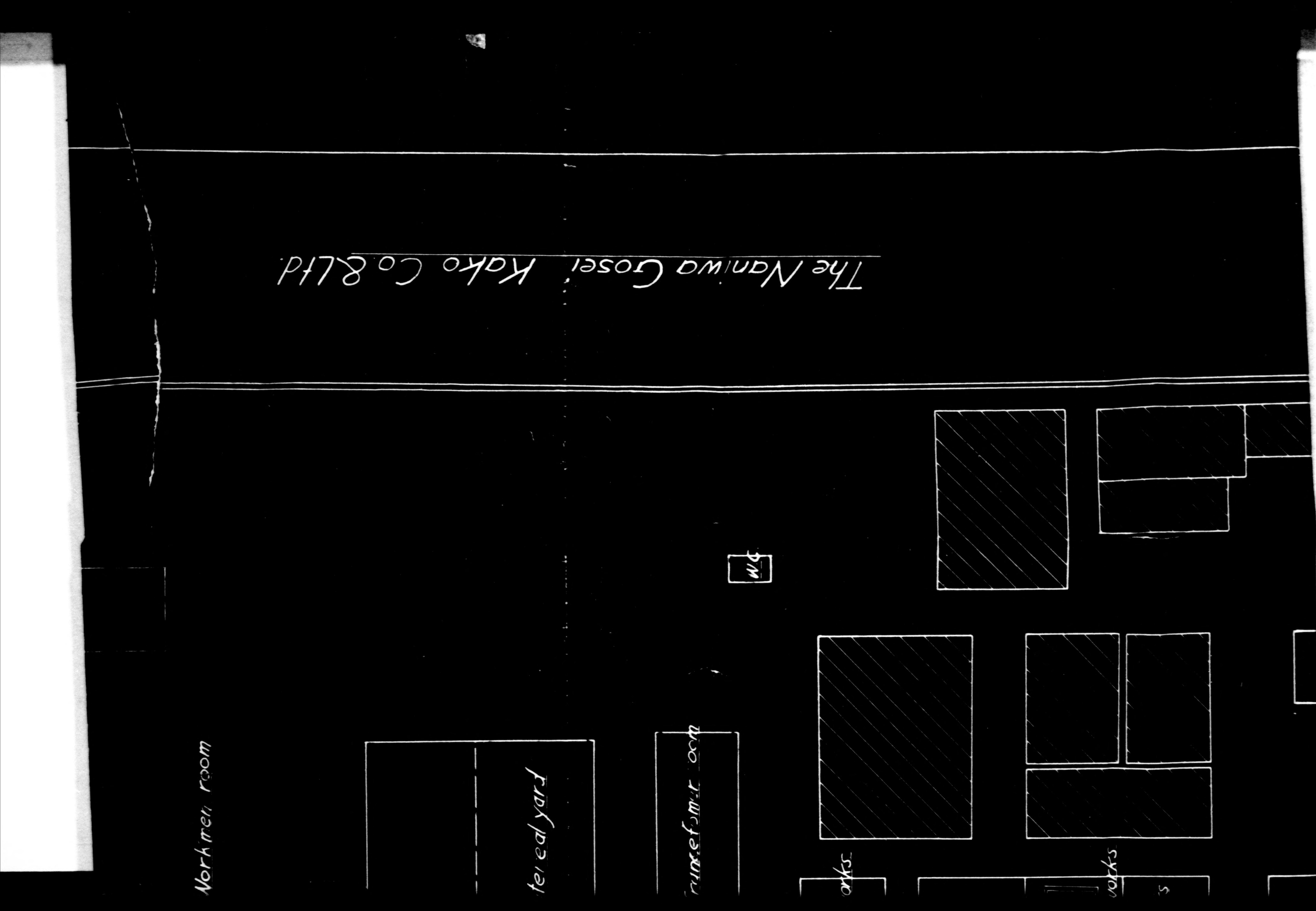
Dryd crushing works

Flourid acid works

Storage

Warehouse

The Nanniwa Gosei Kako Co. Ltd



Furnace

Contct Proce:

Settling tank

tan

Ligefaction works

Recieving tank

Coder

Store tar

Storage

Contct Process Sulphunce

Settling tank

Acid Shop

tank

Recieving tank

Office

Coder

Store tank

Storage

Street

Storage

Flouride acid works

Dryd crushing works

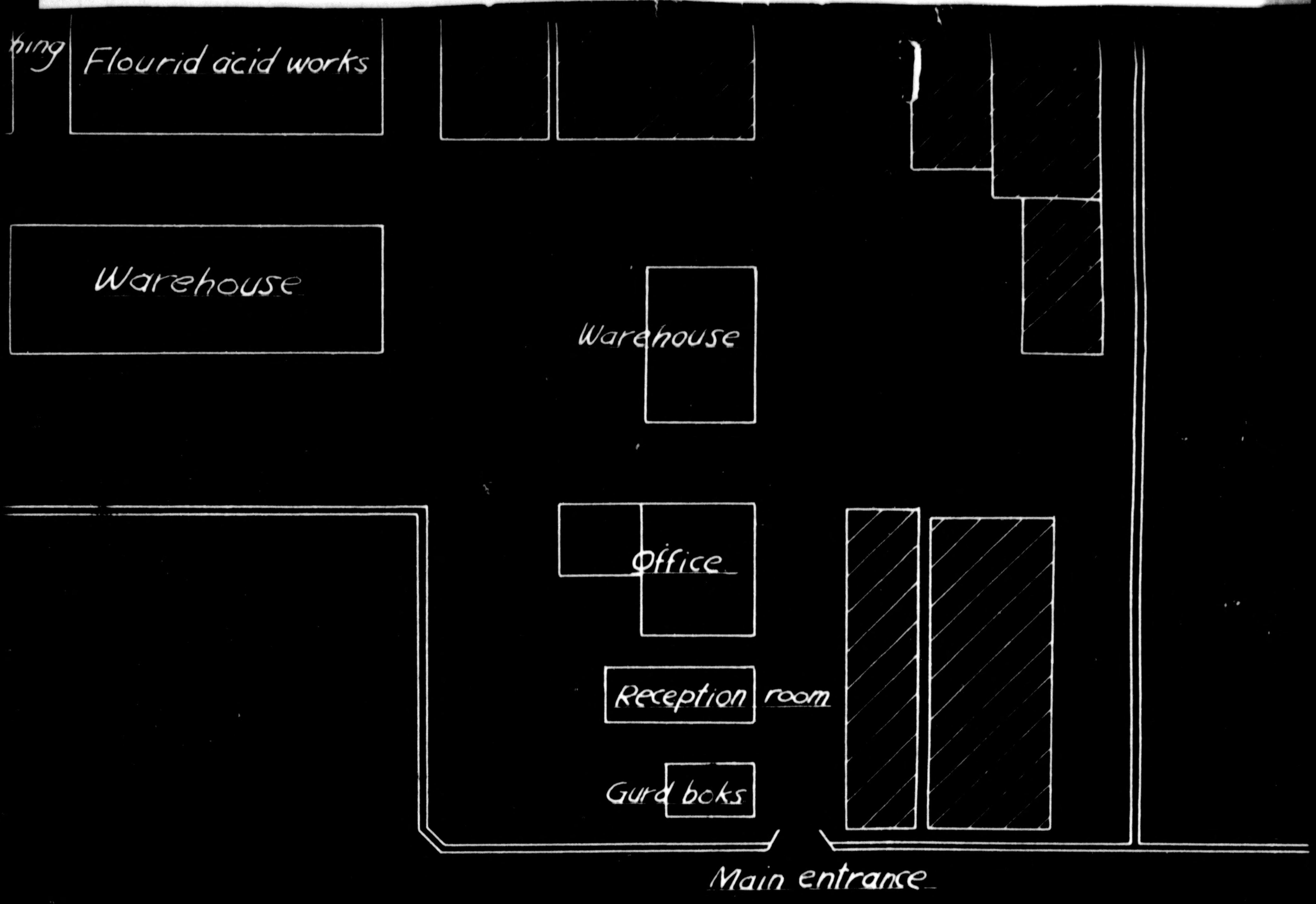
Flourid acid works

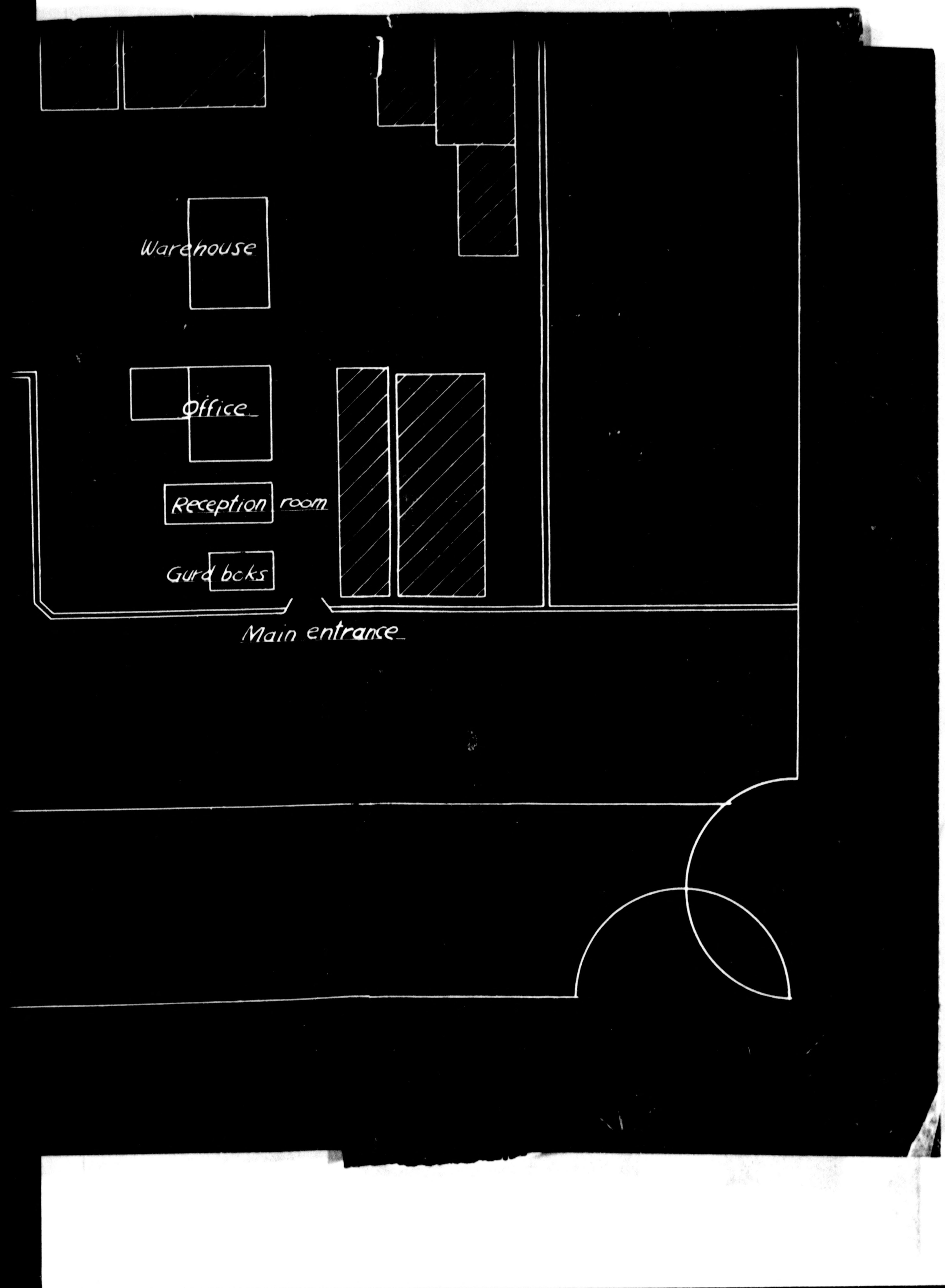
Storage

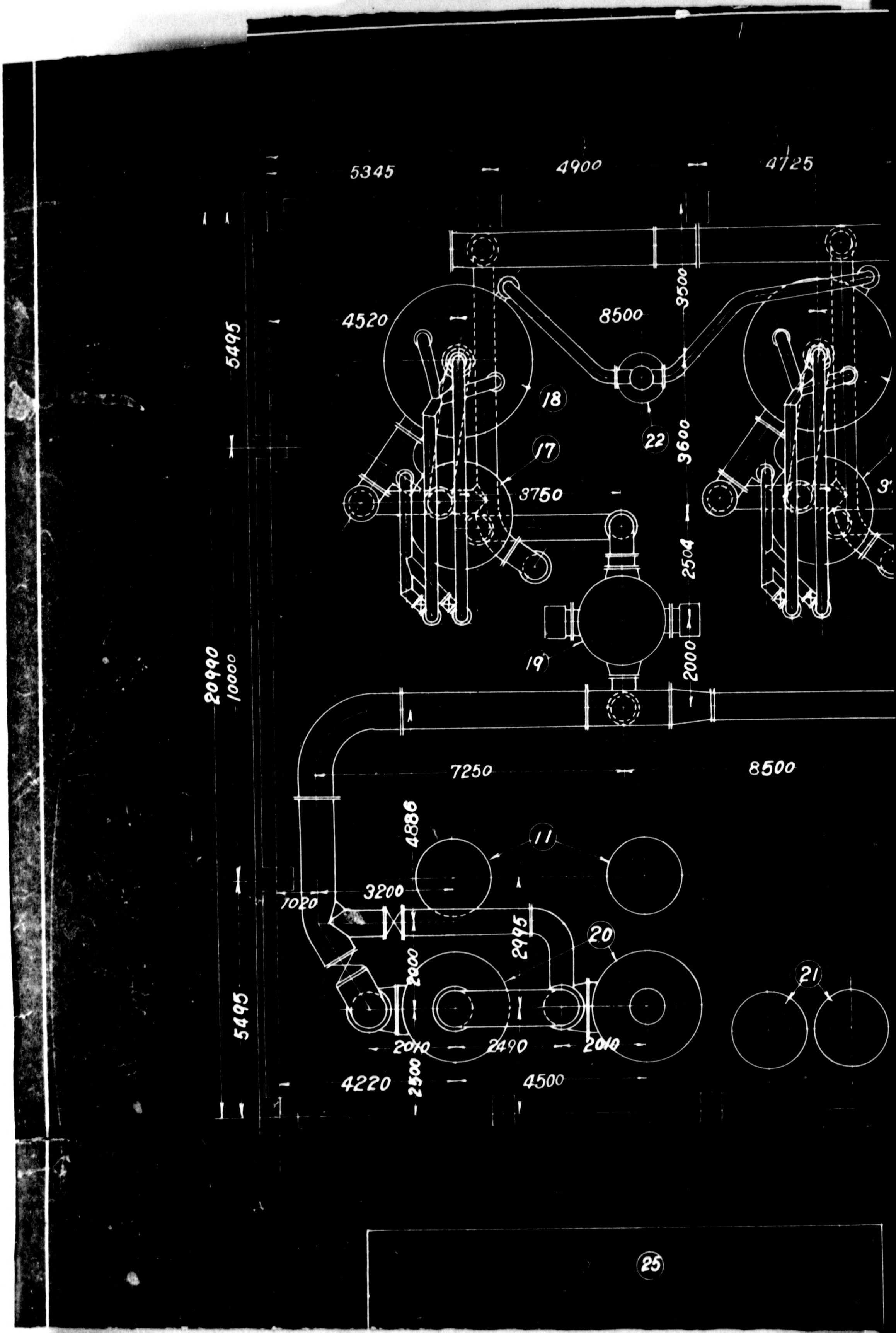
Storage

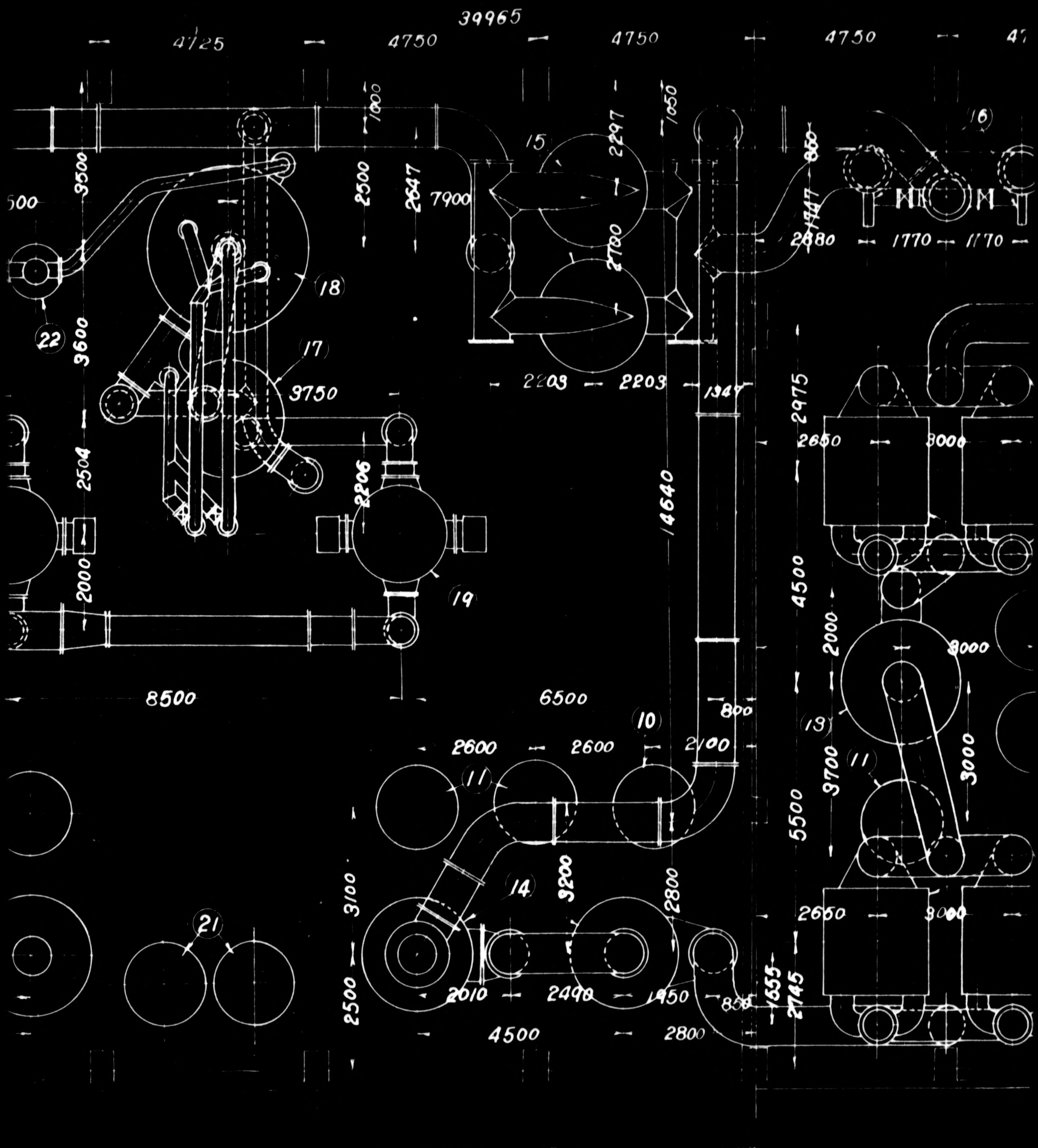
Warehouse

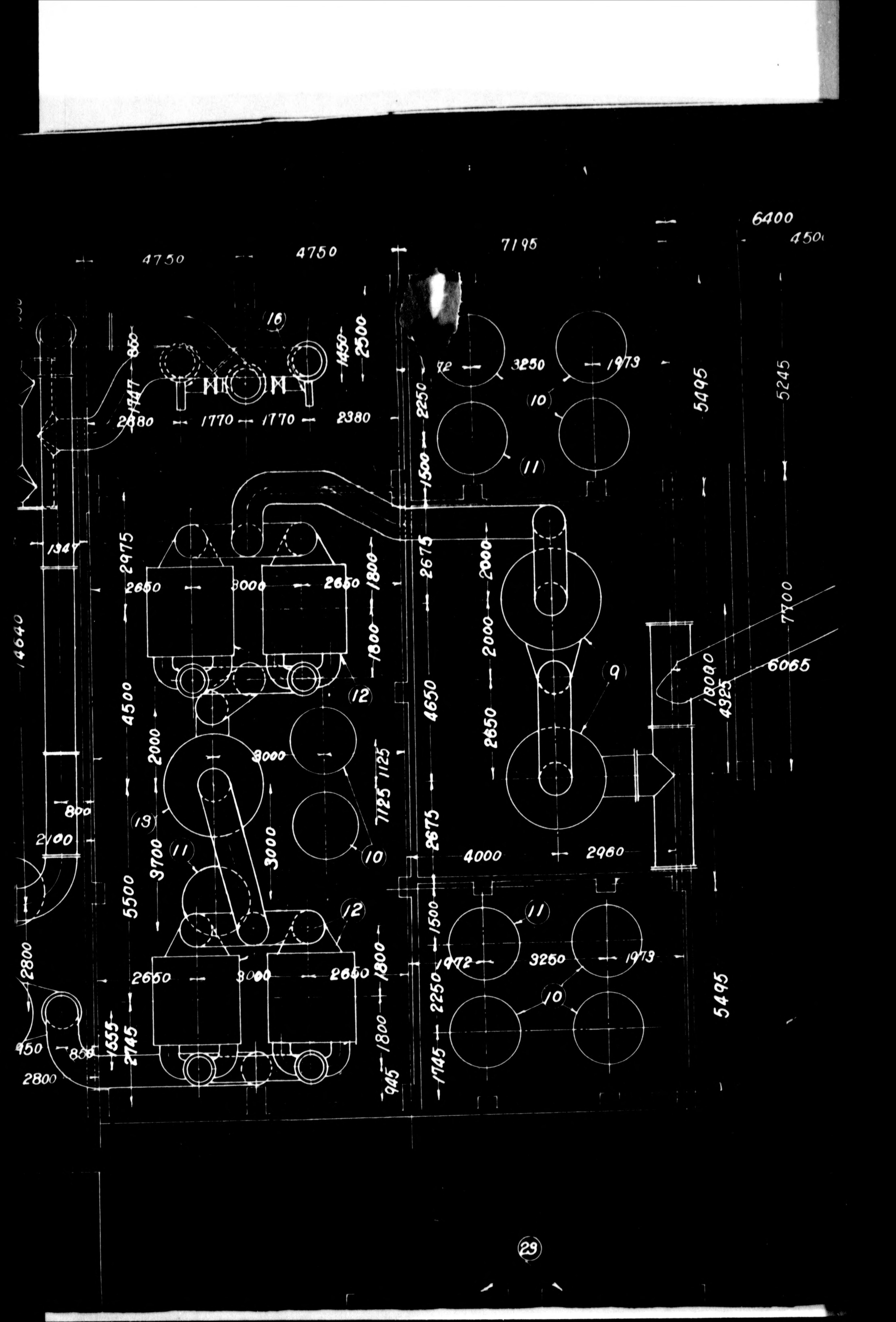
Street


ping
Flourid acid works
Warehouse
Warehouse
Office
Reception room
Gurd boks
Main entrance


Warehouse
Office
Reception room
Gurd boks
Main entrance


5345
4900
4725
4520
8500
3500
5495
18
22
17
3600
3750
2504
19
2000
20990
10000
7250
8500
4886
11
3200
1020
2995
20
2000
21
5495
2010
2490
2010
4220
2500
4500
25


39965
4725
4750
4750
4750
4750
1000
1050
2500
2647
7900
2297
2700
2203
2203
1947
1747
850
1770
1170
2880
3500
3600
2504
2000
500
18
17
22
9750
2206
19
15
16
8500
6500
800
10
2600
2600
2100
11
3100
14
3200
2800
2500
2010
2490
1950
850
4500
2800
21
25
24
2975
2650
3000
4500
2000
3000
13
3700
5500
3000
1555
2745

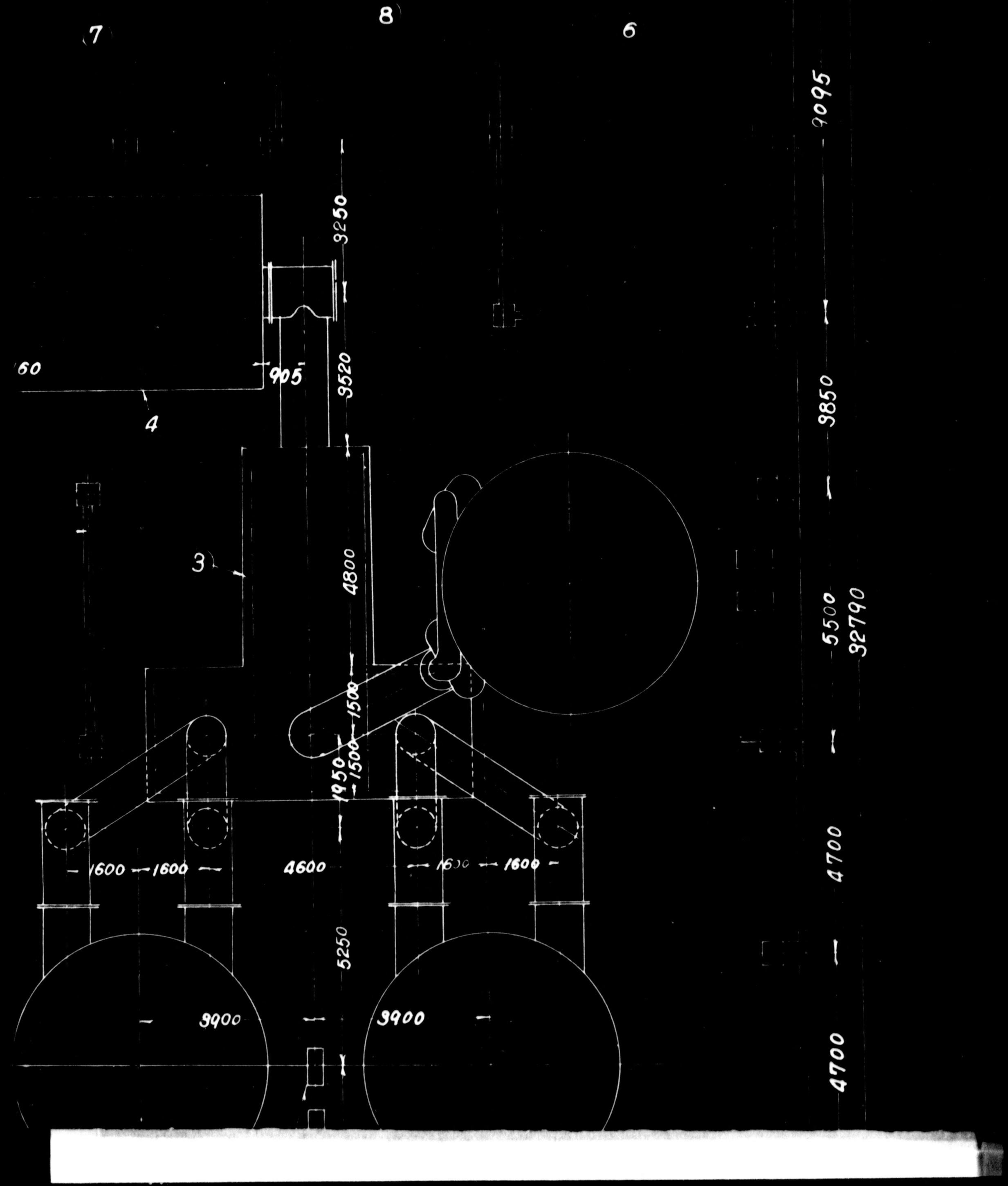

4750
4750
7195
6400
4500
16
1450
2500
850
1347
2380
1770
1770
2380
1347
2250
1500
72
3250
1973
10
11
5405
5245
2975
2650
3000
2650
1800
2675
2000
1464
2640
4500
2000
3000
7125
1125
12
13
11
10
9
7700
6065
4925
18000
800
2100
9700
5500
3000
2675
4650
2650
2000
4000
2960
1500
2800
950
850
1555
2745
2650
3000
2650
1800
945
1800
1745
2250
1472
3250
1973
10
5495

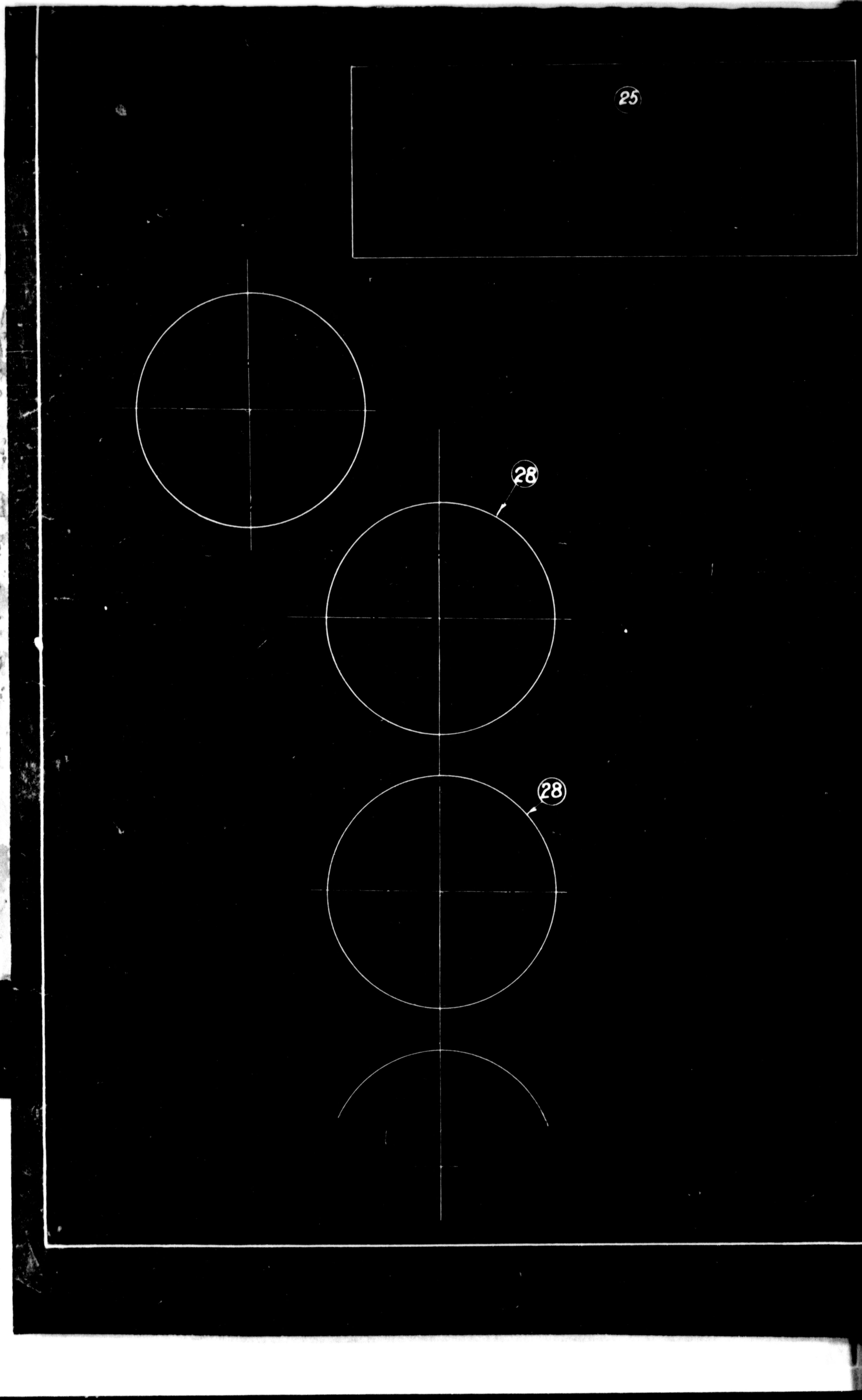
6400
4500
9745
20990
5200
5495
5245
7700
4210
10160
905
9250
9520
6065
18000
4925
5495
5500
5495
973
4800
1500
1500
1950
1600
1600
4600
5250
9900
9900

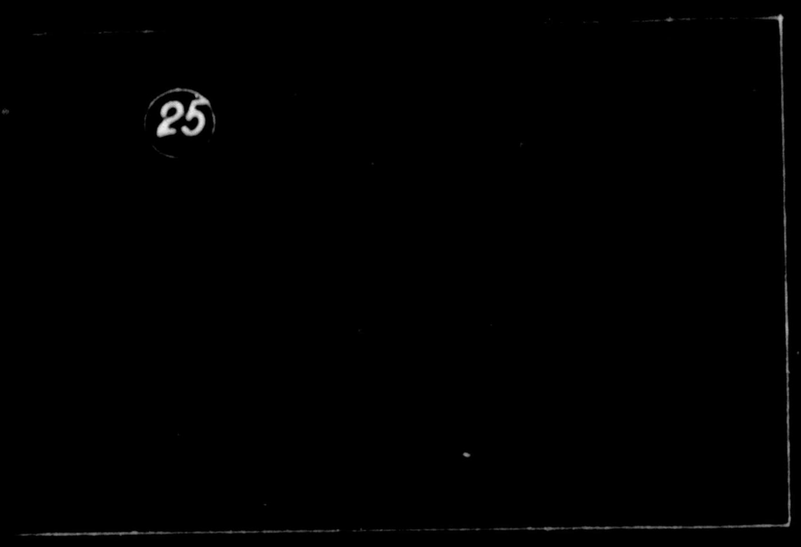
20990

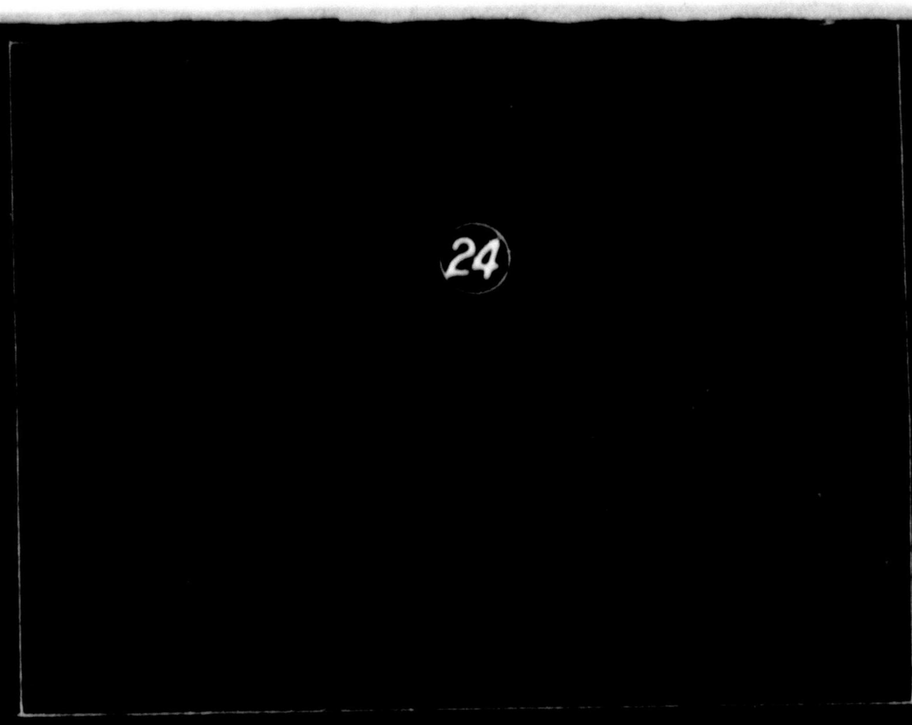
745 — 8200 — 6045

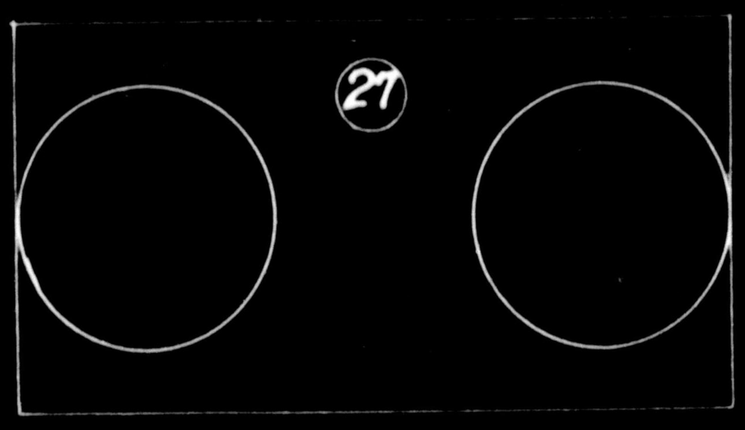
7 8 6

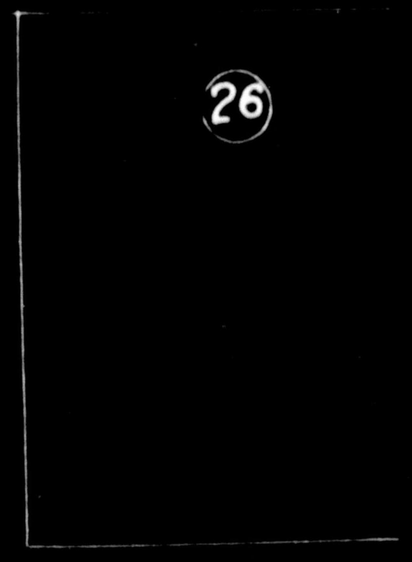



25
28
28



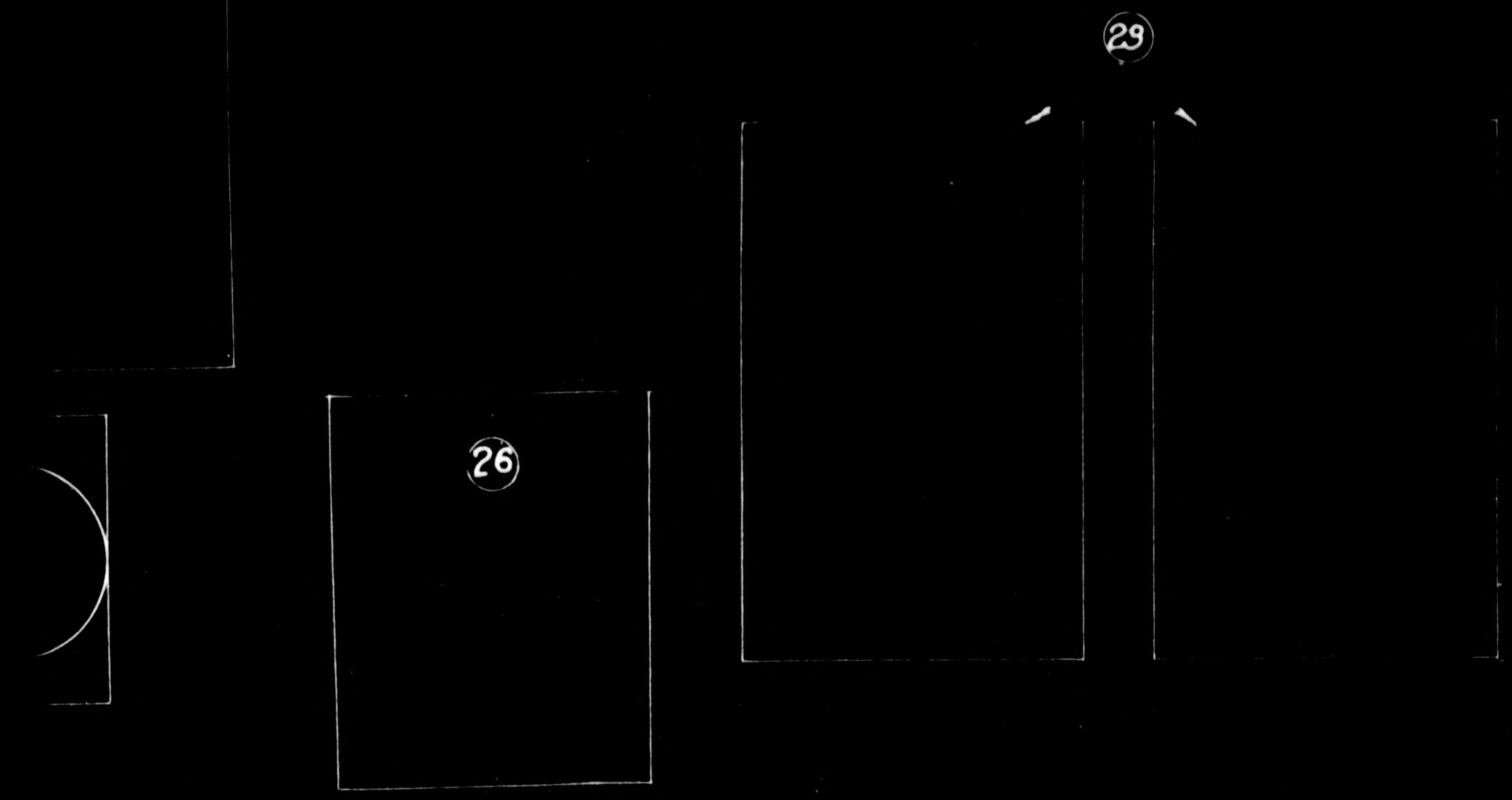




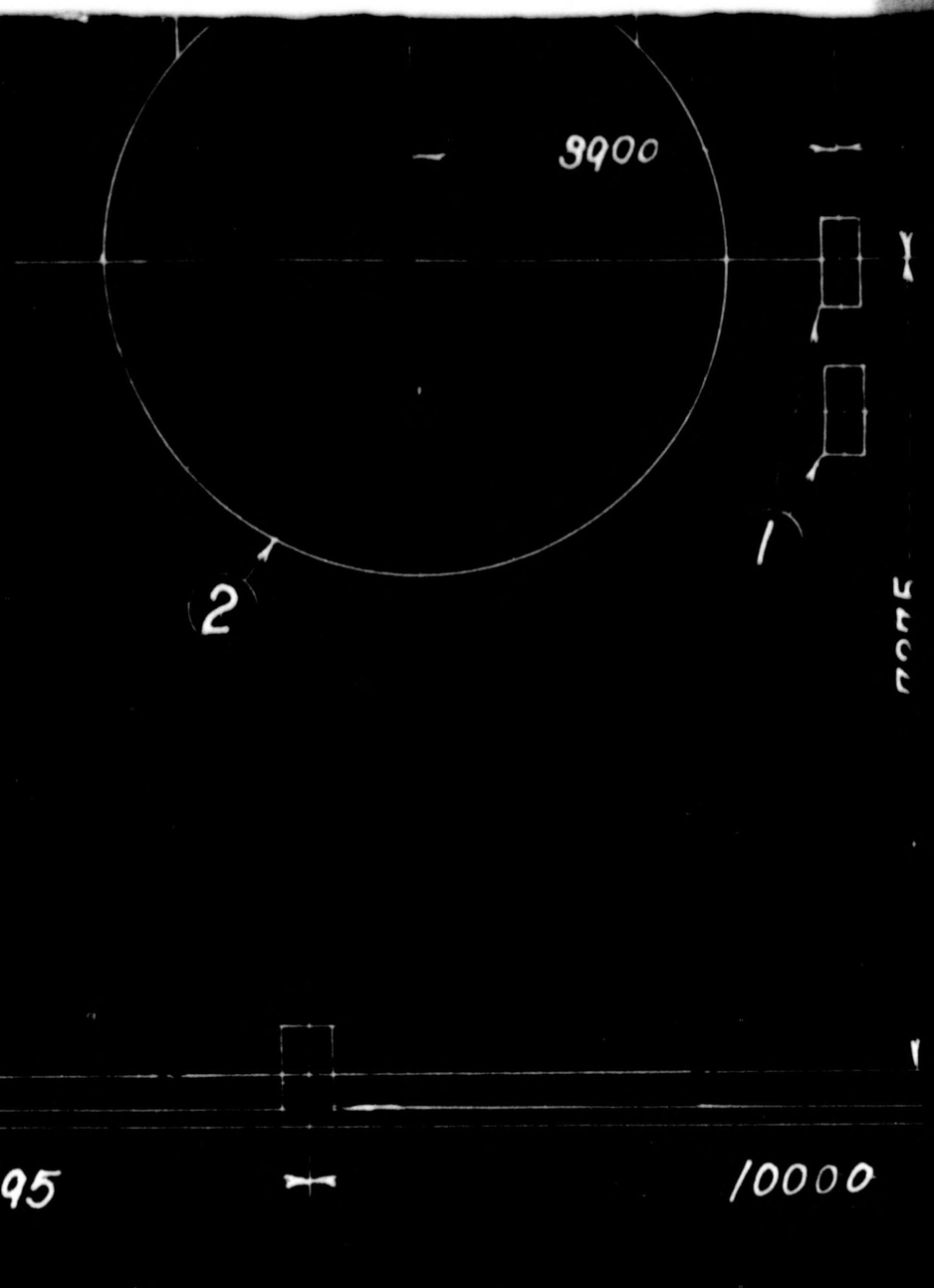


3)

Roasting	
1	Elev
2	Roas
3	Dust
4	Hot
5	Fans
6	Sub
7	Recti
8	Guan

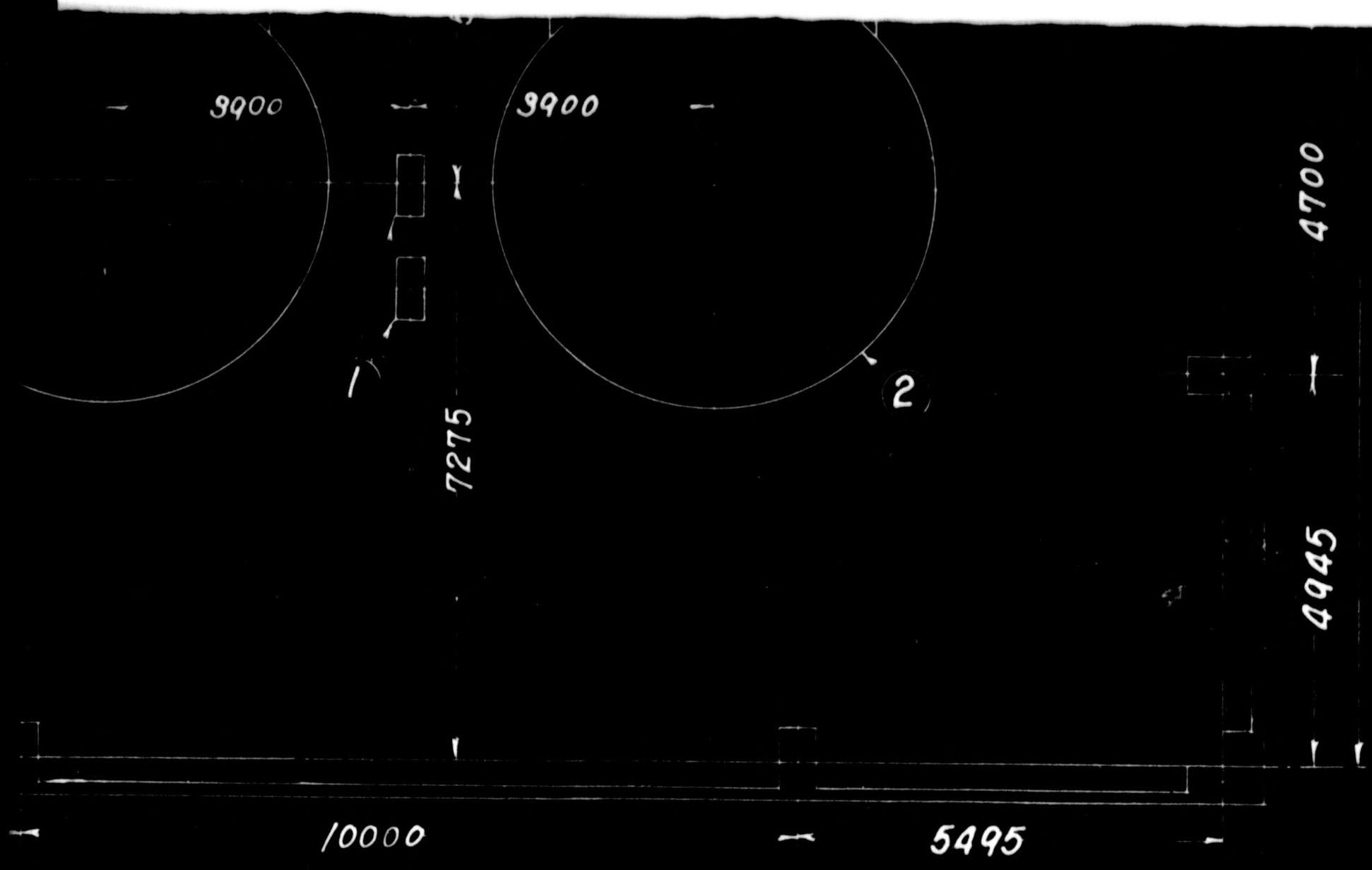


Roasting Plant		Contacting Plant		Outdoor Equ	
1	Elevator	9	Cooling Tower	23	Settl
2	Roaster	10	Acid Cooler	24	Reci
3	Dust Collector	11	Intermediate Tank	25	Irrig
4	Hot Cottrell	12	Cold Cottrell	26	Unde
5	Fan's Room	13	Intermediate Tower	27	Stor
6	Sub Station	14	Drying Tower	28	"
7	Rectifire's Room	15	Asbestos Filter		
8	Guard Office	16	Turbo-Blower		
		17	Heat Exchanger		
		18	Conrerter		
		19	SO_3 Cooler		
		20	Absorption Tower		
		21	Mixing Tank		
		22	Pre heater		



ng Plant	Outdoor Equipments	
ooling Tower	23	Settling Tank
Acid Cooler	24	Recieving Tank
ntermediate Tank	25	Irrigation Cooler
old Cottrell	26	Underground Tank
ntermediate Tower	27	Store Tank
Drying Tower	28	" "
Asbestos Filter		
Turbo-Blower		
Heat Exchanger		
Conrerter		
SO_3 Cooler		
Absorption Tower		
Mixing Tank		
Pre heater		

TE
DAT
DRA
DESI
INSP
NO



TEIKOKU-KAKO & CO. LTD. THE OSAKA WORKS	
DATE: 23/9/46	Lurgi Sulphuric Acid Contact Plants
DRAWN BY:	
DESIGNED BY:	
INSPECTED BY:	Disposition of Apparatus
NO.	SCALE 1 : 100

(10) EXPENDITURE & MATERIALS REQUIRED FOR

DESIGNATED EQUIPMENTS.

TEIKOKU KAKO KABUSHIKI KAISHA.

SUMMARY OF EXPENSE REQUIRED FOR DESIGNATED EQUIPMENTS

AND BUDGET FOR MATERIALS

DESIGNATION:	AMOUNT: DESIGNATED EQUIPMENTS:	AMOUNT: OTHERS:	REMARKS:
BUDGET FOR REPAIRING & ENLARGING CONTACT PROCESS SULPHURIC ACID PLANT:			(Expense required for Nominated Production Materials only)
Construction of Buildings & Fixtures:	0	¥ 2,442,000.00	¥ 1,311,288.00
Repairing Expense for Machines & Equipments:-	¥ 11,877,000.00	5,293,000.00	5,391,320.00
T O T A L --------	¥ 11,877,000.00	¥ 7,735,000.00	¥ 6,702,608.00

SN:TKS

(1) BUDGET FOR REPAIRING & ENLARGING CONTACT PROCESS SULPHURIC ACID PLANT

(A) SPECIFICATION FOR BUILDING CONSTRUCTION & FIXTURES

CLASSIFICATION:	STRUCTURE :	QUANTITY :	A R E A :	UNIT PRICE :	A M O U N T:	REMARKS :
Ore Godown & Crushing Works:	Iron Frame, Slate Roof, 1-storied, Brick Walls	1	120 Tsubo	@ ¥13,000	¥1,560,000.00	Old building removed, used, Obayashi-Gumi.
Ore Conveying Bridge	Iron Frame, Suspended, Double Lines:	1	400 Meters	3,000	600,000.00	Construction enlarged. Obayashi G.
Pump Room:	1-storied, Wooden, Slate roofed:	1	10 Tsubo	18,000	150,000.00	Construction enlarged, due to war loss. Obayashi G.
House for Underground Tank.	-"-	1	7.5 "	12,000	60,000.00	" "
Beach Pump Room.	-"-	1	6 "	18,000	72,000.00	" "
T O T A L ----------					¥2,442,000.00	

(B) SPECIFICATION FOR MATERIALS FOR BUILDINGS & FIXTURES.

NAME OF MATERIALS:	FOR USE	KINDS-CLASS-SIZE	QUANTITY USED Quantity	QUANTITY USED Amount	CLASSIFIED: Stock on Hand Quantity	CLASSIFIED: Stock on Hand Amount	CLASSIFIED: Ration Required Quantity	CLASSIFIED: Ration Required Amount
Steel Plate:	Ore Conveying							
& Shaped Ir:	Bridge	Large Shaped Steel	8.0 Tons	¥80,960	2.0 Tons	¥20,240	6.0 Tons	¥60,720
"	"	Medium " "	3.0 "	30,360	0	0	3.0 "	30,360
"	"	" Rail Steel	7.6 "	84,664	4.0 "	44,560	3.6 "	40,104
"	"	6 m.m. t up Plate	2.0 "	27,680	0	0	2.0 "	27,680
"	Ore Godown, Crushing Works:	Medium Shaped St.	3.1 "	31,370	0	0	3.1 "	31,370
"	"	Small Round Bar	4.0 "	46,560	0	0	4.0	46,560
"	"	6 m/m t up Plate	1.0 "	13,840	0	0	1.0 "	13,840
Nails	"		60 Kg.)		60 Kg.)	0	0	0
"	Ore Conveying Bridge.		60 ")	3,040	60 ")	3,040	0	0
"	Pump Room at Pier:		15 ")		15 ")		0	0
"	Pump Room		25 ")		25 ")			
Timber	Ore Godown Crushing Works.		90 Koku	162,000	90 Koku	162,000	0	0
"	Ore Conveying Bridge.		60 "	108,000	0	0	60 Koku	108,000
"	Pump Room at Pier:		11 "	19,800	11 Koku	19,800	0	0
"	Pump Room		18 "	32,400	18 "	32,400	0	0
"	House for Underground Tank:		9 "	16,200	9 "	16,200	0	0

NAME OF MATERIALS:	FOR USE	KINDS-CLASS-SIZE:	QUANTITY USED QUANTITY	QUANTITY USED AMOUNT	CLASSIFIED Stock on Hand: Quantity	Stock on Hand: Amount	Ration Required Quantity	Ration Required Amount
ment:	Ore Godown Cryshing Works:	Portland	18.5 Tons	¥99,900	0	0	18.5 Tons	¥99,900
"	Ore Conveying Bridge.	"	3.0 "	16,200	3.0 Tons	¥16,200	0	0
"	Pump Room at Pier	"	0.5 "	2,700	0.5 "	2,700	0	0
"	Pump Room.	"	1.5 "	8,100	1.5 "	8,100	0	0
"	House for Underground Tank	"	0.5 "	2,700	0	0	0.5 "	2,700
Slate	Ore Godown Crushing Works.	6'x2.5'	700 Pcs.	231,000	0	0	700 Pcs.	231,000
"	Pump Room at Pier	"	72 "	22,320	72 Pcs.	22,320	0	0
"	Pump Room.	"	40 "	12,400	40 "	12,400	0	0
Plate Glass.	Ore Godown Crushing Works:	Ordinery Thick:	450 sq.ft.	13,050	0	0	450 sq.ft.	13,050
"	Pump Room at Pier.	"	12 "	348	12 sq.ft	348	0	0
"	Pump Room.	"	18 "	522	18 "	522	0	0
"	House for Underground Tank	"	6 "	174	6 "	174	0	0
Red Bricks.	Ore Godown	Ordinery Bricks:	49,000 Pcs.	245,000	0	0	49,000 Pcs.	245,000
	T O T A L ---------			¥1,311,288		¥361,004		¥950,284

(C) MACHINES & EQUIPMENTS

((1)) --- THOSE OF BEING NEWLY ENLARGED:

(a) ORE CONVEYING EQUIPMENT:

D E S I G N A T I O N:	QUANTITY:	TYPE & CAPACITY:	AMOUNT:	MAKERS NAME :	REMARKS
ORE HOPPER	1	20 Tons Capacity	¥ 60,000.00	Yamamoto Iron Wks.	
SCALING MACHINE	1	2 Tons Automatic Weighing.	130,000.00	Kubota I.W.	
ORE TRANSPORTING TRUCK	6	1.5 Tons Capacity	300,000.00	Shibata I.W.	
T O T A L			¥ 490,000.00		

(b) ORE CRUSHING EQUIPMENTS:

D E S I G N A T I O N :	QUANTITY:	TYPE & CAPACITY :	AMOUNT:	MAKERS NAME :	REMARKS
ROLL CRUSHERS	1	Roll Dia 700 m/m 6 Tons/Hr.	300,000.00	Shibata Iron Works	
ROTATION SIEVE	1	Dia 1.5 meter 20 Tons/Hr.	200,000.00	-"-	
BELT CONVEYOR	1	450 m/m W.x30 meter L.	1,000,000.00	Yamamoto I.W.	
HOPPER	1	20 Tons Capacity	320,000.00	"	
BUCKET ELEVATOR	1	12 meter H. 2 Tons/Hr.	400,000.00	Shibata I.W.	
T O T A L			2,220,000.00		
GRAND TOTAl----------			¥2,710,000.00		

((2)) REPAIRING MACHINE & EQUIPMENT

(a) ORE ROASTER EQUIPMENT:

DESIGNATION :	QUANTITY	: PARTS FOR REPAIR	: AMOUNT	: REPAIRERS NAME	: REMARKS
ORE ROASTER	3	Center Alighnment & Renewal Arm & Rake	: ¥ 915,000.00	Sakawaki Iron W.	Designated Equipment
FANS	3	Renewal:Draft Pipe be repaired.	241,000.00	Shibata I.W.	"
ELEVATOR	3	Bucket,Chains renewal, Transmission repair	55,000.00	"	"
T O T A L ---			¥1,211,000.00		

(b) PRECIPITATOR & GAs PASSAGE:

DUST CHAMBER	1	Parts of Gas Passage & Concrete Dust Chamber	¥ 592,000.00	Obayashi Gumi	Designated Equipmet.
HOT COTTRELL'S	1	Inside Wire Screen Renewal,Discharge Wire, & Outside Wall Repair:	600,000.00	Sanshun Sangyo K.K.	"
ORE CINDER TAKE-OUT EQUIPMENT	1	Partly Repair	120,000.00	Shibata Iron Works	
GAS PASSAGE	1	Make wanted parts,Inside Lining & Insulation:	570,000.00	Sakawaki I.W.	Designated Equipment.
T O T A L ----			¥1,882,000.00		

(c) GAS WASHING EQUIPMENT:

SETTLING TANK:	2	Of Brick,Inside Lead Lining,& Piping	480,000.00	Kitaguchi Plumbers:	Construction, due to war loss
ACID COOLING TANK:	8	Inside overhaul,repair, & Pipings	393,000.00	"	Designated Equipment.
GAS PASSAGE:	1	Gas Passage & Supports fixed.	220,000.00	"	-"-
T O T A L-----			¥1,093,000.00		

(d) GAS PURIFYING EQUIPMENT:

DESIGNATION:	QUANTITY	PARTS OF REPAIR	₱ AMOUNT	REPAIRING CO'S. NAME	REMARKS:
LOW TEMPERATURE COTTRELL:	4	Inside Lead parts repair, Insulation Oil renewal:	¥140,000.00	Kitaguchi Plumbers:	Designated Equipmet.
HARD LEAD PUMPS	2	Renewal due to corrosion, & Pipings	88,000.00	Kyodo Kikai Seisakusho	"
TURBO BLOWER	2	Oil Pump repair, Resistame for Motor renewal	500,000.00	Mitsubishi Kakoki	"
CERAMIC FILTER	2	Gas passage repair & Inside ceramic washed.	50,000.00	"	"
TOTAL			¥ 778,000.00		

(e) GAS DRYING EQUIPMENT:

DRYING TOWER	2	Rings washed, Acid distributor, spraying device renewal, & Pipings.	¥ 643,000.00	Mitsubishi Kakoki	Designated Equipment.
ACID-PROOF PUMP	4	Of Ariron, renewal due to corrosion	202,000.00	Kyodo Kikai Seisaku	"
TOTAL			¥ 845,000.00		

(f) GAS ABSORBING EQUIPMENT:

ABSORBING TOWER	2	Distributing Pan, Spray device renewal, Rings re-set, washed, Pipings repair:	¥1,058,000.00	Mitsubishi Kakoki:	Designated Equipment.
INTERMEDIATE TANK	2	Inside washed, repair, piping renewal.	180,000.00	"	"
IRRIGATION COOLER	1	Valves &c. repair	55,000.00	"	"
ACID-PROOF PUMP	4	Inside parts corroded renewal, Motor repair:	202,000.00	Kyodo Kikai Seisaku	"
TOTAL			¥1,495,000.00		

(g) CONVERTOR EQUIPMENT:

DESIGNATION	QUANTITY	PARTS OF REPAIR	AMOUNT	REPAIRER'S NAME:	REMARKS:
CONVERTOR	2	Renewal Vanadium Catalizer by half, Insulation repair.	¥1,350,000.00	Nihon Kagaku K.K.	Designated Equipment
PREHEATER	1	Burner Blower repair.	55,000.00	Mitsubishi Kakoki	"
NO 3 COOLER	2	Manhole repair	100,000.00	"	"
HEAT EXCHANGER	2	Inside tube renewal,			
VALVES & GAS PASSAGE		Gas Inducing Passage Insulat'n. Valve repair, Fixing	1,640,000.00	"	"
		Gas Passage.	195,000.00	"	"
TOTAL			¥3,340,000.00		

(h) ATTACHMENT EQUIPMENT:

OPERATION TANK	4	Homogen repair, Pump repair.	96,000.00	Kitaguchi Plumber:	"
SALES TANK	2	Tank base made, part repair.	305,000.00	Yamamoto Iron Works	"
UNDERGROUND TANK	1	Make Lead Tank, fix Pump	103,000.00	Kitaguchi Plumbers	"
PIPING FOR COOLING WATER:	1	Change piping, fix Pump	169,000.00	Osaka Denki Tekkan K.K.	"
ACID CIRCULATING PIPES	1	Bad pipes renewal, fix pipe, Stop Valves renewal.	1,160,000.00	Kubota Iron Works	"
TOTAL			¥1,833,000.00		

(i) ELECTRIC WORKS:

ELECTRIC SOURCE	All	Receiving Board, Substation, Distributing device, Poles.	628,000.00	Osaka Denki	To be fixed in present sub-station, due to war damage
POWER LINE JOBS	-"-	Re Roaster, Pumps, Blower, & Cooling Water.	516,000.00	Kodensha	
LIGHT LINE JOBS:	"	Outside Lamps in Roaster Room & Synthetic Factory.	327,000.00	"	
ELECTRIC JOB FOR COTTRELL	2	Re Cottrell Circuit, Purifier, Safety device.	512,000.00	"	
TOTAL			¥1,983,000.00		
GRAND TOTAL			¥14,460,000.00		

GRAND TOTAL OF MACHINE & EQUIPMENTS: ¥17,170,000.00

(D) SPECIFICATION ON MACHINES & EQUIPMENTS.

NAME OF MATERIALS:	FOR USE :	KIND-CLASS-SIZE:	QUANTITY TO BE USED: Quantity	: Amount:	CLASSIFIED Stock on Hand : Ration Wanted :Quantity	: Amount:	Quantity	: Amount
STEEL	Ore Crushing Device:	Large Shape	4.5 Tons	¥45,540	0	0	4.5 Tons	¥45,540
"	Washing Equip't.	-"-	1.8 "	18,216	0	0	1.8 "	18,216
"	Attached "	"	3.0 "	30,360	0	0	3.0 "	30,360
"	Roasting "	Medium Shaped Stl.	1.5 "	15,180	0	0	1.5 "	15,180
"	Attached "	-"-	2.0 "	20,240	0	0	2.0 "	20,240
"	Ore Crushing "	-"-	2.0 "	20,240	0	0	2.0 "	20,240
"	Roasting Equip't.	Thick Plate	1.0 "	13,840	0	0	1.0 "	13,840
"	Precipitator "	-"-	5.0 "	69,200	0	0	5.0 "	69,200
"	Ore Crushing "	-"-	4.0 "	55,360	0	0	4.0 "	55,360
"	Others	-"-	1.4 "	19,376	0	0	1.4 "	19,376
"	Precipitator "	Round Bars	0.1 "	1,164	0	0	0.1 "	1,164
"	Roasting "	Steel Rails	2.0 "	22,280	0	0	2.0 "	22,280
PIG IRON	-"-		2.0 "	10,300	0	0	2.0 "	10,300
"	Precipitator "		0.2 "	1,030	0	0	0.2 "	1,030
"	Drying "		3.5 "	18,540	0	0	3.5 "	18,540
"	Absorbing "		7.0 "	36,050	0	0	7.0 "	36,050
"	Attached "		8.0 "	41,200	0	0	8.0 "	41,200
STEEL PIPES	Roasting "	100 m/m up	3.8 "	77,254	2.0 Tons	¥40,660	1.8 "	36,594
"	Converter "	50 " below	11.0 "	572,000	6.0 "	312,000	5.0 "	260,000
"	Attached "	50-100 m/m	2.0 "	104,000	0	0	2.0 "	104,000
"	Electric Works	50 " below	0.3 "	15,600	0	0	0.3 "	15,600
LEAD PIPE,PLATE:	Washing Equip't.		36.3 "	2,448,000	36.3 "	2,448,000	0	0
"	Drying Equip't.		1.3 "	88,400	1.3 "	88,400	0	0
"	Attached "		1.0 "	68,000	1.0 "	68,000	0	0
CEMENT	Roasting "		2.0 "	11,700	0	0	2.0 "	11,700
"	Precipitator "		3.5 "	18,900	0	0	3.5 "	18,900
"	Ore Crushing "		3.0 "	16,200	0	0	3.0 "	16,200
TIMBER	Roasting "		6 Koku	10,800	6 Koku	10,800	0	0
"	Precipitator "		12 "	21,600	12 "	21,600	0	0
FLAT BELT	Roasting "		1600 Ply	8,160	0	0	1600 Ply	8,160
"	Ore Crushing "		5900 "	30,090	0	0	5900 "	30,090
CONVEYOR BELT	-"-		22500 "	67,500	0	0	22500 "	67,500
ELECTRIC WIRE	Electric Jobs		1.0 Ton	145,000	0	0	1.0 Ton	145,000
VANADIUM CATALYZER.	-Convertor Equipment.		5 cu.meter	1,250,000	1 cu.meter	250,000	4 cr.M.	1,000,000
	T O T A L ---------			¥ 5,391,320		3,239,460		2,151,860

DATE	SUBJECT
3 Feb 47	Petition for Exclusion from OD-5 Submitted by Teikoku Kako
19 Jun 47	Petition for Exclusion of Equipment Other than Contact Sulfuric Acid Set
[illegible] Nov 48	[illegible]
5 Dec 49	Report on Installation of EX Machine & Repairing Designated Reparation Equipment

KINKI
OSAKA LIAISON & COORDINATION OFFICE

Prefectural Building
OSAKA

MI-Id
32-125-
TS/ts
III

KKLCO No. 993 ER 5 December 1949

TO : Chief,
Kinki Civil Affairs Region

SUBJECT: Report on Installation of EX Machine &
Repairing Designated Reparation Equipment
Teikoku Kako K.K. Osaka Plant (32-125)

For your information.

S. Shima
Director

Incl: Letter from Osaka Prefectural Government,
dated 1 December 1949, subject as above.

1-179
11671C

OSAKA PREFECTURAL GOVERNMENT
THE FIRST COMMERCE AND
INDUSTRY SECTION

1 December 1949

SUBJECT: Report on Installation of RX Machines;
Repairing Designated Reparations Equipment
Teikoku Kako K.K., Osaka Plant (32-125)

TO : Hq Kinki Civil Affairs Region
ATTN: Chief of Economics Division

THRU : Kinki Liaison & Coordination Office.

1. This is to report that the machines listed in annexed lists (list nos. from 1 to 4) are being installed in the subject plant and those listed in list number 5 are to be repaired within January, 1950.

2. The undersigned certifies that the said machines listed in annexed lists (list nos. from 1 to 4) are exempt from reparations claim under the existing directives.

Name of Plant: Teikoku Kako K.K.,
Osaka Plant

Code Number : 32 - 125

FOR THE GOVERNOR OF OSAKA PREFECTURE:

Received: 3/17/49

Sadao Kobayashi

SADAO KOBAYASHI
Head of 1st Commerce &
Industry Section.

TO: CIVIL AFFAIRS TEAM, OSAKA.

REPORT ON INSTALLATION OF E X & REPAIRING

E Q U I P M E N T

Teikoku Kako Kabushiki Kaisha.

10 Funa-machi, Taisho-ku,

Osaka City.

October 15th, 1949.

REPORT ON INSTALLATION OF EX AND REPAIRING EQUIPMENT.

October 15th, 1949.

TO: CIVIL AFFAIRS TEAM, OSAKA.

1. Code Number: 32 - 125.

2. Name of Designated Equipment:

Contact Process Sulphuric Acid Plant, of Osaka Factory, Teikoku Kako Kabushiki Kaisha.

3. Location of Designated Equipment:

10 Funa-machi, Taisho-ku, Osaka City.

4. Completion Duration for E X & Repair:

Expect by the end of January, 1950.

Duly signed by: Shinji Izu

Shinji Izu

Representative in charge of Control.

TEIKOKU KAKO KABUSHIKI KAISHA.

10 Funa-machi, Taisho-ku, Osaka City.

LIST OF E X EQUIPMENT

CODE NO.	NAME	SIZE & CAPACITY	QUANTITY	MAKERS
IA1-1A	Motor	For Roaster 7.5 HP, 4 Pole	1	Mitsubishi
IA1-2A	-"-	-"-	1	"
IA2-27	Dust Chamber:	Brick Works 5 chambers	1	Made by us.
IA4-1A2	Motor	For Turbo Blower, 2/2 HP, 4 Pole	1	Mitsubishi.
IA4-2A2,	-"-	-"-	1	"
IA5-7A	Motor	10 HP, 4 Pole	1	"
IA5-14A	Motor	10 HP, 4 Pole	1	"
IA5-15A	"	-"-	1	"
IA5-16A	"	-"-	1	"
IA5-17A	"	-"-	1	"
IA5-20A1	Motor	For Blower, 5 HP 4 Pole	1	"
IA5-20A2	"	For Air Fan, 5 HP, 4 Pole	1	"
IA5-28A	"	10 HP, 4 Pole	1	"
IA5-29A	"	-"-	1	"
IA5-30A	"	-"-	1	"
IA5-37	Belt Conveyor:	45 m/m W x 30 M.L	1	Kubota I.W.
IA5-37A	Motor	5 HP 6 Pole	1	Mitsubishi
IA5-38	Air Fan	Displacement of air, 200 cu.meters/m.	1	Osaka Fan Co.
IA5-39	"	-"-	1	-"-

CODE NO	NAME	SIZE & CAPACITY	QUANTITY	MAKERS
IA5-38A	Motor	10 HP, 4 Pole	1	Mitsubishi
IA5-39A	"	-"-	1	"
IA5-40	Acid Cooler:	Vertical Type, Cooling Area 55 sq.meters.	1	Kitaguchi Plumbers.
IA5-41	-"-	-"-	1	-"-
IA5-42	Acid Pump:	Glandless Centrifugal, Dia 65 m/m, Head 24 M.	1	Kyodo Kikai
IA5-43	-"-	-"-	1	"
IA5-42A	Motor	10 HP 4 Pole	1	Mitsubishi.
IA5-43A	"	-"-	1	"
IA5-44	Mixing Acid Tank:	Spiral Tube	1	Kitaguchi Plumbers.
IA5-45	-"-	-"-	1	-"-
IA5-46	Acid Pump:	Dia 50 m/m	1	Kyodo Kikai.
IA5-47	-"-	-"-	1	"
IA5-46A	Motor	5 HP 4 Pole	1	Mitsubishi
IA5-47A	"	-"-	1	"
IA5-48	Acid Pump	Dia 65 m/m	1	Kyodo Kikai
IA5-48A	Motor	10 HP 4 Pole	1	Mitsubishi.

CODE NO.	NAME	SIZE & CAPACITY:	QUANTITY:	MAKERS:
IIA1-7A	Motor	15 H P 4 Pole	1	Mitsubishi
IIA1-8A	"	-"-	1	"
IIA1-22A	"	-"-	1	"
IIA1-23A	"	-"-	1	"
IIA1-20A	Purifier:	For Electric Flow-Plate Type.	1	Hitachi E.W.
IIA1-21A	"	-"-	1	"
IIA1-22A	"	-"-	1	"
IIA1-24	Acid Tank:	Steel Tank, Lead Lined 40 Tons	1	Kitaguchi Plumbers
IIA1-25	Underground Tank:	Steel Tank	1	Made by us.
IIA1-26	-"-	Lead Tank	1	-"-
IIA1-27	-"-	-"-	1	-"-
IIA1-28	Settling Tank:	3 M x 3 M x 3 M Wooden Make, Lead Lined.	1	-"-
IIA1-29	-"-	-"-	1	-"-
IIA1-30	-"-	-"-	1	-"-
IIA1-31	-"-	-"-	1	-"-
IIA1-32	Water Pump:	Dia 50 m/m, Head 10 M.	1	Yodogawa Kikai Seisakusho.
IIA1-33	-"-	-"-	1	-"-
IIA1-32A	Motor	5 H P, 4 Pole	1	Mitsubishi.
IIA1-33A	"	-"-	1	"

-----oOOOo-----

LIST OF E X EQUIPMENT PARTS

INVENTORY NO.	NAME	PARTS	QUANTITY
IA1-1	Roaster	Arm, Rake to be made and fixed:	1 set
IA1-2	-Ditto-	-Ditto-	1 "
Ia1-3	-Ditto-	-Ditto-	1 "
IA5-31	Irrigation Cooler	- To be extended newly 8 meters	1 "

----- ooOoo -----

'TK3

NAMES OF EQUIPMENT & MACHINE TO BE REPAIRED.

INVENTORY NO.	NAME	QUANTITY	WHERE TO REPAIR	CONTRACTORS NAME
IA3-1,3	Heat Exchenger	2	Inside Pipes,	Yamamoto I.W.
IA3-1,2	Converter	2	Catalyzer	Direct Hire.
IA5-1,3	Bucket Elevator	2	Bucket Chain.	Mitsubishi Kakoki.
IA1-1B,2B	Reducing Gear Box	2	Gear Bearing.	-"-
IA2-12	Hot Cottrell's	1	Inside Electric Parts	Hitachi Seisakusho.
IA5-28,29,30,36 IA5-9-17.	Acid-proof Pump.	13	Inside Impeller.	Kyodo Kikai
IA5-34	Acid Storing Tank:	1	Lead Parts to be repaired.	Kitaguchi Plumbers.

-----ooOoo -----

SI:TKS

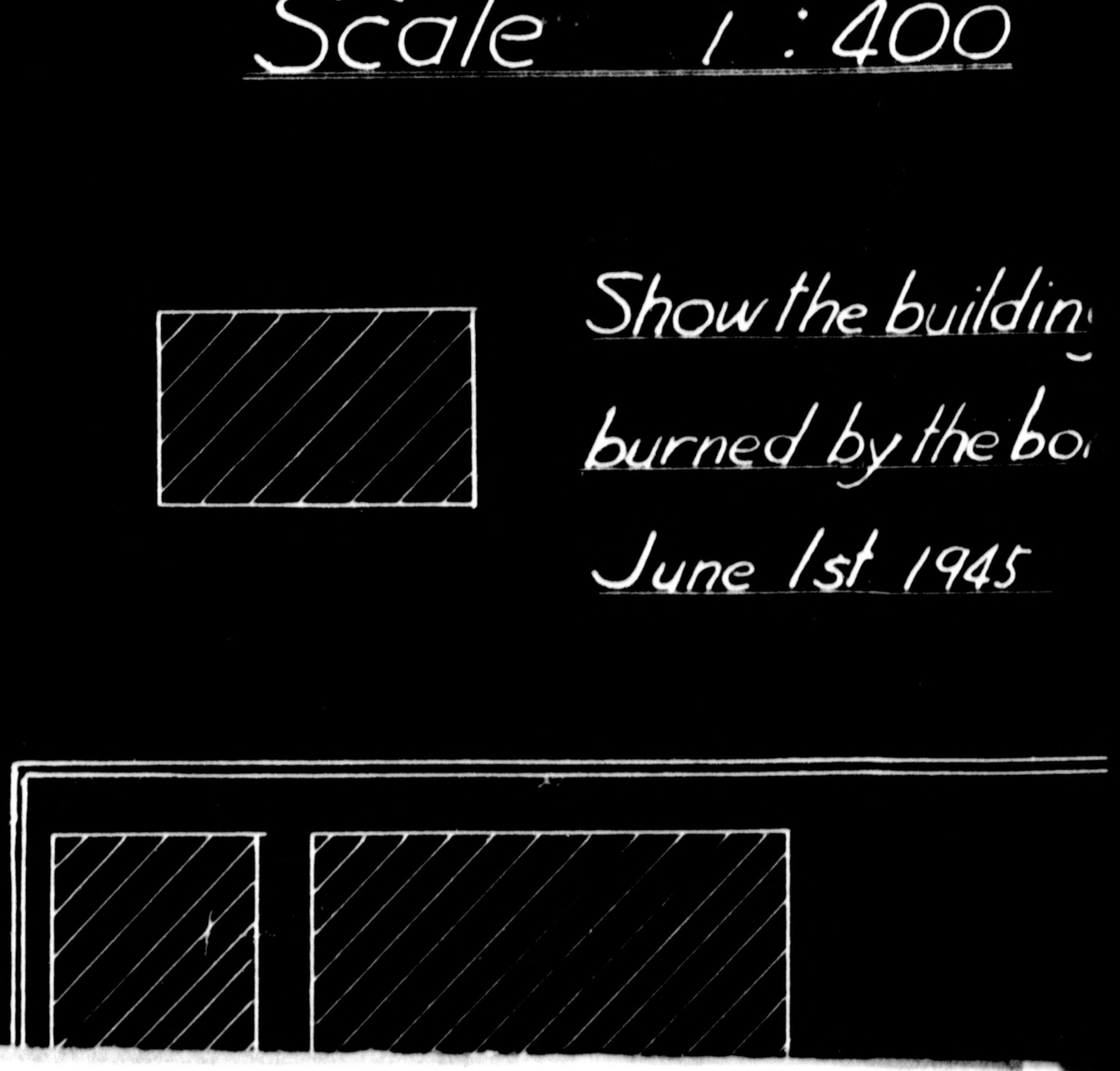
The Teikoku Kakō Co

Ōsaka Factory

Plan

Scale 1 : 400

Show the building
burned by the bo
June 1st 1945



The Canal Kizug

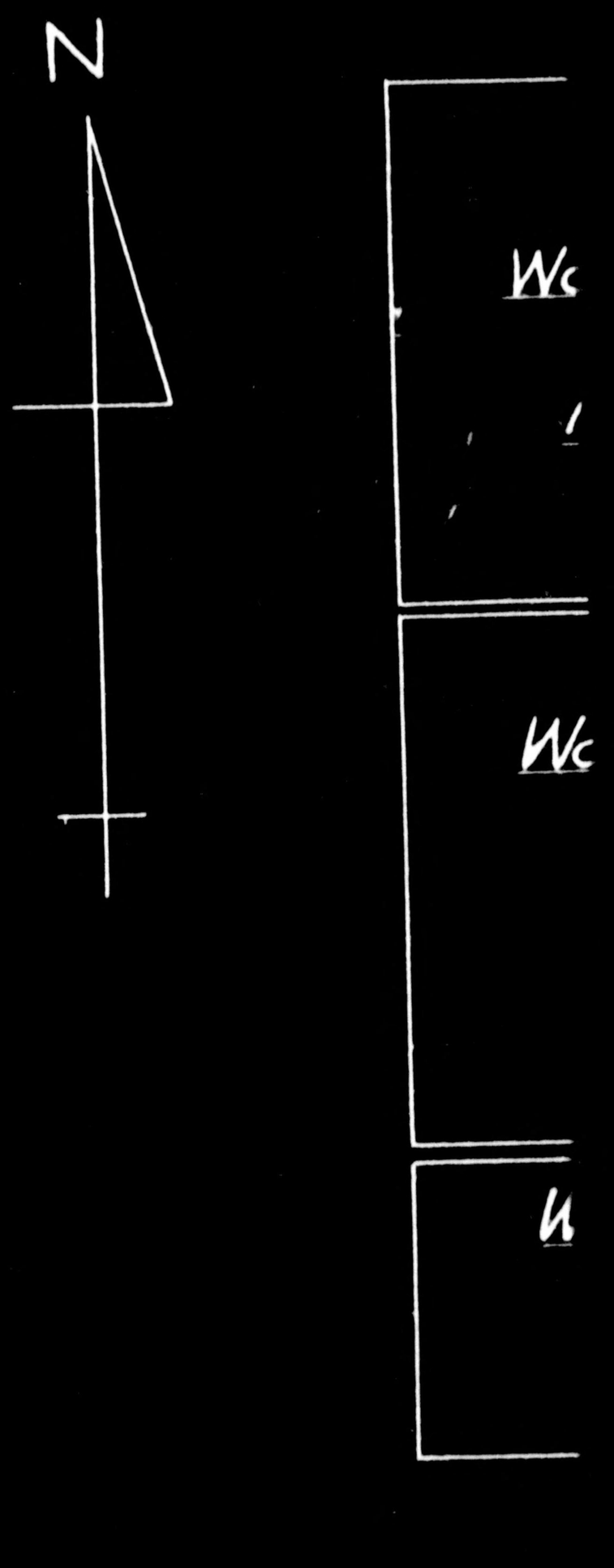
Koku Kakō Co. & Ltd

aka Factory

Plan

ale 1 : 400

Show the building and plants burned by the bombing at the June 1st 1945



Canal Kizugawa

N

Warehouse
No 9

Warehouse
No 10

Warehouse
No 12

Storage

No 8

Warehouse
No 7

No 6

No

Warehouse
No 13

Fertilizer S

Finish Works

Manufactur
Works

Teacher's room

Pump room

Acid boil works

Warehouse

No 7 | No 6 | No 5 | No 4

Warehouse

house

Fertilizer Shop

Finish Works | Manufacture Works

3

Storage

Storage

Dry works

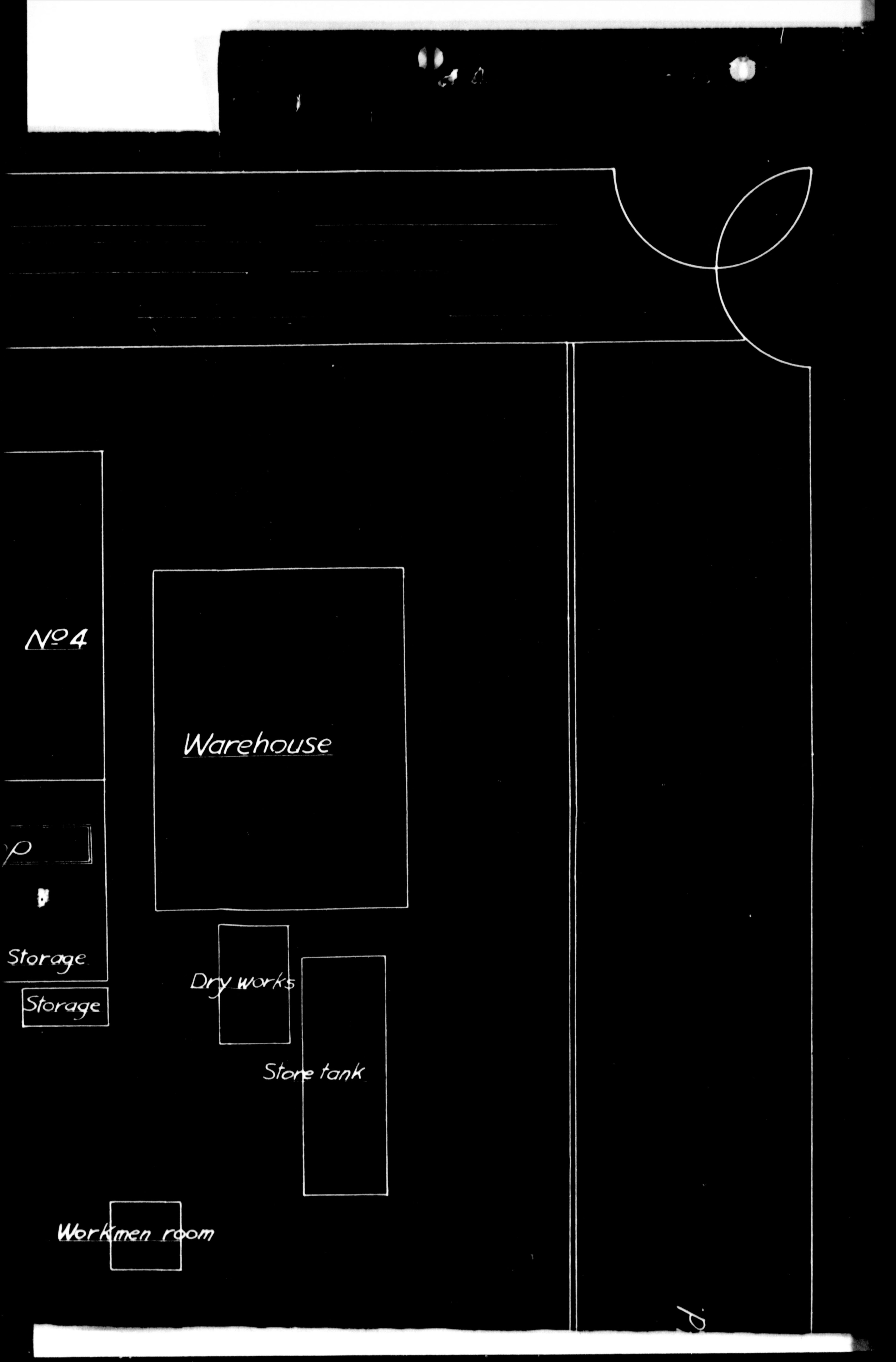
Store tank

acher's room

Pump room

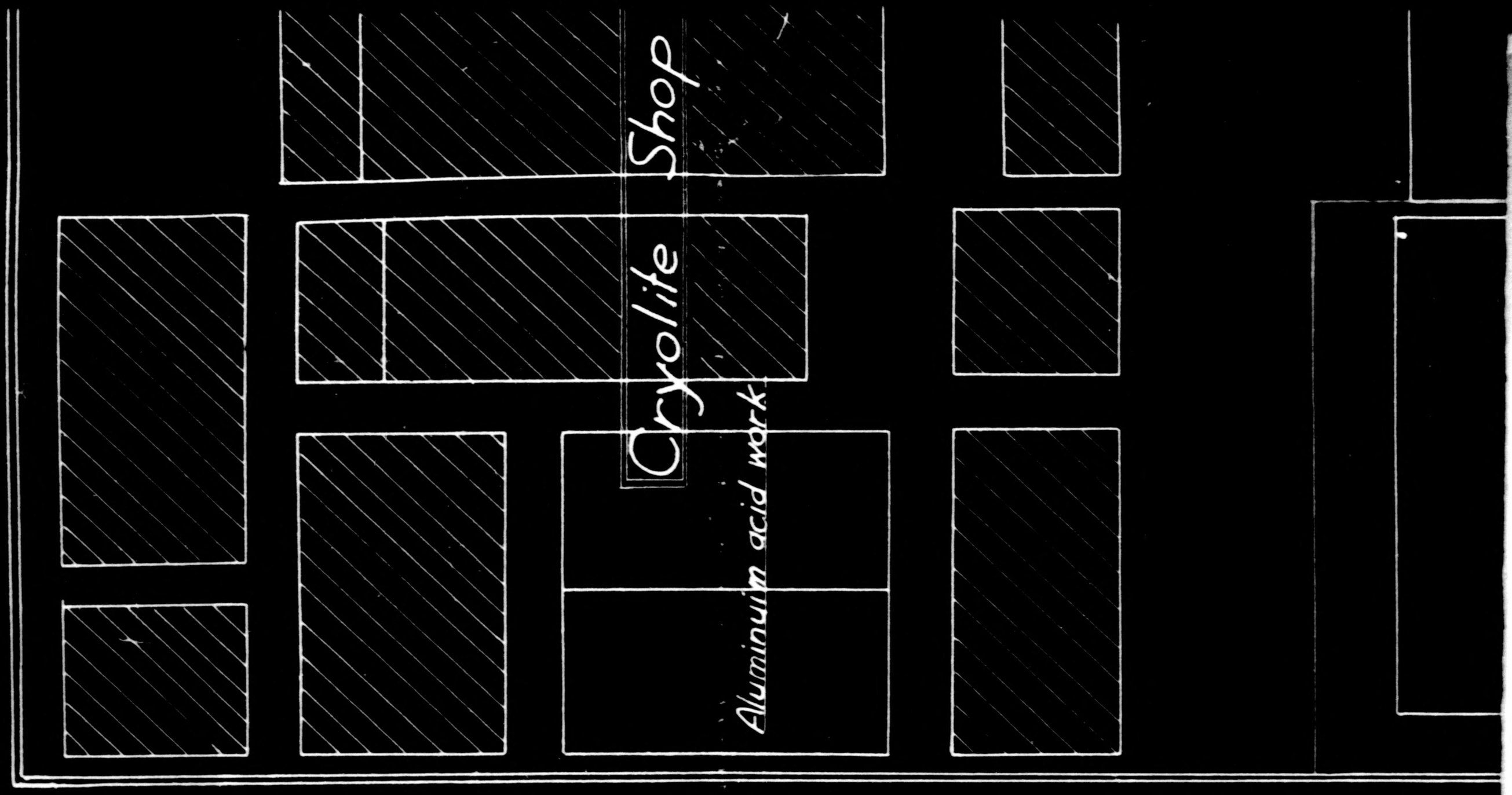
Workmen room

Acid boil works


No 4
Warehouse
Storage
Storage
Dry works
Store tank
Workmen room

Planned by [illegible]

June 1st 1945



The Nissan Kagaku Co & Ltd.

Burned by the bombing

June 1st 1945

Cryolite Shop

m acid work

Dust yard

Lea

Storage

Teacher's room

Pun

Acid boil

Acid boil

Tower

Furnac

Lead Chamber

Dust yard

Lead Chaml

Dust Cottrel

Furnc

Tower

Workmen room

Iron wori

Pump room

Workmen room

Dry works

Analyse room

Warehouse

Boiler room

Store tank

Teacher's room

Pump room

Workmen room

Acid boil works

Acid boil works

Furnace

Lead Chamber Shop

Cottrel

Furnace

Row matereal yard

kmen room

Iron work

Mending works

Transefomer room

Workmen room

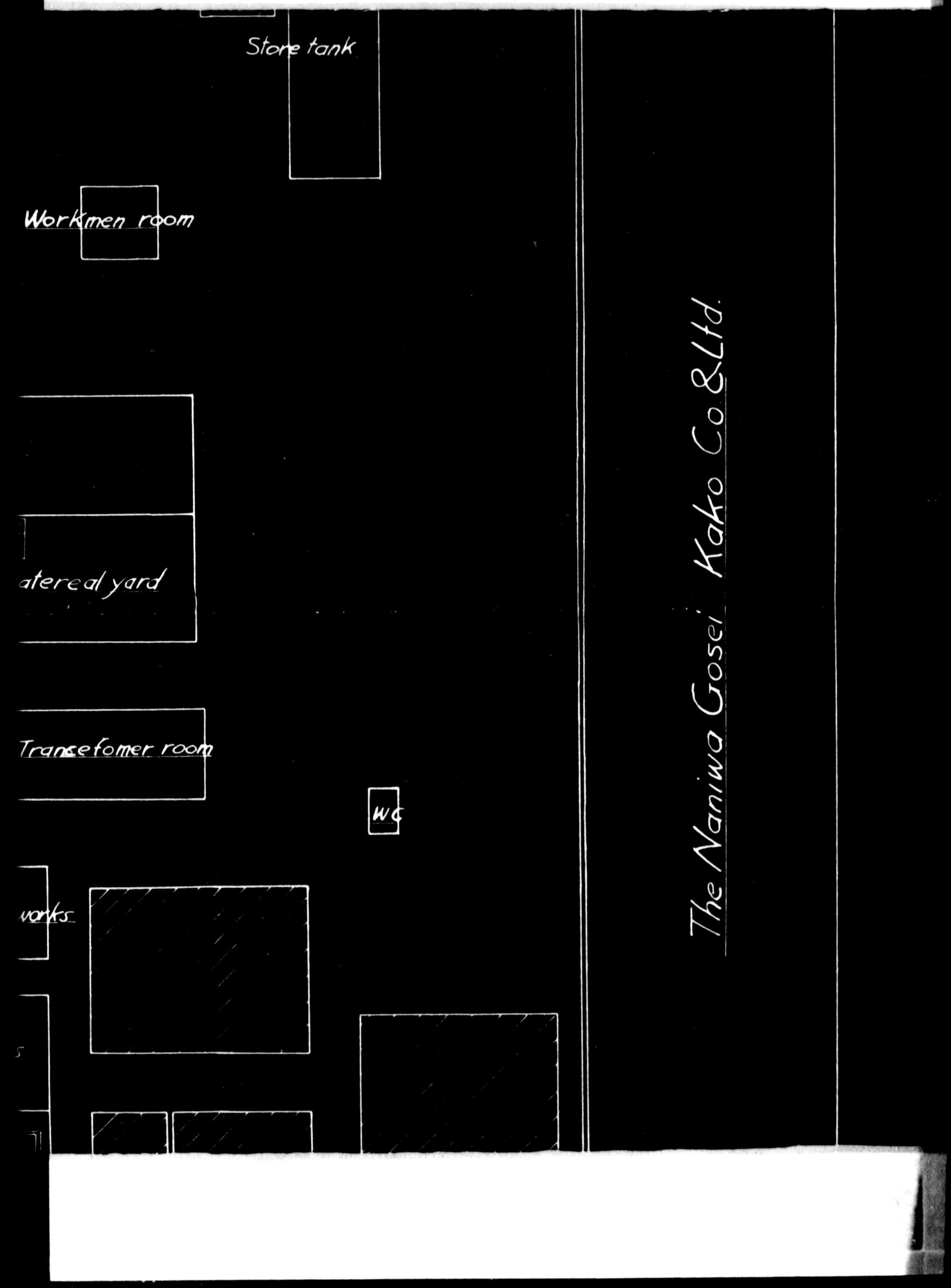
WC

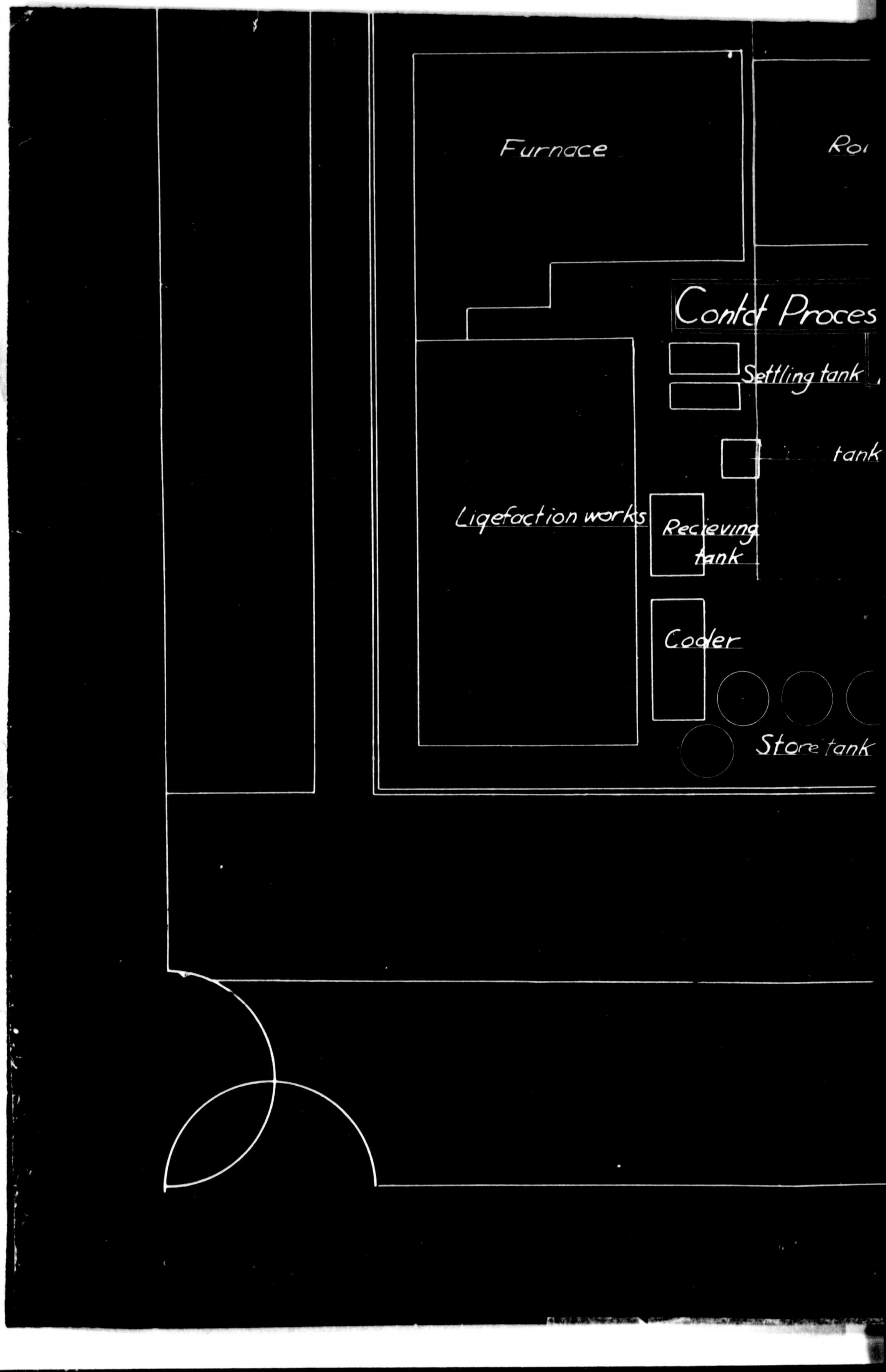
Dry works

Aluminuim acid works

Boiler room

Reaction works


Store tank
Workmen room
ateral yard
Transefomer room
WC
works
The Naniwa Gosei Kako Co & Ltd.


Furnace
Ro
Contct Proces
Settling tank
tank
Ligefaction works
Recieving tank
Coder
Store tank

urnace

Row matered yard

Storag

Stor

Contct Process Sulphunce

Settling tank

Acid Shop

tank

action works

Recieving tank

Office

Coder

Store tank

Str

Aluminium Flouride Sho

Natrium

Flouride acid works

Dryd crushing works

Flourid

Storage

Storage

Storage

Waret

Street

Flouride Shop

Natrium flouride works

Dryd crushing works

Flourid acid works

Warehouse

Warehouse

Office

Reception room

Gurd boks

Main entrance

vorks

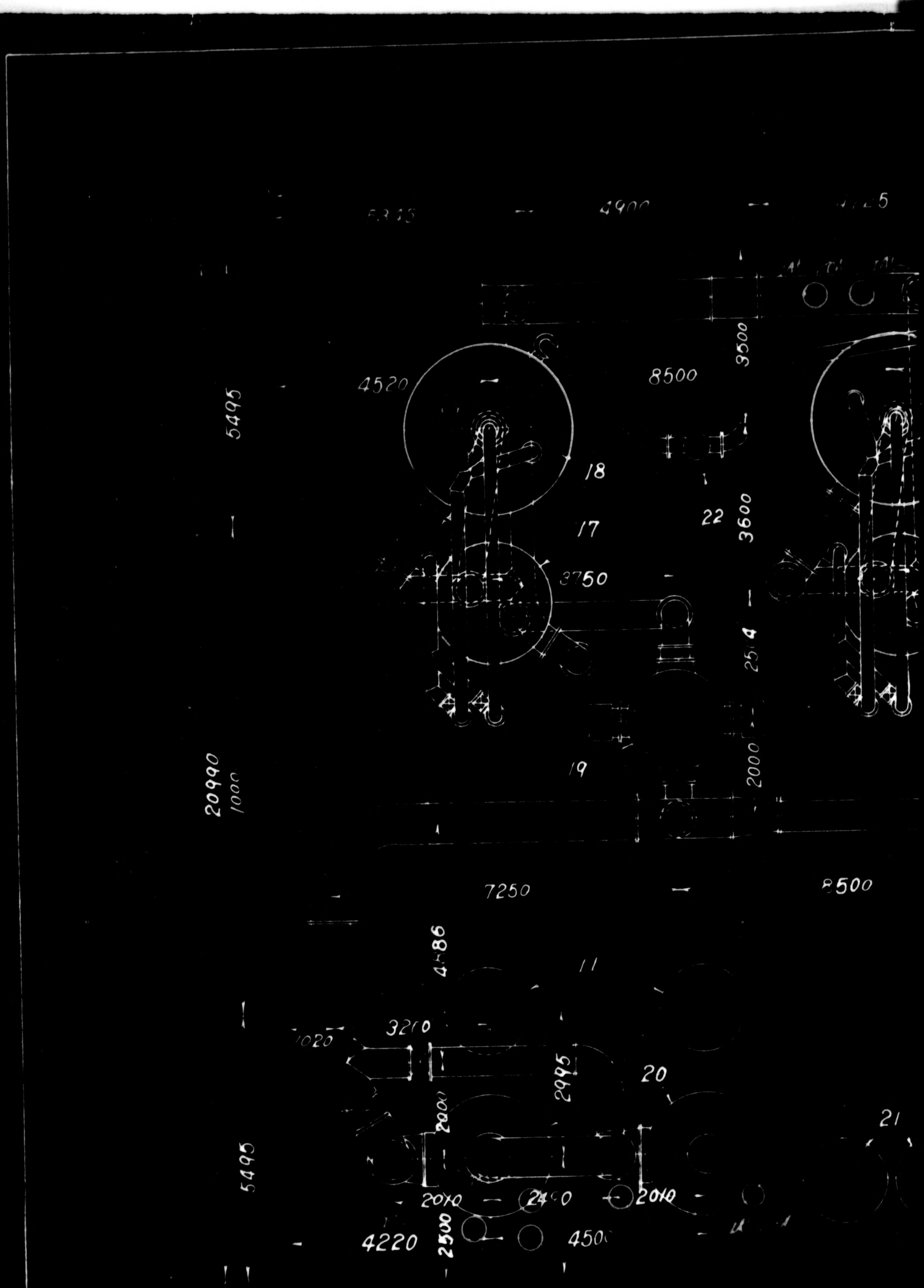
Warehouse

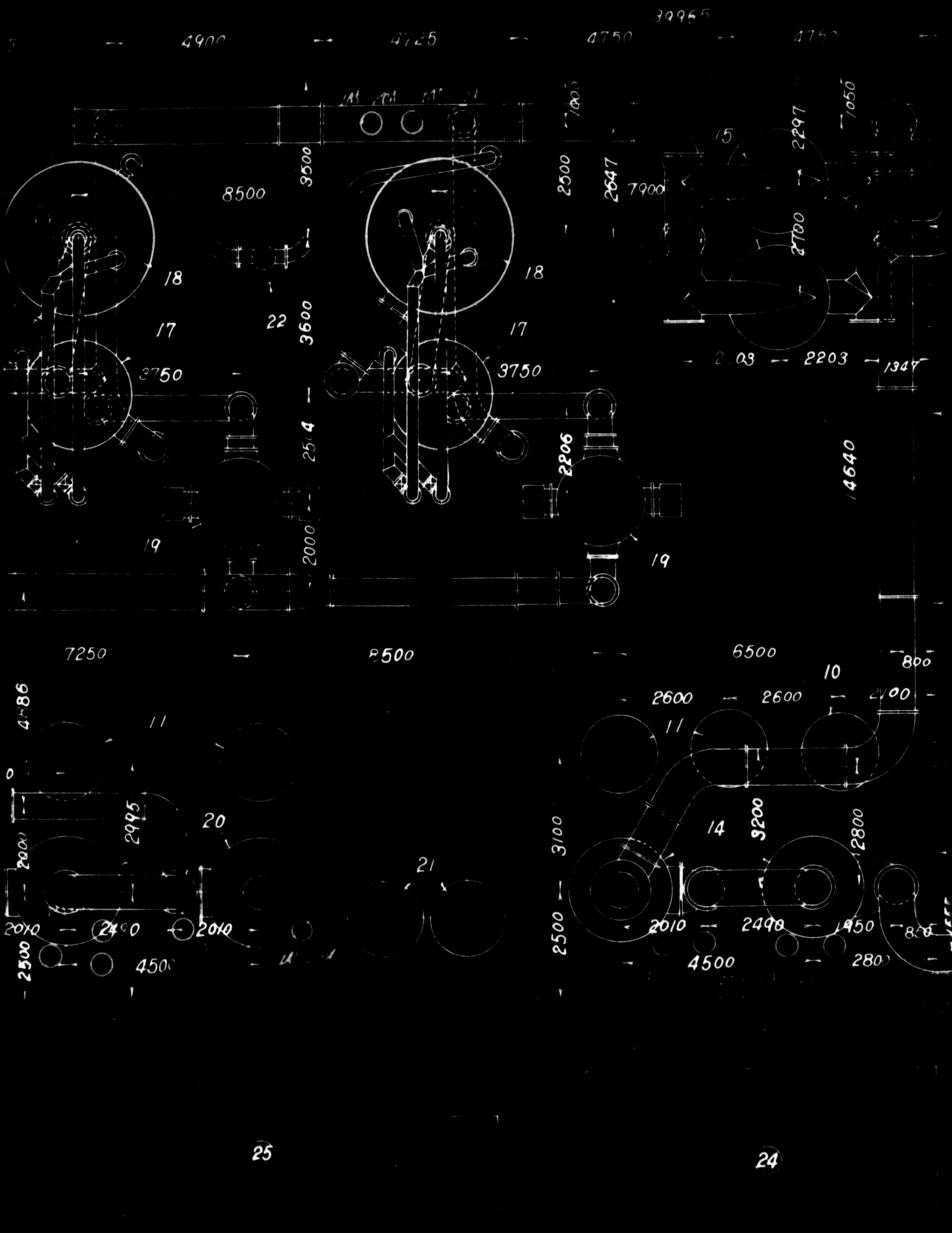
Office

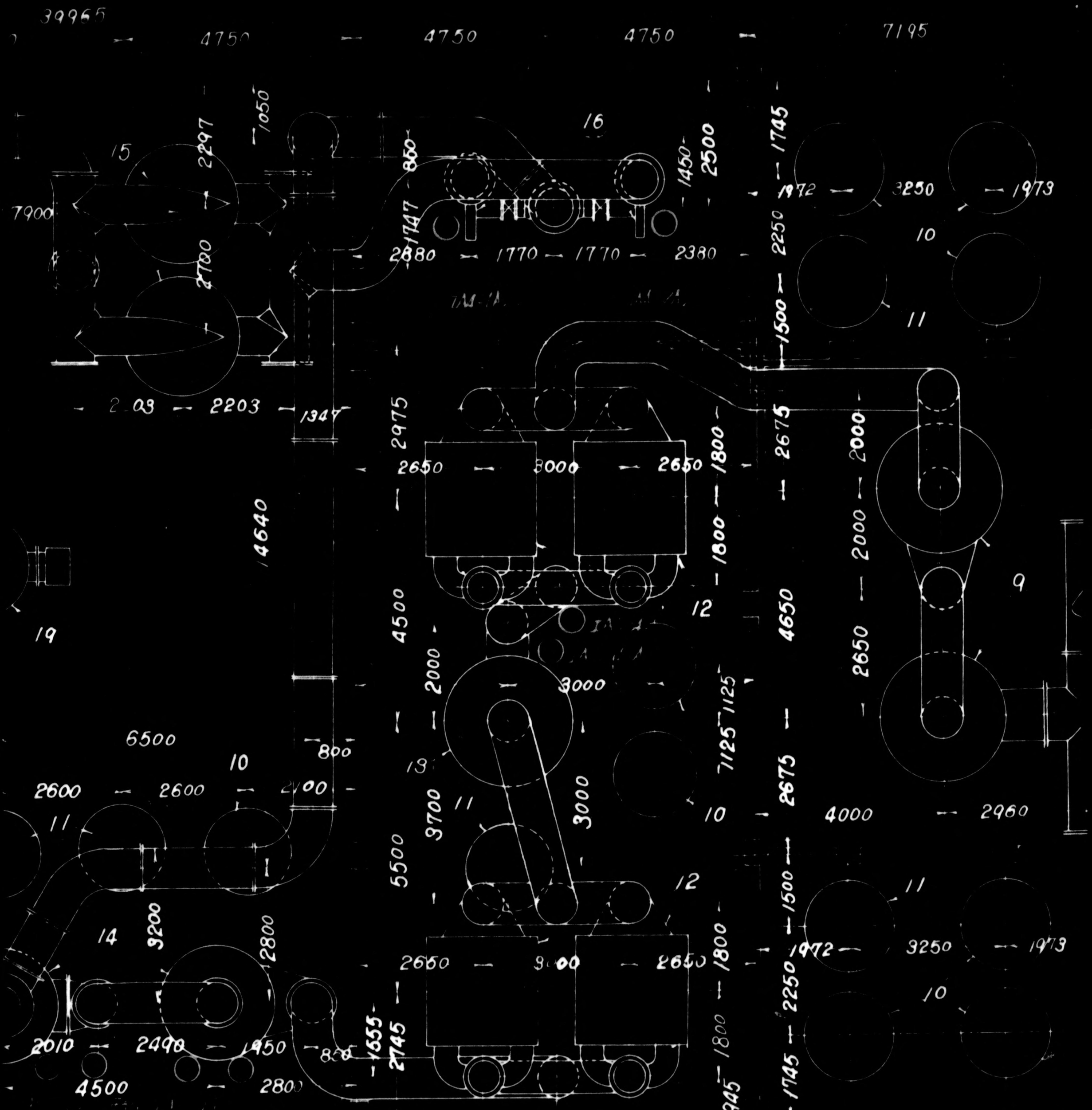
Reception room

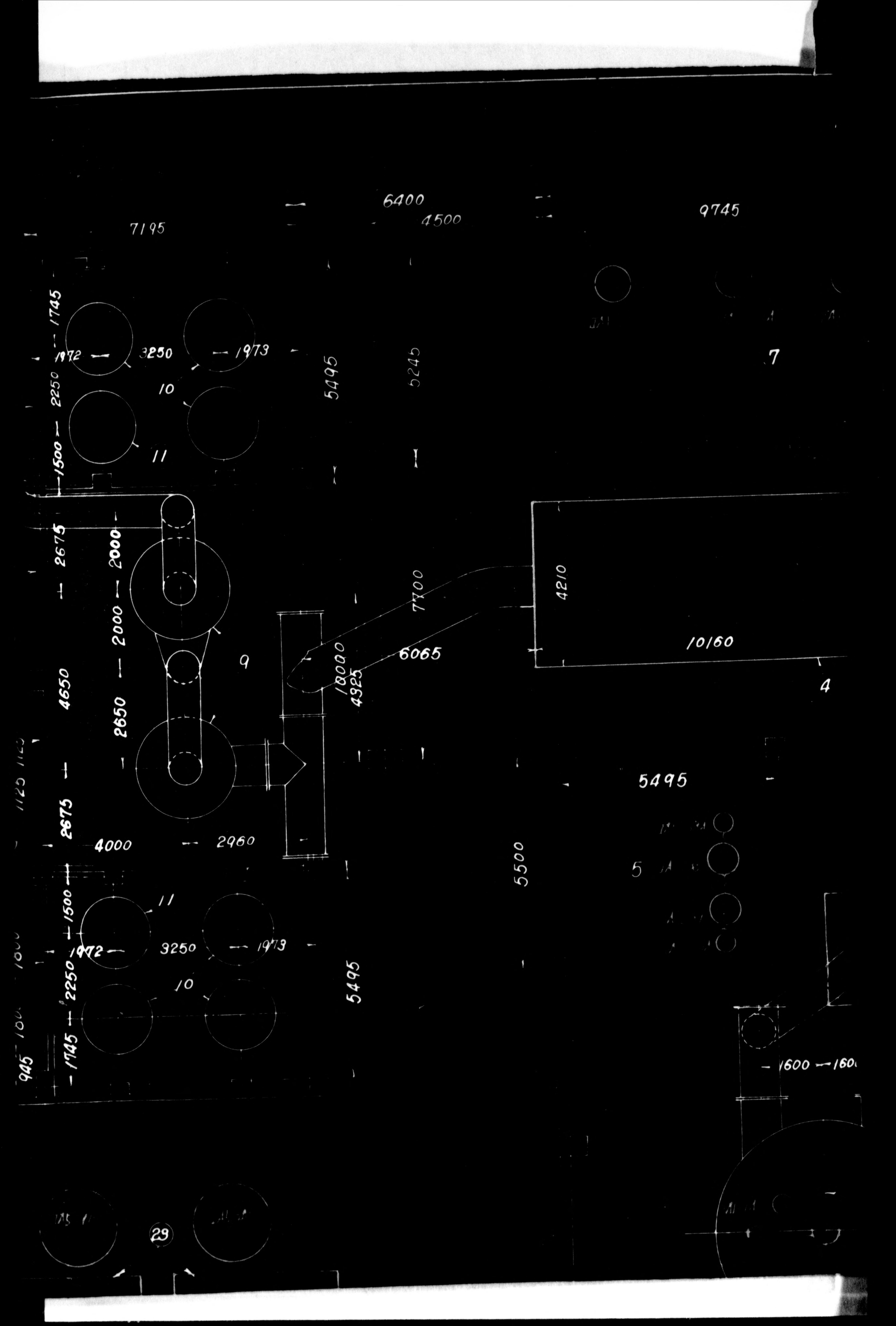
Gurd boks

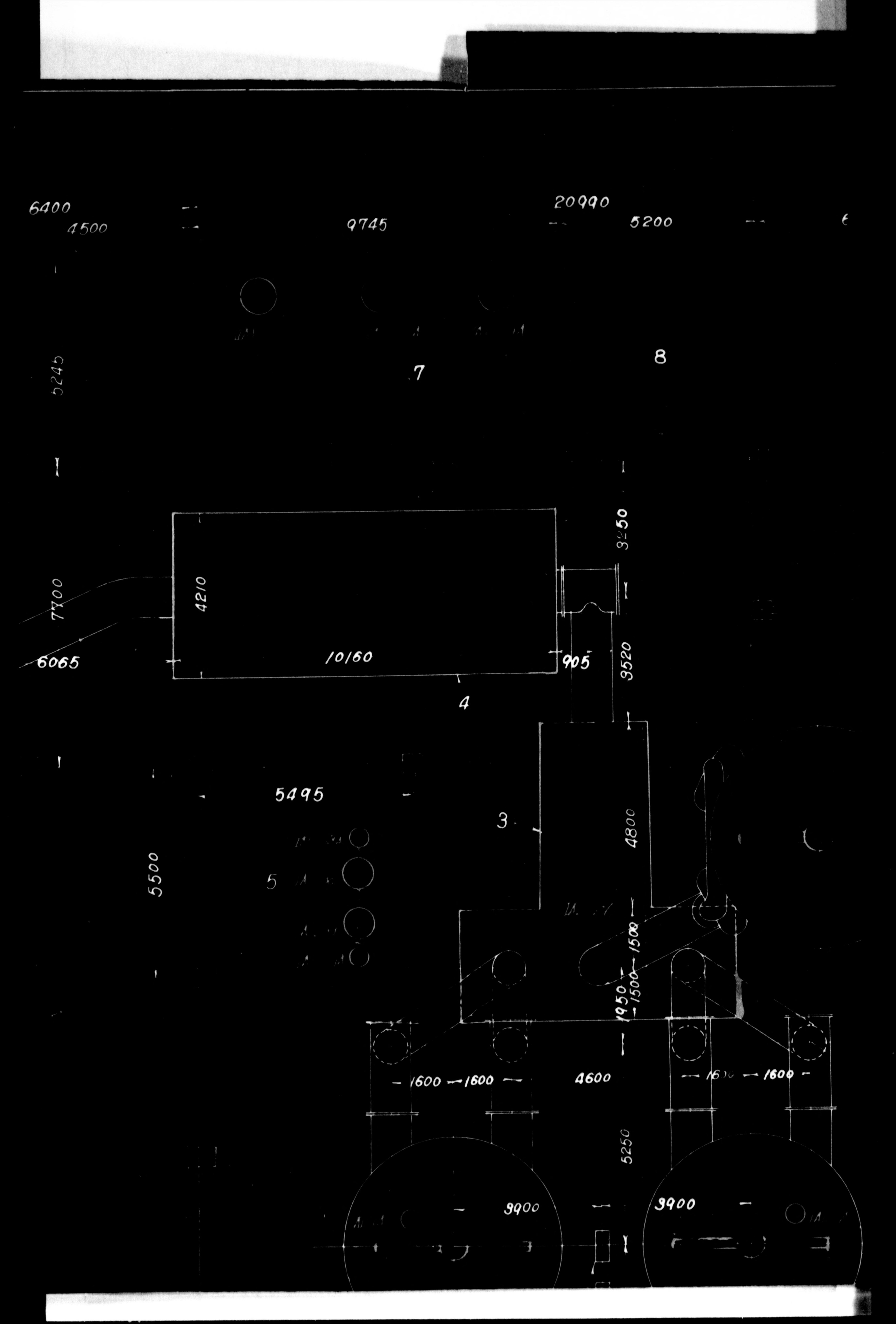
Main entrance


5495
4520
18
17
3750
8500
3500
3600
22
25'4
19
2000
20990
1000
7250
8500
4486
11
3210
1020
2995
20
2010
2400
2010
5495
4220
2530
21
25


39965
4900
4725
4750
4750
1000
1050
9500
8500
2500
2647
7900
15
2297
2700
18
18
17
17
22
3600
3750
3750
2203
2203
1347
2514
2206
4640
19
19
2000
7250
8500
6500
10
800
2600
2600
2100
4886
11
11
20
2995
2000
3100
14
3200
2800
21
2010
2490
2010
2010
2490
1950
850
2500
2500
4500
4500
2800
25
24


39965
4750
4750
4750
7195
1050
2297
15
16
850
1747
1450
2500
1745
7900
2780
2880
1770
1770
2380
1972
3250
1973
2250
10
1500
11
2203
2203
1347
2975
2650
8000
2650
1800
1800
2675
2000
2000
14640
4500
12
4650
2650
9
19
6500
800
10
2600
2600
2400
13
3700
11
3000
3000
7125
1125
5500
12
4000
2960
11
14
3200
2800
2650
3000
2650
1800
1500
2675
1972
3250
1973
2010
2490
1950
800
1655
2745
1800
1500
2250
10
4500
2800
1745
945
24
29


7195
6400
4500
9745
1745
1972
3250
1973
1500
2250
10
11
2675
2000
4650
2650
2875
9
4000
2960
5495
7700
6065
18000
4925
4210
10160
4
5495
5500
1600
1600
945
1745
29


6400
4500
9745
20990
5200
7
8
5245
7700
6065
4210
10160
905
3250
3520
5495
5500
4800
1500
1950
1600
4600
5250
3900

4700
4700
5500
32790
9850
9095
6045
20990
5200
9250
3520
905
4800
1500
1500
1950
5250
4600
1600
1600
1600
9900
9900