

STORAGE

PREFABRICATION



LUMBER YARD

RABAU

PREFABRICATED TRUSSES AND HALF TRUSSES

RABAU



REFRIGERATION BLDG

Page 12.02 contains obliques of the lumber yard at Rabaul. Piles of lumber cut to standard lengths are present, as well as stacks of prefabricated half trusses. These trusses are probably assembled in the yard and later transported to a building site for erection.

The refrigeration building illustrated on this page is a three roomed form surrounded by a 5 foot covered porch. The porch protects the concrete refrigeration unit from direct sunlight. The refrigeration unit is concrete, interior lining is of galvanized iron. The remainder of the building is wood framed construction. The clipped hip roof is sheathed with corrugated galvanized iron. Cables extend diagonally from each corner of the structure at the plate line and are anchored to concrete dead men as illustrated in the floor plan.

BUILDING MATERIALS

RABAU

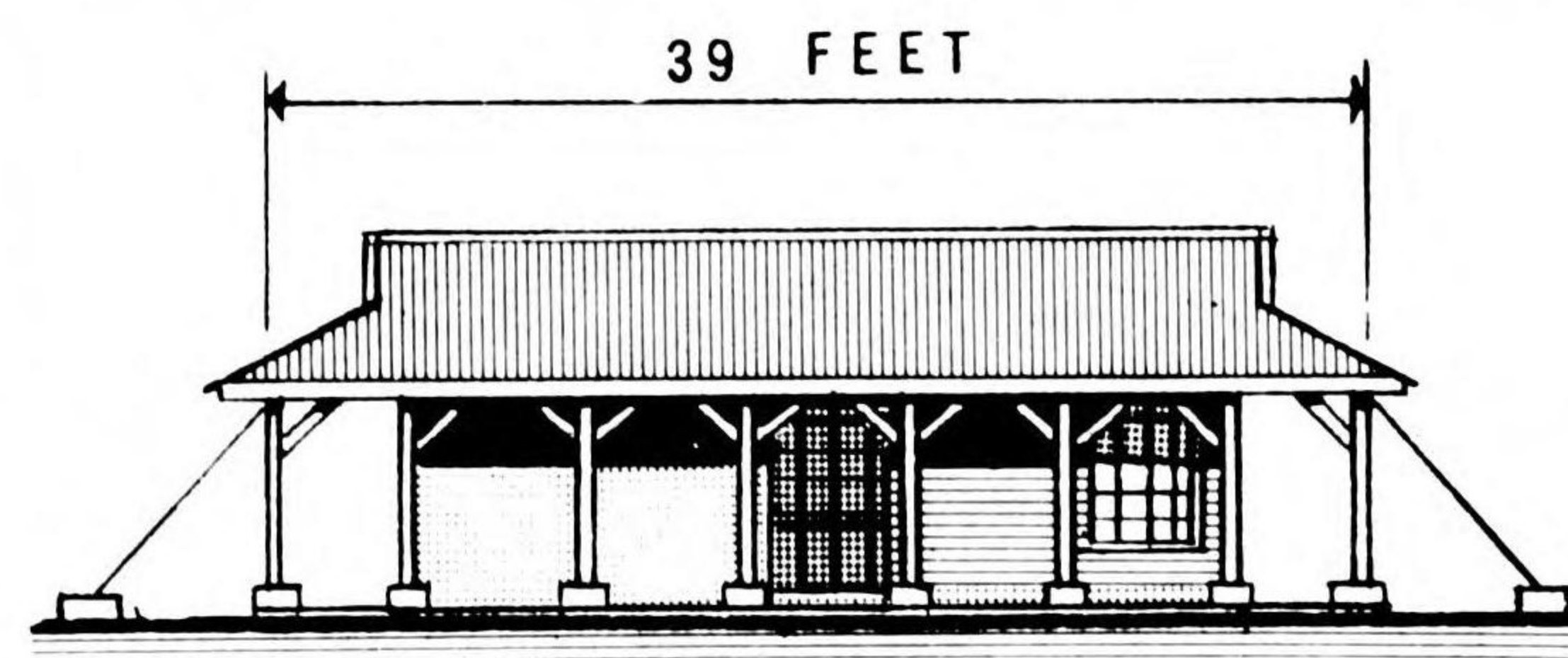


STORAGE

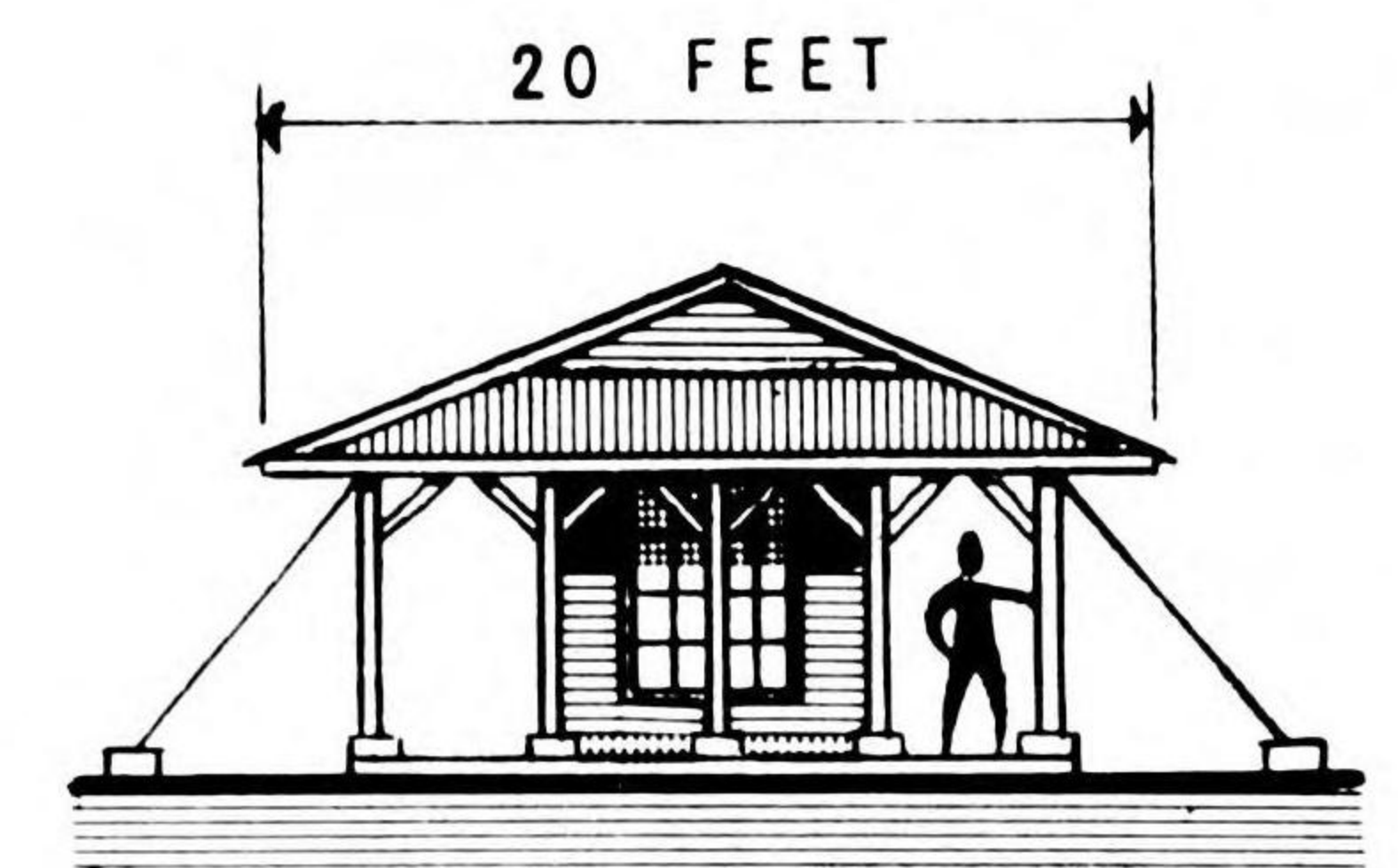
CONCRETE CONSTRUCTION

REFRIGERATION BUILDING

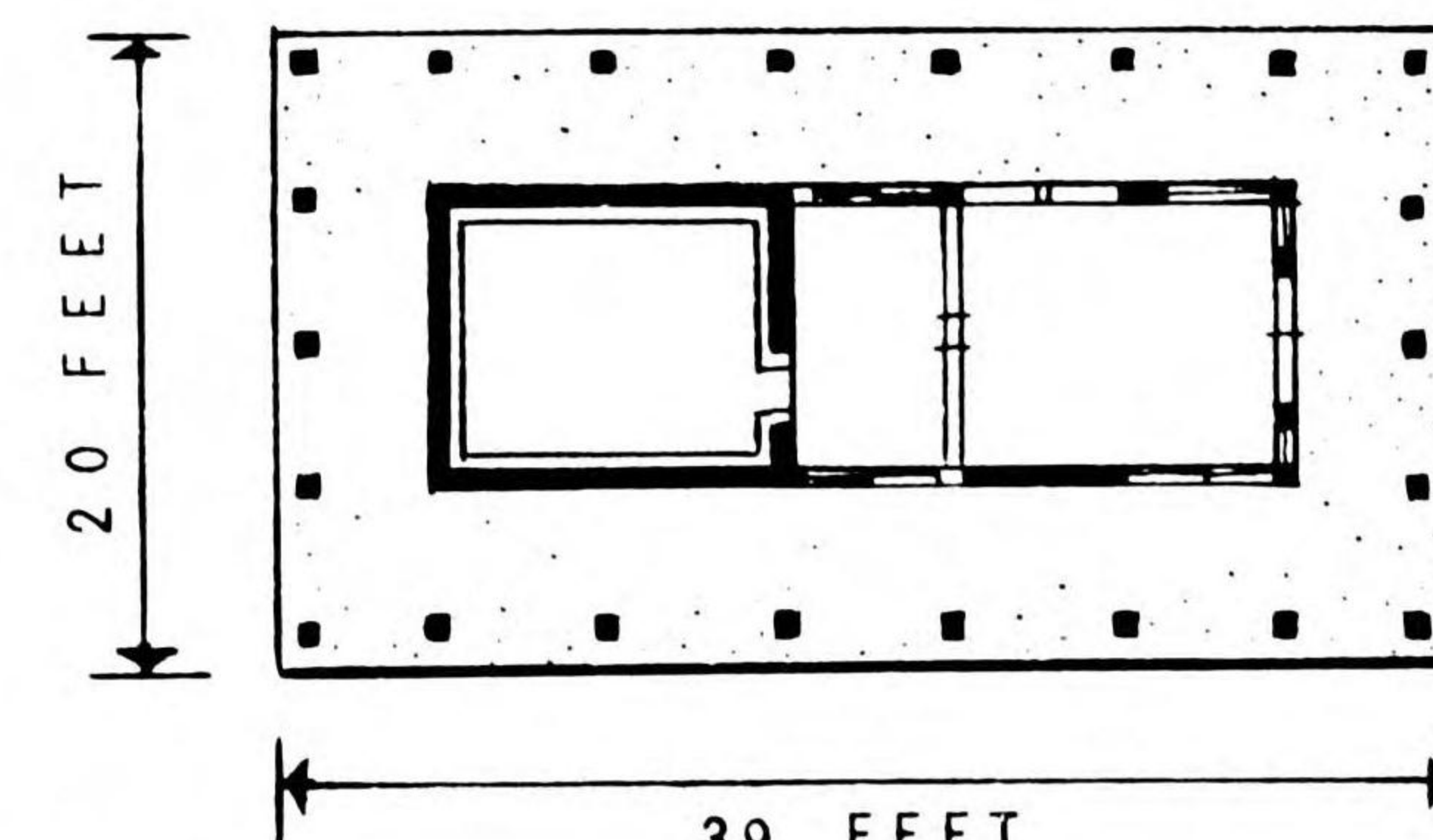
MAJURO



FRONT ELEVATION



SIDE ELEV.



FLOOR PLAN



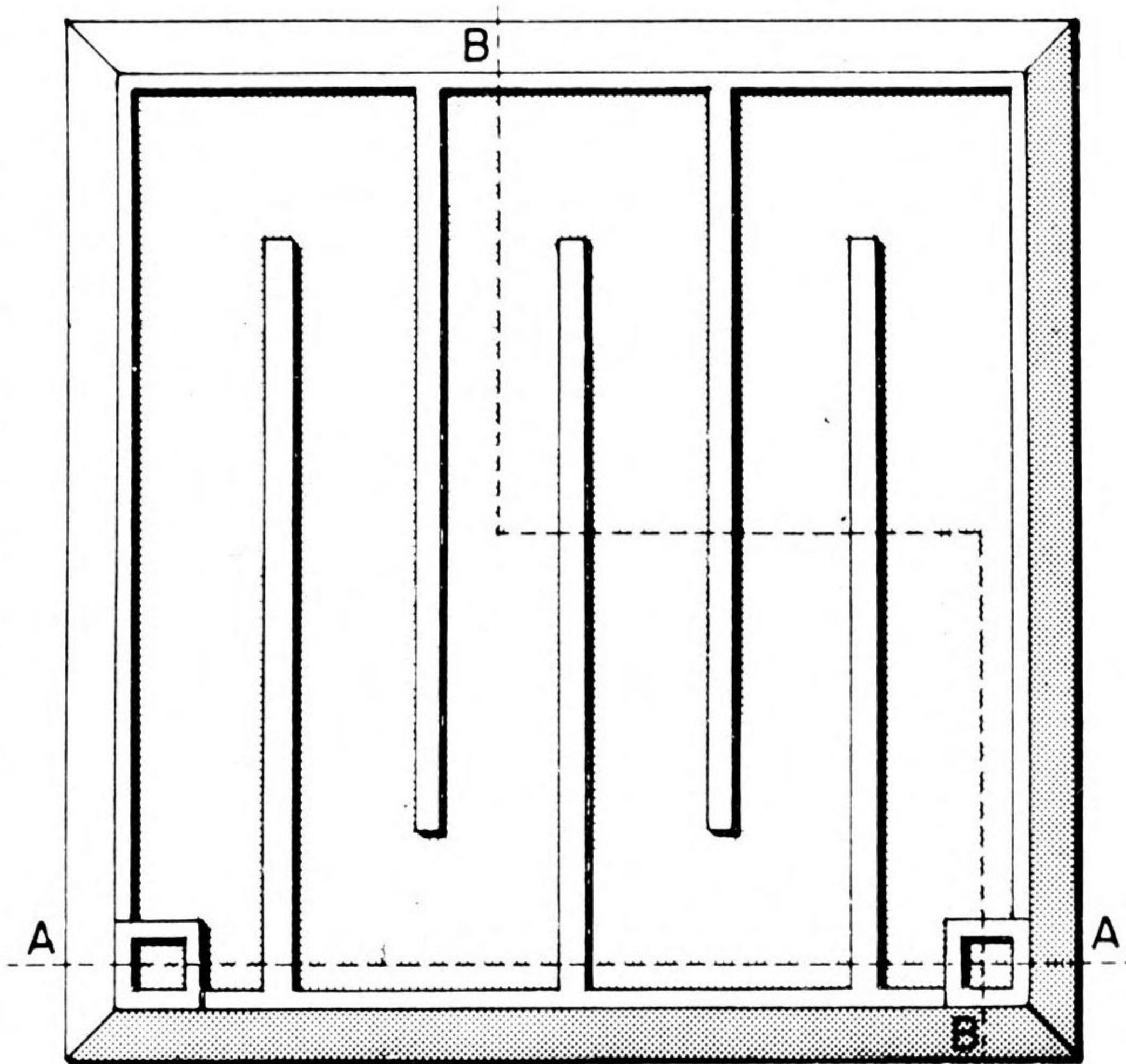
ROOF PLAN

STORAGE

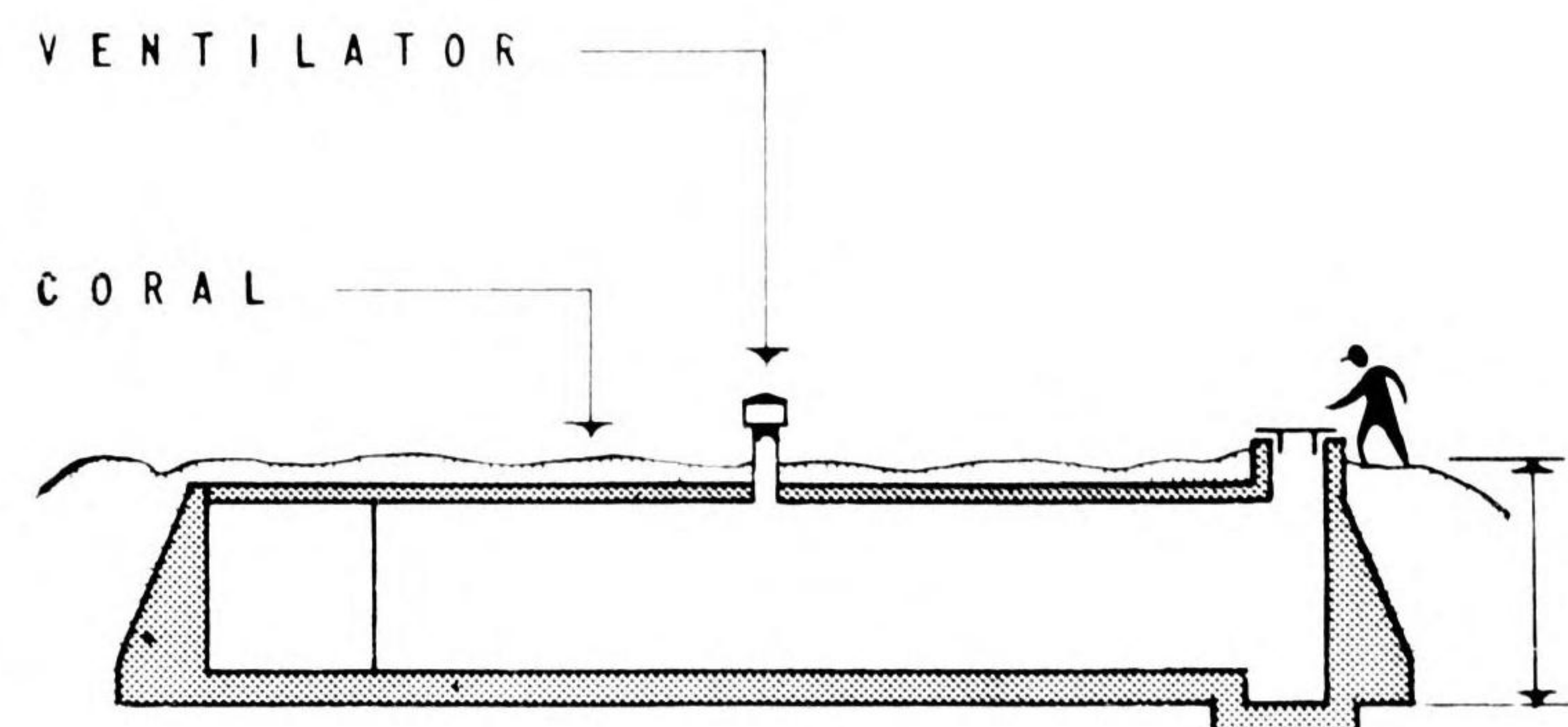
CONCRETE CONSTRUCTION



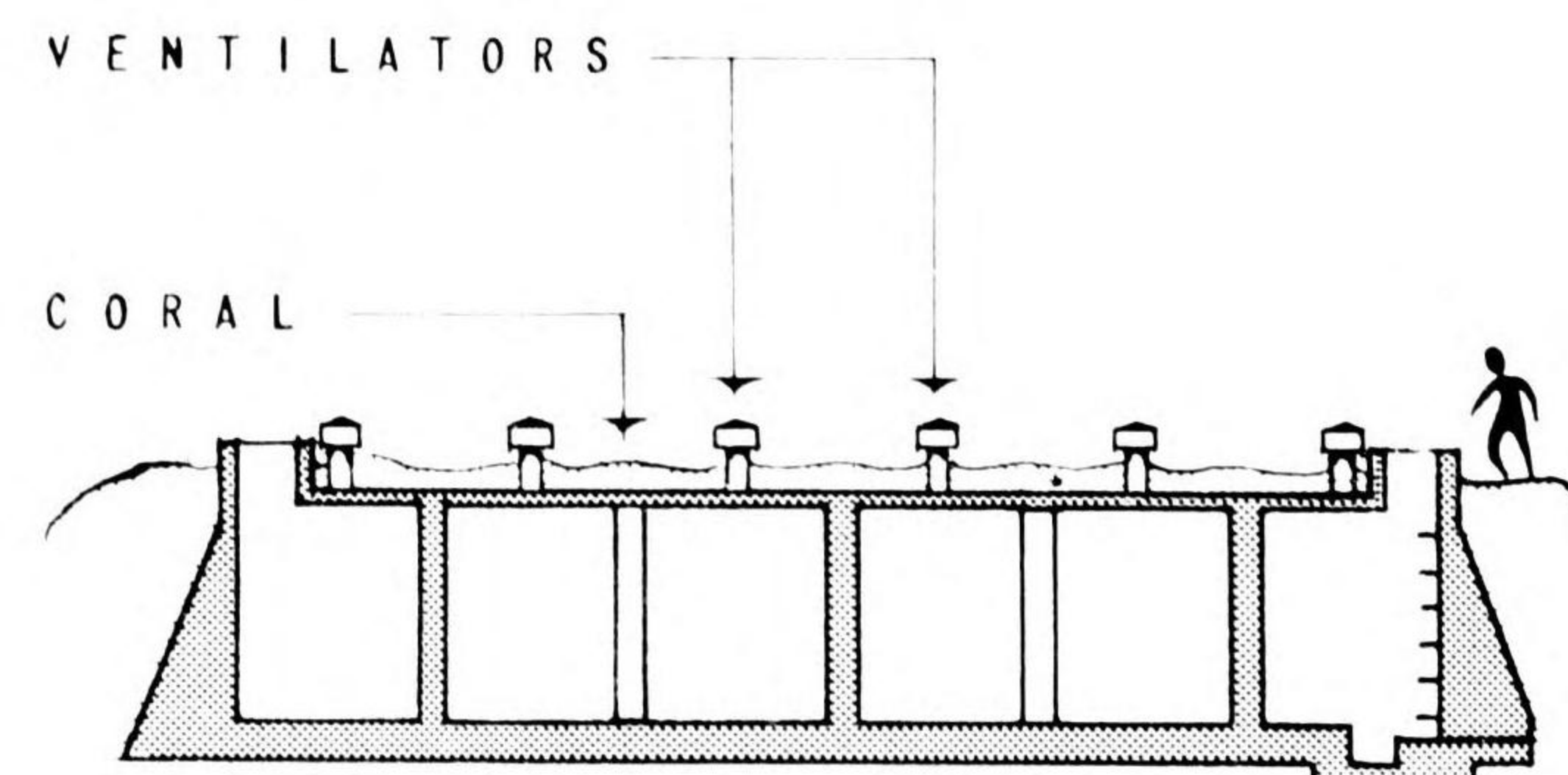
CONCRETE WATER RESERVOIR AND SETTLING TANK - EARTH COVERED • • WOTJE



PLAN OF SINGLE UNIT



SECTION B-B

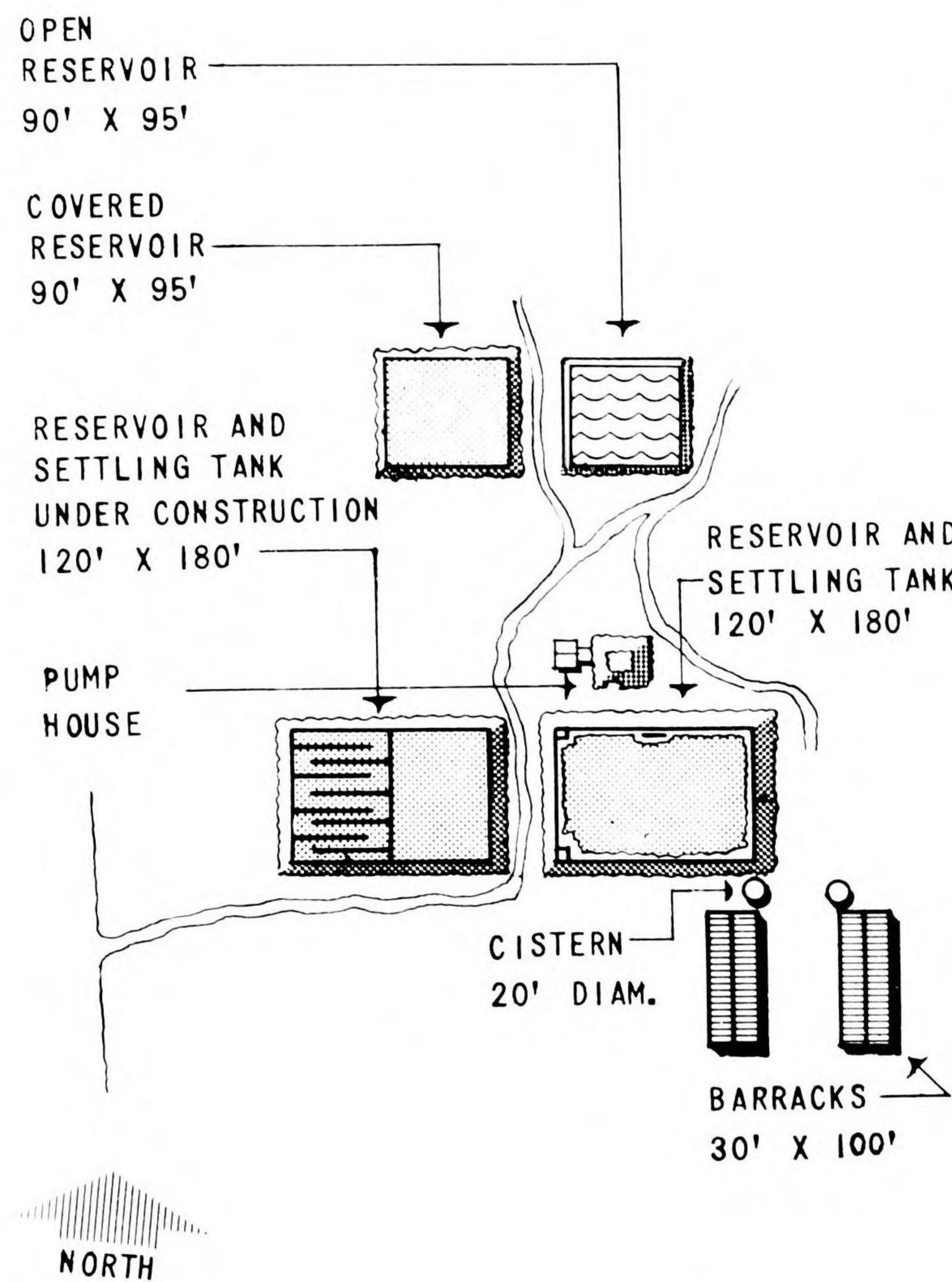


SECTION A-A

WATER RESERVOIR AND SETTLING TANK

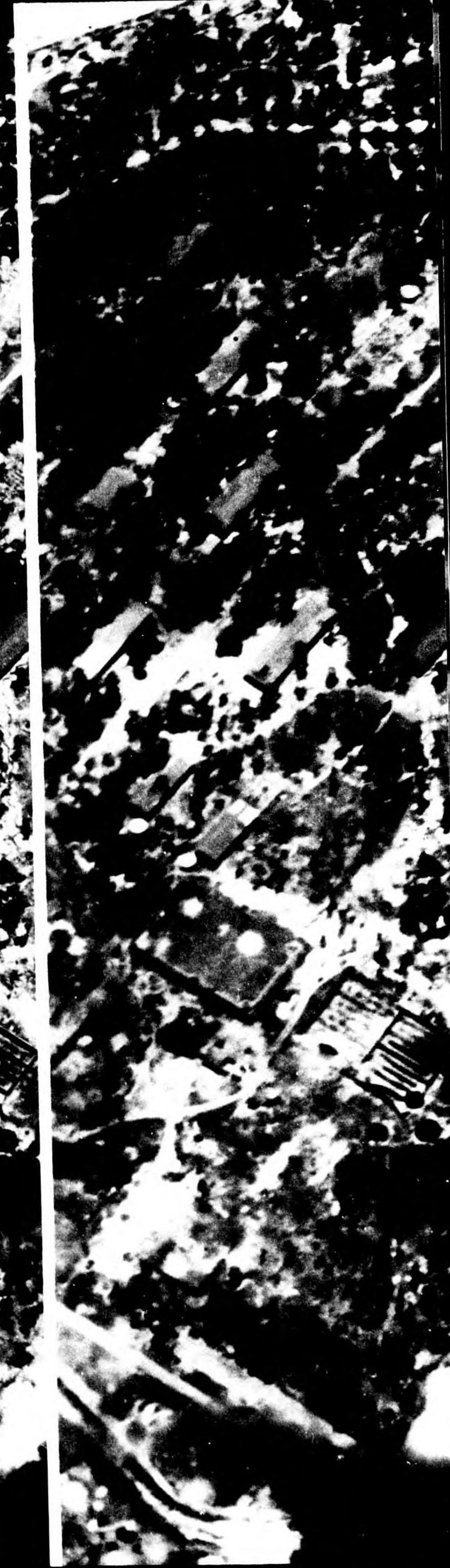
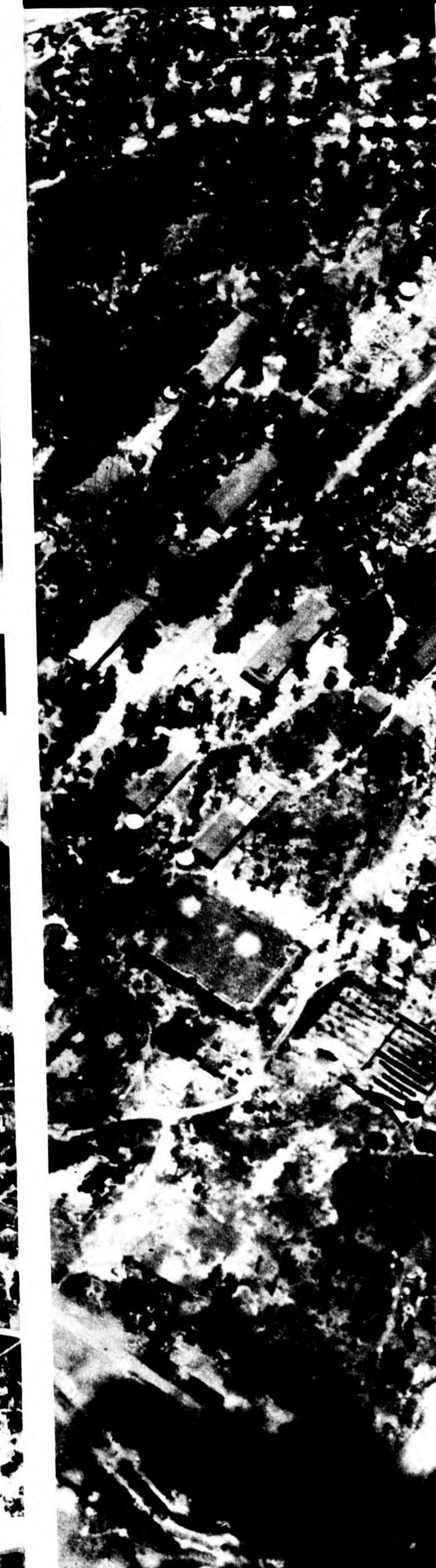
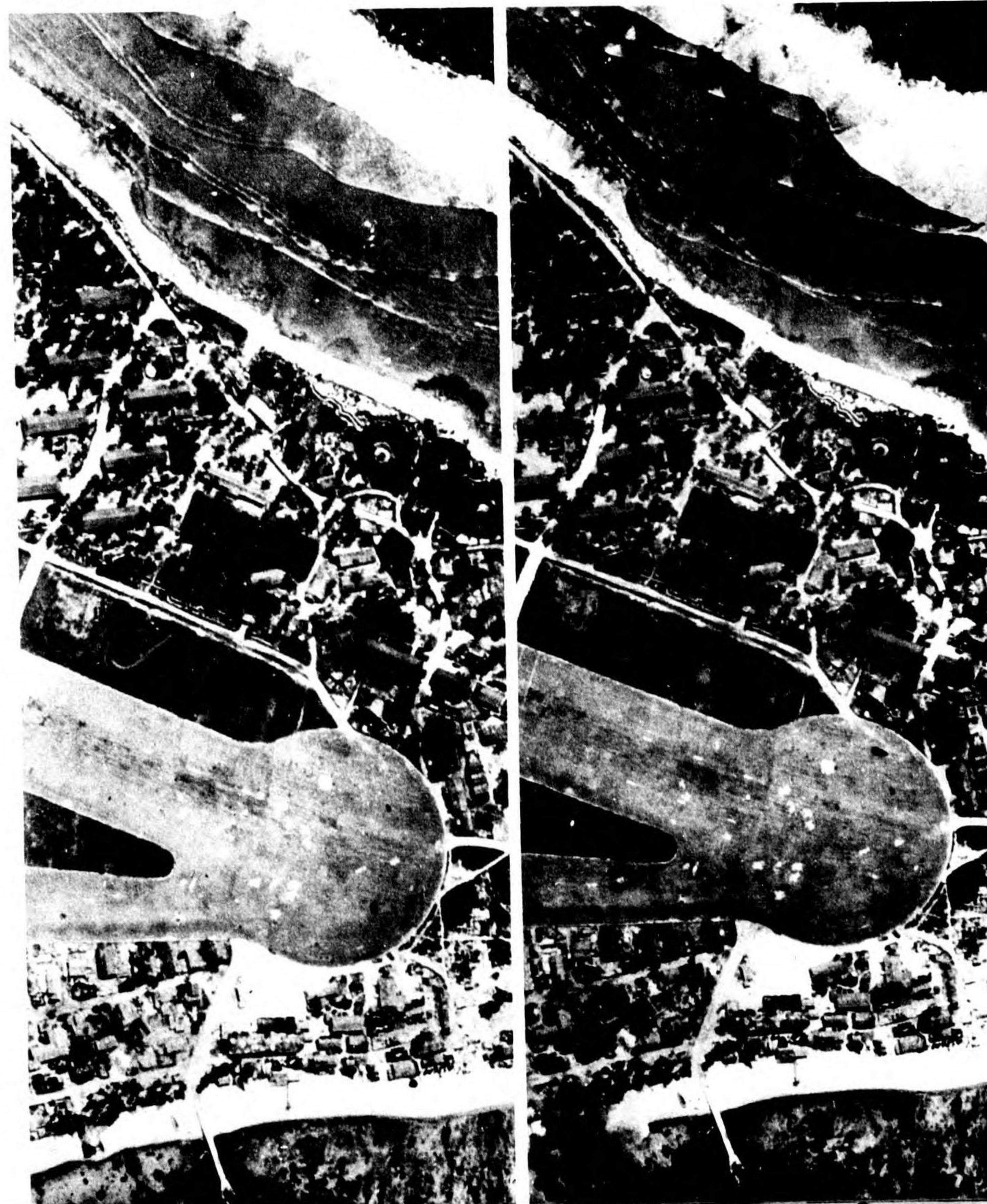
This concrete water reservoir serves as a water tank. A pump house forces water through the maze of concrete fins supporting the roof slab. Rows of ventilators pierce the roof which is covered with coral. There were two such reservoirs on Maloelap, one 70 by 220 feet and one 70 by 250 feet. The pump house was set between the two tanks. Wotje Island contained 2 double units as diagrammed. The rows of ventilators are the main interpretation key and show clearly in vertical photographs.

WOTJE RESERVOIR LAYOUT



MALOELAP

WOTJE



CONCRETE CONSTRUCTION

STORAGE

CONCRETE CONSTRUCTION



52' X 57' CONCRETE FUEL STORAGE • • SAIPAN.



12.06 RESTRICTED

CONCRETE FUEL STORAGE



CONCRETE FUEL STORAGE

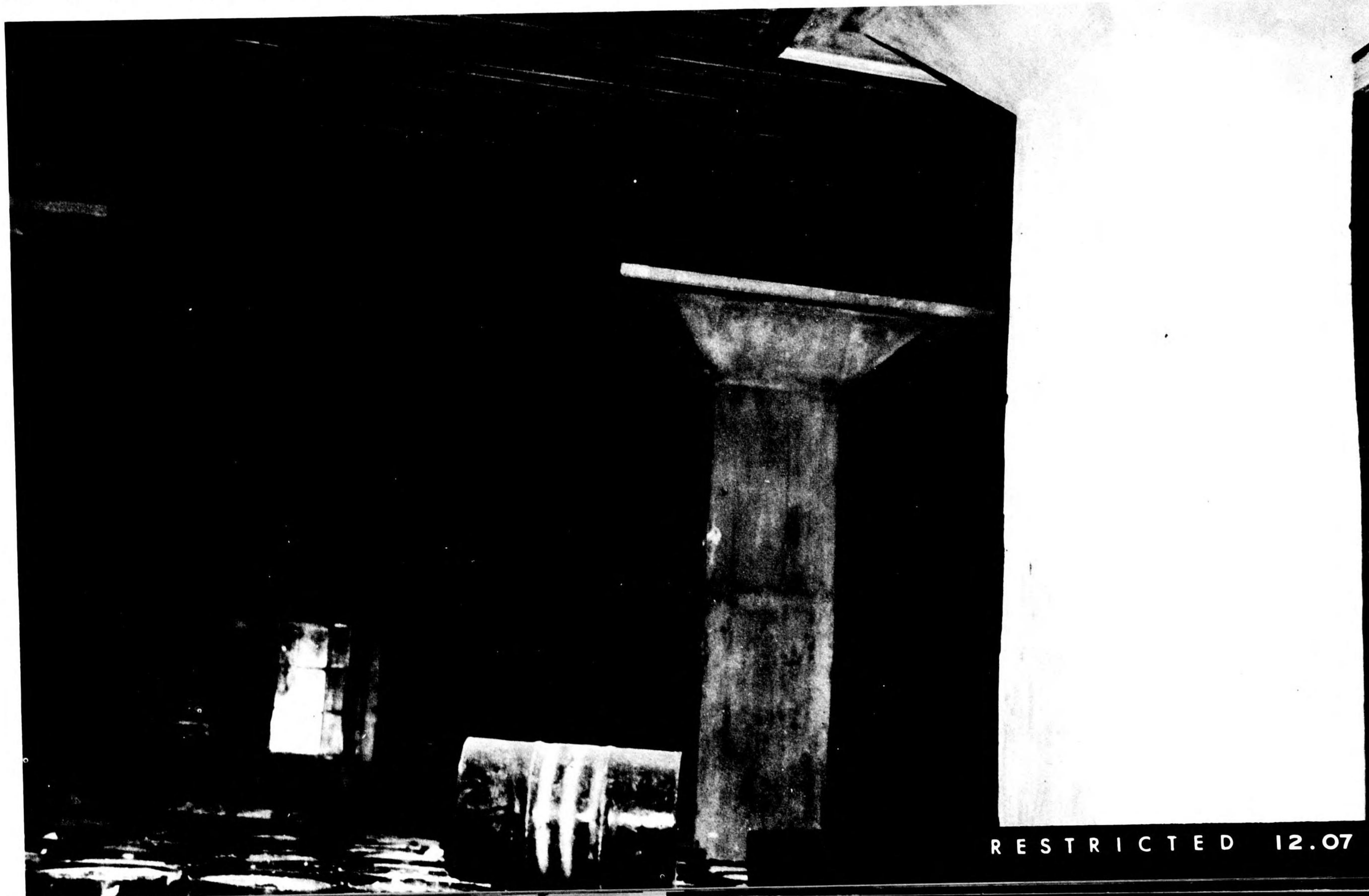
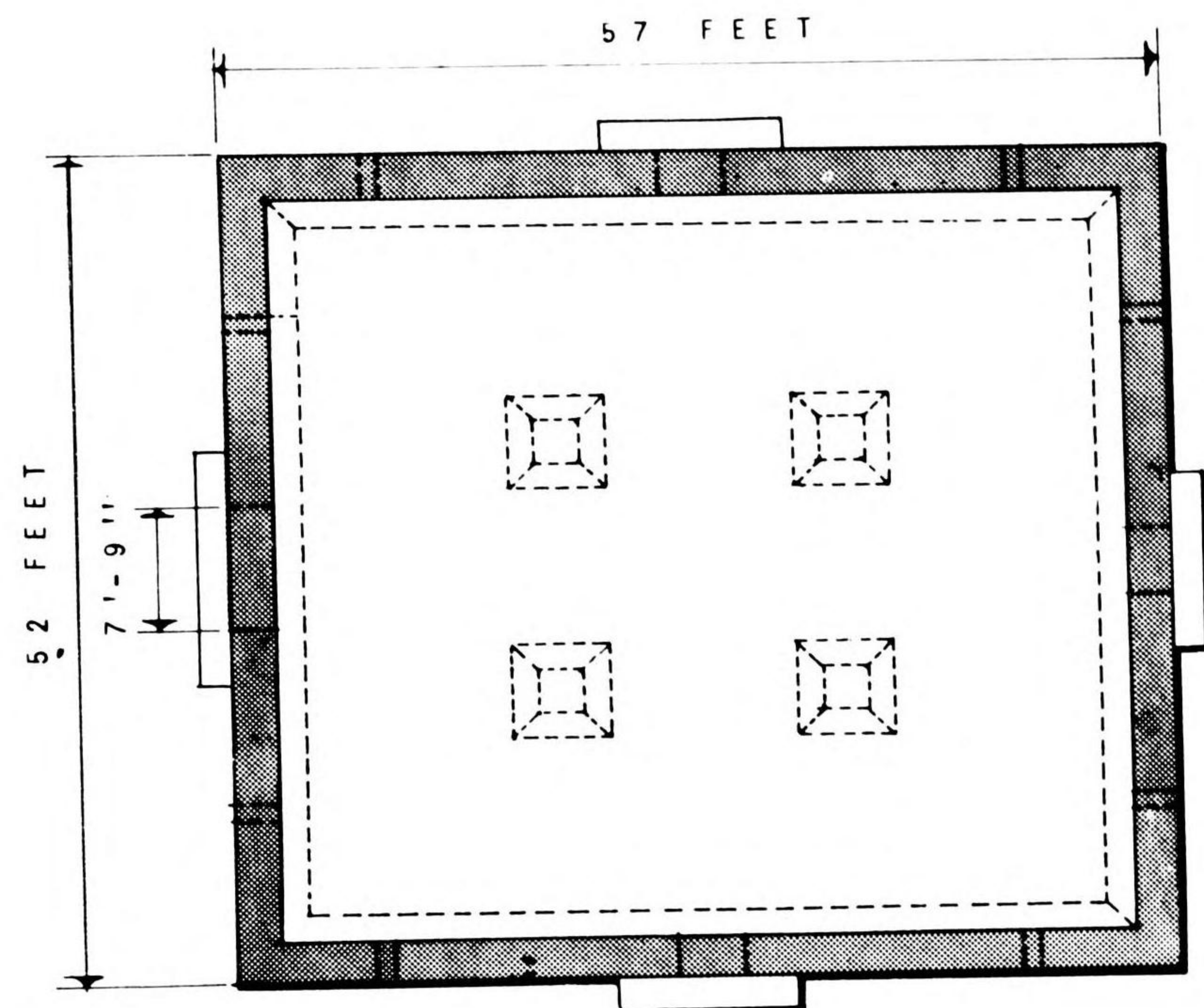
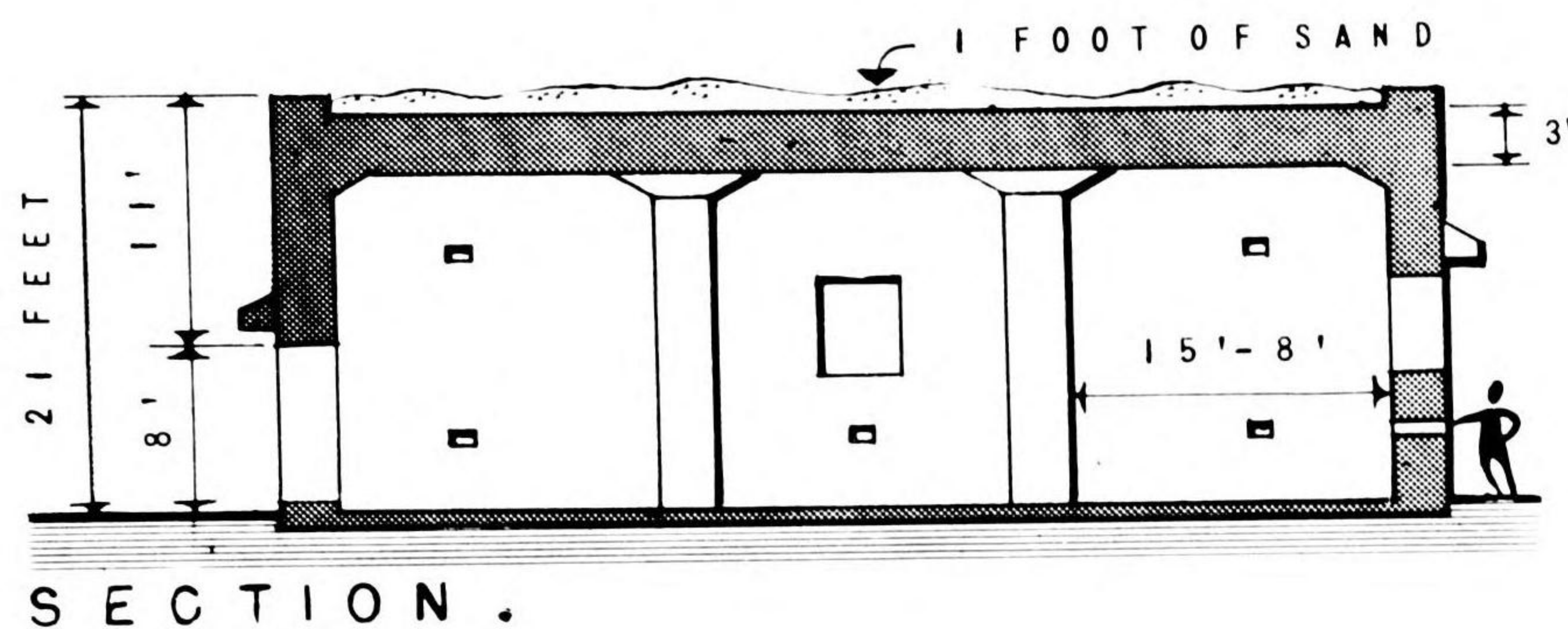
This reinforced concrete building always houses either gasoline or oil in drums. Concrete awnings protect the single side wall windows from aerial bombing. Sand is placed on the 3 foot thick roof slab below the parapet as additional protection. Hood ventilators are set in the walls but do not show in vertical photographs.

The stereo pair of Aslito Airfield on Saipan contains 4 of these magazines. Note the earth revetted high explosive storage building and the standard 3 building military power plant also present.

The buildings are always isolated from other construction in order to minimize the possibility of damage resulting from explosion.



52' X 57' REINFORCED CONCRETE FUEL STORAGE BUILDING . . . SAIPAN



STORAGE

CONCRETE CONSTRUCTION

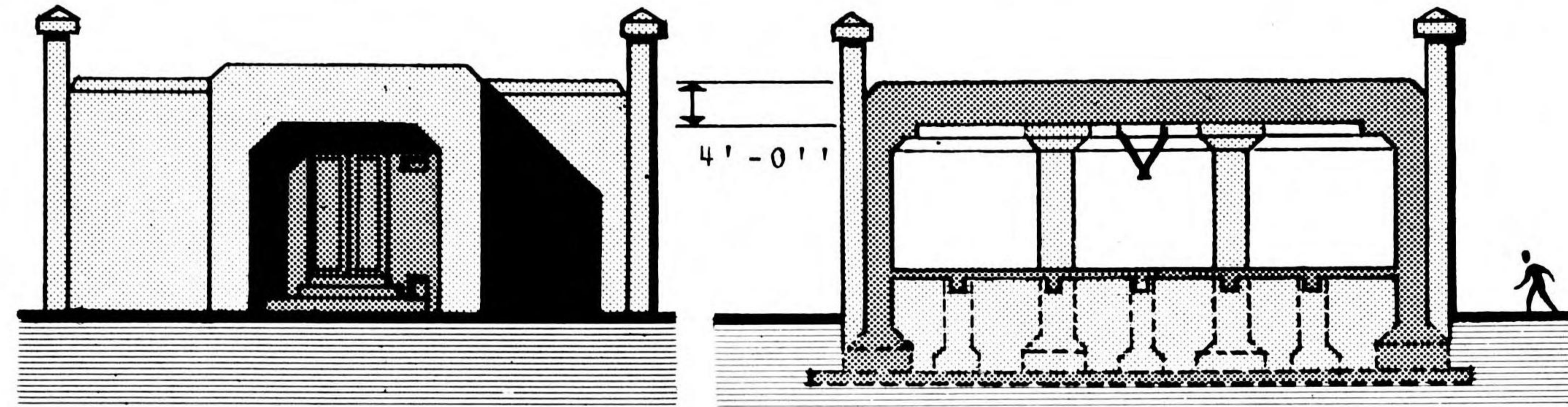


2' X 52' AMMUNITION STORAGE BUILDING • KWAJELEIN



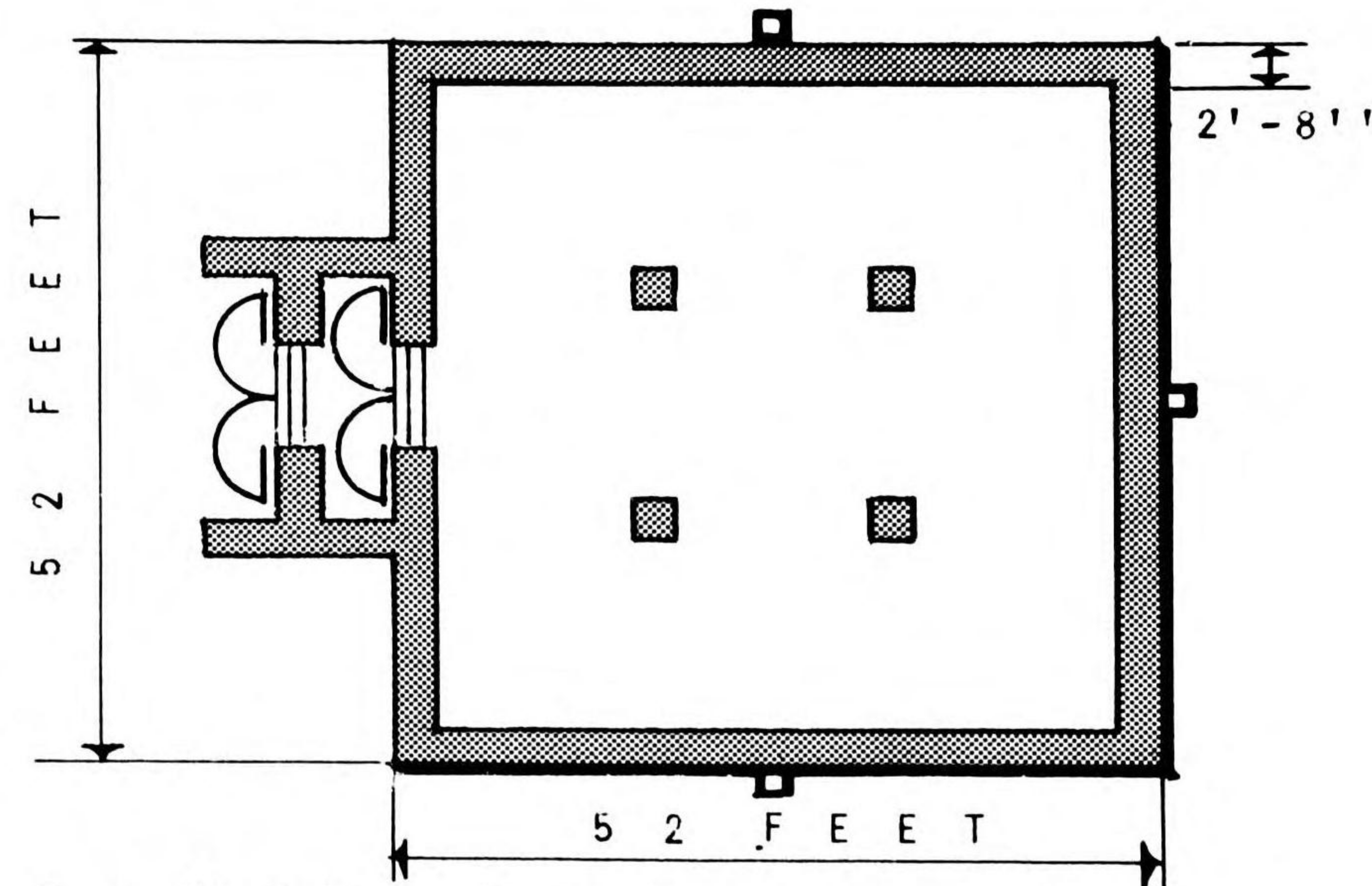
12.08 RESTRICTED

CONCRETE STORAGE - SAIPAN



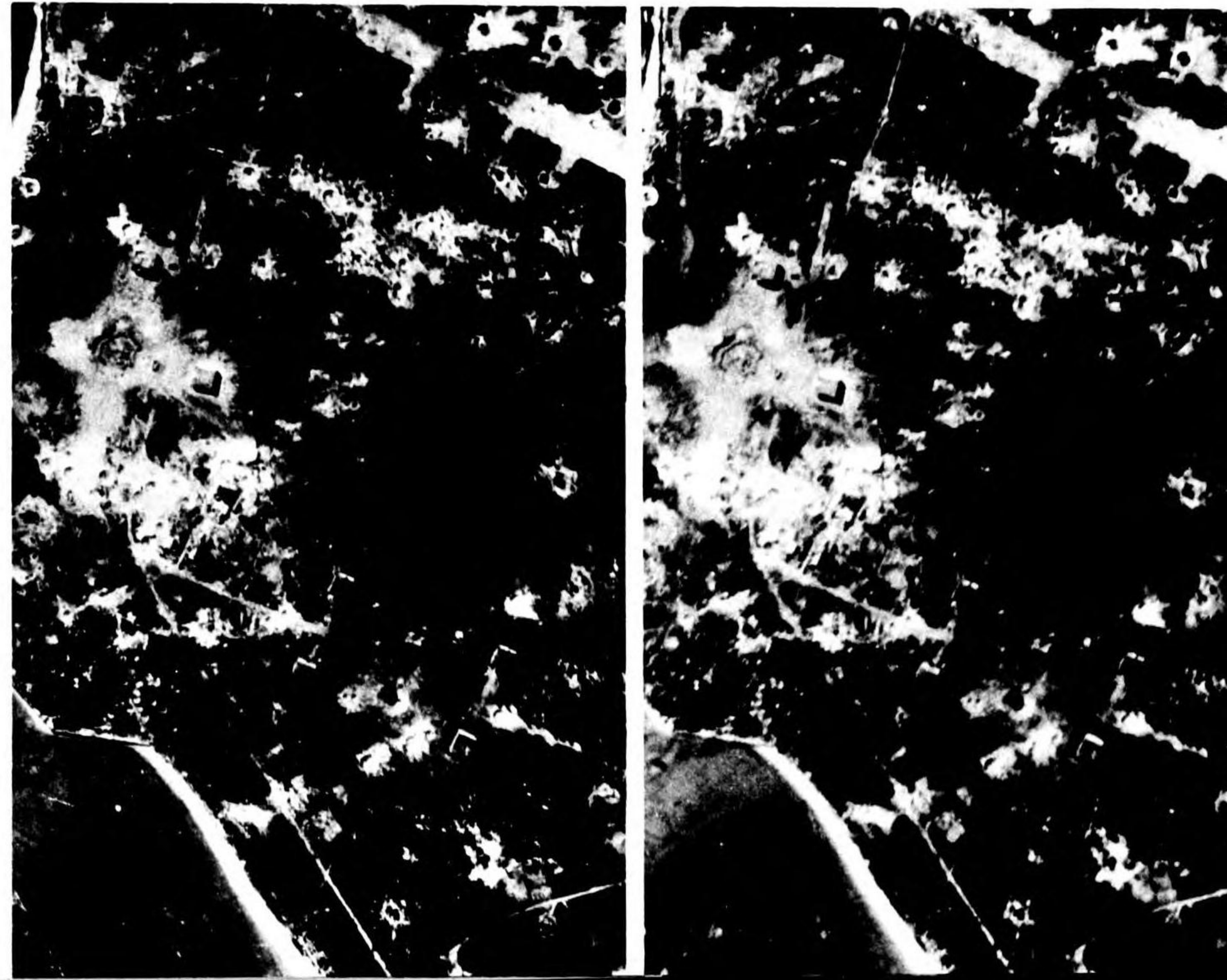
FRONT ELEVATION

SECTION



FLOOR PLAN
CONCRETE STORAGE BLDGS.

JALUIT

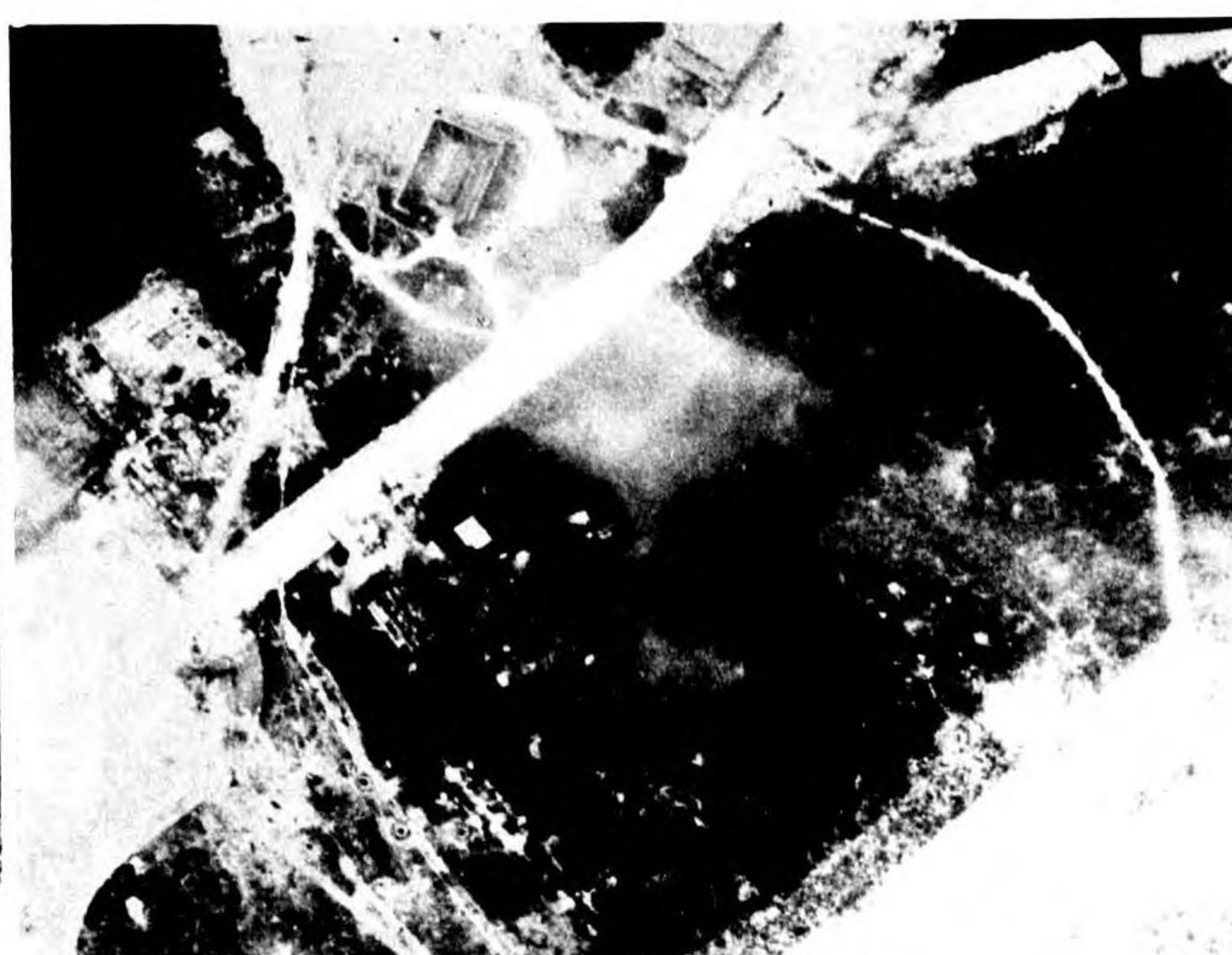
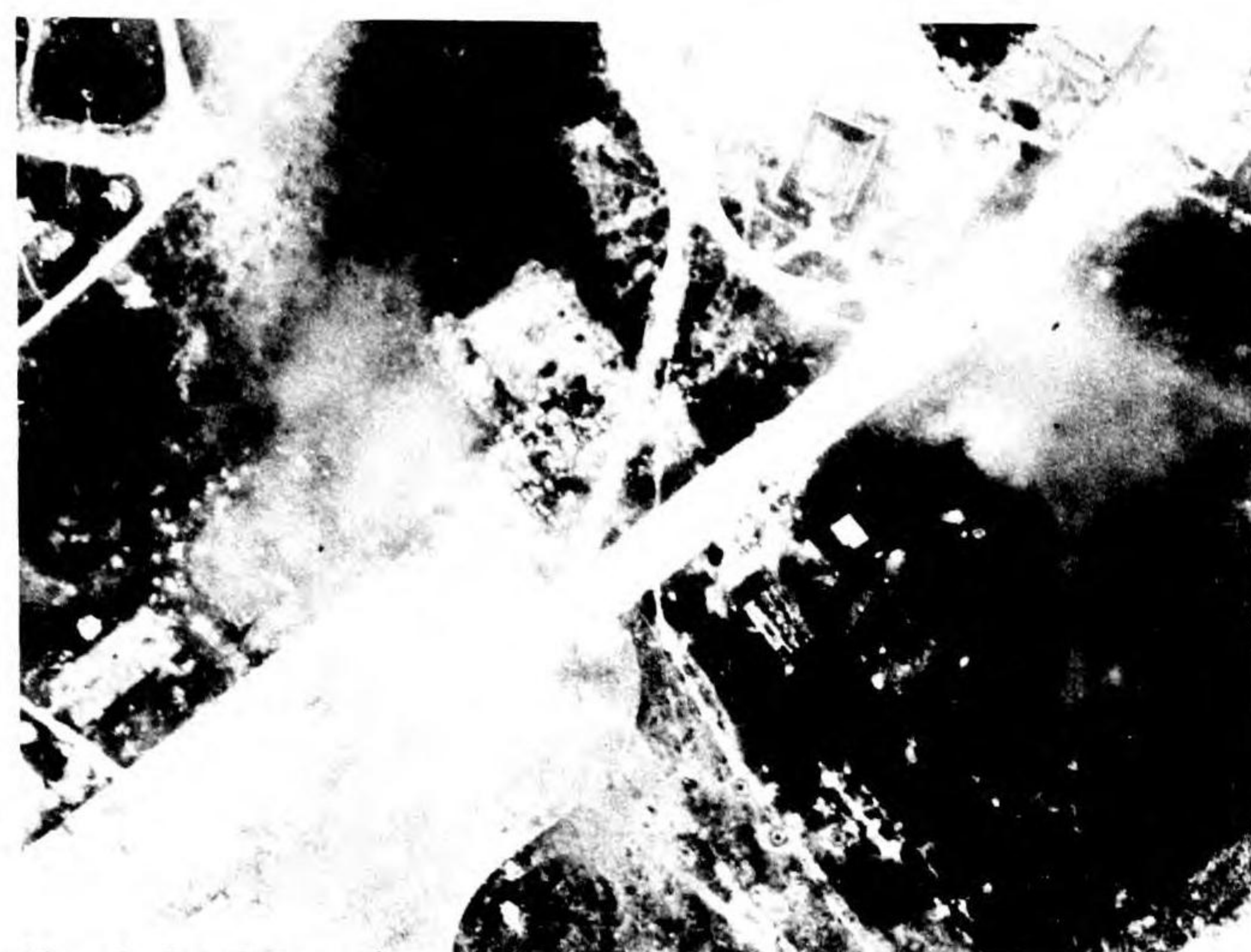


REVETTED AMMUNITION STORAGE

High explosives are stored in gable roofed buildings of wood frame construction. Torpedo war heads have often been found in the building which is buttressed in some cases. A heavy blast wall 10 to 15 feet in height always surrounds the well ventilated structure. The revetment protects the magazine against near misses and serves to minimize damage caused by the explosion of a direct hit. A well kept road ties the explosive storage building to the airstrip it services.

STORAGE

WOOD CONSTRUCTION

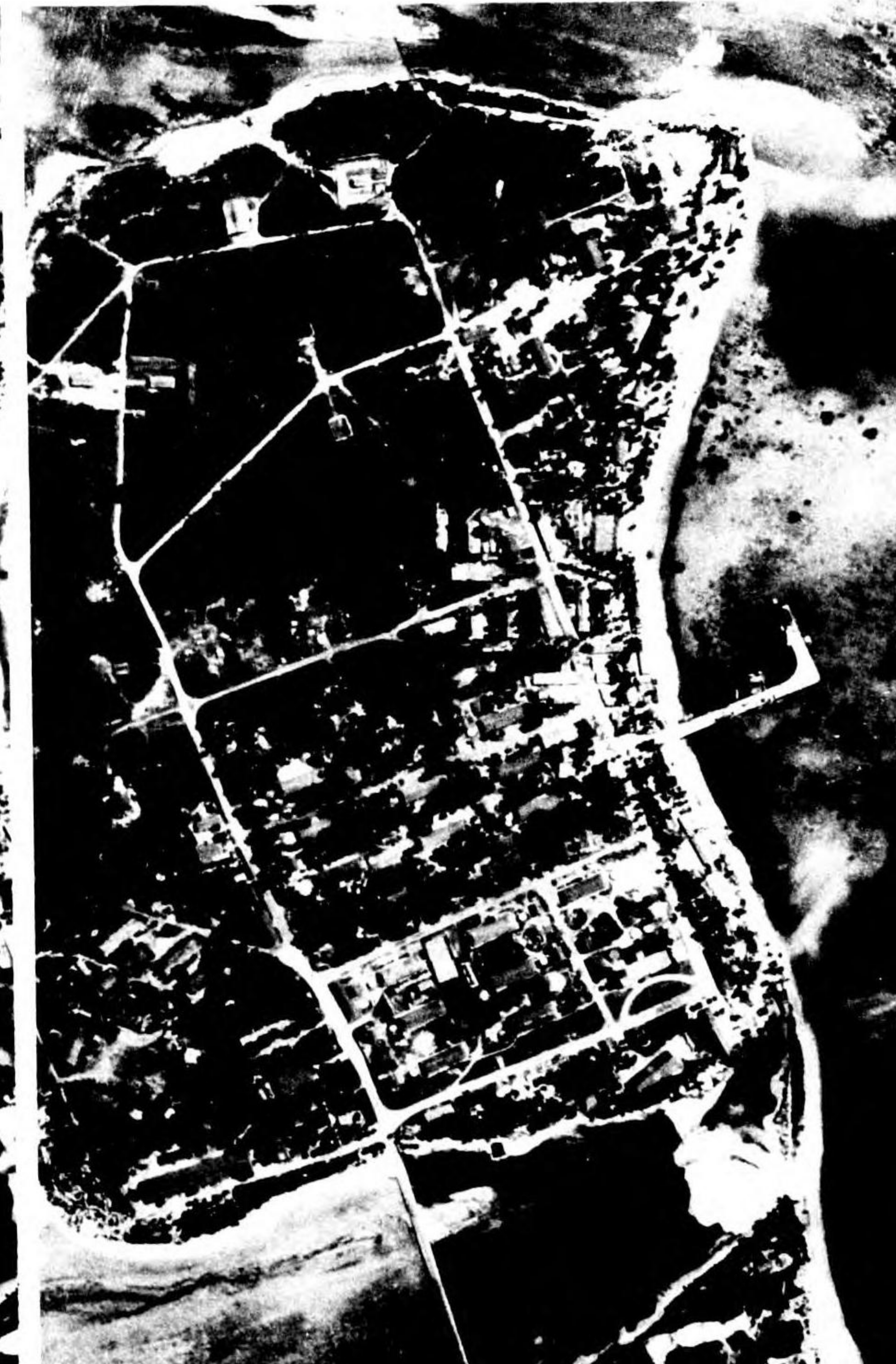


REVETTED AMMUNITION STORAGE

PALAU

AMMUNITION STORAGE · SAIPAN

NAMUR ISLAND

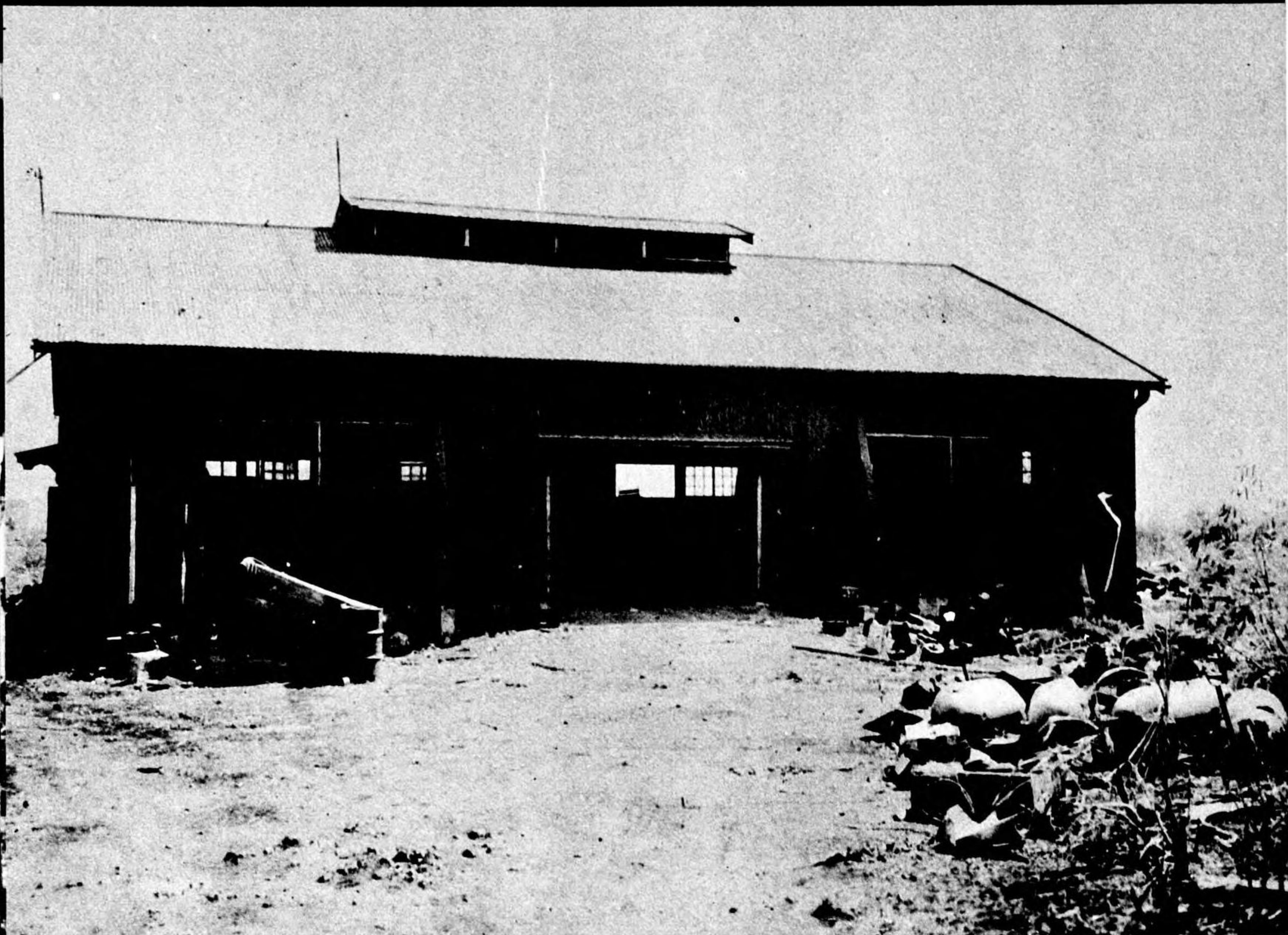


REVETTED AMMUNITION STORAGE · MALOELAP SAIPAN



STORAGE

WOOD CONSTRUCTION



42' X 60' FOOD STORAGE—SAIPAN

MAJURO

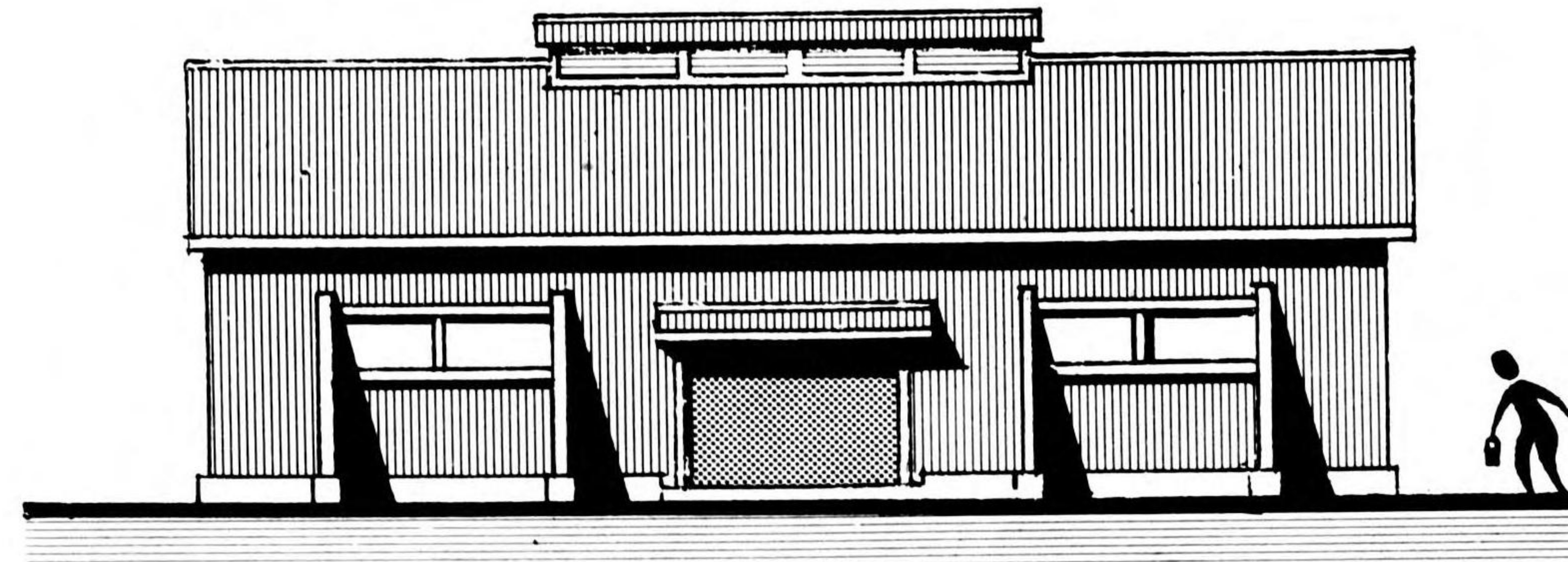


12.10 RESTRICTED

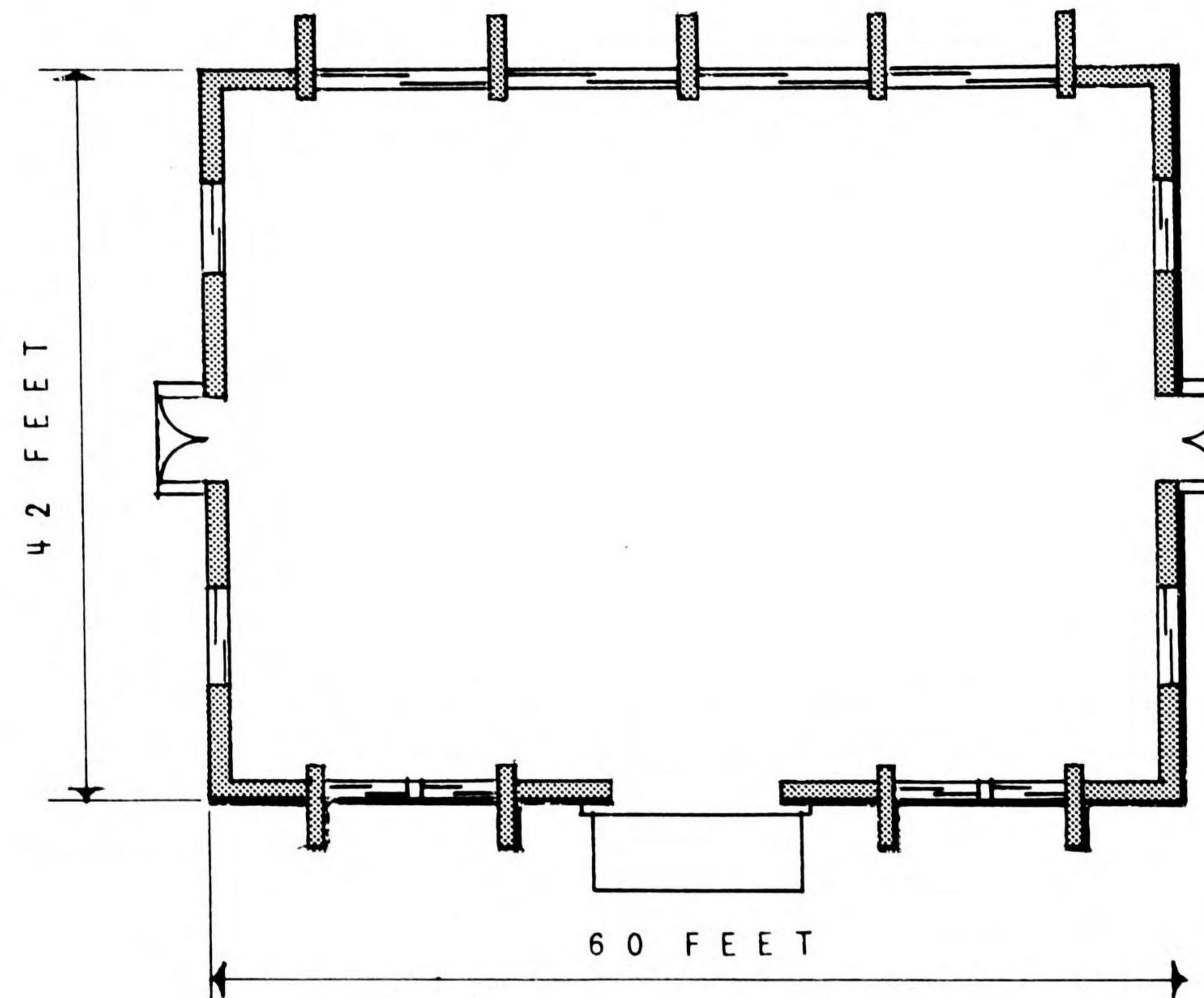
FOOD STORAGE BUILDING

Food is stored in this 42 by 60 foot building. The gable roof is capped with a continuous louvered strip monitor. Note the use of the buttress, in this case to catch the thrust of the trusses and protect the building against high winds. A continuous foundation supports the buttresses and wood framed side walls. The interior walls are vertically wood sheathed. Exterior walls and the roof are surfaced with overlapping sheets of corrugated galvanized iron. Sliding 6-light windows set in the wooden window sash.

Darrit Island, Majuro Atoll in the Marshalls, and Aslito Airfield on Saipan, both contain this standard type of food storage building.



FRONT ELEVATION.



FLOOR PLAN.

FOOD STORAGE BLDG.

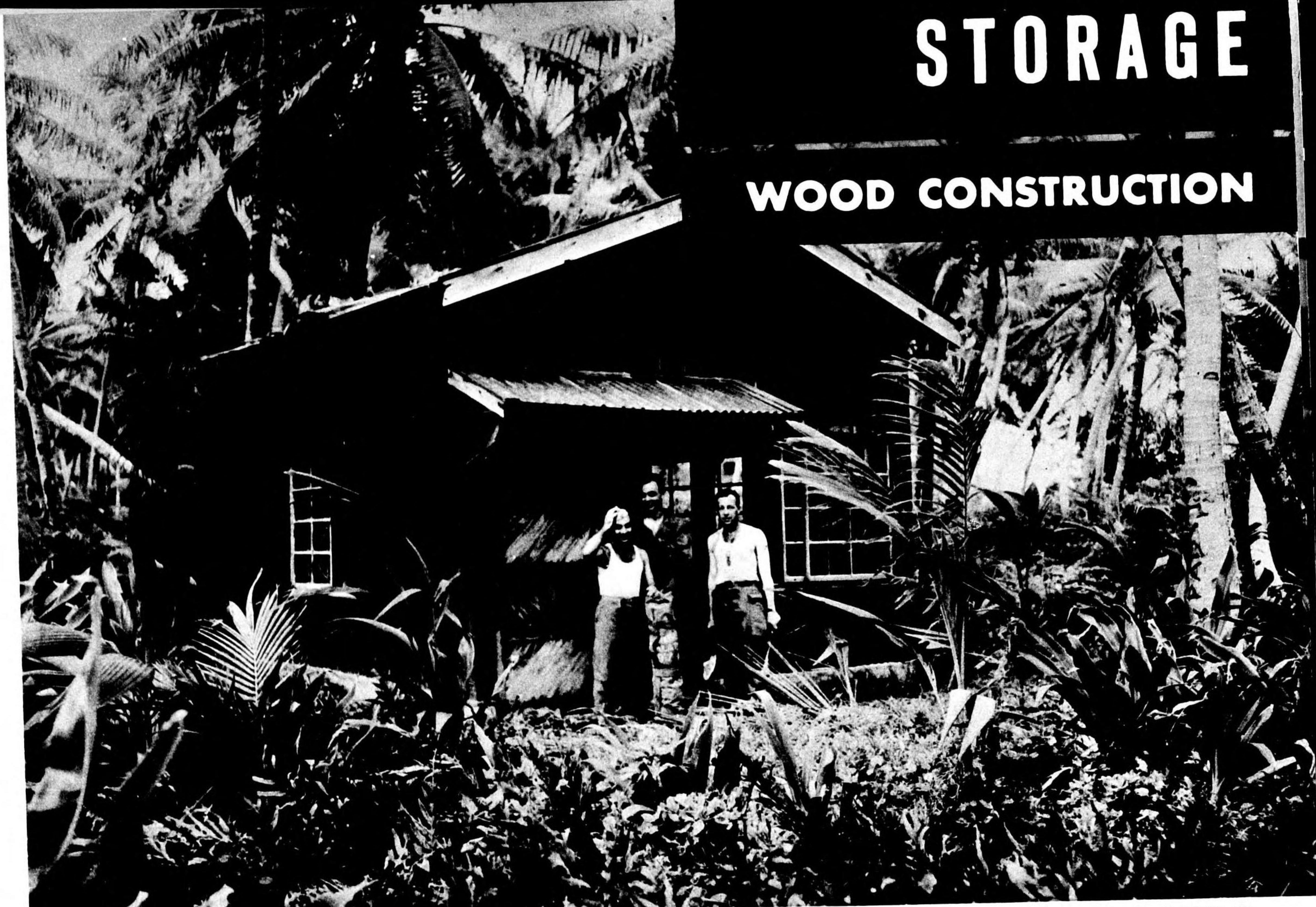
This storehouse on Darrit Island, Majuro, was adjacent to an ice house and also served as a food storage building.

The wood framed structure sits on a continuous concrete foundation. The foundation extends approximately a foot above natural grade. The floor slab is concrete. Side walls and the gable roof are sheathed with overlapping sheets of corrugated galvanized iron. A louvered ventilator is set under the eaves at each gable end of the building.

Protection against high winds is afforded by the presence of cables tied to each corner of the structure at the plate line and anchored to concrete blocks set in the ground as illustrated in the accompanying floor plan. Sliding 8-light windows are set in pairs on each face of the building. A wooden awning protects the 5 foot wide sliding door. A wooden awning protects the 5 foot wide sliding door.

STORAGE

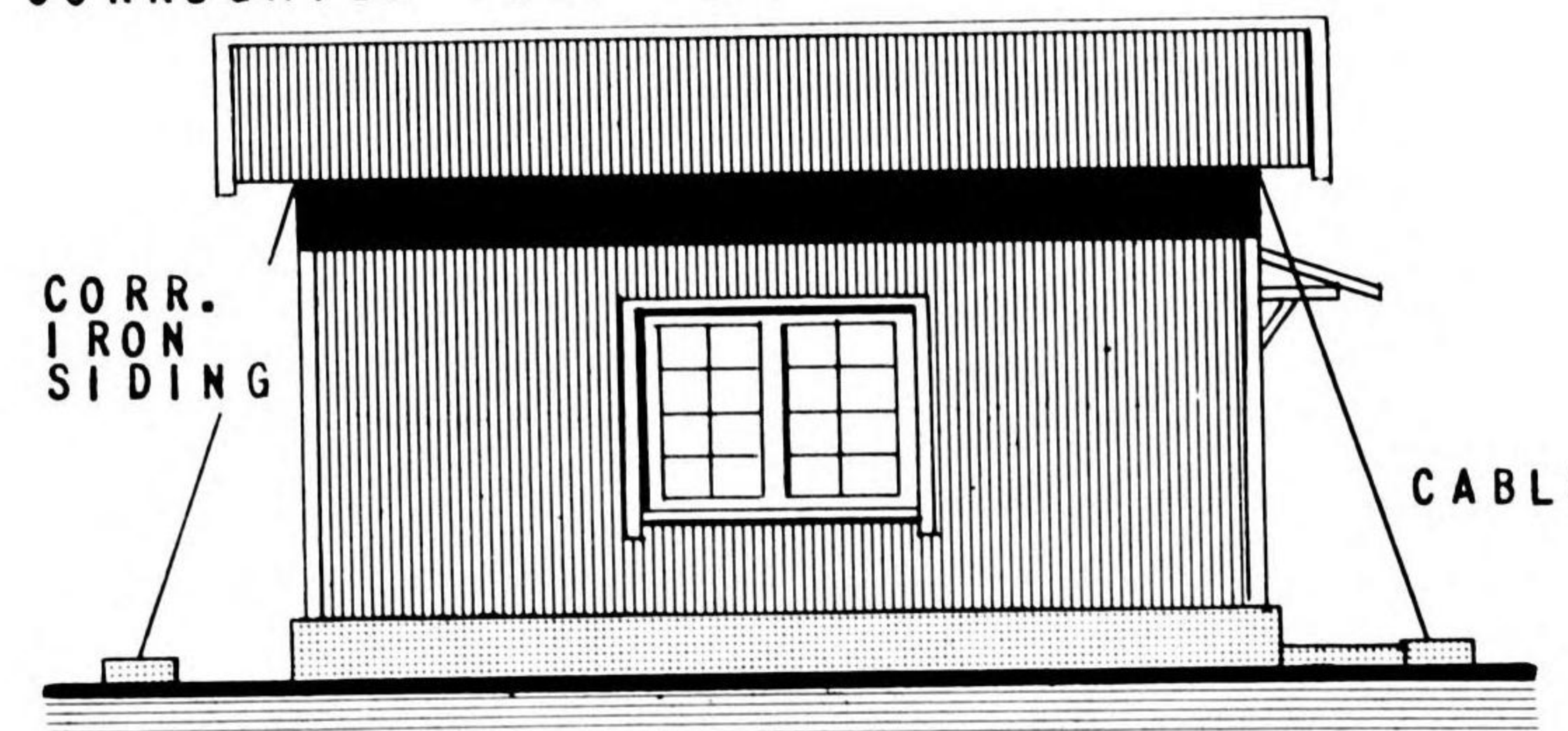
WOOD CONSTRUCTION



14' X 20' FOOD STORAGE BUILDING

MAJURO

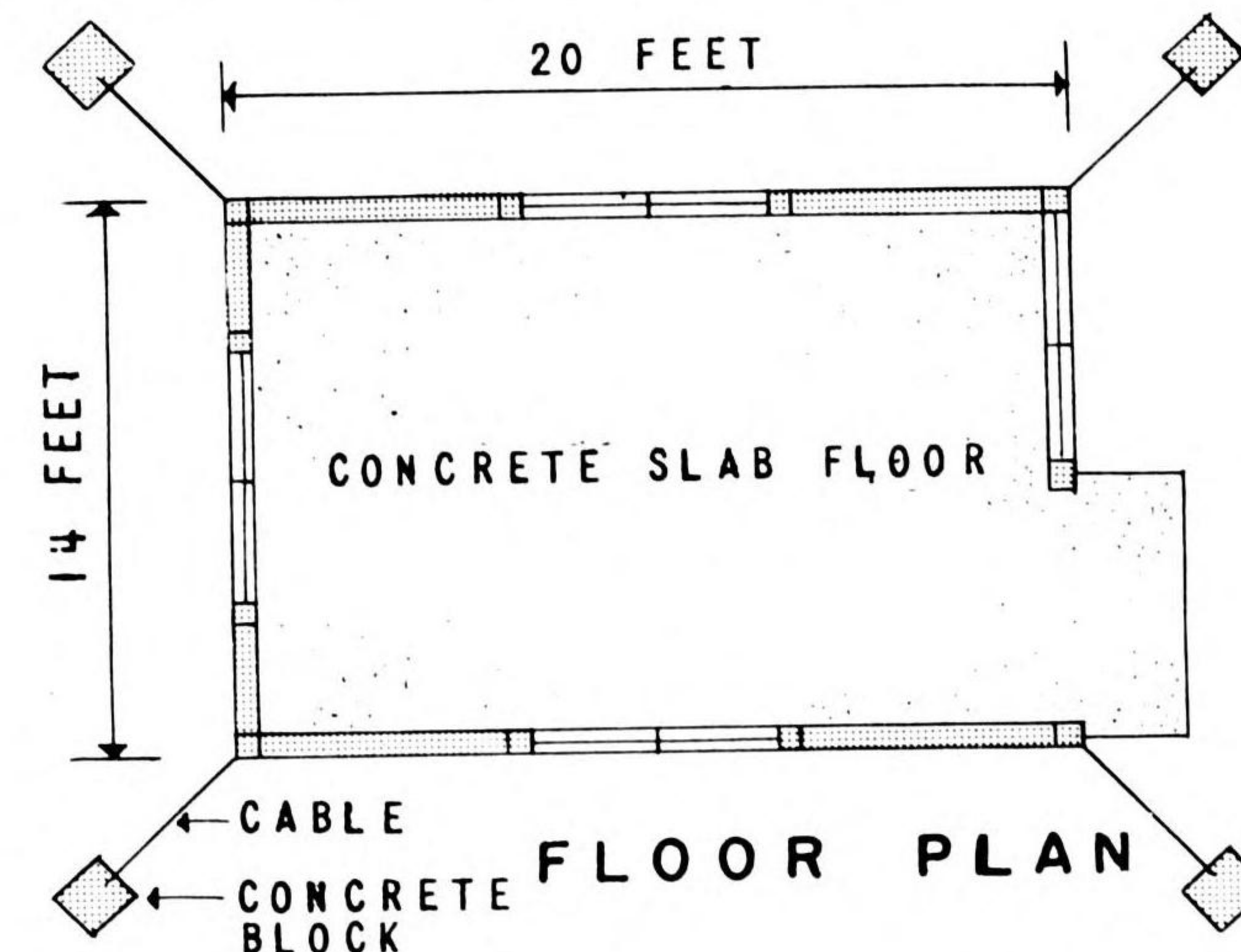
CORRUGATED IRON ROOF



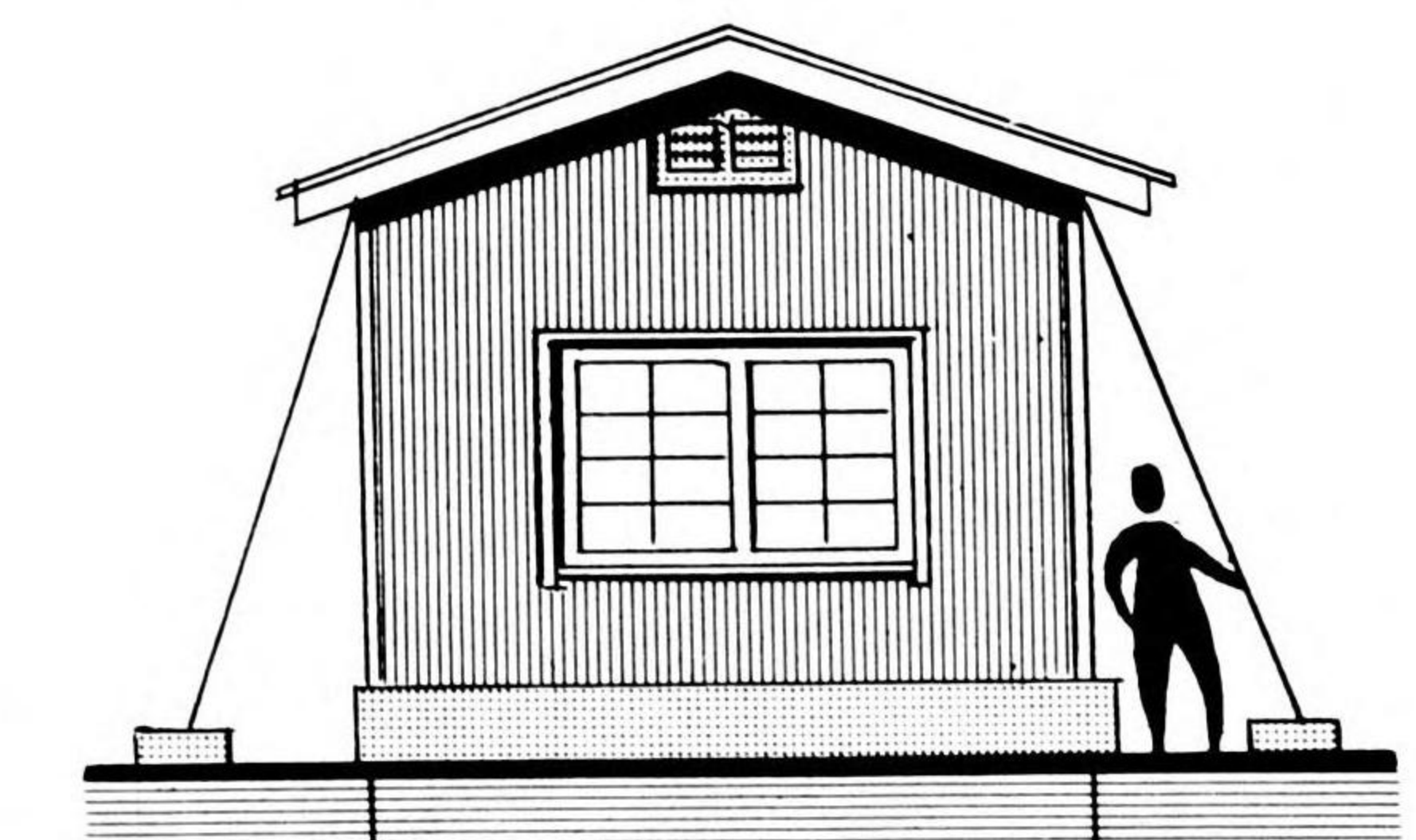
SIDE ELEVATION



FRONT ELEVATION

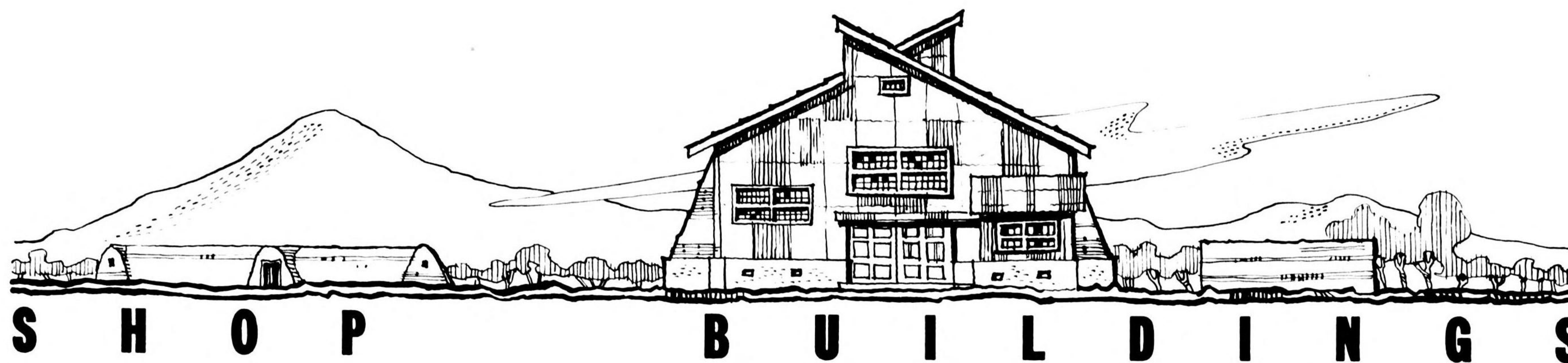


FLOOR PLAN



REAR ELEVATION

RESTRICTED 12.11



Permanently established Japanese airfields include several standard types of shop buildings that are built in an attempt to make the airfield as self sufficient as possible. Aslito Airfield on Saipan, contained a Welding Plant, a Forge, a Propeller Shop, an Oxygen Generating Plant, a Motor Vehicle Garage, numerous machine shops, and large maintenance Hangars.

The Propeller Shop on Saipan is typical of shop buildings. An extended ridge light capped the gable roof. Four pairs of buttresses catch the thrust of the trusses that span 42 feet. The floor slab is concrete; interior walls are vertically wood sheathed. Exterior side walls, buttresses and roof surfaces are sheathed with corrugated galvanized iron. The building is usually adjacent to maintenance hangars.

Motor vehicle repairs are performed in a shed roofed, wood framed building. A secondary shed roof, pitched in the opposite direction, covers the sliding garage doors which extend beyond the limits of the building.

Oxygen is generated in an elaborate gable roofed building

approximately 50 by 80 feet in plan.

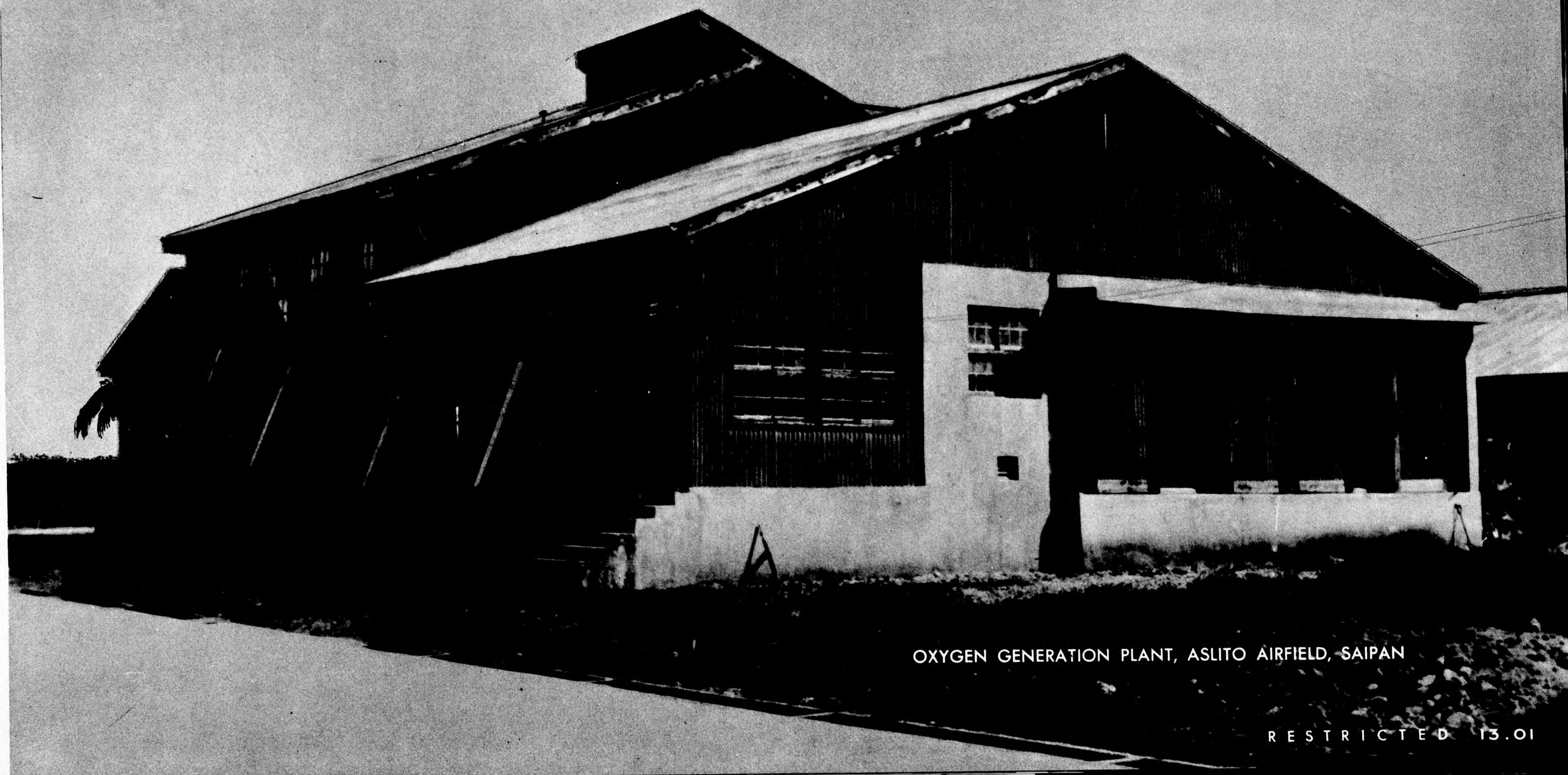
The higher portion of the divided gable roof is capped with a reverse ridge light. Buttresses catch the thrust of the trusses and support the side walls. The building is reinforced concrete to a point approximately 5 feet above grade, and wood construction from that point to the ridge.

Galleys are presented in this section. The existence of stacks servicing the row of cooking pots always present in the kitchen is the main interpretation key other than the fact that the galley services a mess hall and is in a barracks area.

Power distribution buildings are not standard in type but the transformer stations servicing them are. The open framework containing the transformers is about 8 feet square in plan and stands approximately 14 feet above grade.

Forms that are known to be standard in plan and construction are presented in the ensuing pages.

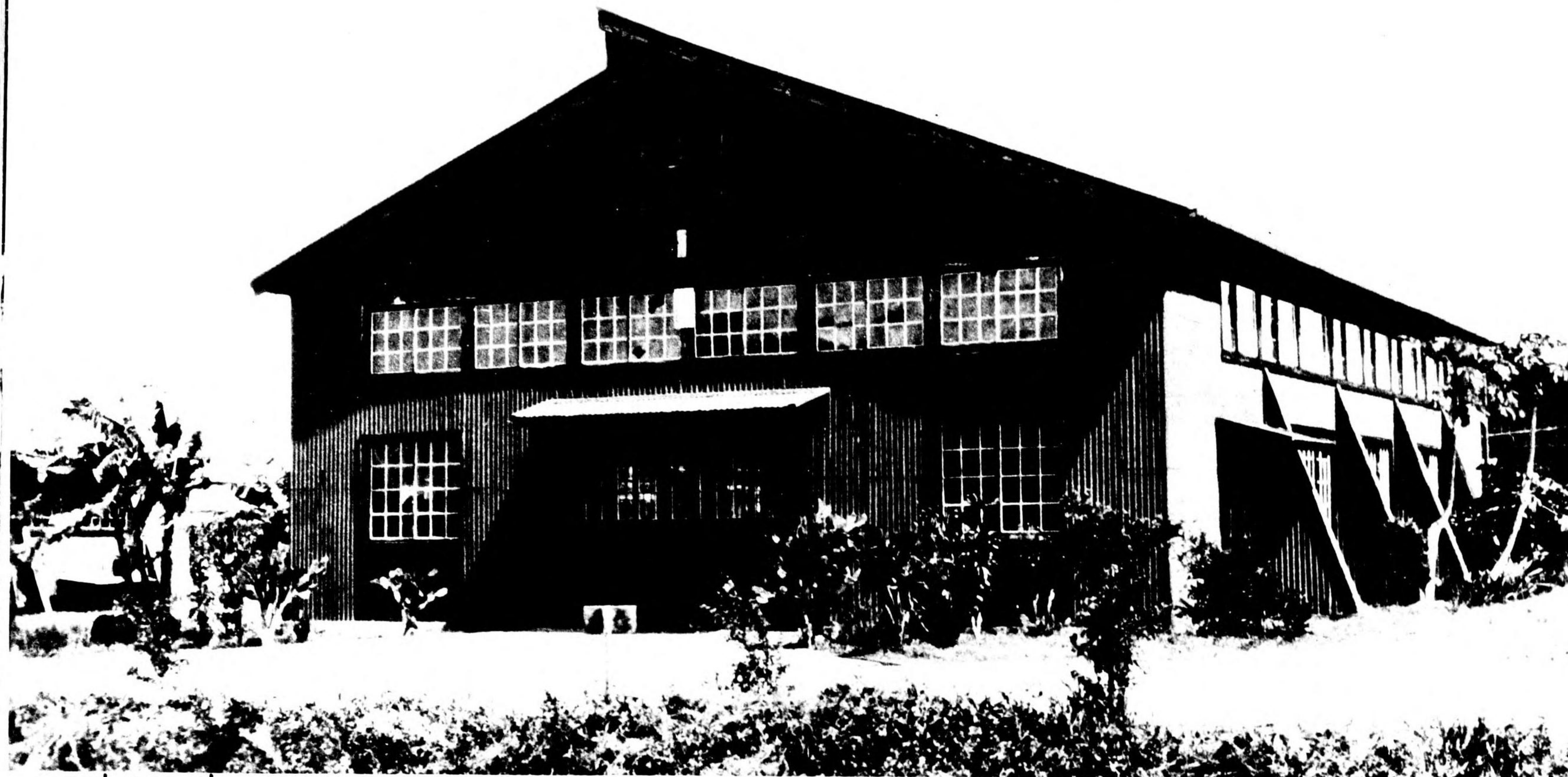
SHOPS



OXYGEN GENERATION PLANT, ASLITO AIRFIELD, SAIPAN

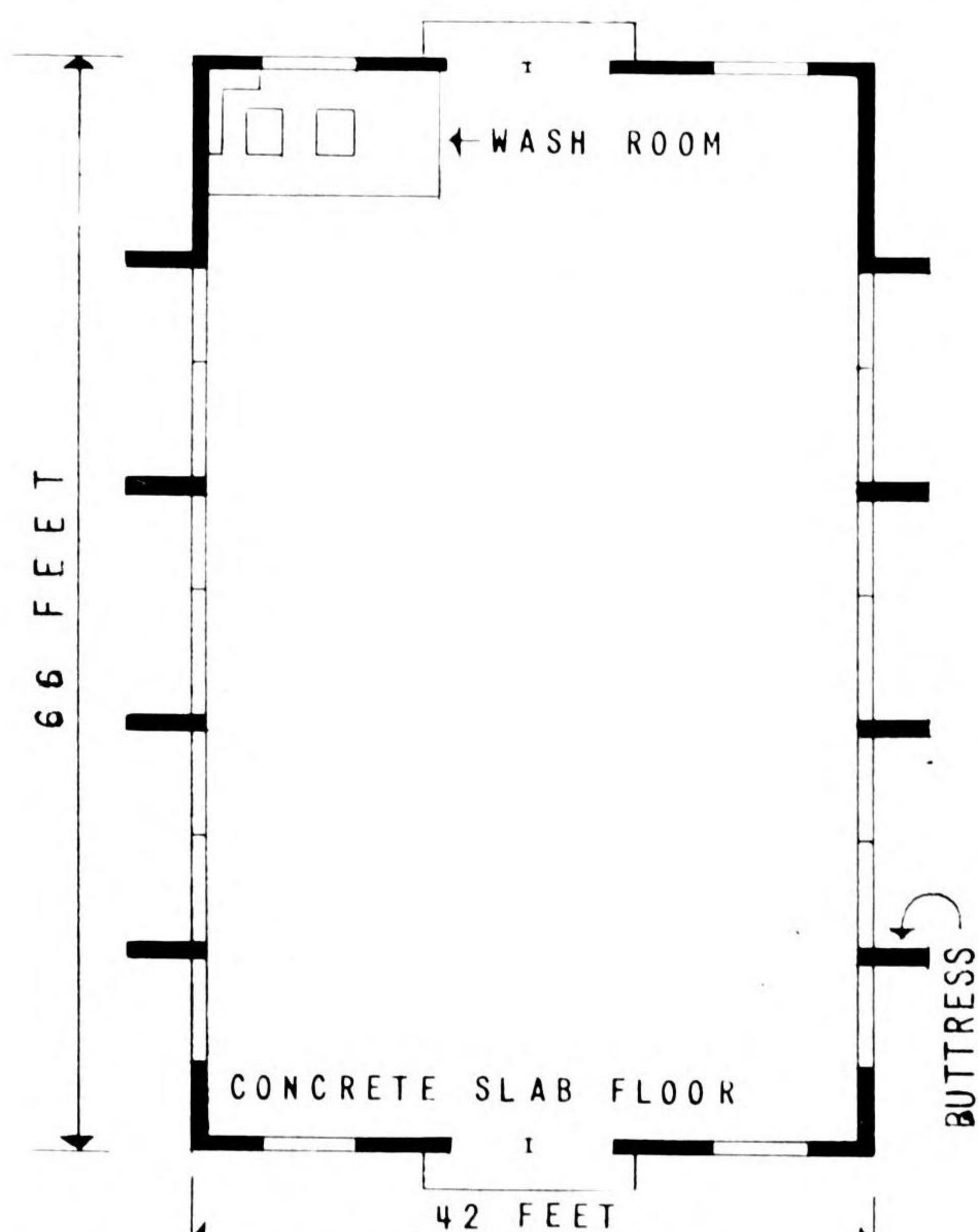
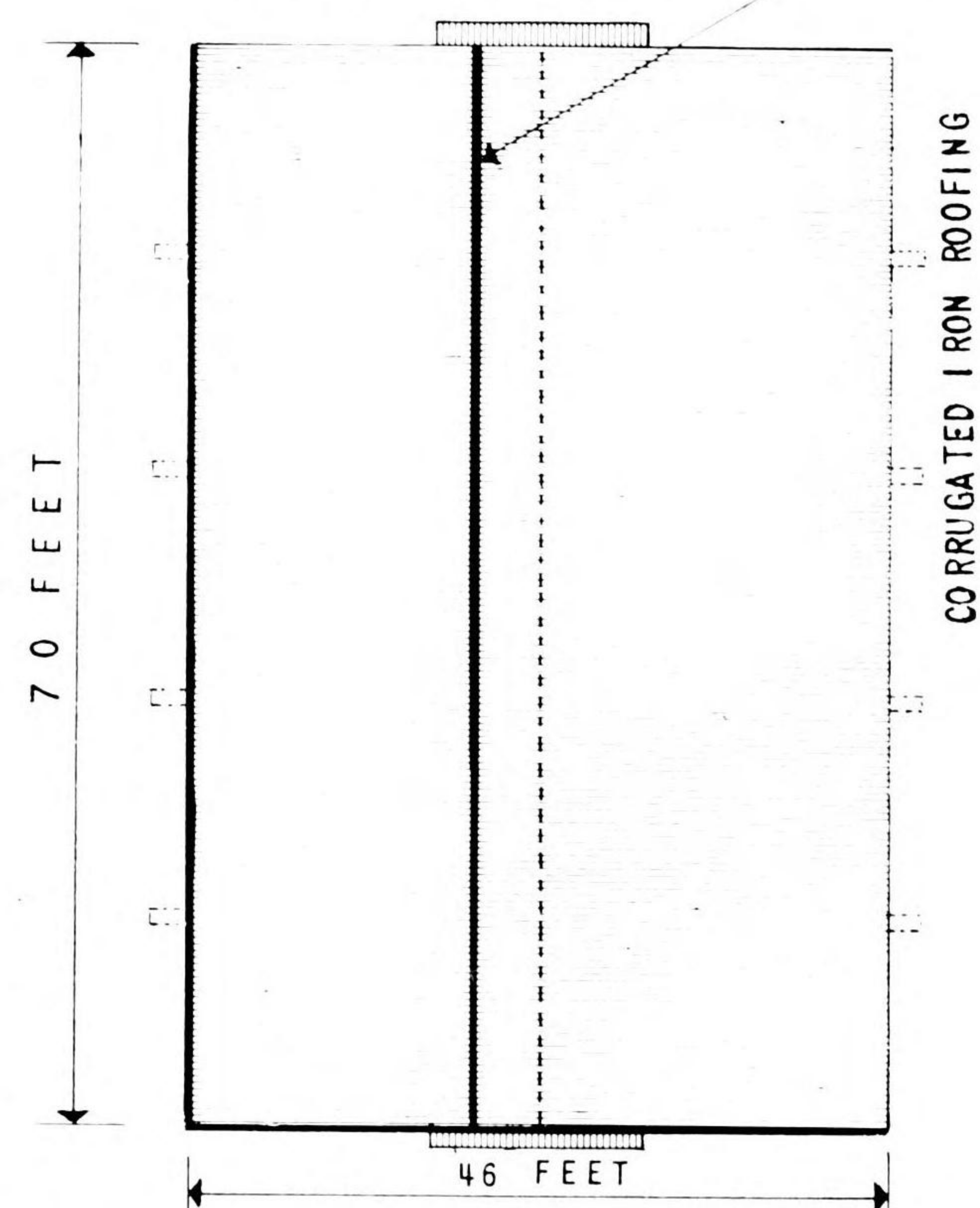
SHOPS

WOOD CONSTRUCTION



42' X 66' WOOD FRAME PROPELLER SHOP

GALVANIZED IRON SIDING



FLOOR PLAN

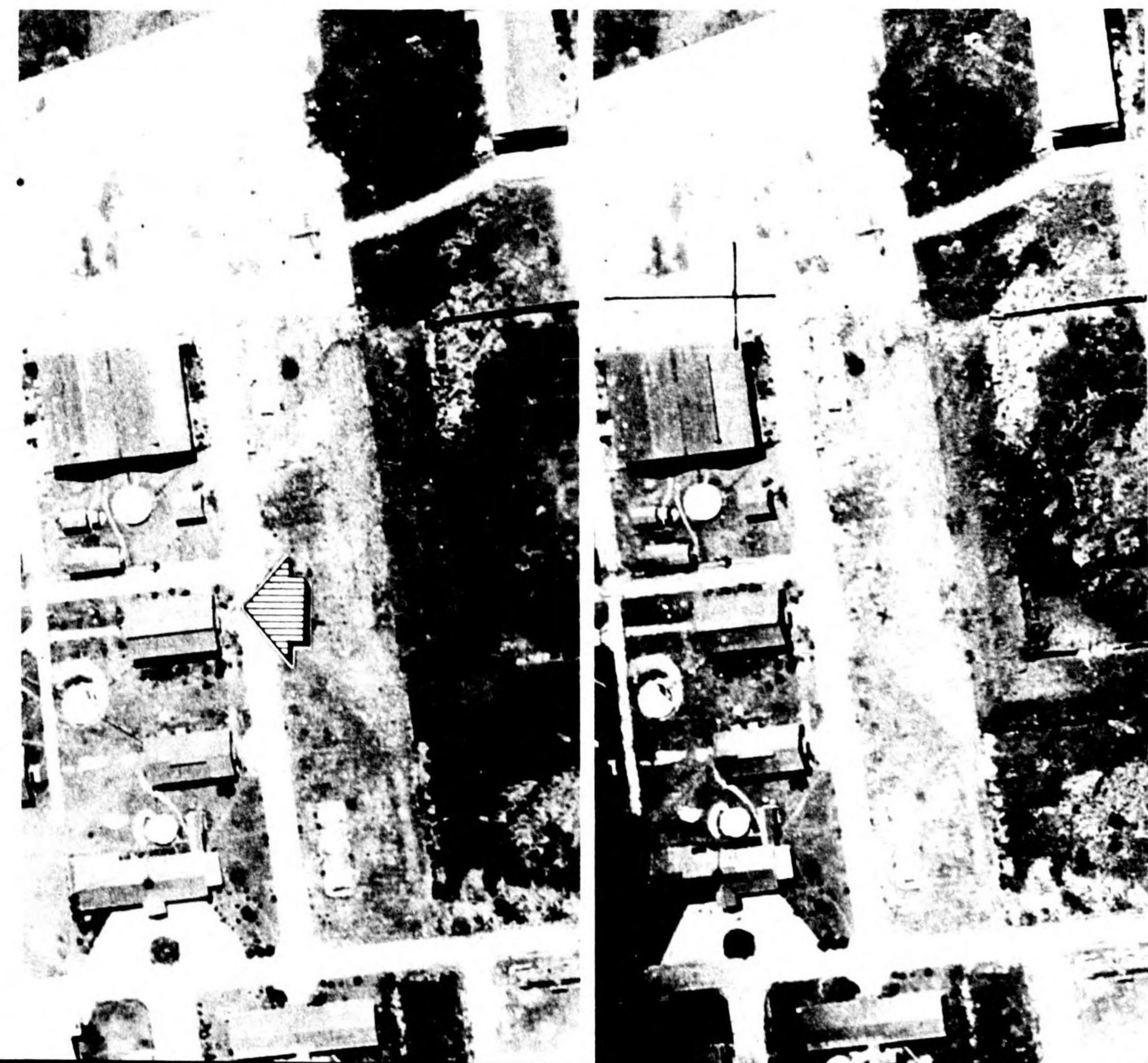
PROPELLER SHOP

This gable roofed building is 25 feet in height to the eaves. Four pairs of buttresses catch the thrust of the trusses which are spaced 13 feet apart. A continuous extended ridge light aids in the ventilation of the building. Interior walls are vertically sheathed with wood siding. Exterior walls, buttresses, and roof surfaces are covered with corrugated galvanized iron.



PROPELLER SHOP INTERIOR

SAIPAN



G A R A G E

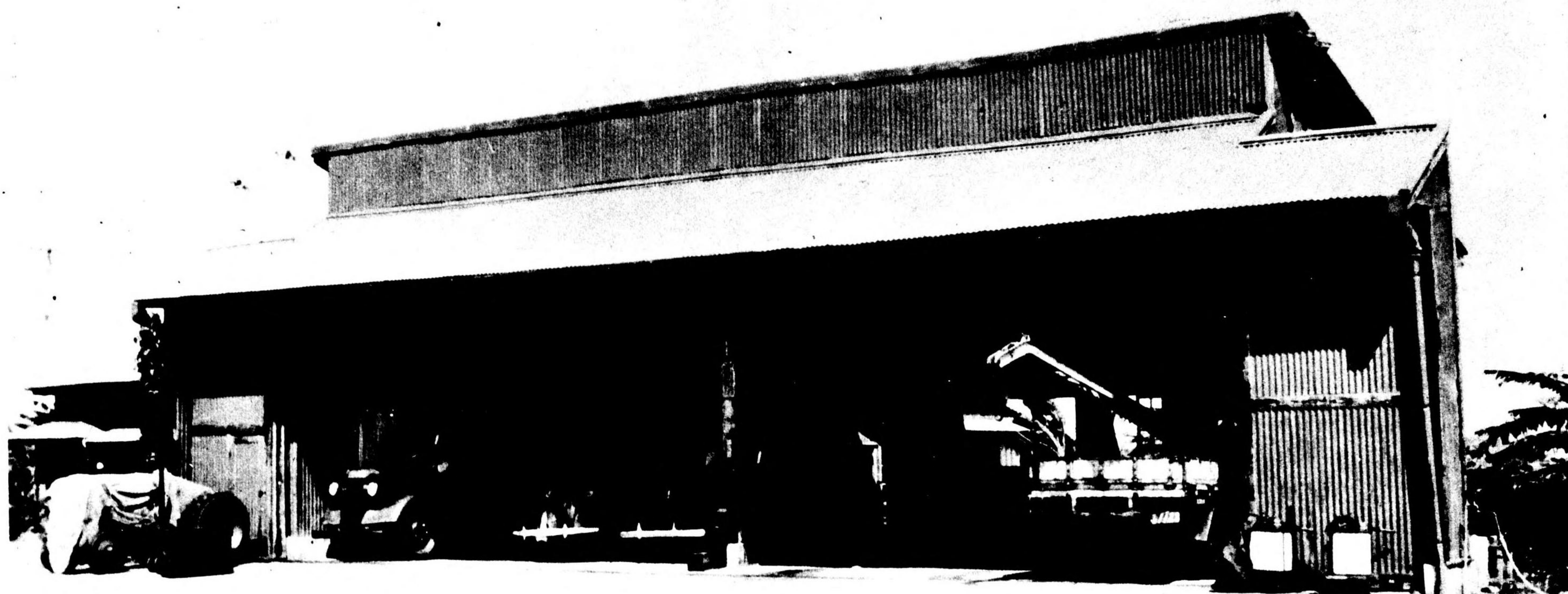
SHOPS

WOOD CONSTRUCTION

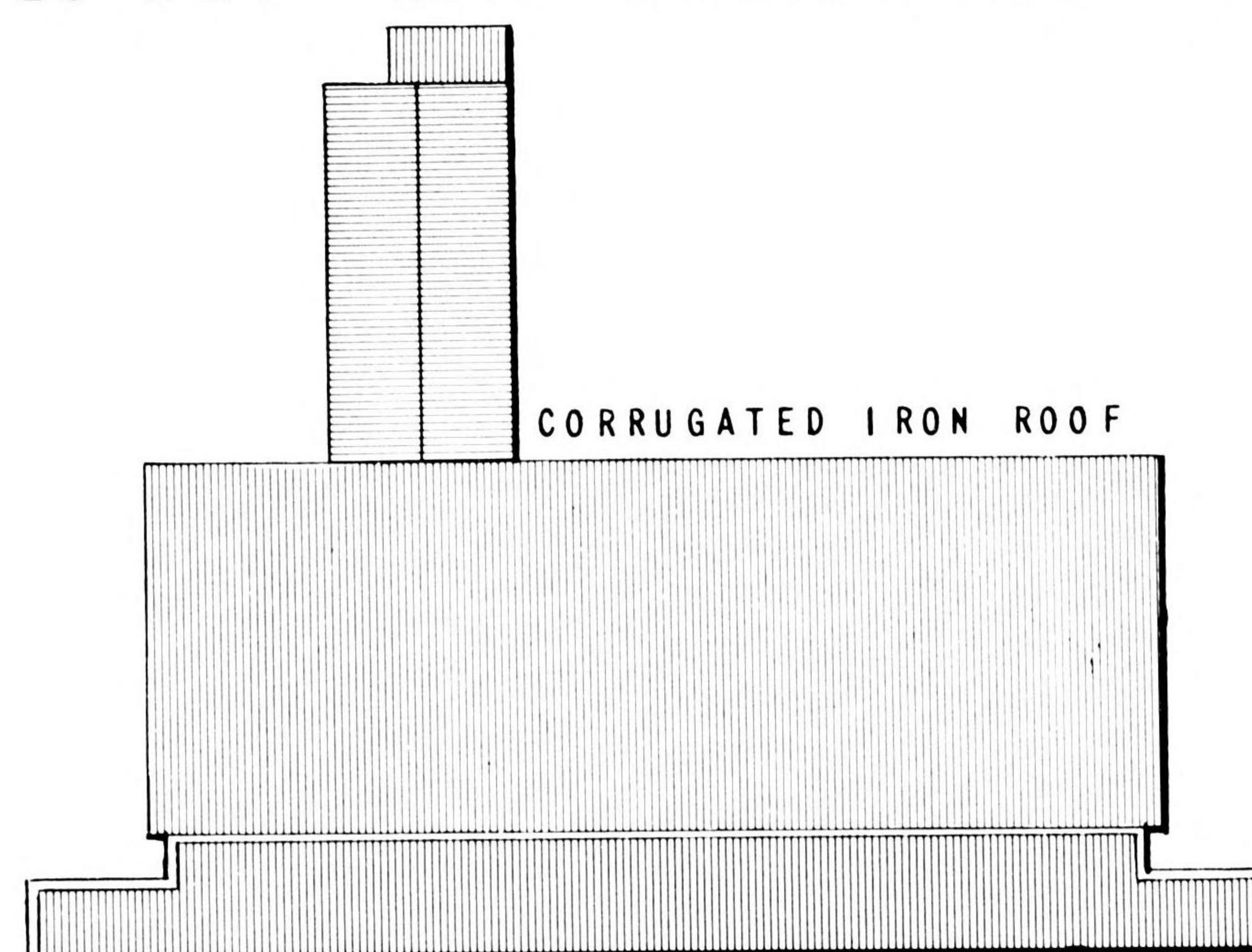
Crash trucks, fire trucks, repair trucks and station motor vehicles are serviced in this shed roofed garage. The shed covering the sliding doors extends beyond the long dimension of the building and, therefore, is the chief interpretation key.

A repair pit is dug into the concrete slab floor. Interior walls are unsheathed. Exterior walls and roof surfaces are covered with corrugated galvanized iron.

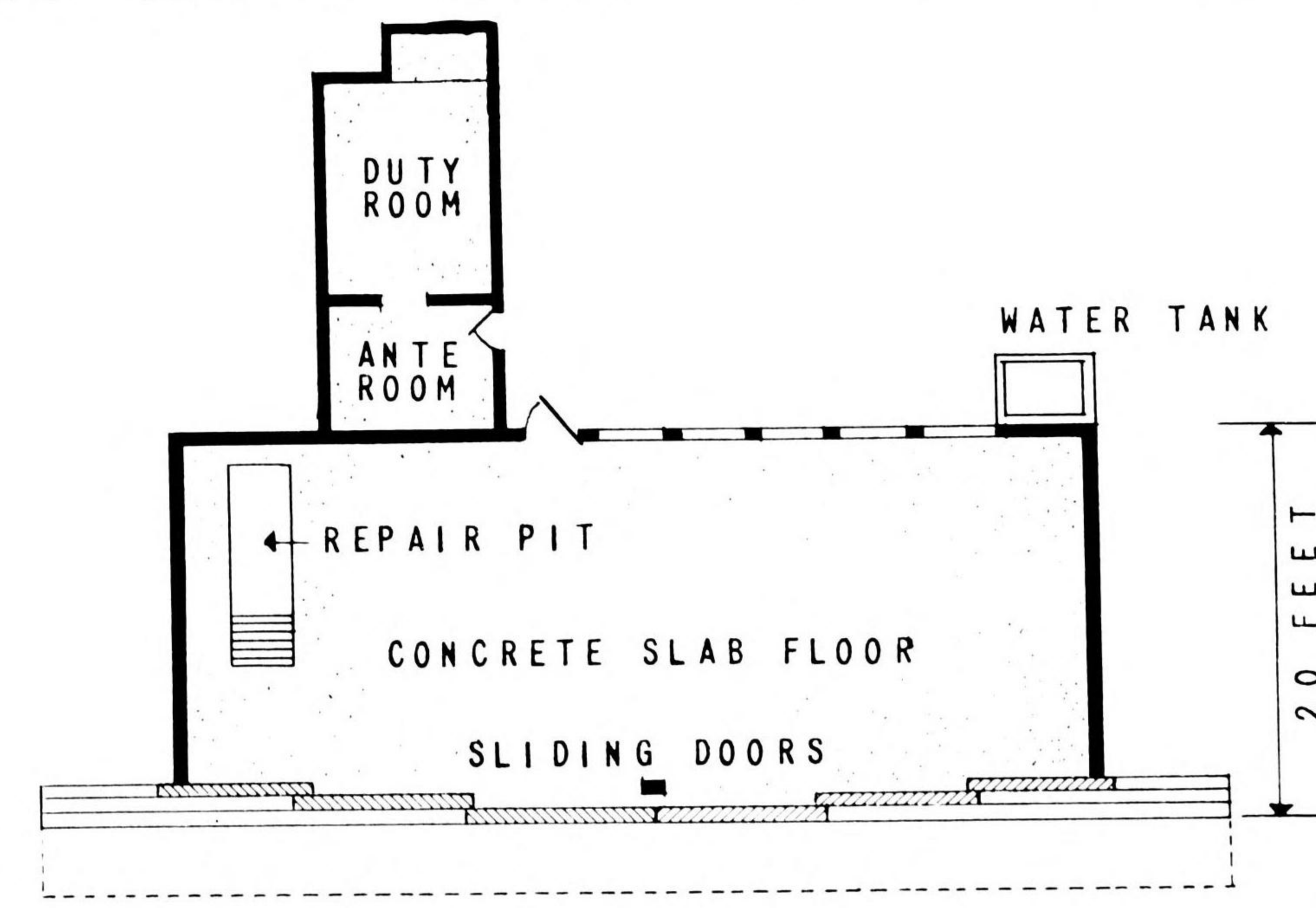
A gable roofed duty room butts into the back wall of the garage. A rectangular concrete water cistern collects the water fed to galvanized gutters from the shed roof surfaces. Note the distinctive shape of the plan.



20' X 54' WOOD CONSTRUCTION MOTOR VEHICLE GARAGE . . . SAIPAN



ROOF PLAN

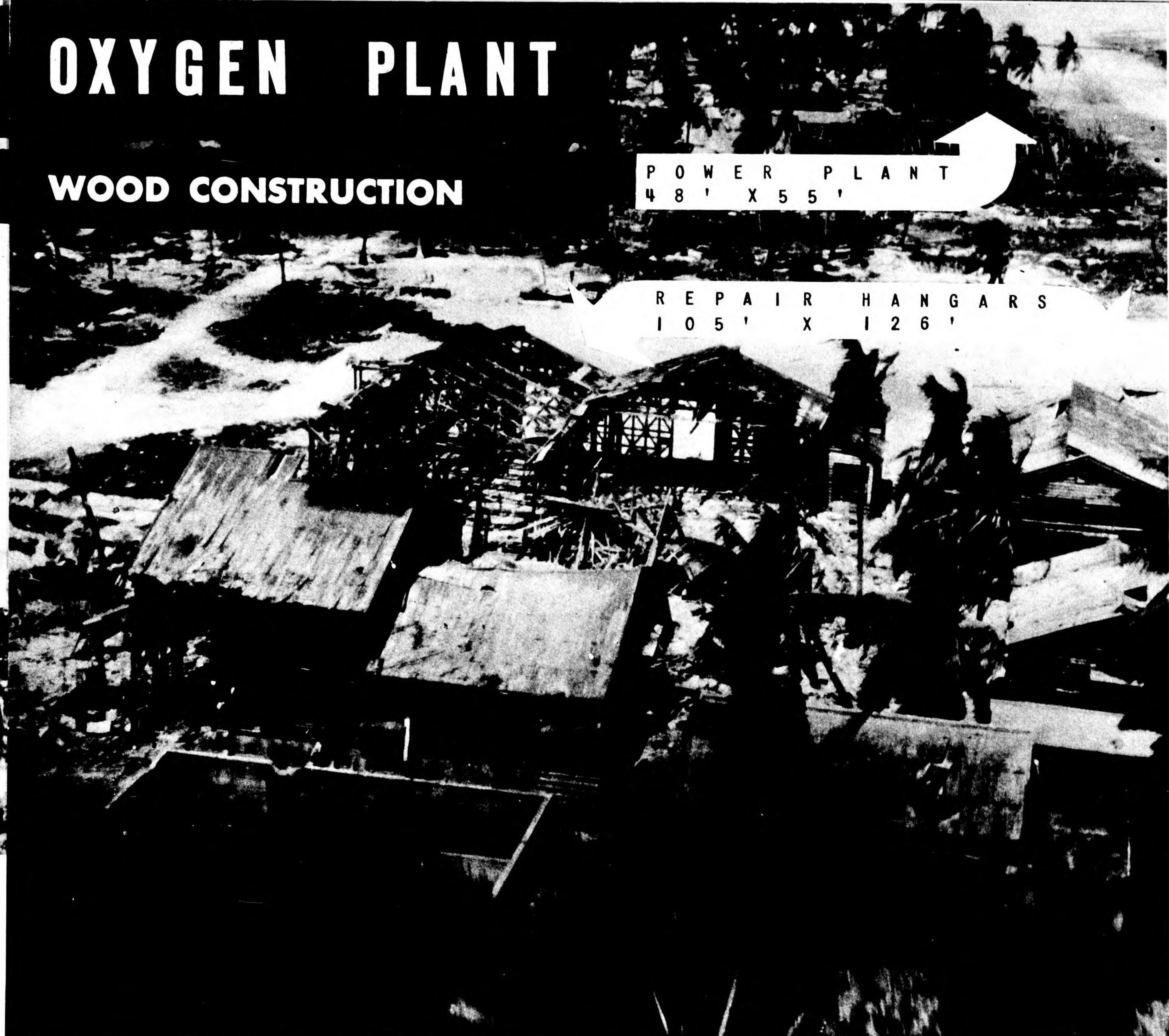


FLOOR PLAN

RESTRICTED 13.03

OXYGEN PLANT

WOOD CONSTRUCTION



POWER PLANT
48' X 55'

REPAIR HANGARS
105' X 126'

49' X 79' OXYGEN GENERATING PLANT • WOTJE



13.04 RESTRICTED

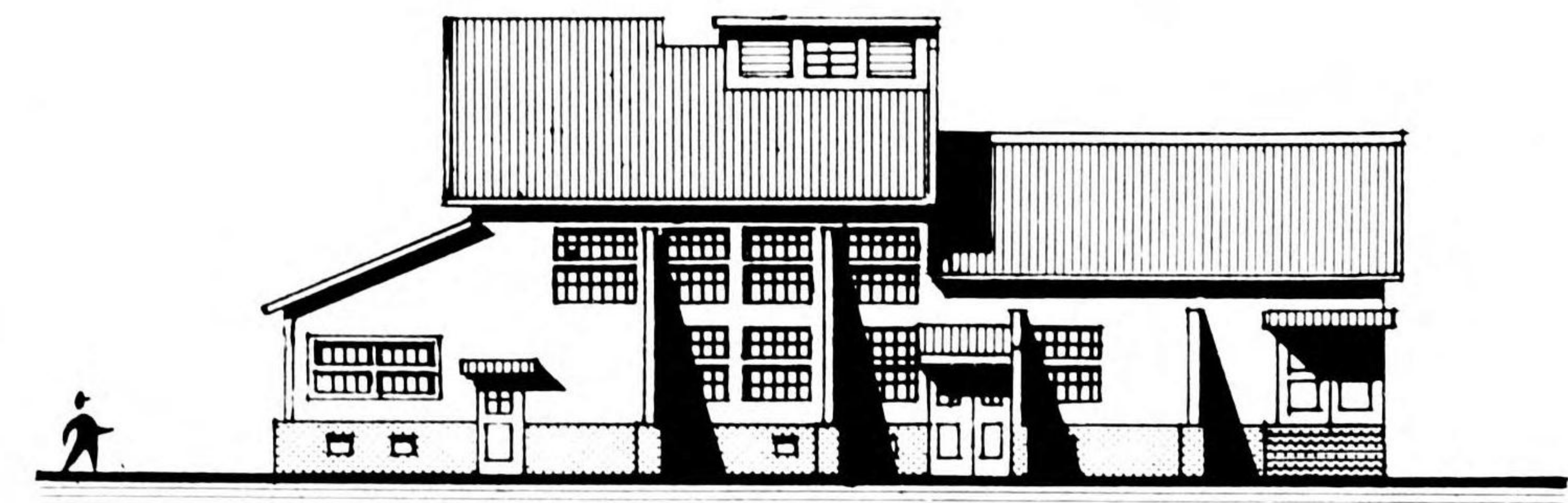


OXYGEN PLANT

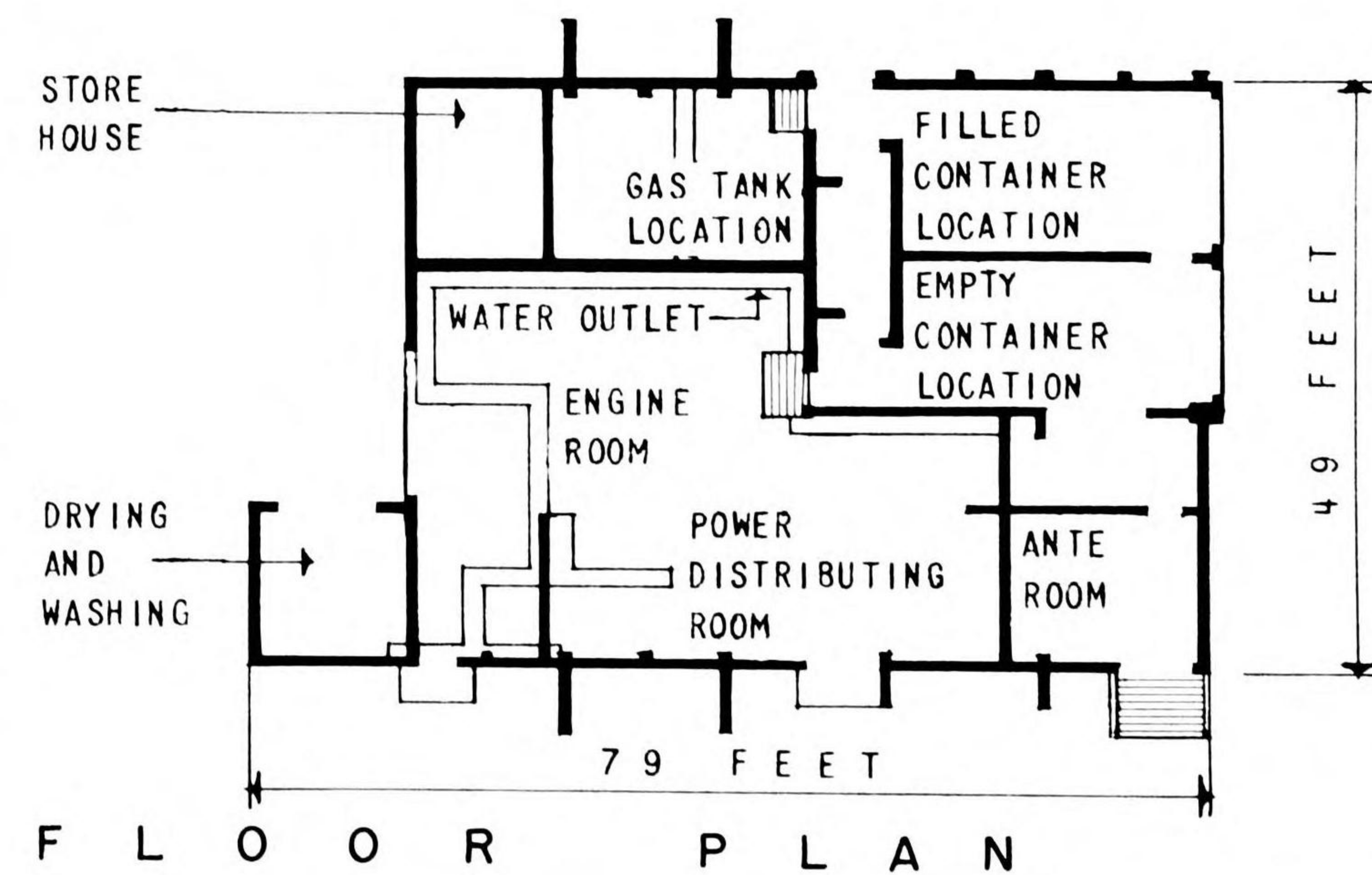
The Oxygen Generating Plant on Wotje Island, was located in a repair hangar area. Construction is identical to the same unit found on Saipan. The concrete tank adjacent to the structure contained water used in the generation of oxygen. Note the reverse ridge light present on the high portion of the divided gable roof.



END ELEVATION



SIDE ELEVATION



OXYGEN PLANT

OXYGEN PLANT

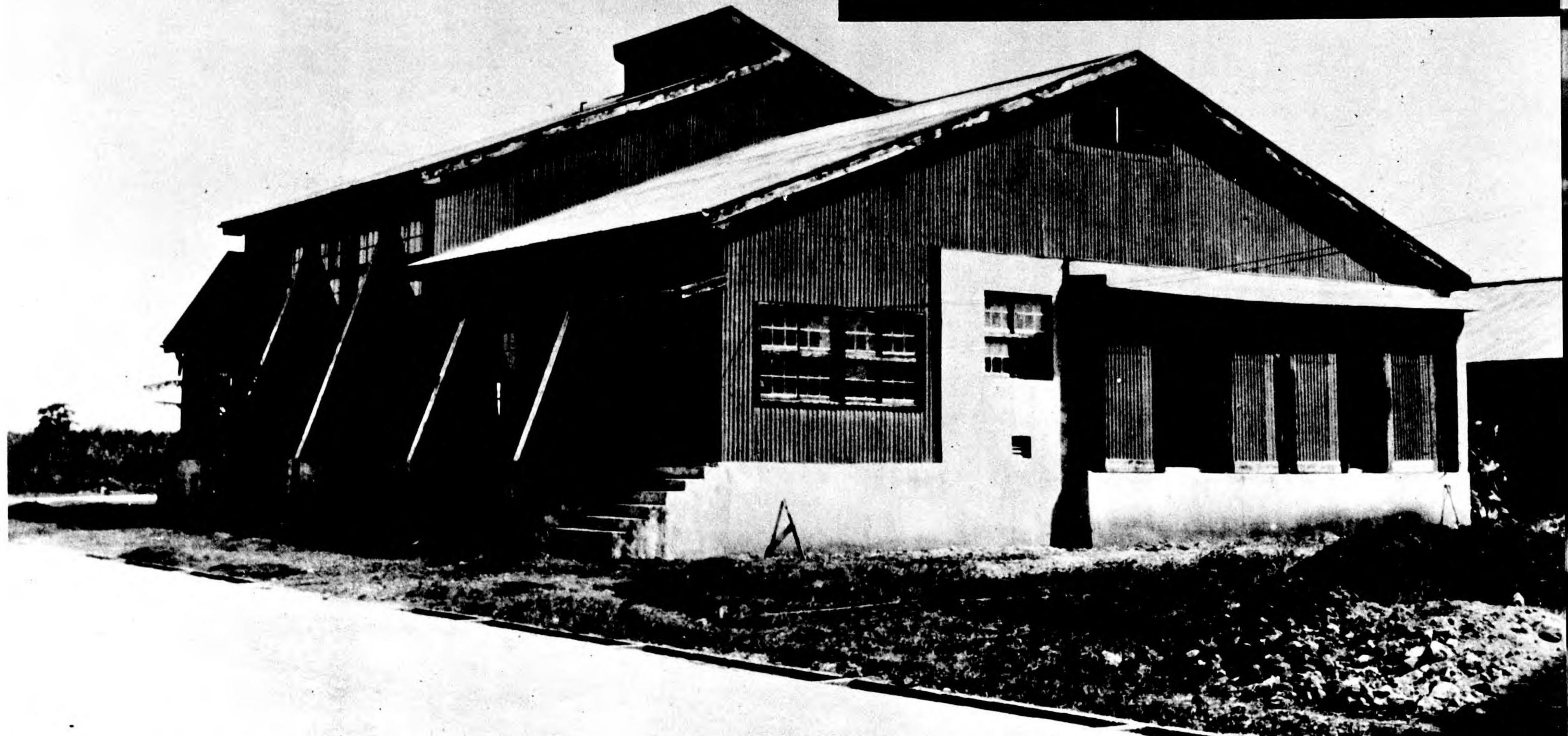
WOOD CONSTRUCTION

This standard structural form houses the equipment necessary to the generation of oxygen. Oxygen is manufactured on the field in an attempt to make the layout self-sufficient and to avoid dependence on shipments of oxygen in cylinders.

The building is rectangular in plan and of concrete construction to a point approximately 5 feet above grade. The remainder of the structure is of wood framed construction. A concrete slab floor is set at different levels to accommodate the steps in the oxygen generating process.

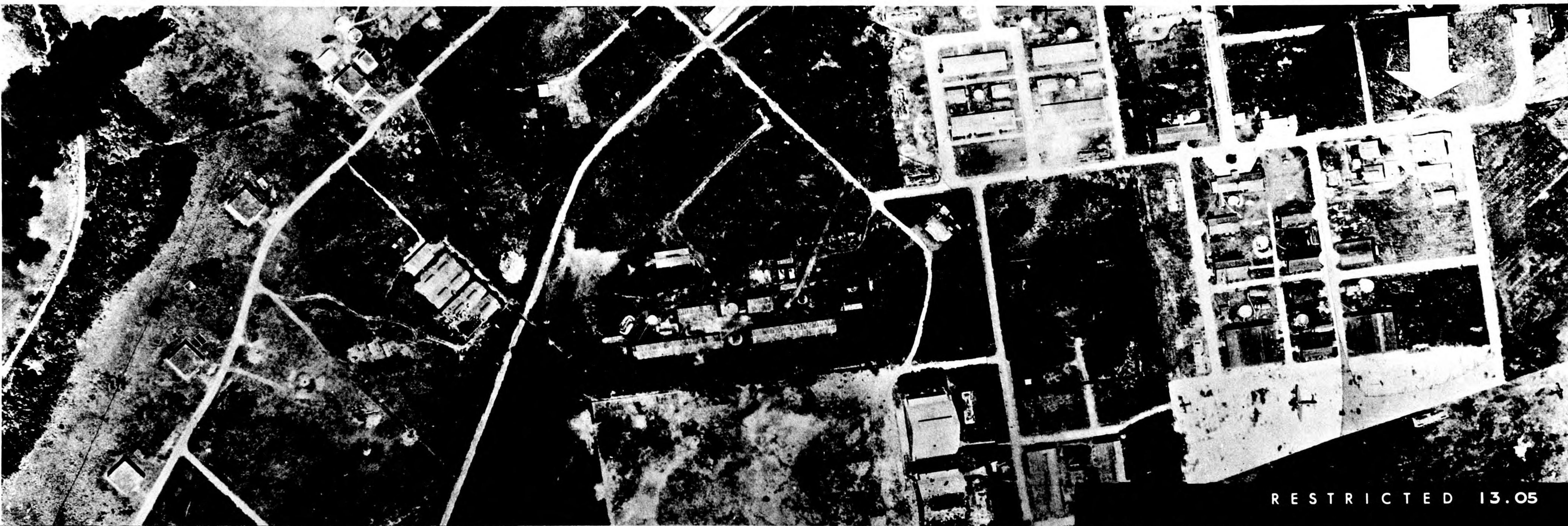
Buttresses support the side walls and catch the thrust of the trusses which span 49 feet. Exterior side walls, buttresses and roof surfaces are sheathed with corrugated galvanized iron. Wooden awnings protect all doorways. Interior partitions segregate the container storage rooms from the process rooms.

Note the relative location of the Oxygen plant on Aslito Airfield with respect to the other airfield facilities.



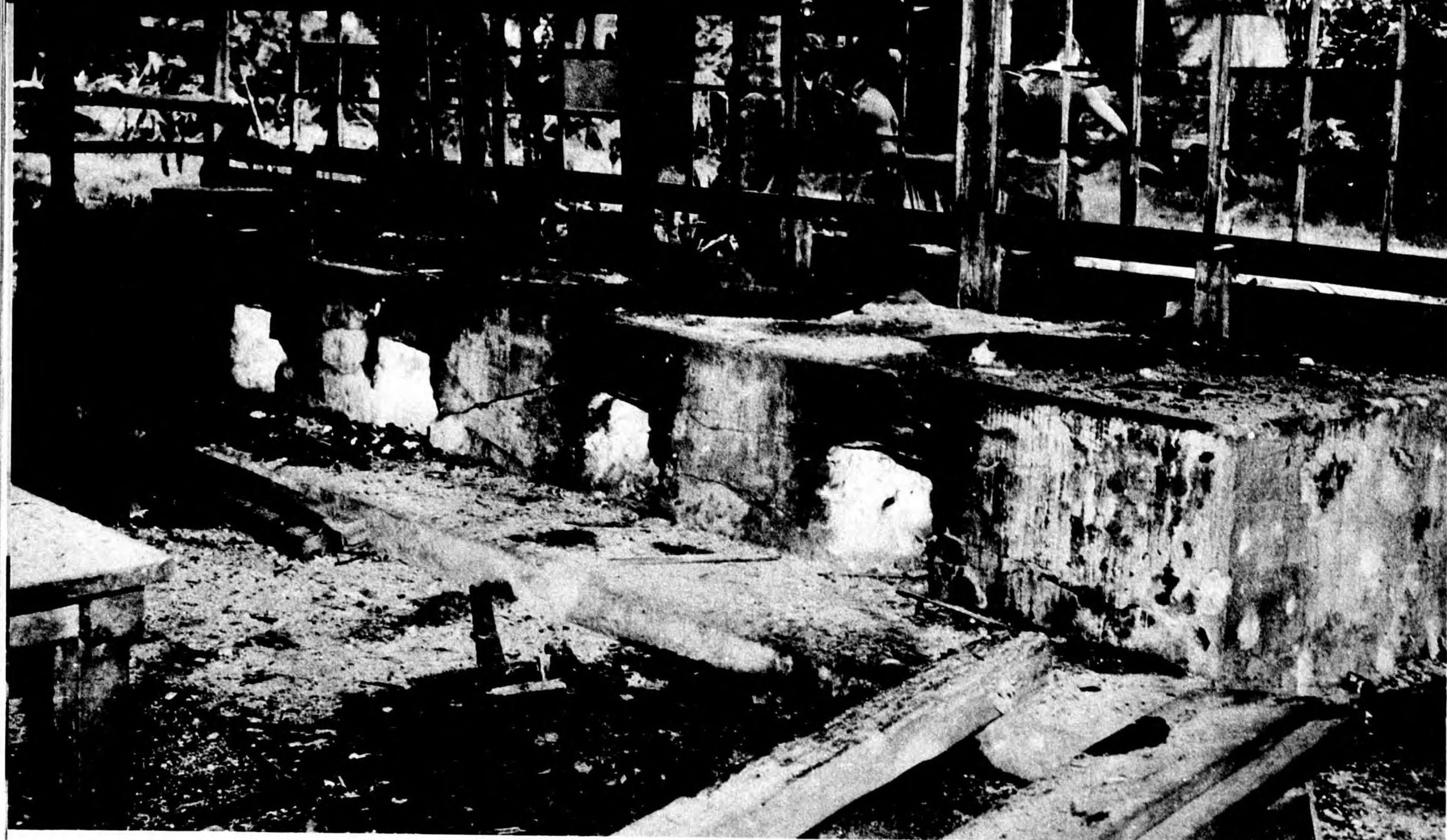
LOCATION STUDY OF OXYGEN PLANT

49' X 79' OXYGEN GENERATING PLANT • ASLITO AIRFIELD, SAIPAN



GALLEYS

WOOD CONSTRUCTION



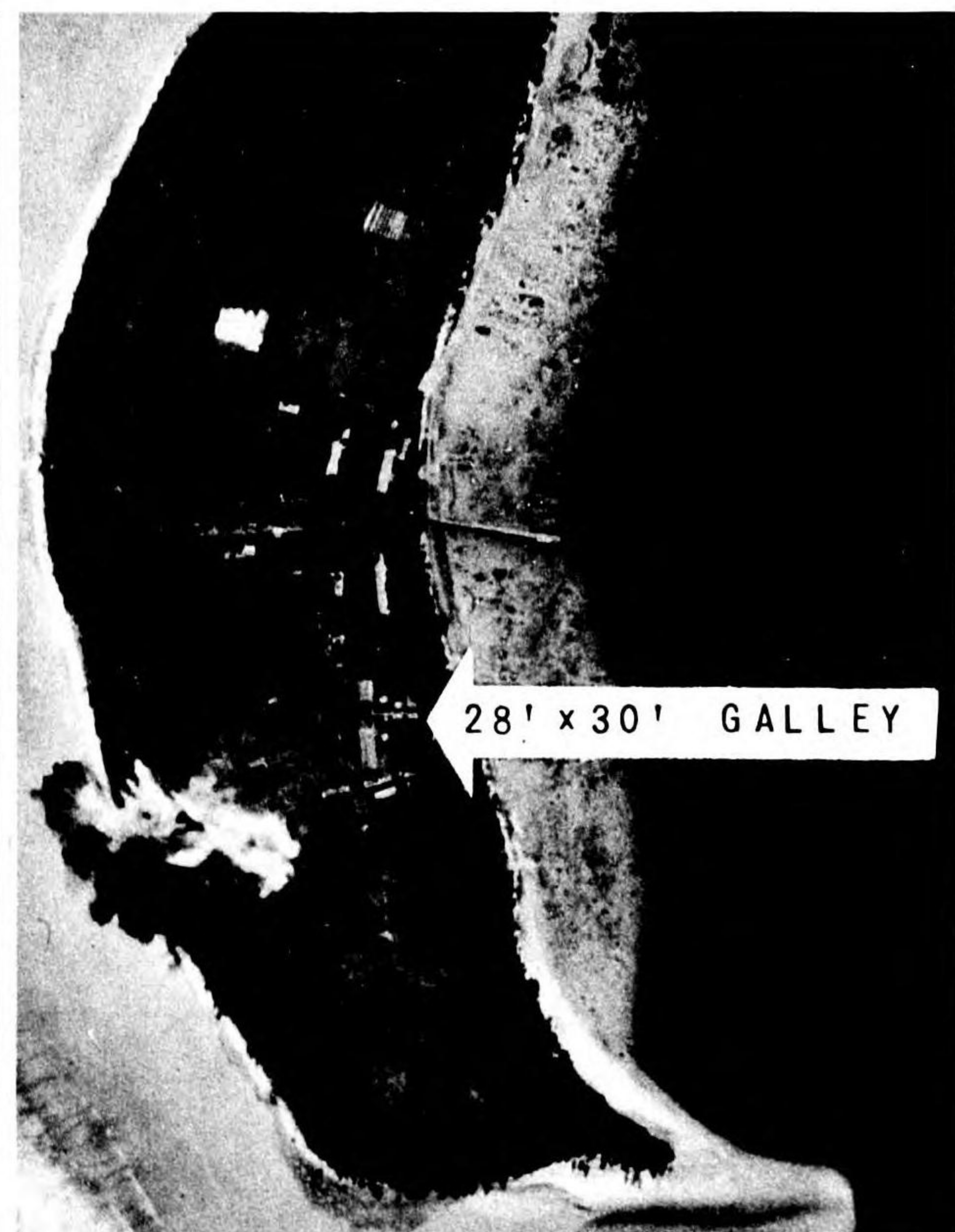
INTERIOR AND EXTERIOR OF 30' X 48' MAIN GALLEY · MAJURO

TYPICAL GALLEY CONSTRUCTION

Interpretation of galleys is difficult because there is no standard galley building. Interpretation tips include the existence of stacks servicing ovens and the presence of louvered continuous ventilators if the structure is gable roofed. Galleys logically service mess halls and are in housing areas.



30' x 48' GALLEY

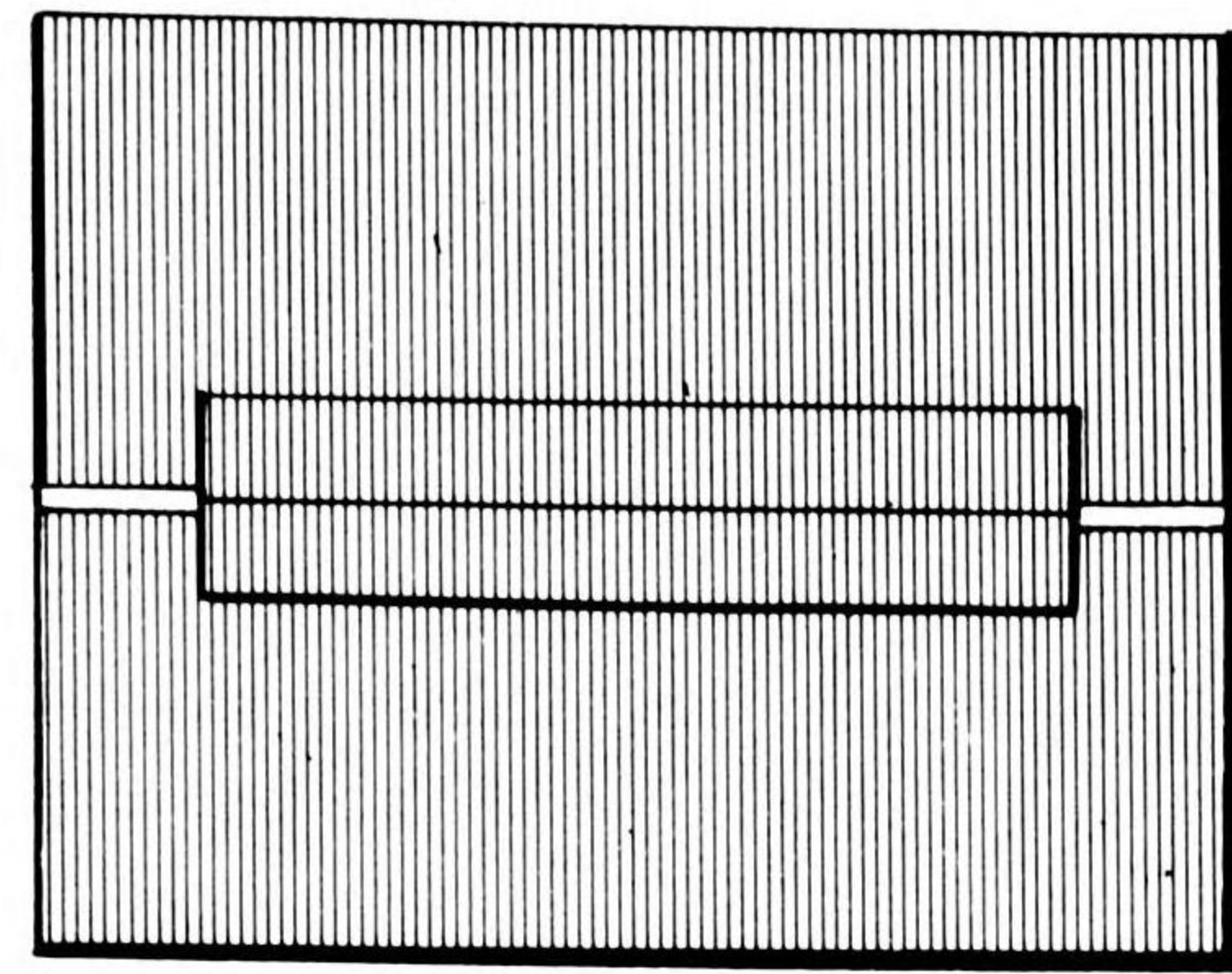


28' x 30' GALLEY

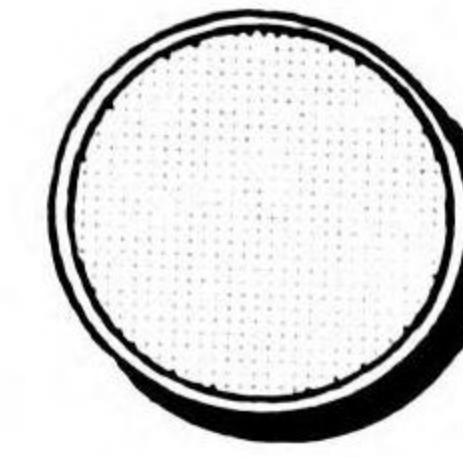
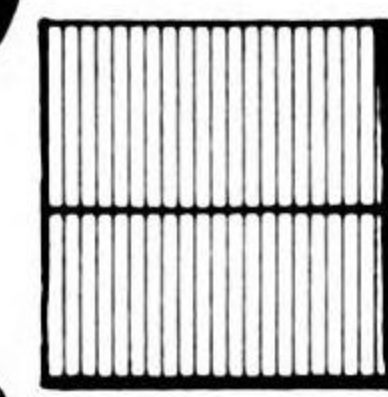
28' X 30' OFFICERS GALLEY ◀ DARRIT ISLAND · MAJURO



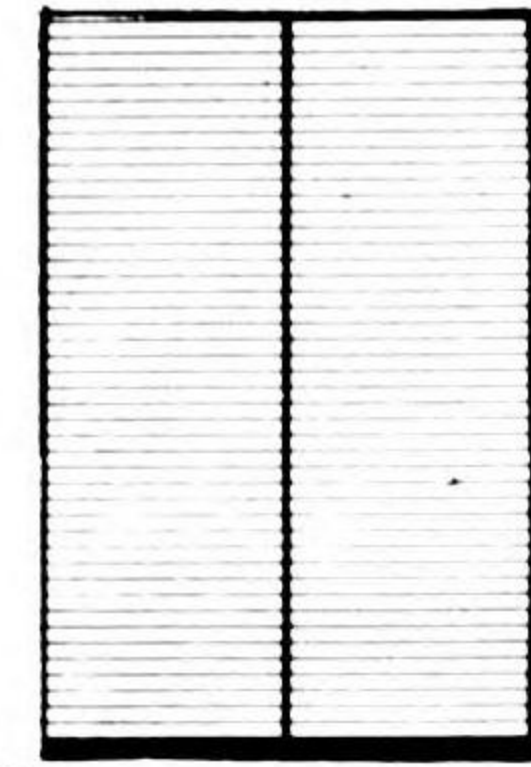
POWER DISTRIBUTION STATION



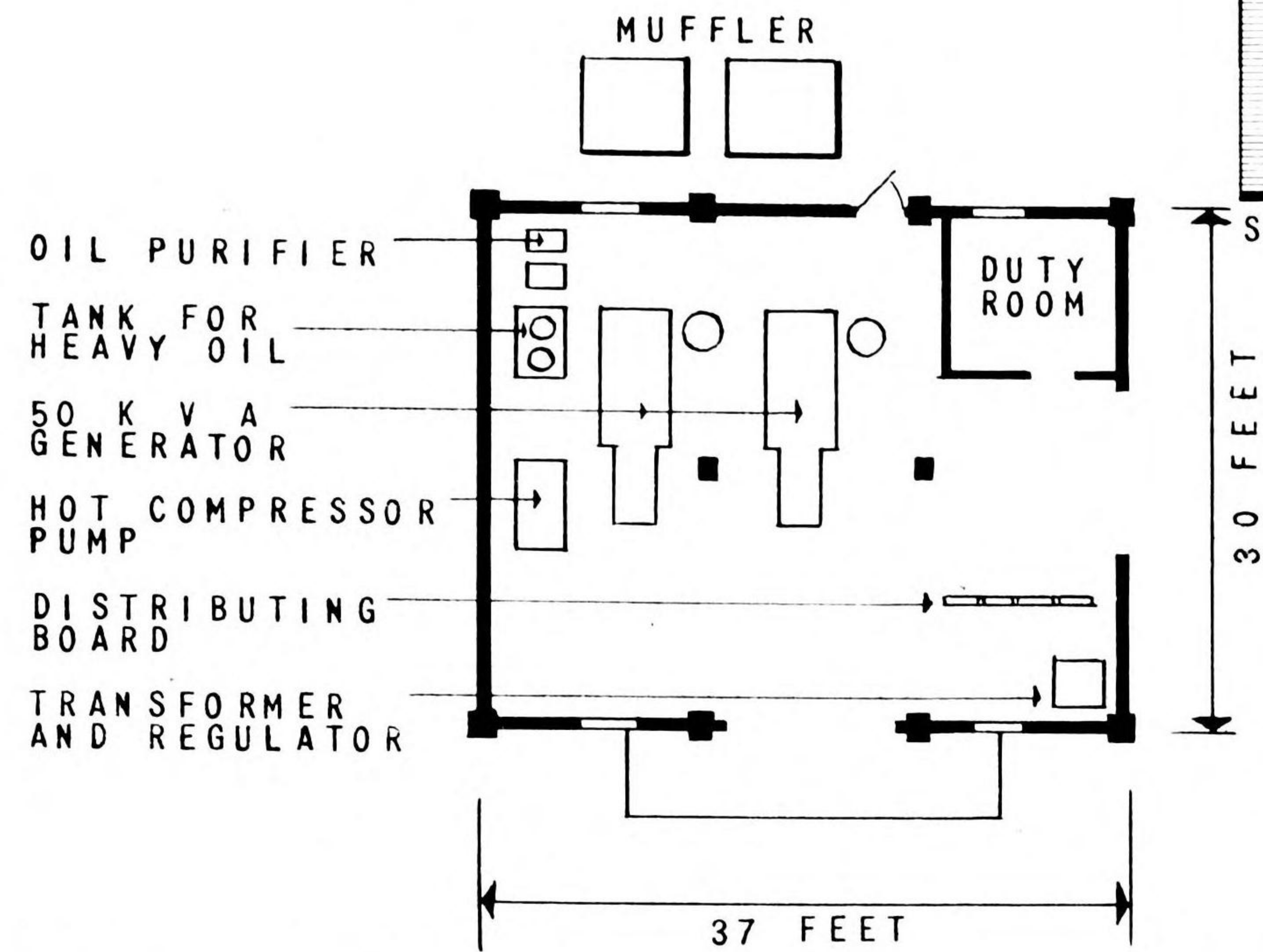
30x36 WATER COOLING TANK
Page



LUBRICATION STATION



STOREHOUSE



POWER DISTRIBUTION STATION FLOOR PLAN

POWER DISTRIBUTION



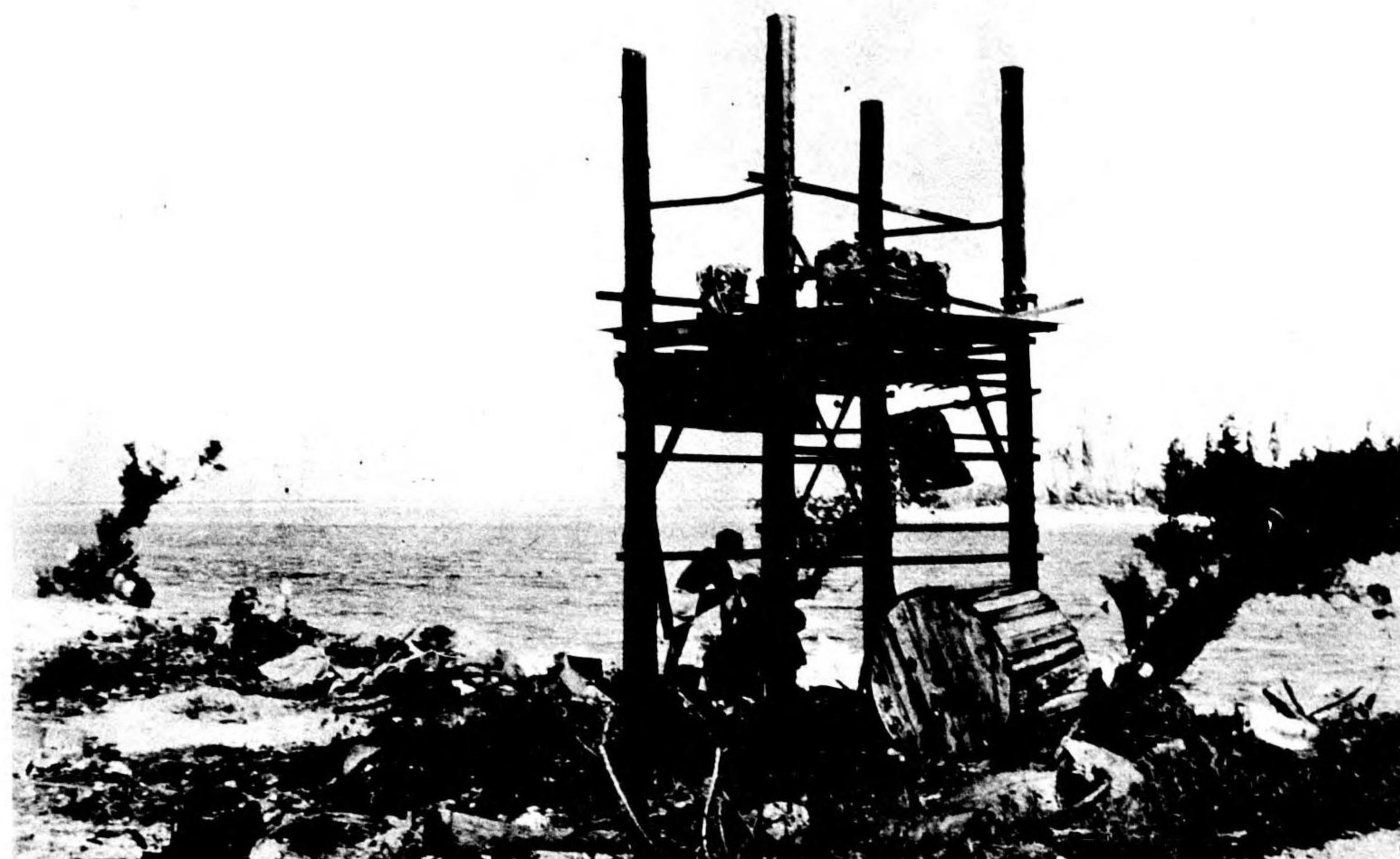
SAIPAN ELEVATION OF CONCRETE POWER DISTRIBUTION STATION

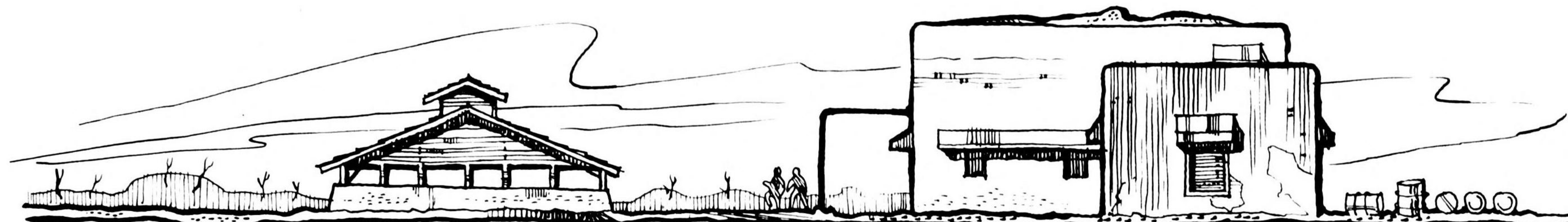
The Power Distribution Station on Aslito Airfield, Saipan, actually served as a subsidiary power plant to the standard 3 building group located on the opposite extremity of the field.

This 2 story reinforced concrete building oddly enough was capped with a gable roof. Masonry curtain walls are set between the reinforced concrete columns which are spaced 12 feet apart.

A standard 30 by 36 foot 6 vatted water cooling tank services the 2-50 KVA Generators housed in the station. Two fuel tanks, a lubrication station, and a storehouse are also adjacent to, and service the building.

The open framework at left is a transformer station. The four wooden columns support a transformer platform set about twelve feet above grade. The structure, usually about 8 feet square in plan, is commonly found near barracks, hangars and shops, supplying current for use in the buildings.





STANDARD POWER PLANT

The standard Military Power Plant consists of four buildings. Regardless of the geographic location of the airfield serviced, the plant is present and 3 of the 4 standard buildings are in the same plan relationship to each other.

The first building of the group houses the 2 - 100 KVA diesel oil driven generators. The generator building is similar in construction to the 52 by 57 foot concrete fuel storage building. It is 48 feet wide, 55 feet long and stands 22 feet above grade. Six - 4 foot square interior columns support the 4 foot concrete slab flat roof. Coral is placed on the roof below the parapet as additional protection against bombing. Concrete awnings protect the 2 foot 6 inch side walls.

The second standard power plant structure is the reinforced concrete oil storage building. The flat roofed structure is 19 feet wide, 30 feet long and stands 19 feet above grade. Concrete awnings are set over the door and 3 windows.

Two diesel oil storage tanks are housed in this building

which sits approximately 30 feet away from the main generator building. The long dimension sides of each building are parallel to each other.

The third standard building serves as a water-cooling tank. The 30 by 36 foot concrete tank is divided into 6 separate vats. It is covered by a gable roof containing a continuous louvered monitor. The side walls above the concrete are open. The roof is sheathed with corrugated galvanized iron. The structure sets approximately 30 feet from the generator building, its 36 foot side parallels the 48 foot side of the main building.

The fourth standard building in the group is a gable roofed shop 29 feet wide and 71 feet long. The dimensions and location of this structure are variable but it is always present in some form.

Location of the plant varies but the constant relative position of the standard dimension units makes identification relatively simple. Studies of the buildings that compose the unit are presented in the ensuing pages.

POWER PLANTS



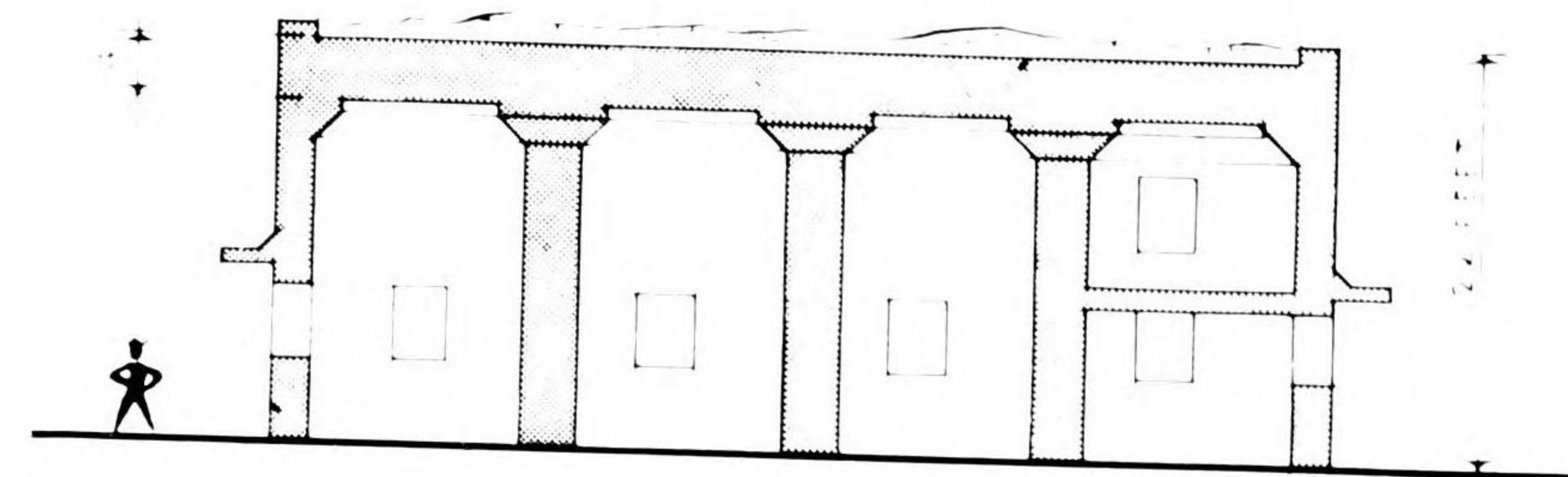
POWER PLANT, TAROA, MALOELAP

POWER PLANTS

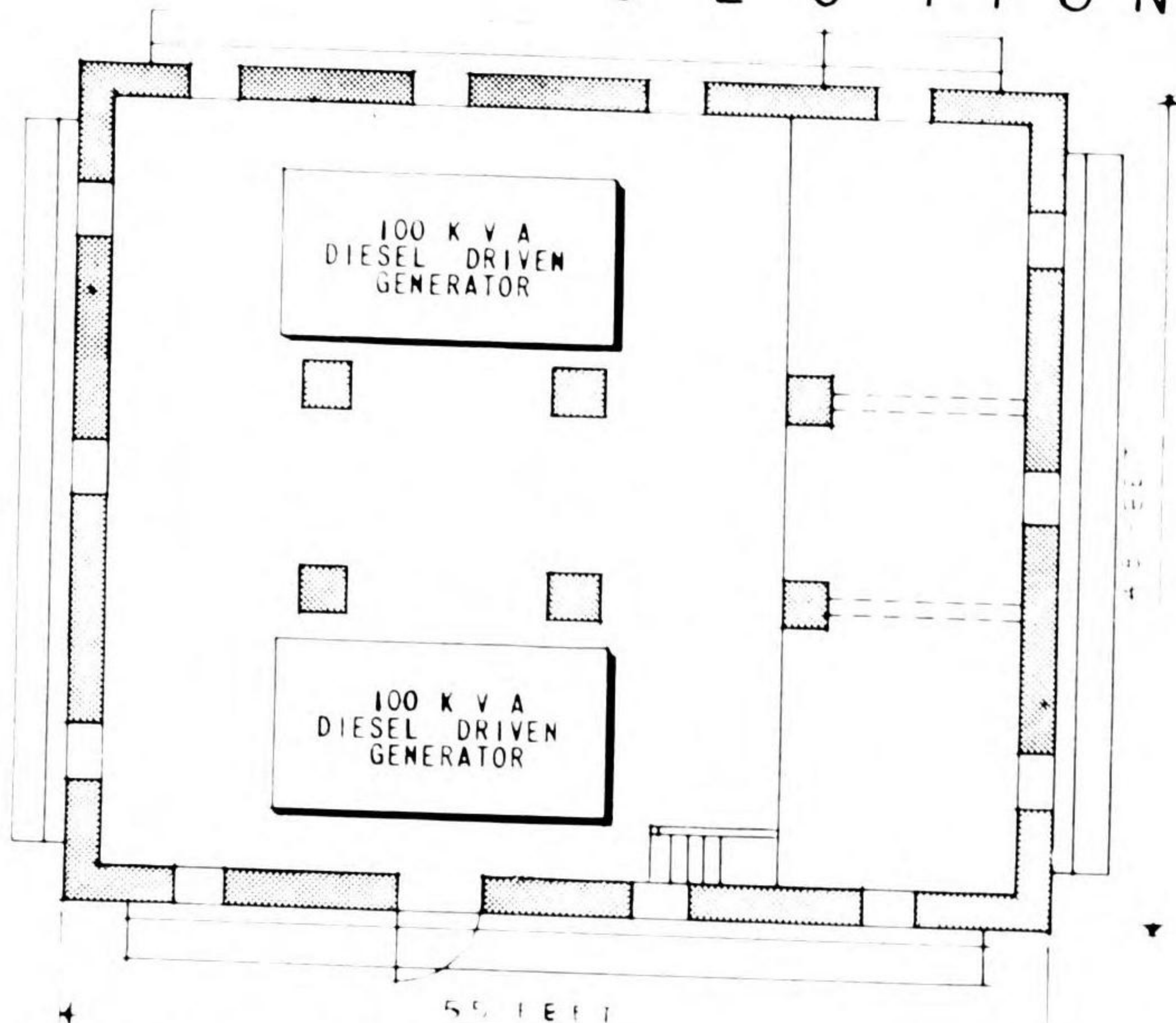
CONCRETE CONSTRUCTION



STANDARD POWER PLANT FOUR BUILDING LAYOUT



SECTION



14.02 RESTRICTED

STANDARD POWER PLANT

The 4 buildings that make up the standard Military Power Plant are present in the illustration on Taroo, Maloelap.

The building housing the 2-100 KVA Generators is similar in construction to the 52 by 57 foot concrete fuel storage building. It stands 22 feet above grade. Six 4 foot square interior columns support the 4 feet of reinforced concrete roof slab. A foot of coral is placed on the flat roof as additional protection. Concrete awnings protect all openings. Radar or a light anti-aircraft gun position have in some instances been found on the roof of the structure. Two steel pipes extend from one side wall of the building above the line of the windows and enter the ground near the long side of the 30 by 36 foot water cooling tank.

Note the pile of prefabricated trusses in the Maloelap illustration.

M A L O E L A P



M A L O E L A P

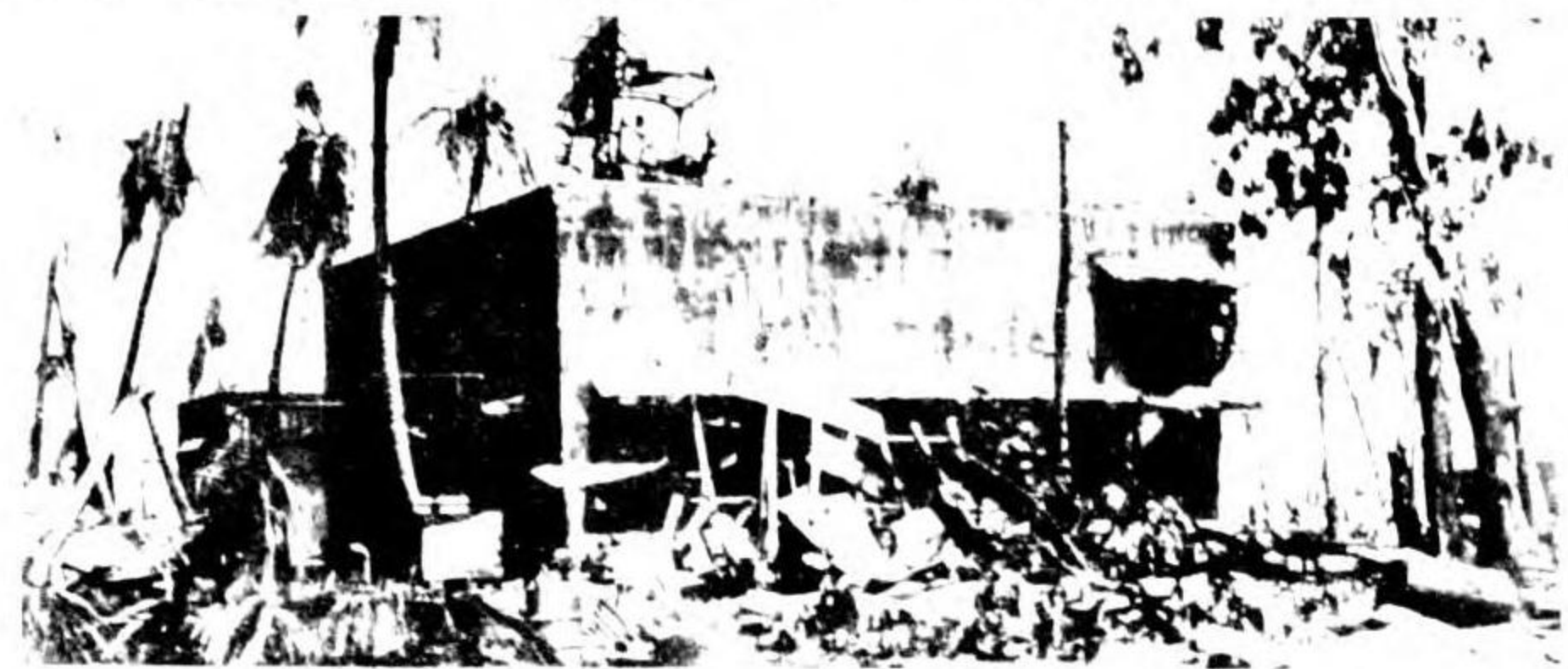


POWER PLANTS

FOUR BUILDING POWER PLANT GROUP

Location of the standard 4-building power plant varies. The stereo-pairs on this page illustrate the standard type buildings in the same relationship to each other, on Saipan, Wotje, Tinian, and Jaluit. The generator building on Namur served as a base for a bed spring type radar. Note that the shop building probably containing machinery is always presented but different in construction and plan size. On large airfields, such as Aslito on Saipan, subsidiary power plants are present. In general this 4-building unit is the main source of electric power servicing an airfield.

48' x 55' POWER PLANT - NAMUR



DIESEL GENERATOR - NAMUR



FOUR BLDG. POWER PLANT GROUPS - SAIPAN



POWER PLANT



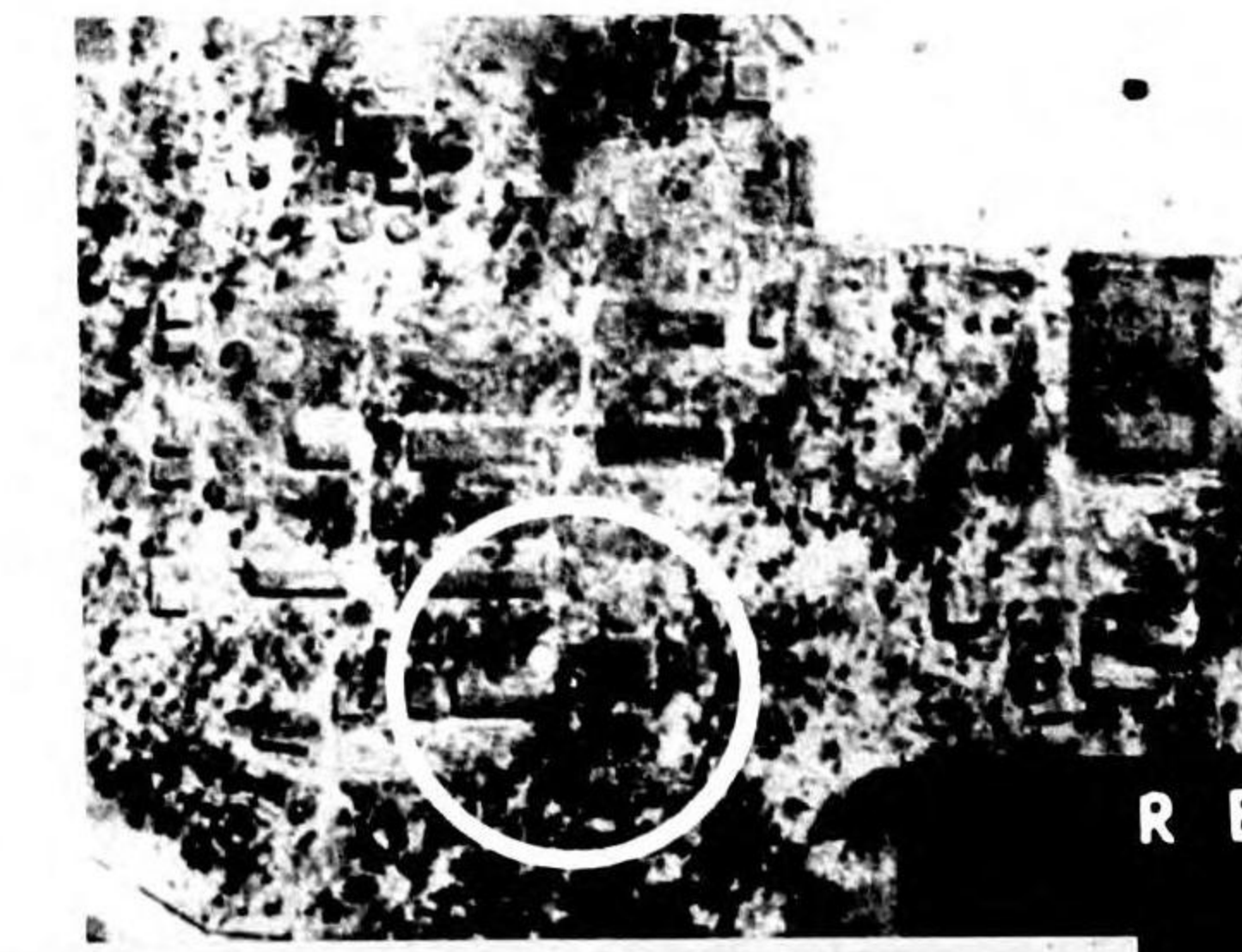
TINIAN



POWER PLANT



WOTJE



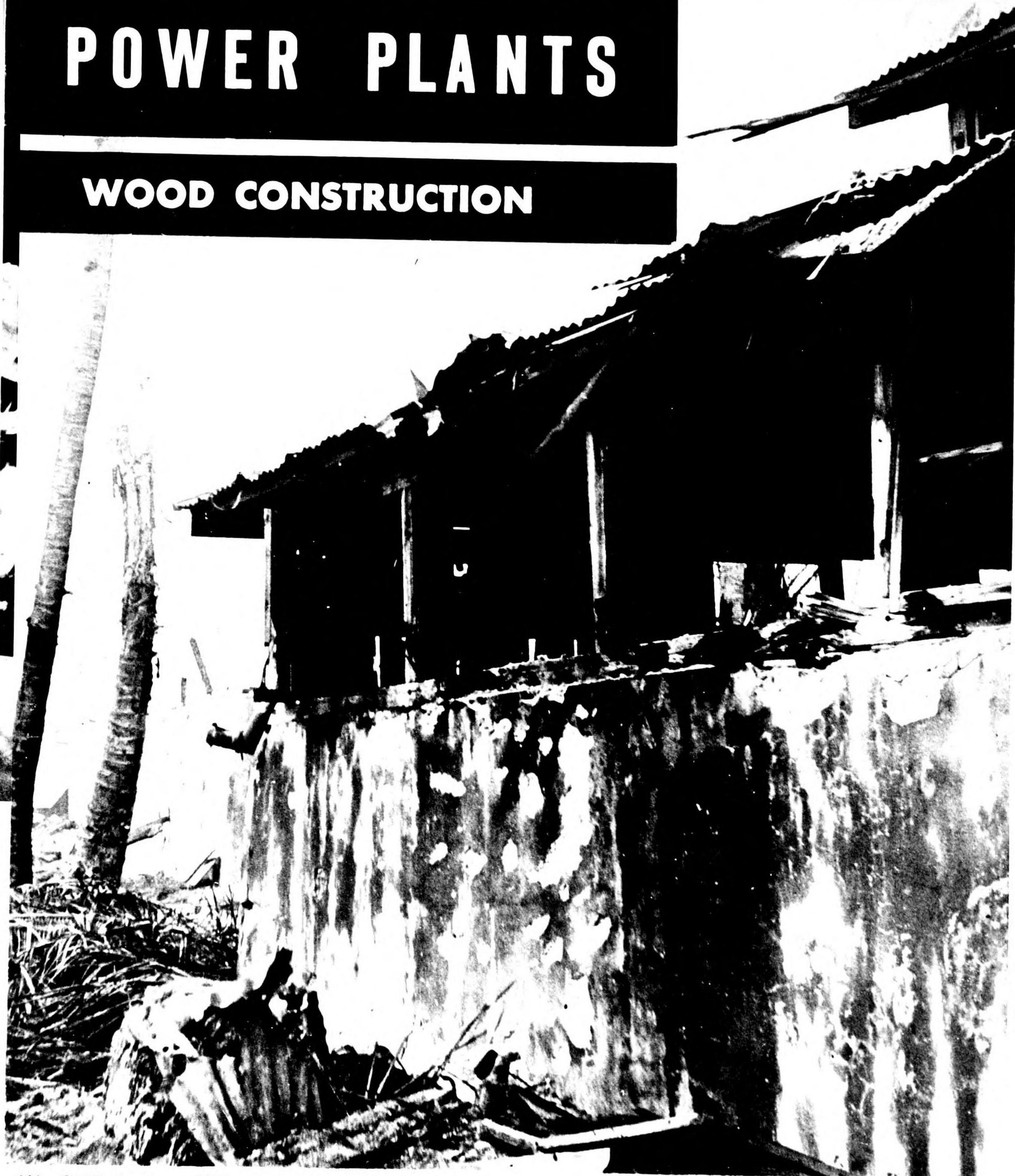
JALUIT

CONCRETE CONSTRUCTION

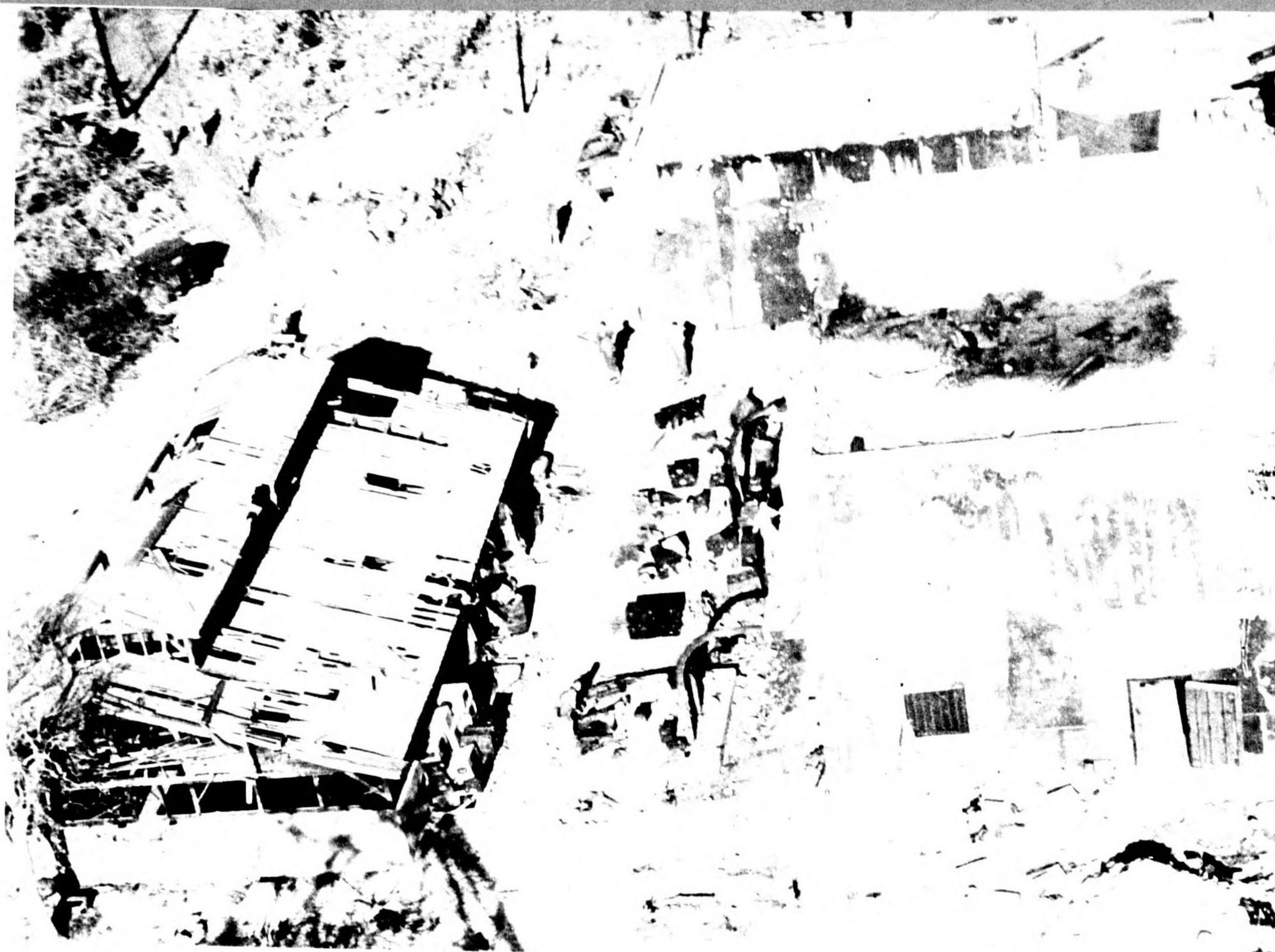


POWER PLANTS

WOOD CONSTRUCTION



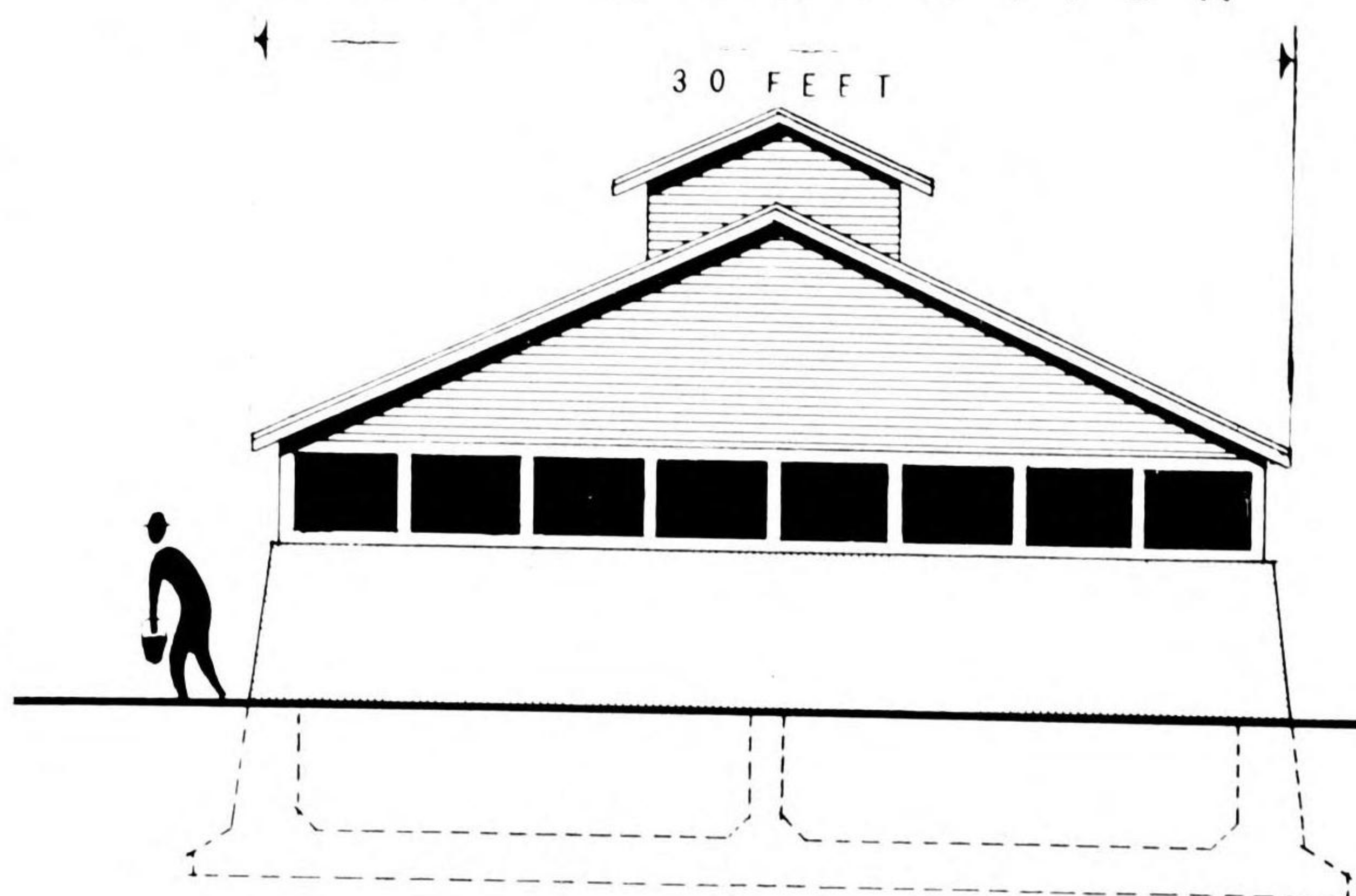
WOTJE ▼ KWAJALEIN ▲



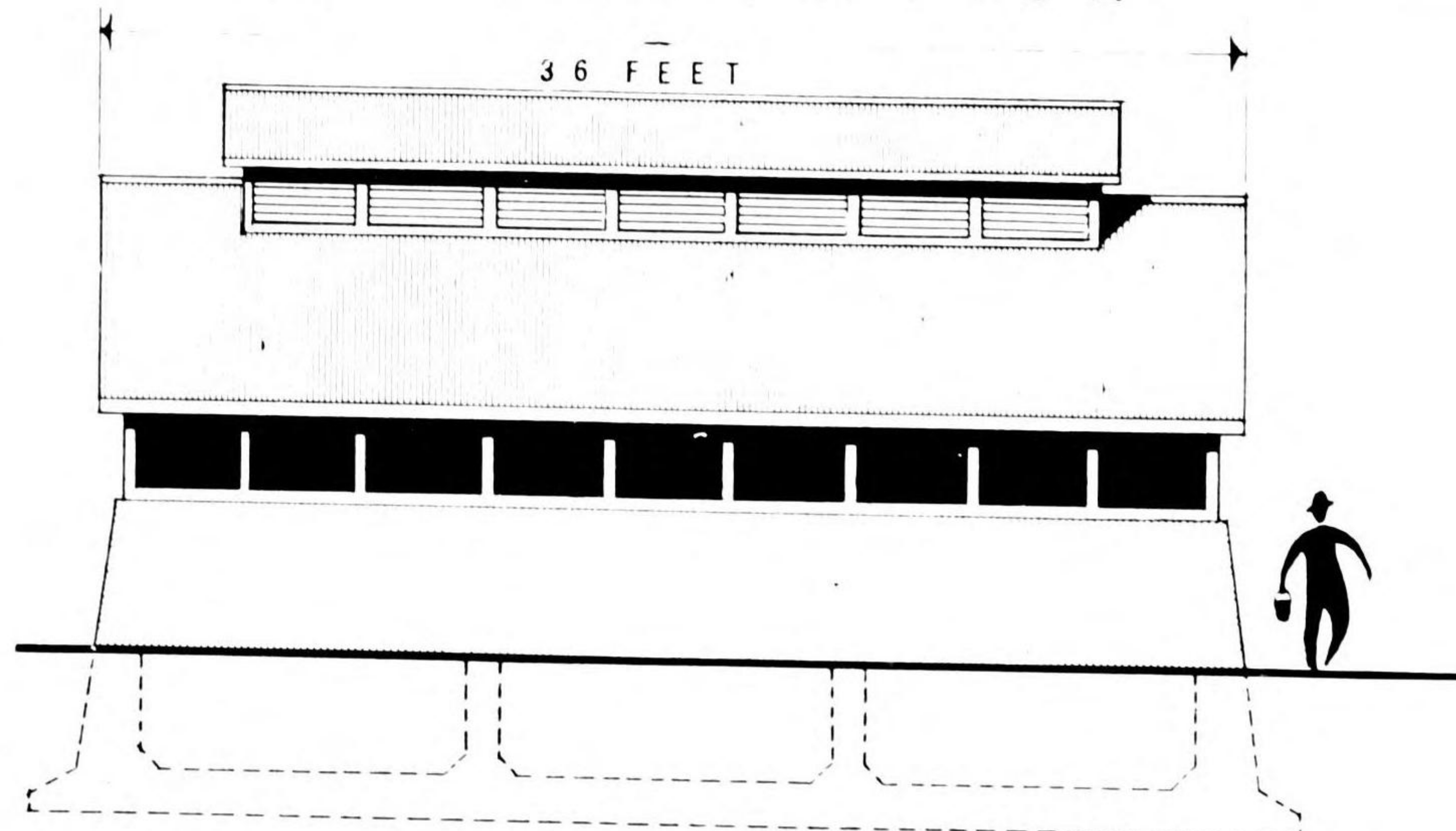
KWAJALEIN ▲ MALOELAP ▼



END ELEVATION



SIDE ELEVATION

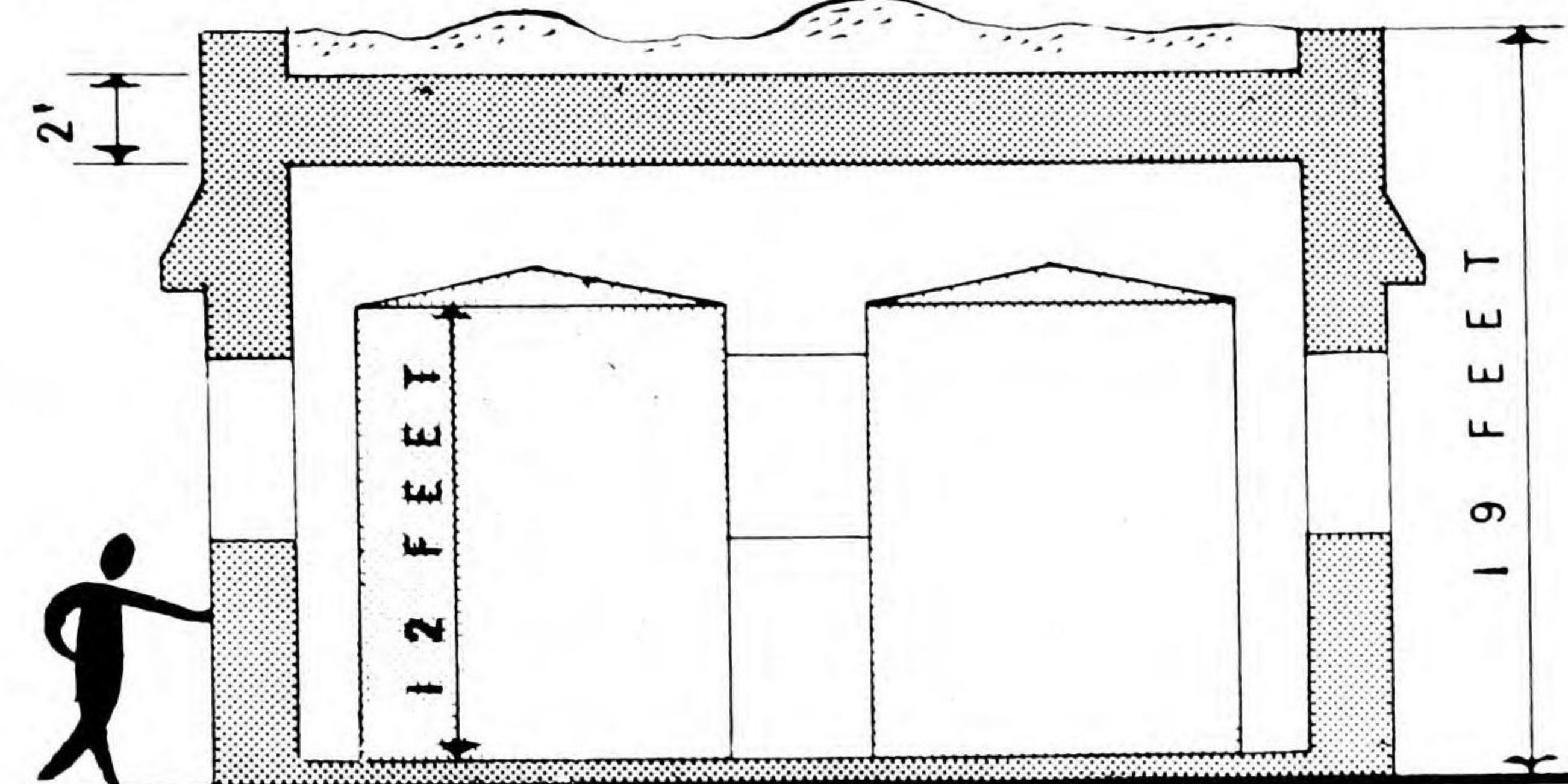


POWER PLANTS

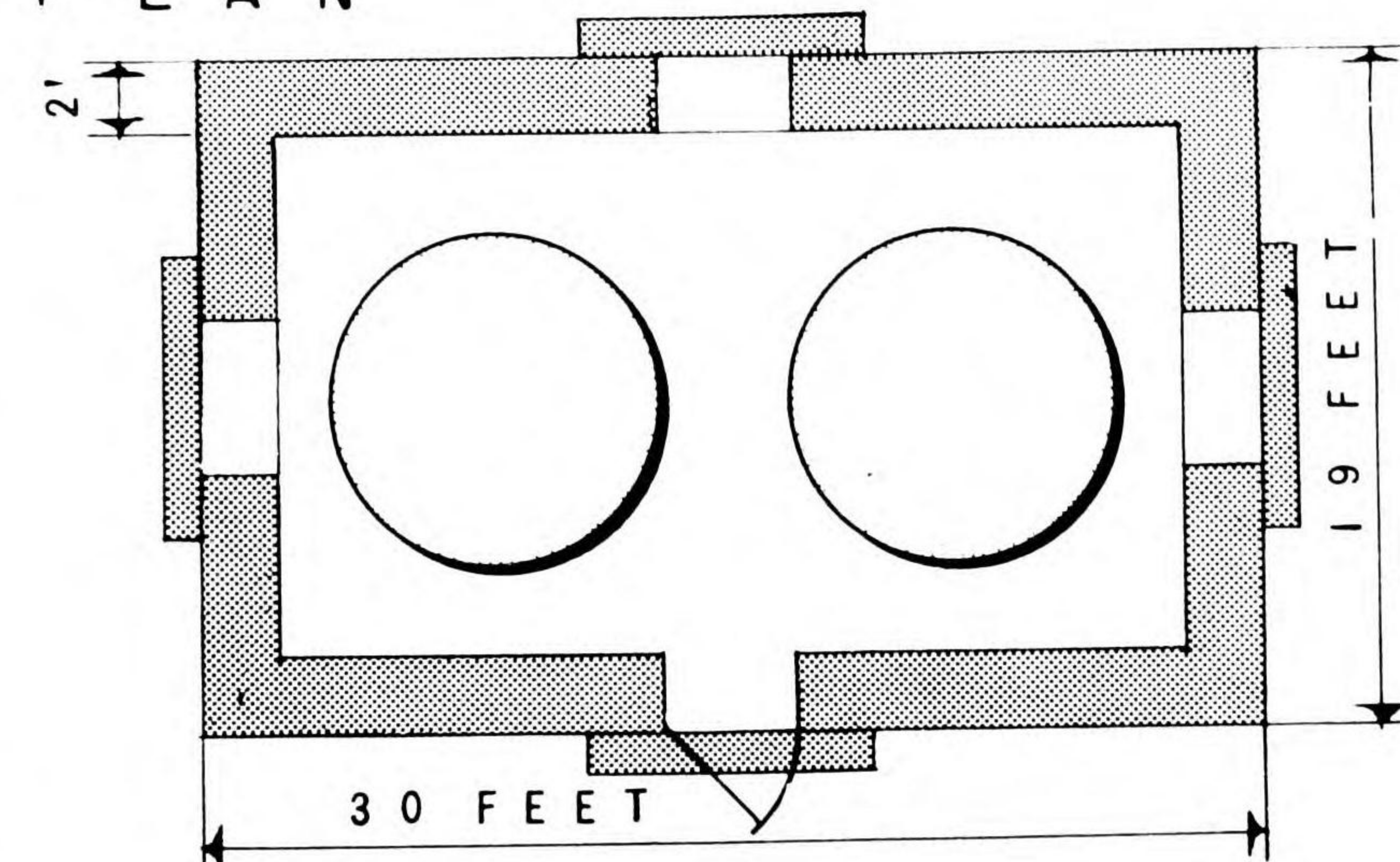
CONCRETE CONSTRUCTION



SECTION POWER PLANT



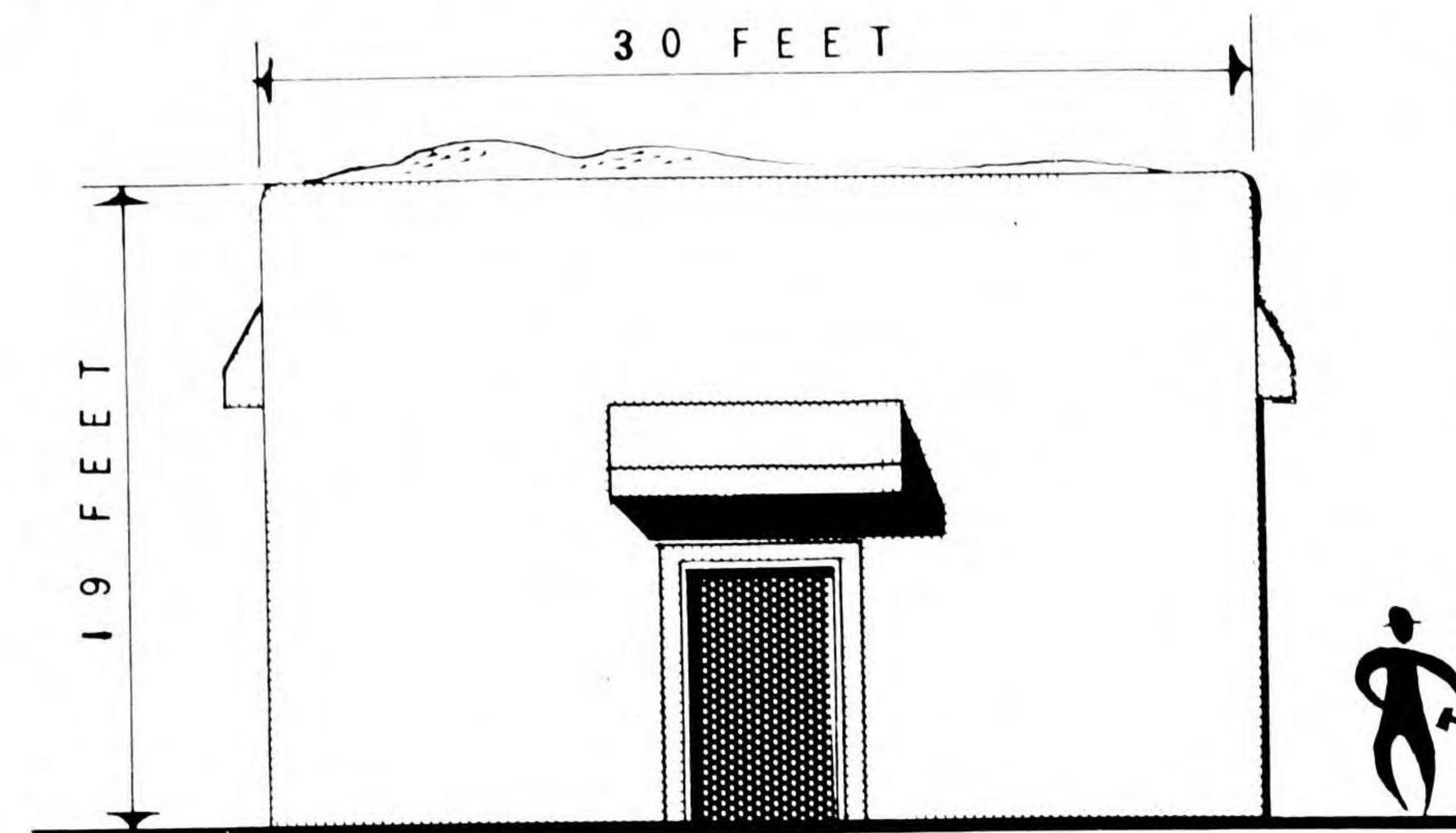
PLAN



OIL STORAGE BLDG. NAMUR
OIL STORAGE BUILDING

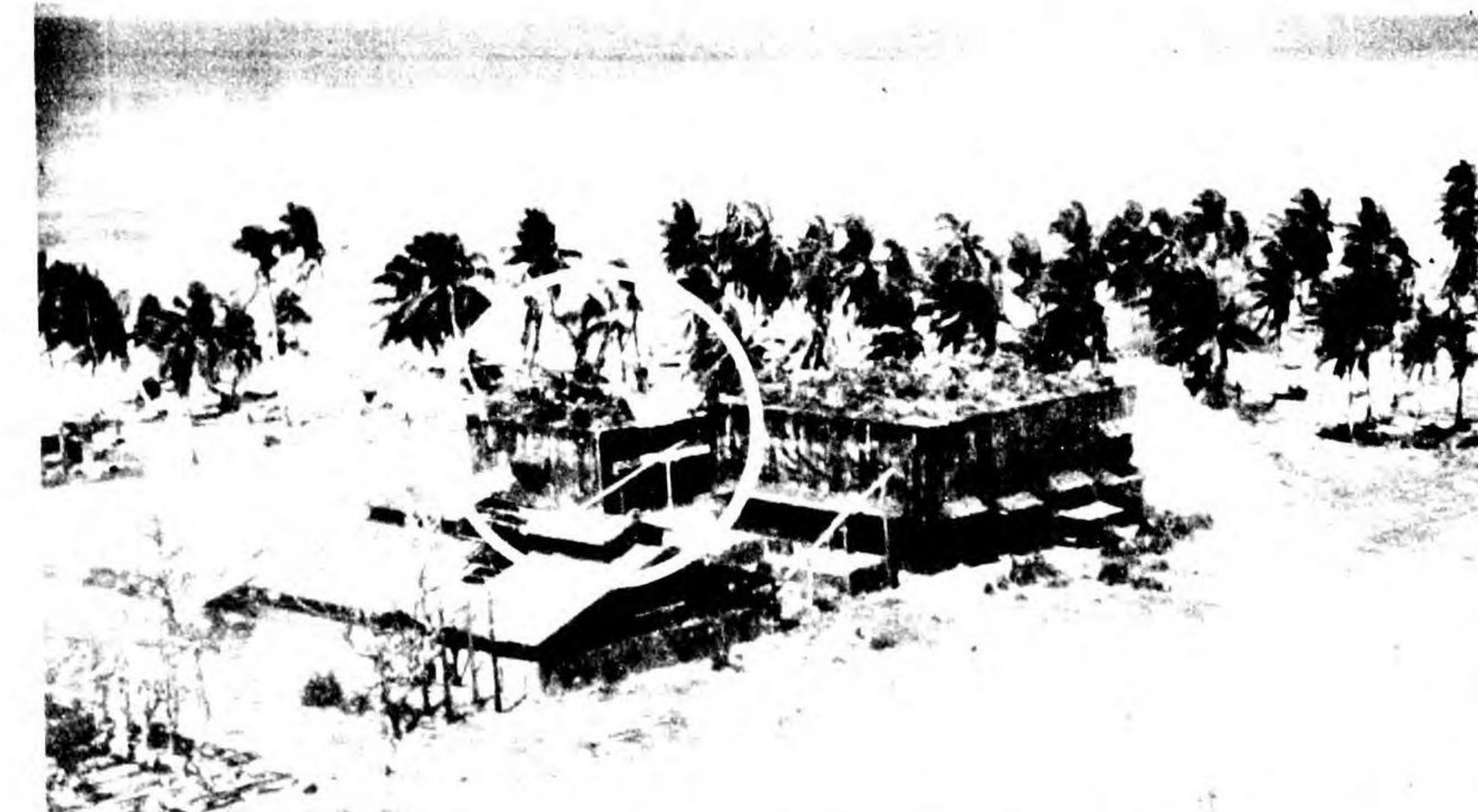
Page 14.04 contains a study of the 30 by 36 foot water collection tank that services the generator building. The tank is concrete, divided into 6 equal vats, and covered with a wood framed gable roof.

This page contains a study of the diesel oil storage building. The flat roofed reinforced concrete structure houses 2 steel fuel oil tanks. Total capacity of the two is 10,920 gallons.



FRONT ELEVATION

M A L O E L A P



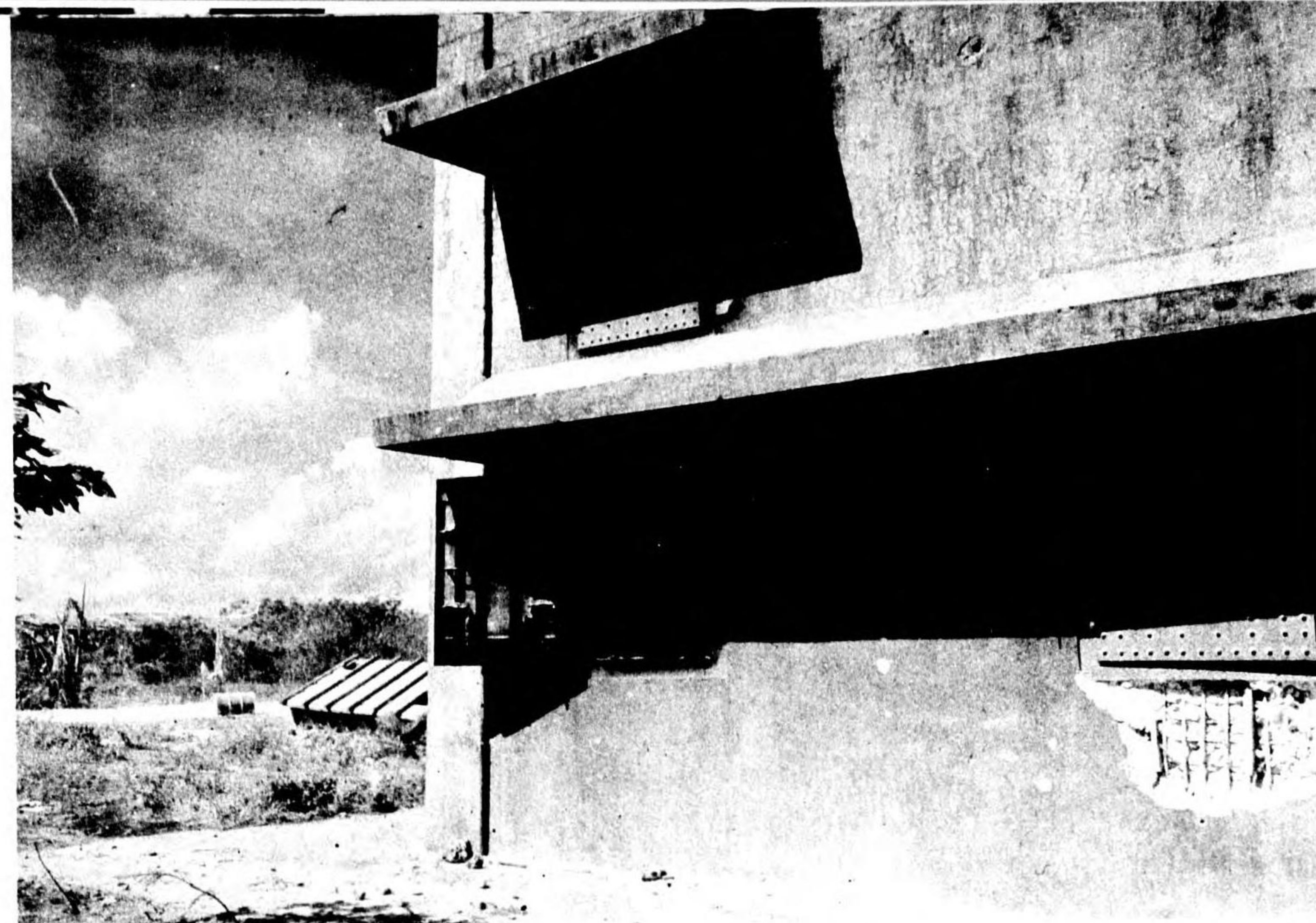
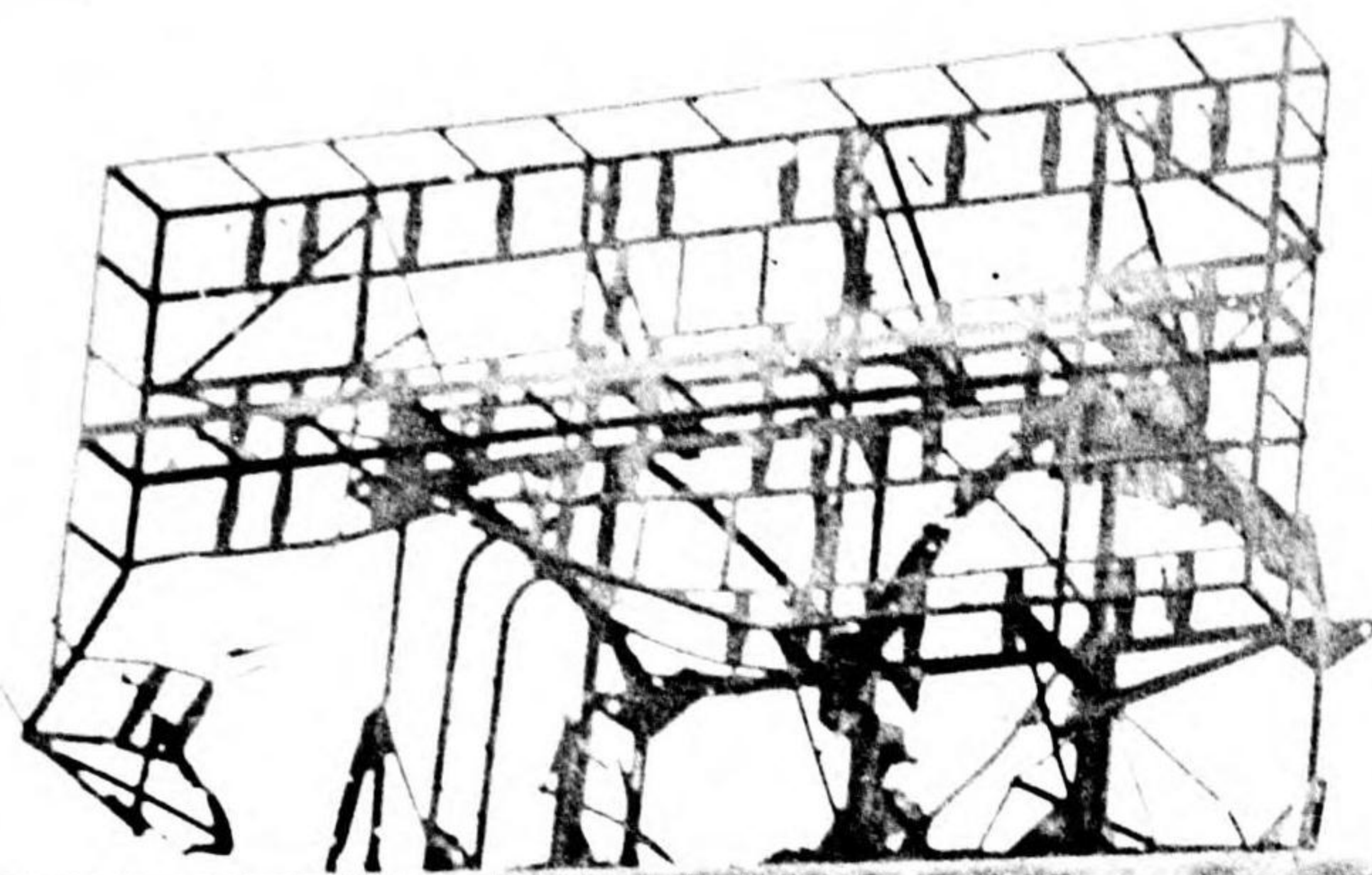
OIL STORAGE BLDG. - WOTJE



POWER PLANTS

WOOD CONSTRUCTION

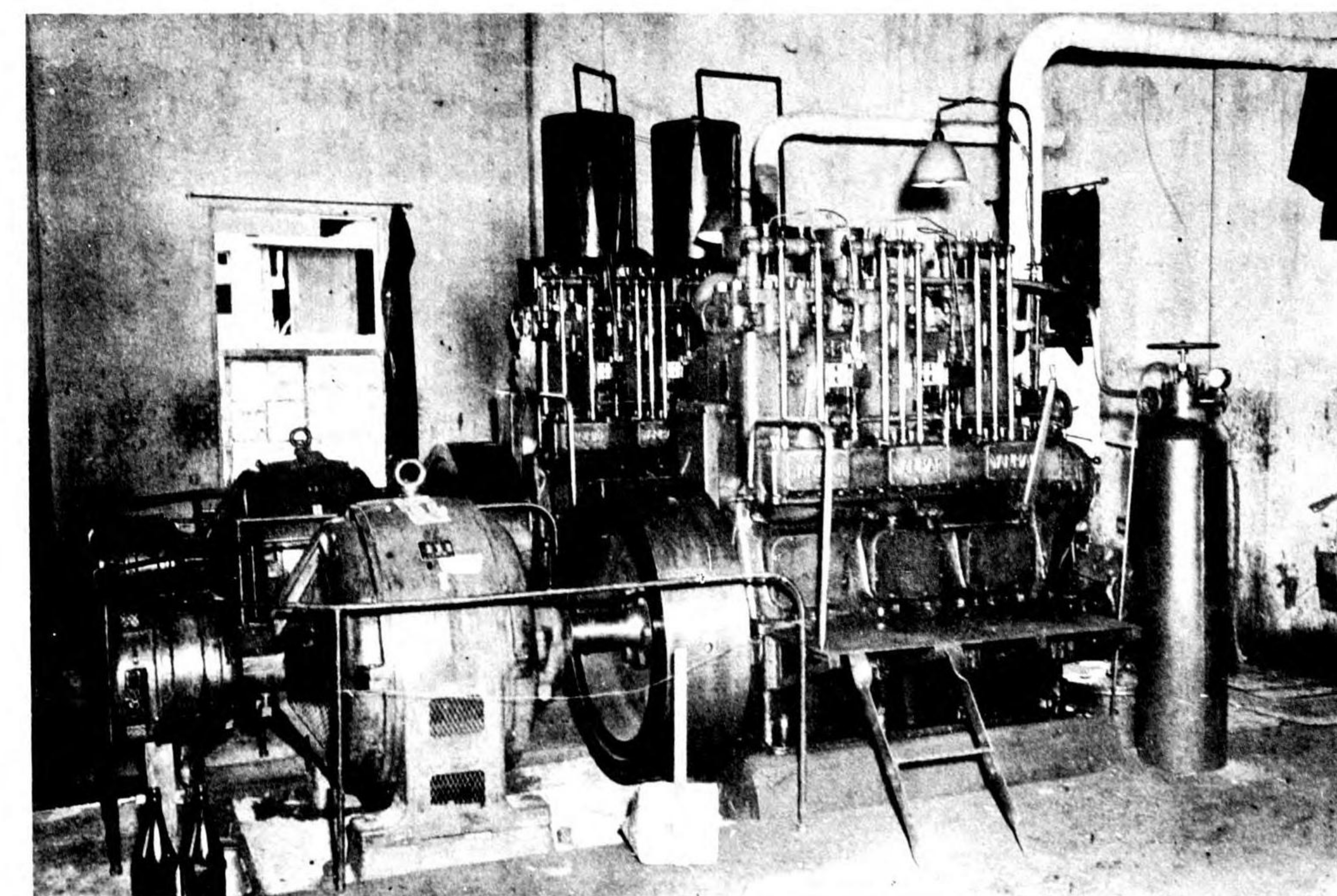
GENERATOR BUILDING



POWER PLANT WALL DETAIL • SAIPAN



100 KVA GENERATORS ▼ SAIPAN



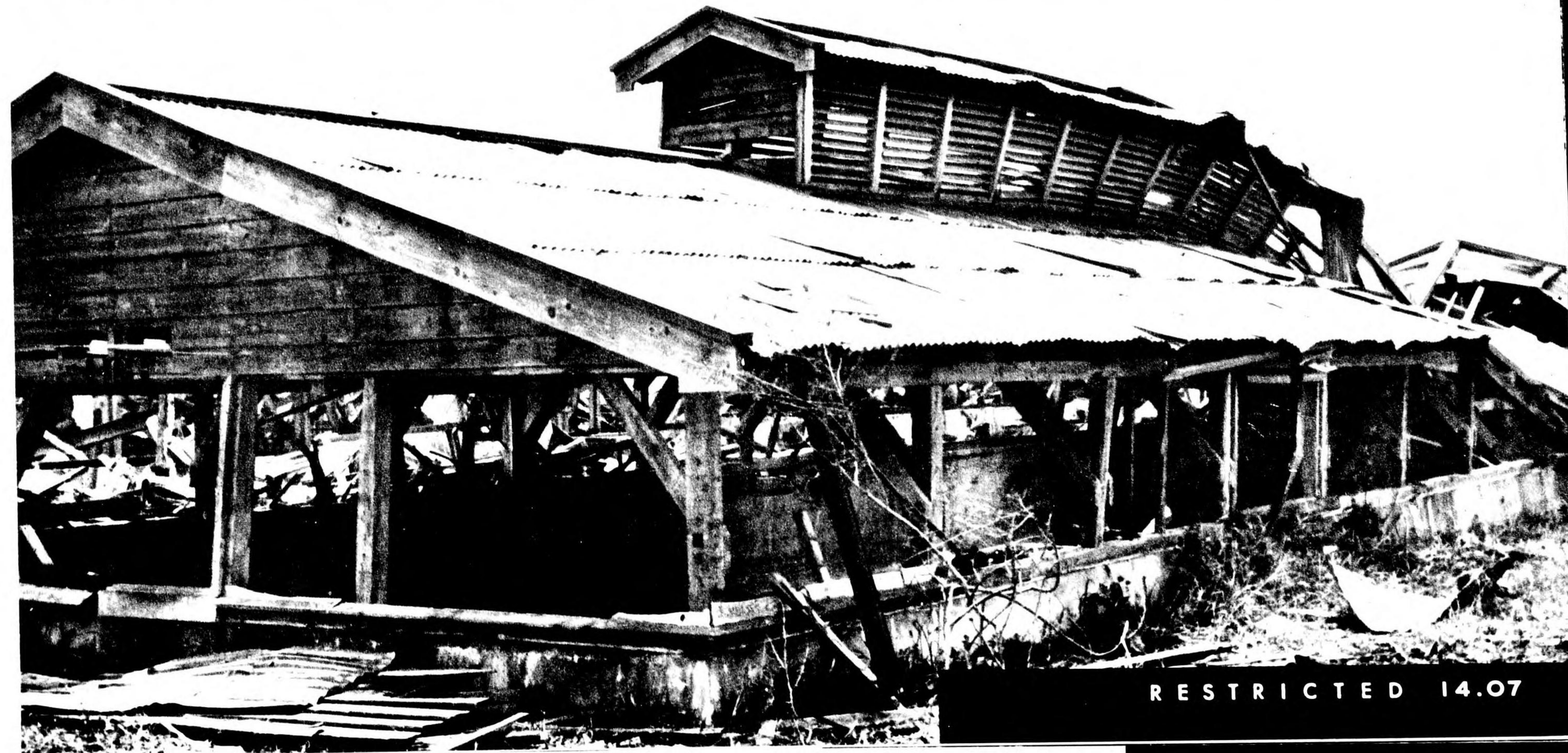
OIL STORAGE BLDG

The 19 by 30 foot diesel oil storage building stands 19 feet above natural grade. Concrete awnings protect the openings in the side walls. A steel shutter is hinged to each window as additional protection. A foot of dirt is set on the roof below the parapet. Note the presence of empty diesel oil drums.

Because of the relatively high elevation of Aslito Airfield on Saipan, the 30 by 36 foot water cooling tank is set deeper into the ground than usual. The tank is divided into 6 equal vats. Water passes through each vat before entering the generator building. 6" by 6" posts support the gable roof. Corrugated galvanized iron sheathes the monitor and roof surfaces. Note the horizontal louvers in the monitor.



19' X 30' OIL STORAGE BLDG. ↗ ↘ 30' X 36' WATER STORAGE BLDG. • SAIPAN





J A P A N E S E H A N G A R S

A hangar is the largest single structural unit serving an airfield. Interpretation of a building as a hangar is comparatively simple because of its large size in relation to other special function structures.

The Japanese rely upon a group of standard hangars, dimensions and construction of which do not vary regardless of the geographic location of the airfield they serve.

A prefabricated skeletal steel framed form is the most common type present. The design of this arch-roofed hangar has been taken from German working drawings. Sections of the trusses are prefabricated in Japan proper and assembled on the site. The length of the hangar varies from 101 to 200 feet. The span of the prefabricated truss is consistent at 140 feet. The 101 foot length seems to occur at fields servicing land based planes, whereas lengths between 140 feet and 200 feet occur at seaplane bases. A continuous strip monitor caps the ridge of this corrugated iron sheathed structure. A shed leans against each sloping side wall of the hangar.

Another steel framed hangar is 92 feet wide and 107 feet long. A row of 6 circular ventilators are set on the gable roof. A shed leans against the back wall of the hangar, sliding doors extend beyond the width dimension of the hangar's front face.

A wood framed hangar is 55 feet wide and 90 feet long. This gable roofed structure serves as a repair hangar. Unsheathed buttresses catch the thrust of the trusses and support the side walls. Sliding doors hang from a shed roofed track on the front face of the building.

A double ridged wood framed building serves as a hangar workshop. A continuous extended ridge light caps each ridge. This hangar is 83 feet long, total span of the centrally supported trusses is 103 feet.

These standard design hangars are found adjacent to each other at the edge of an airstrip; illustrations of each type are presented in the ensuing pages.

HANGARS



© 1965 FIELD 5/14

HANGARS

STEEL CONSTRUCTION



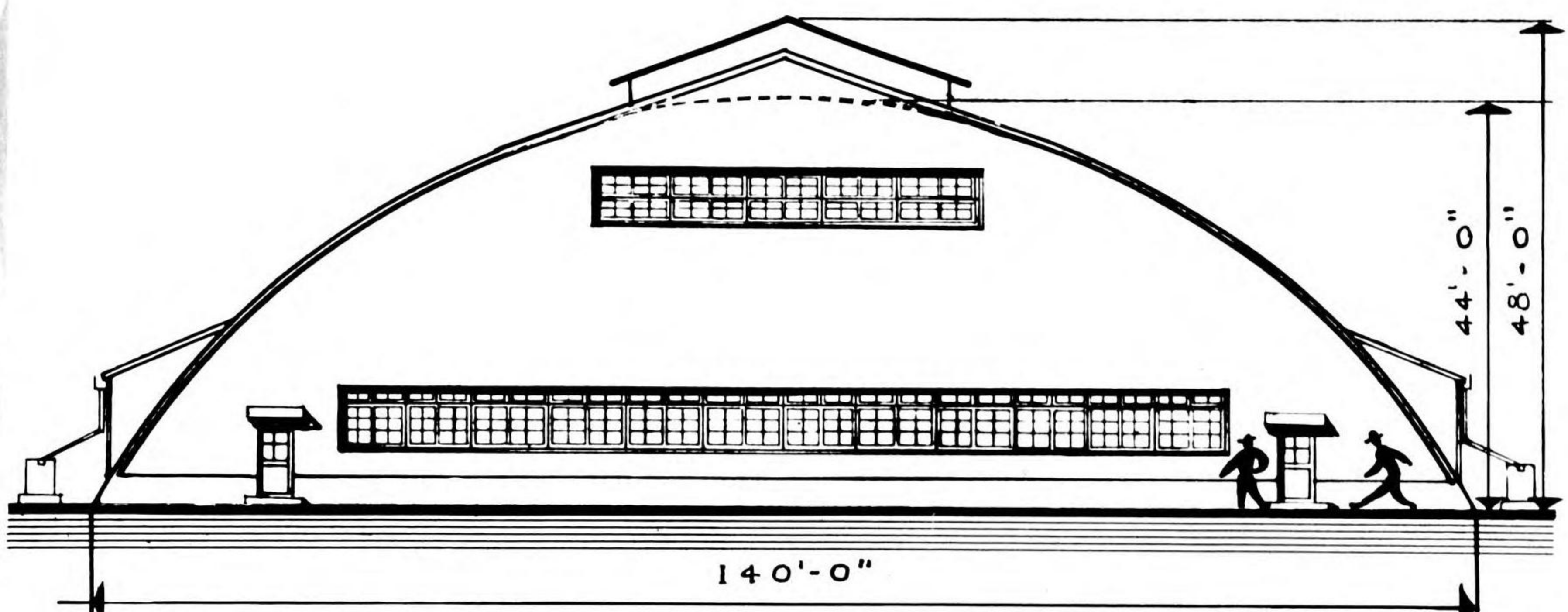
TAROA ISLAND · MALOELAP ATOLL 101' X 140' HANGARS TAROA



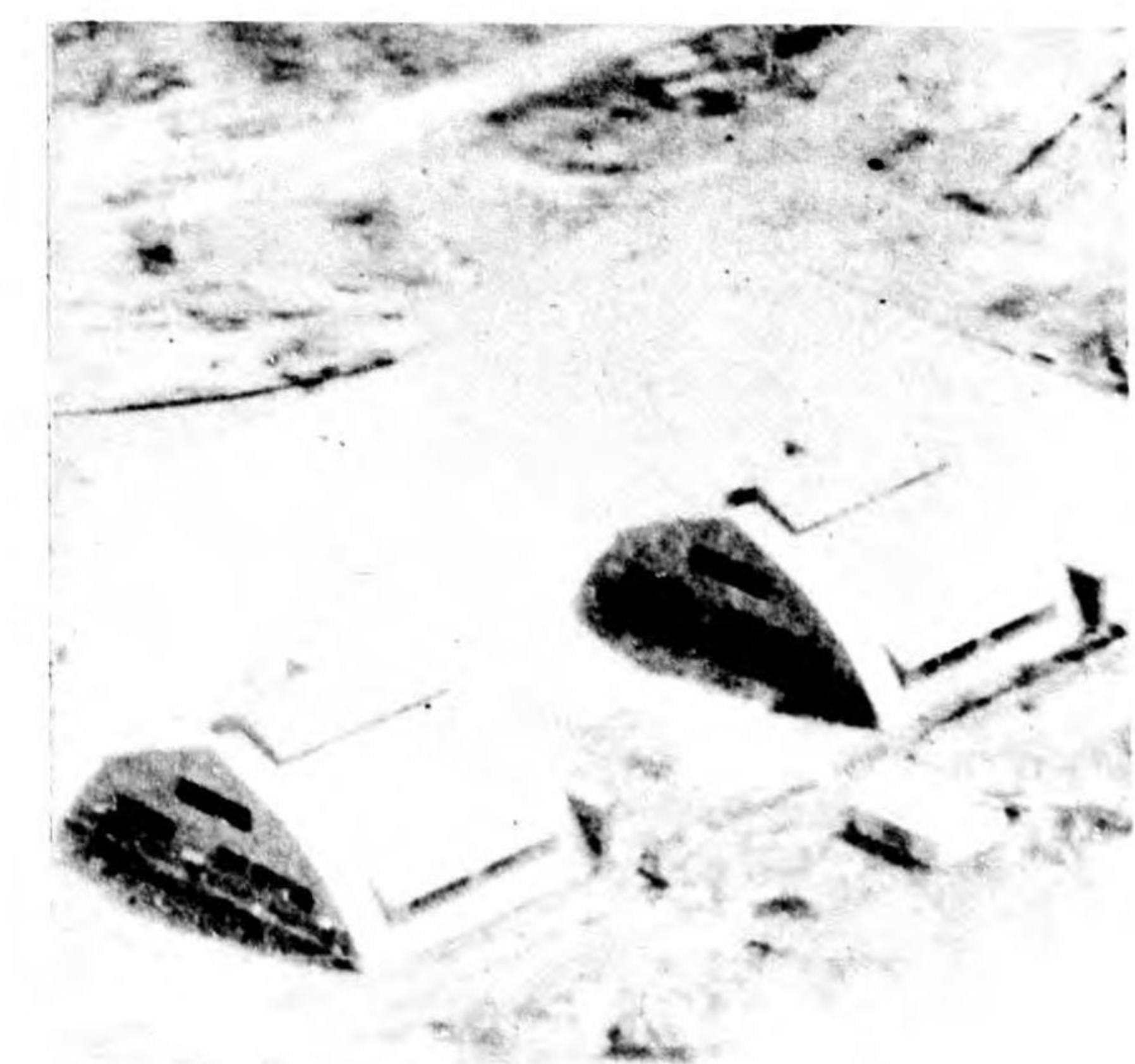
HOKKAIDO · JAPAN
ROI · KWAJALEIN



KARAFUTO · JAPAN



REAR ELEVATION 101' X 140' HANGAR
15.02 RESTRICTED



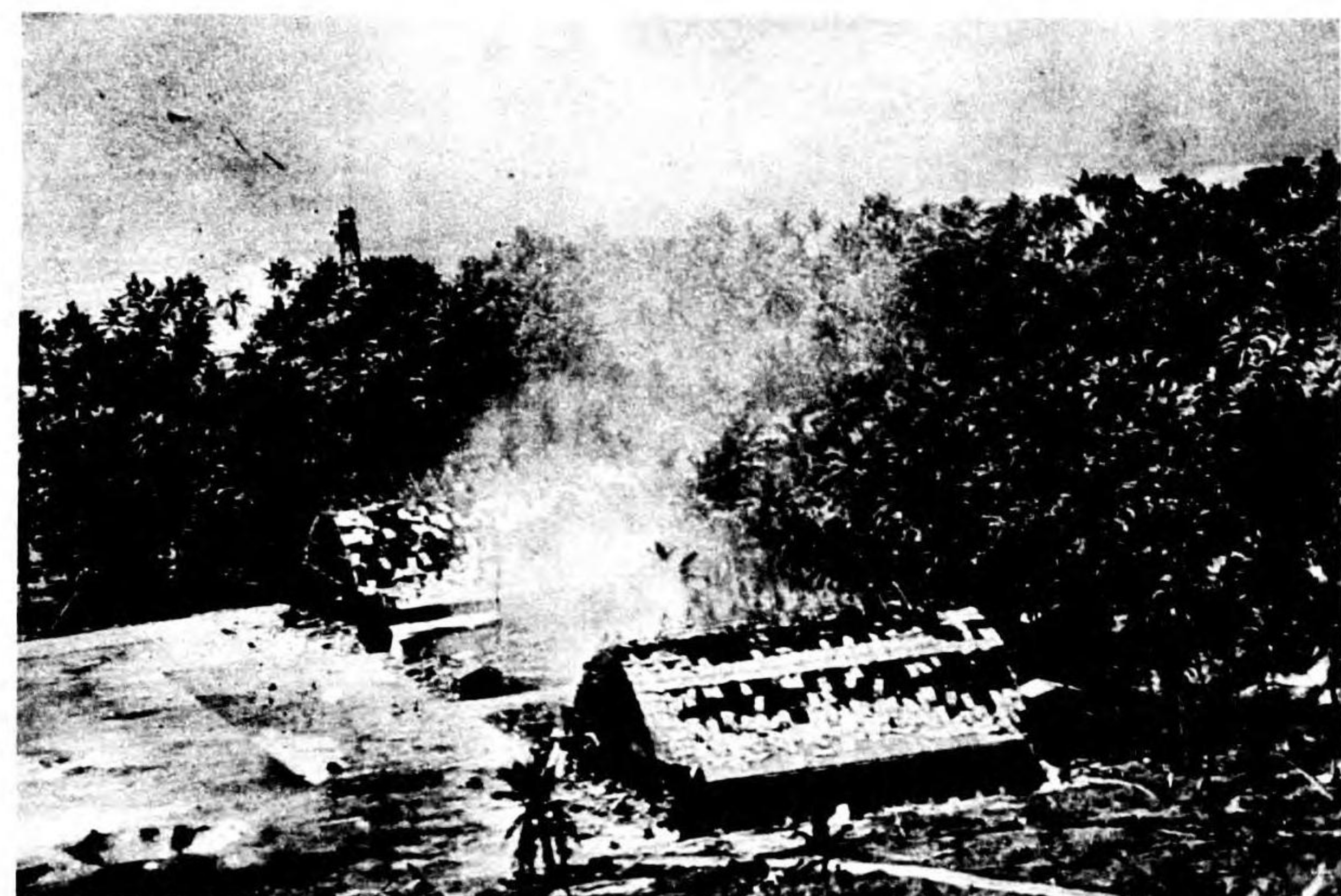
HANGARS

STEEL CONSTRUCTION

STEEL FRAMED HANGAR



101'X140' HANGARS MILLE - MARSHALLS ◀ ROI-KWAJALEIN ▶ 101'X140' HANGARS - SAIPAN

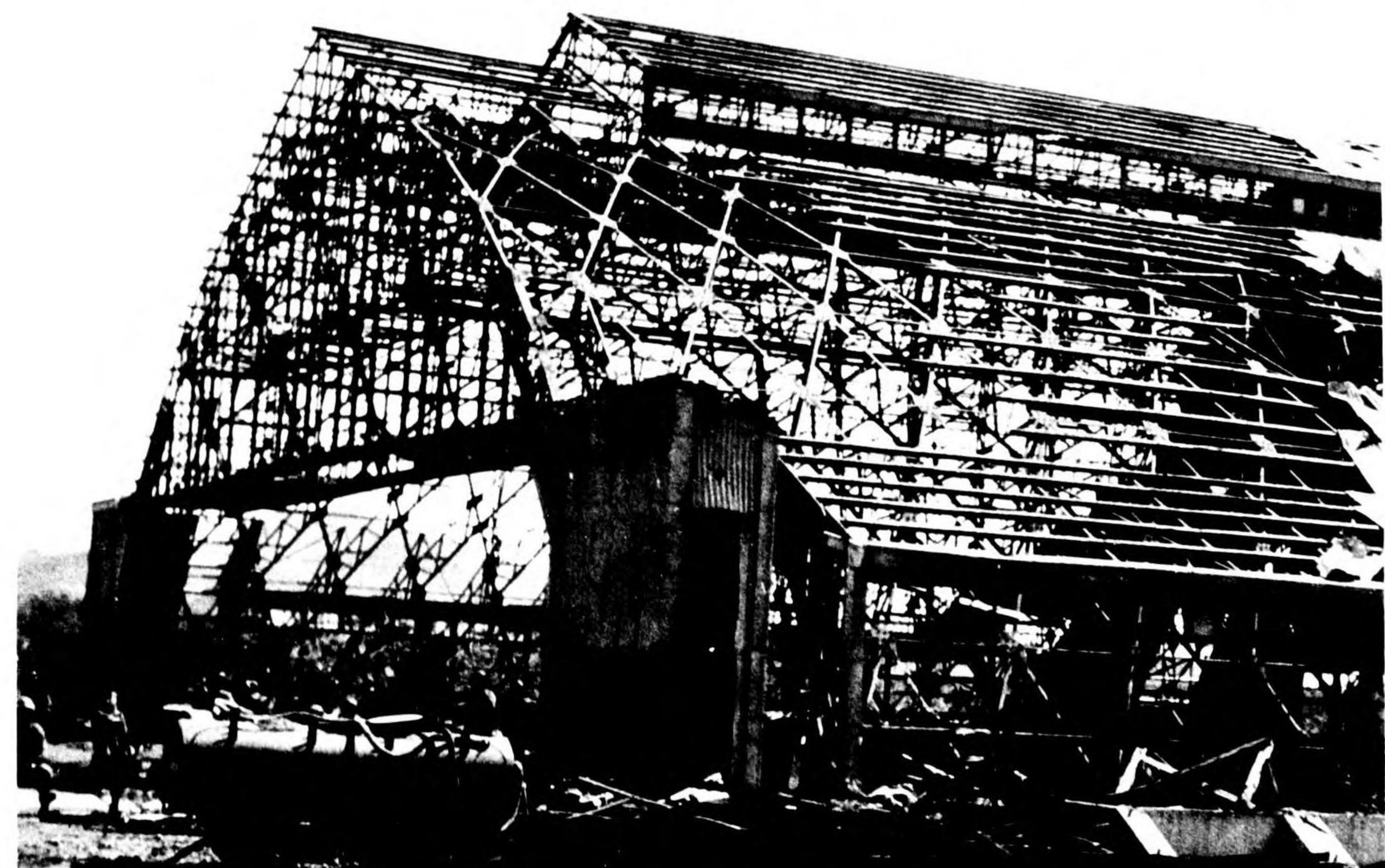


HANGARS

STEEL CONSTRUCTION



140'X101' PREFABRICATED HANGAR — CAMOUFLAGED CONCRETE AIR RAID SHELTER—10'X60' IN FOREGROUND



HANGARS

STEEL CONSTRUCTION



140' X 180' HANGAR · PALAU
SEAPLANE HANGAR

The 140 foot span, prefabricated steel frame hangar varies in length. Seaplane bases at Palau, Ponape and Jaluit illustrate this point. Note the shed roof butting into each sloping side wall of the hangar, as well as the continuous monitor on the ridge.

The same hangar, 101 feet in length is present on Aslito Airfield, Saipan. Ground shots of the building are present on the opposite page. Note that although the corrugated galvanized iron sheathing has been blown off, the skeletal steel frame stands intact.



140' X 200' HANGAR · PONAPE ◀ 140' X 180' HANGARS · · JALUIT



0436

HANGARS

STEEL CONSTRUCTION



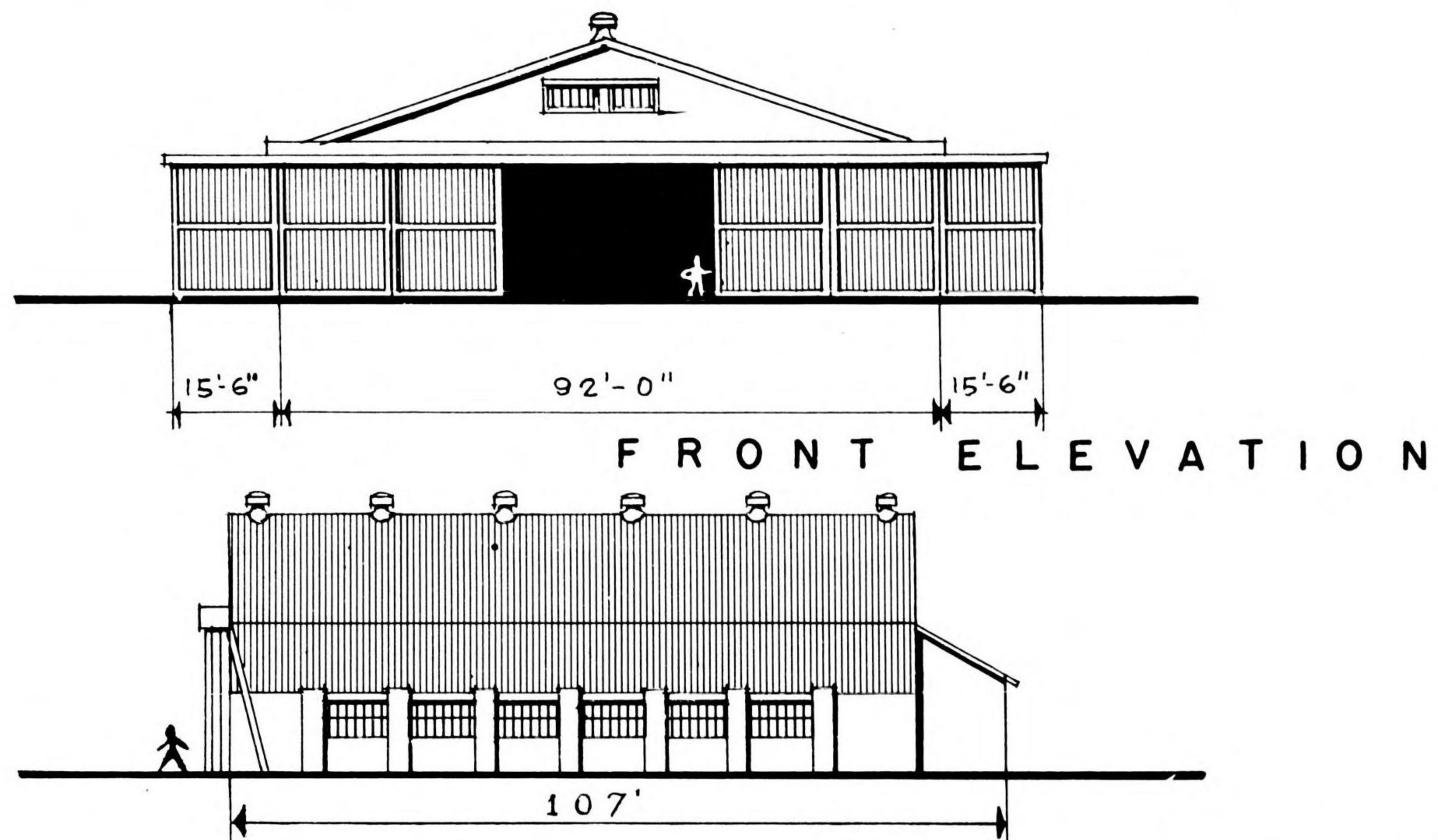
92' X 107' HANGAR · KWAJALEIN ATOLL



92' X 107' HANGAR · SAIPAN



92' X 107' HANGAR · TRUK



15.06 RESTRICTED SIDE ELEVATION



HANGARS

STEEL CONSTRUCTION



92' X 107' STEEL FRAMED HANGAR • CORRUGATED IRON SIDING • SAIPAN

This steel framed hangar is 92 feet wide and 107 feet long. The gable roof is capped with a row of circular ventilators. The buttresses are housed in such a way as to give the side wall two pitches. A shed leans against the gable end wall at the rear of the hangar. The sliding hangar doors are of wood framed construction. All exterior surfaces are sheathed with overlapping sheets of corrugated galvanized iron. The track from which the hangar doors are hung extends 15 feet beyond the width dimension of the building.



RESTRICTED 15.07

HANGARS

WOOD CONSTRUCTION



55' X 90' HANGAR DARRIT ISLAND · · MAJURO



55' X 90' HANGAR · MAJURO



55' X 90' HANGAR WOTJE ▾ HANGARS · SAIPAN

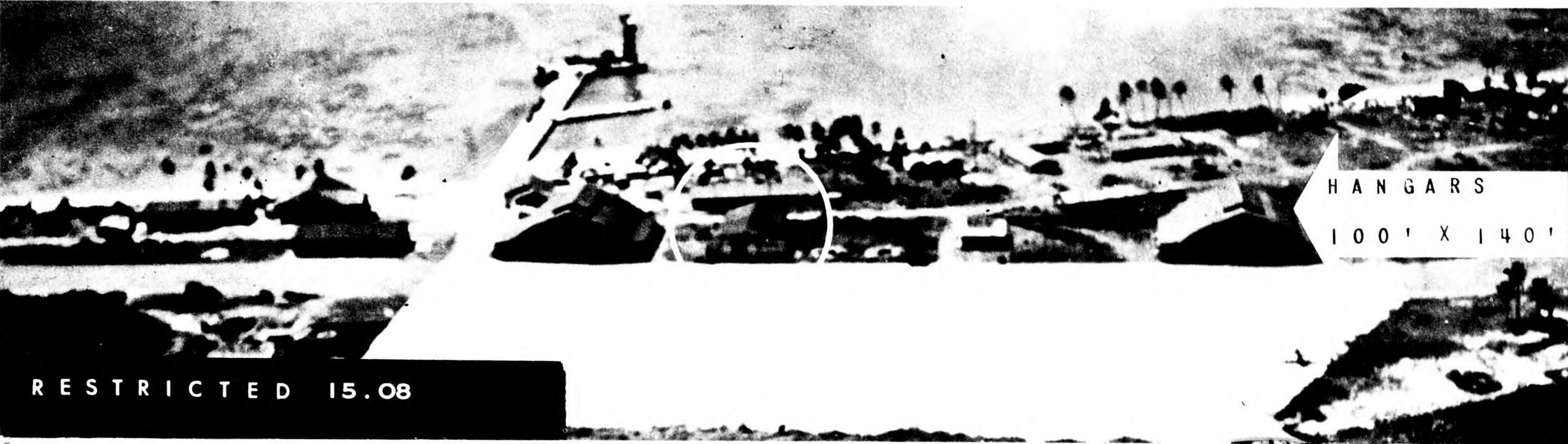


55' X 90' HANGAR · SAIPAN



55 X 90 HANGAR

The 55 by 90 feet hangar on Saipan served as a repair hangar. On Majuro this standard type served as the main seaplane hangar.



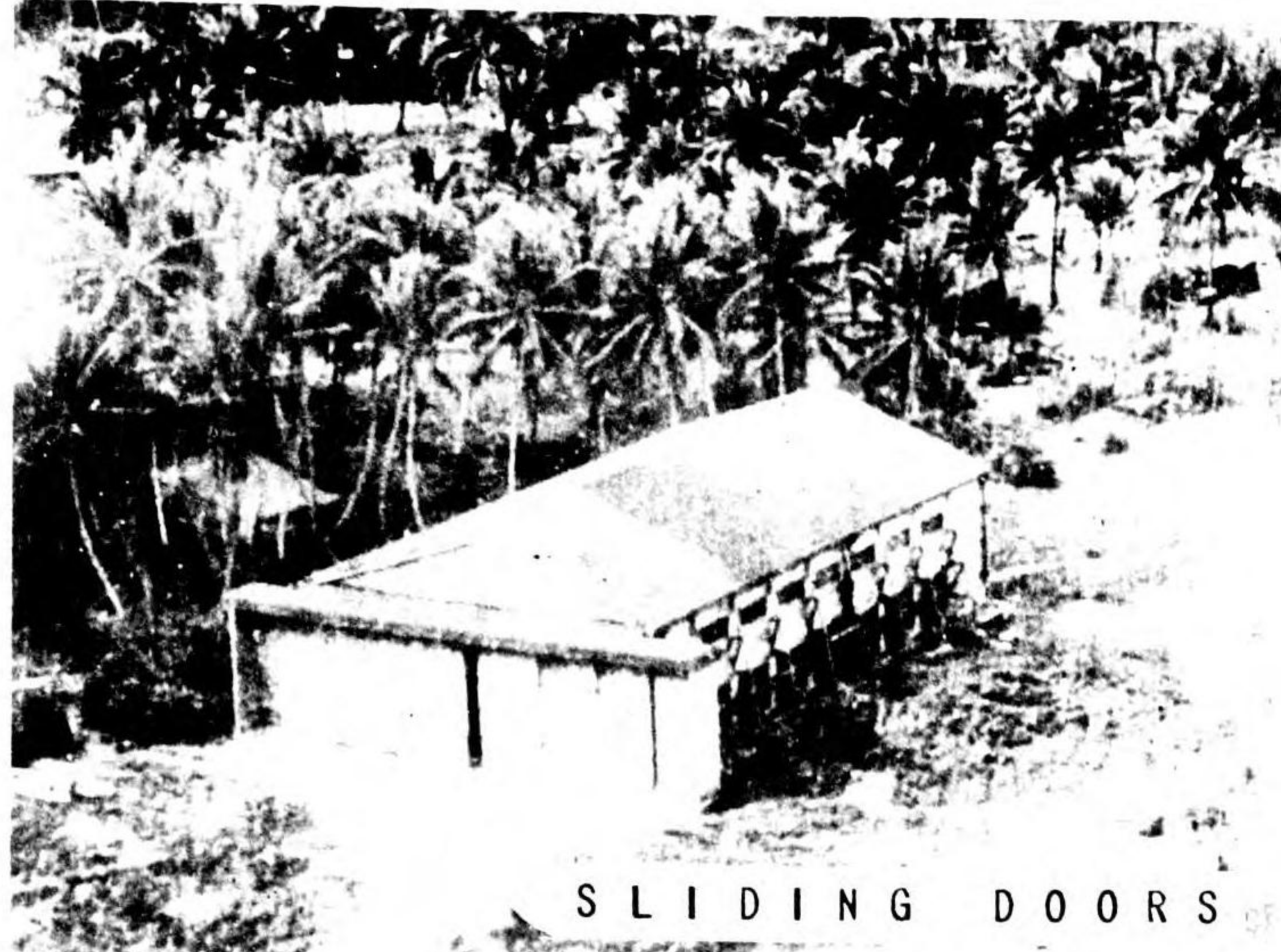
WOOD FRAMED HANGAR

This wood framed hangar is 55 feet wide and 90 feet long. Its gable roof is sheathed with corrugated galvanized iron. Side walls are sheathed with corrugated galvanized iron. Side walls are sheathed with horizontal ship lap siding. Note the wooden truss detail.

Page 15.10 and 15.11 contain a study of the 83 by 103 foot standard repair hangar. The extended ridge light, set in opposite directions on each ridge, is the main interpretation key.

Page 15.13 contains a study of the pair of wood framed seaplane hangars at Kiska.

55' X 90' HANGAR • WOTJE



SLIDING DOORS

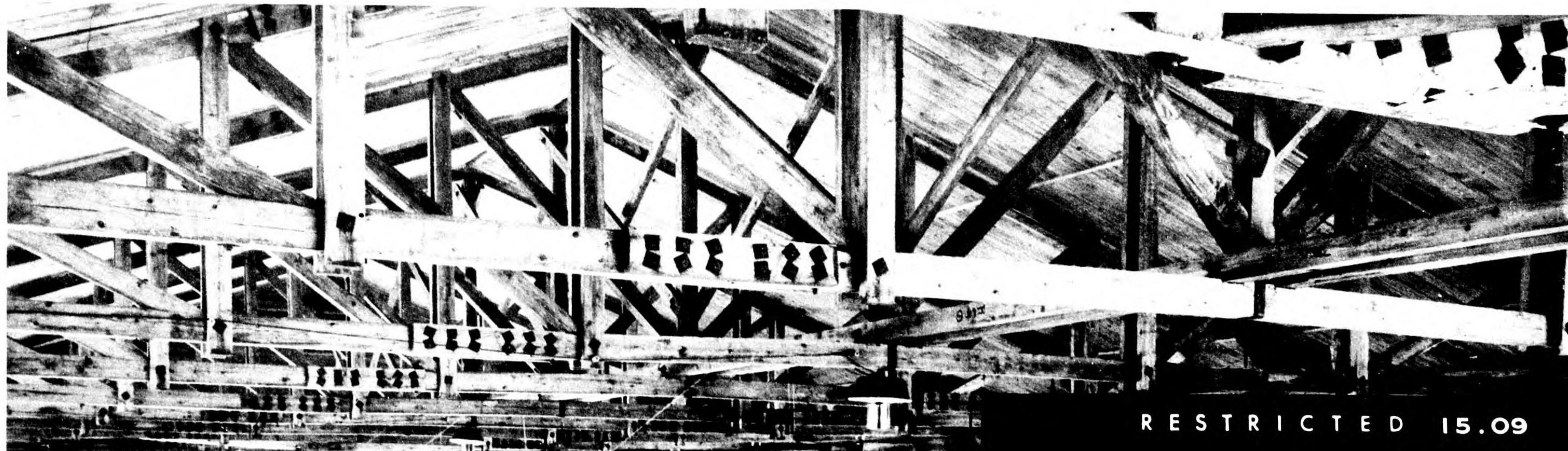
55' X 90' HANGAR • JAPAN



HANGARS

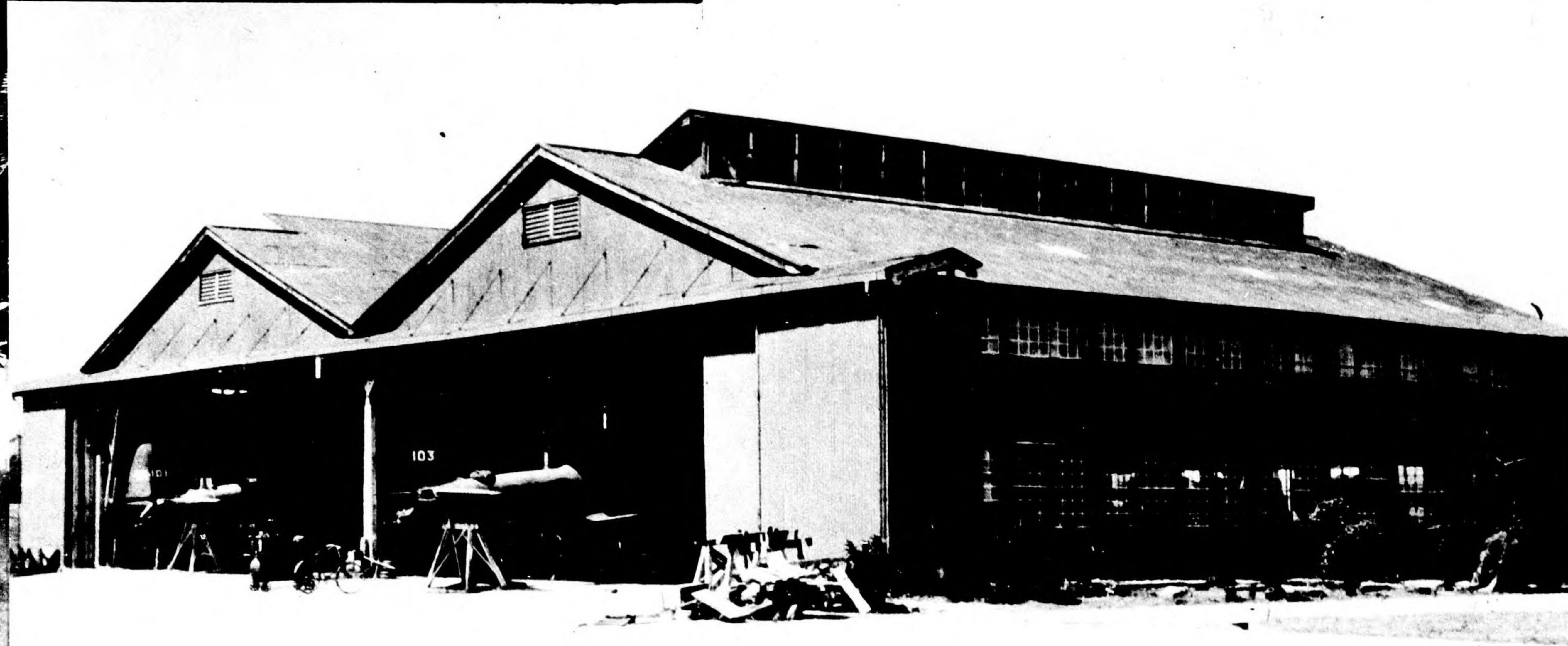
WOOD CONSTRUCTION

TRUSS DETAIL ◀ 55' X 90' HANGAR - MAJURO

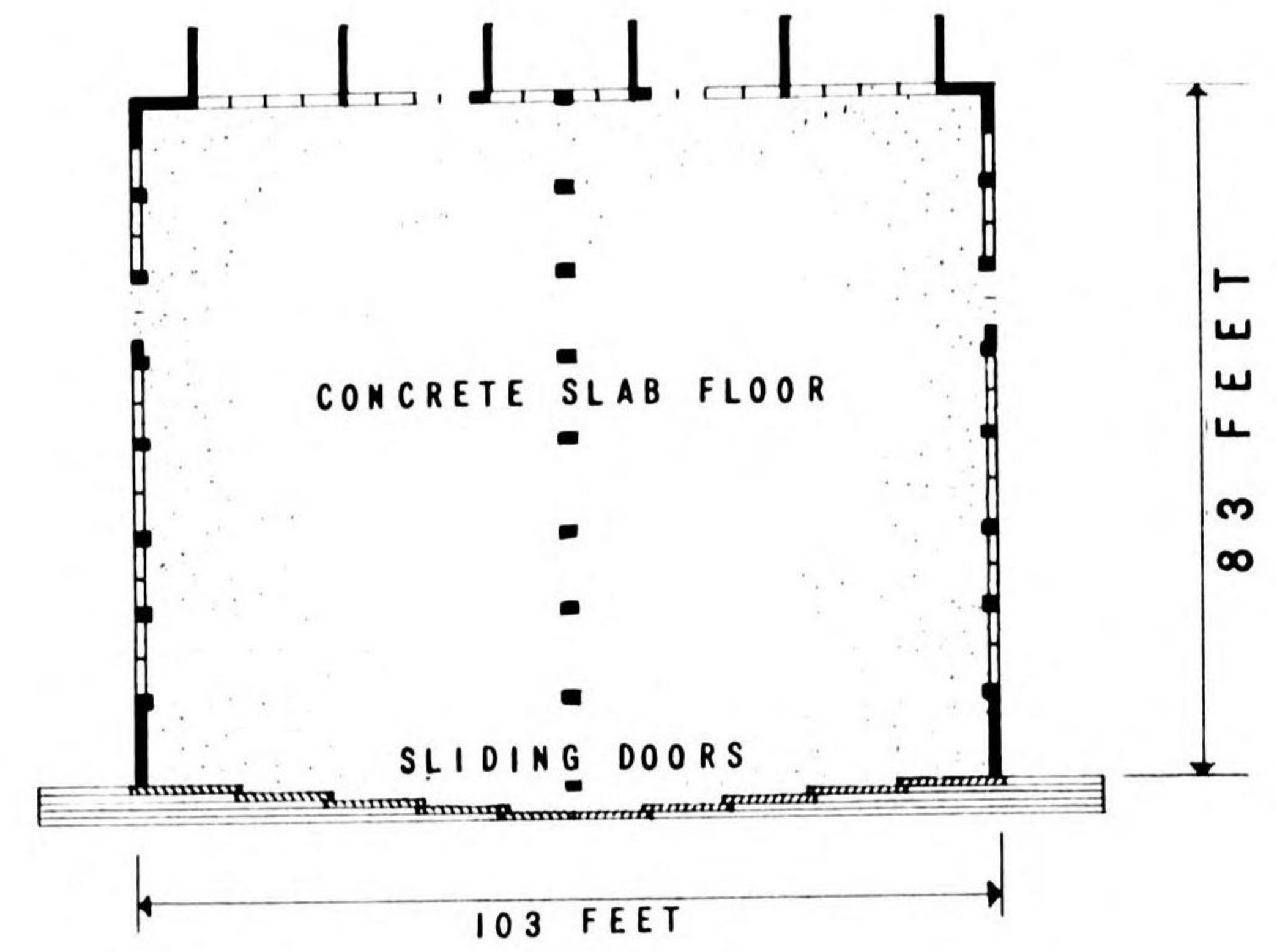


HANGARS

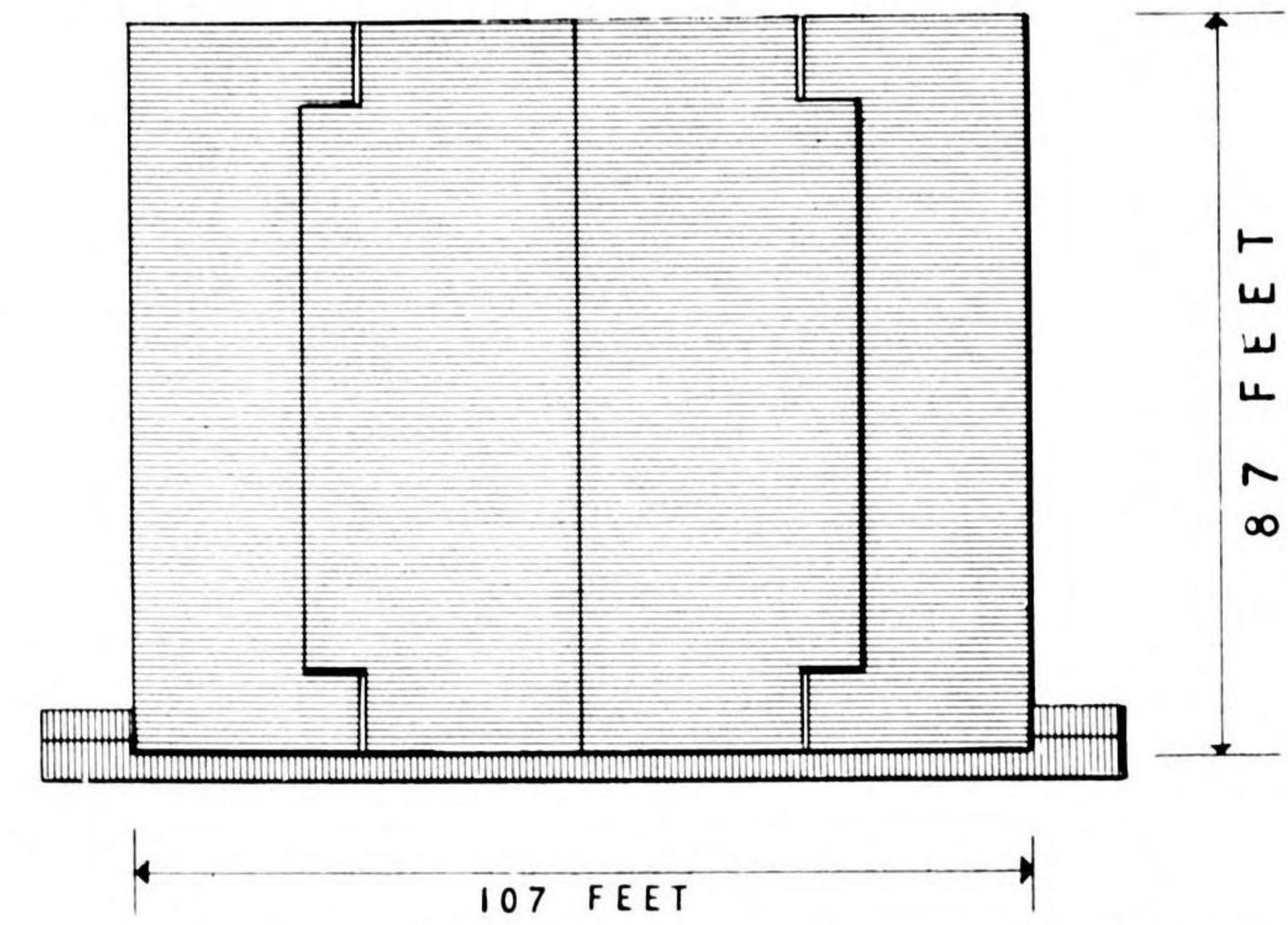
WOOD CONSTRUCTION



83' X 103' HANGAR WORKSHOP   TRUSS DETAIL SAIPAN



FLOOR PLAN

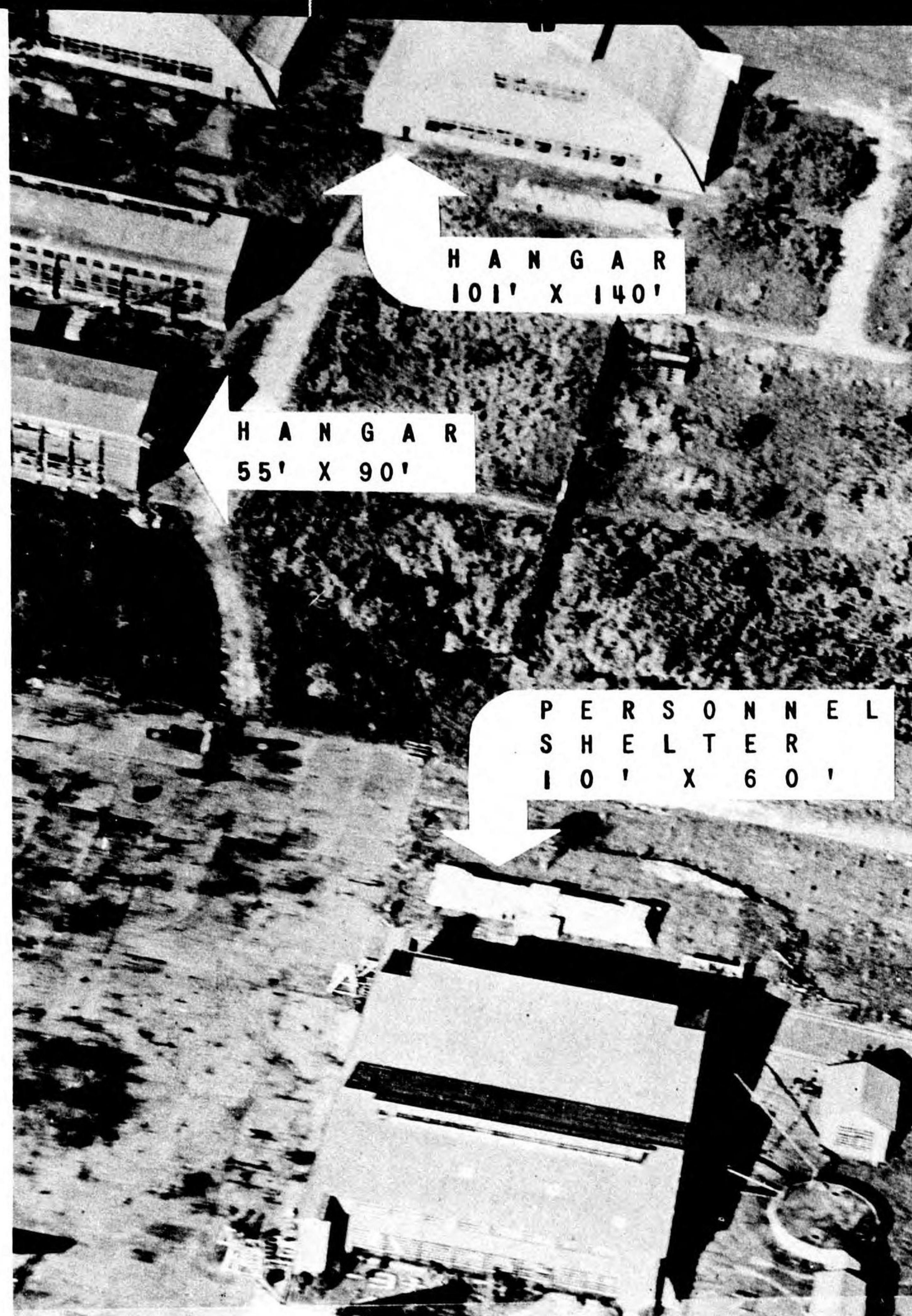


ROOF PLAN OF HANGAR WORKSHOP
HANGAR WORKSHOP AREA . . SAIPAN



HANGARS

STEEL CONSTRUCTION



HANGAR
101' X 140'

HANGAR
55' X 90'

PERSONNEL
SHELTER
10' X 60'

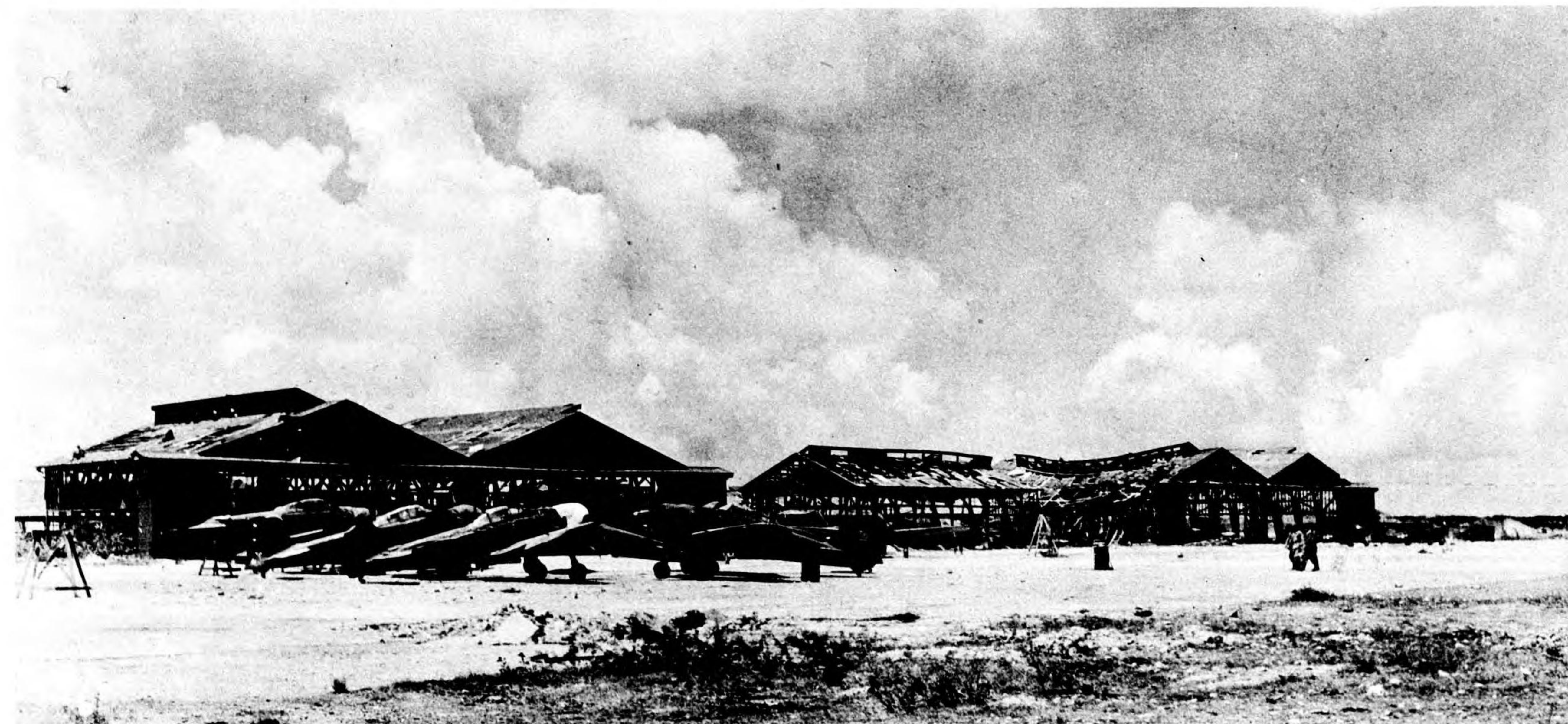


TWO 83' X 103' REPAIR HANGARS . . . W O T J E

83' X 103' REPAIR HANGAR · SAIPAN



83' X 103' REPAIR HANGAR · W O T J E



TWO 83' X 103' HANGARS . . SAIPAN

HANGARS

STEEL WOOD CONSTRUCTION

PREFABRICATED STEEL FRAMED HANGARS
WOOD AND STEEL FRAMED HANGARS PALAU · ISLAND

101' X 140' HANGARS · MATSUWA
STEEL FRAMED HANGARS · WOTJE

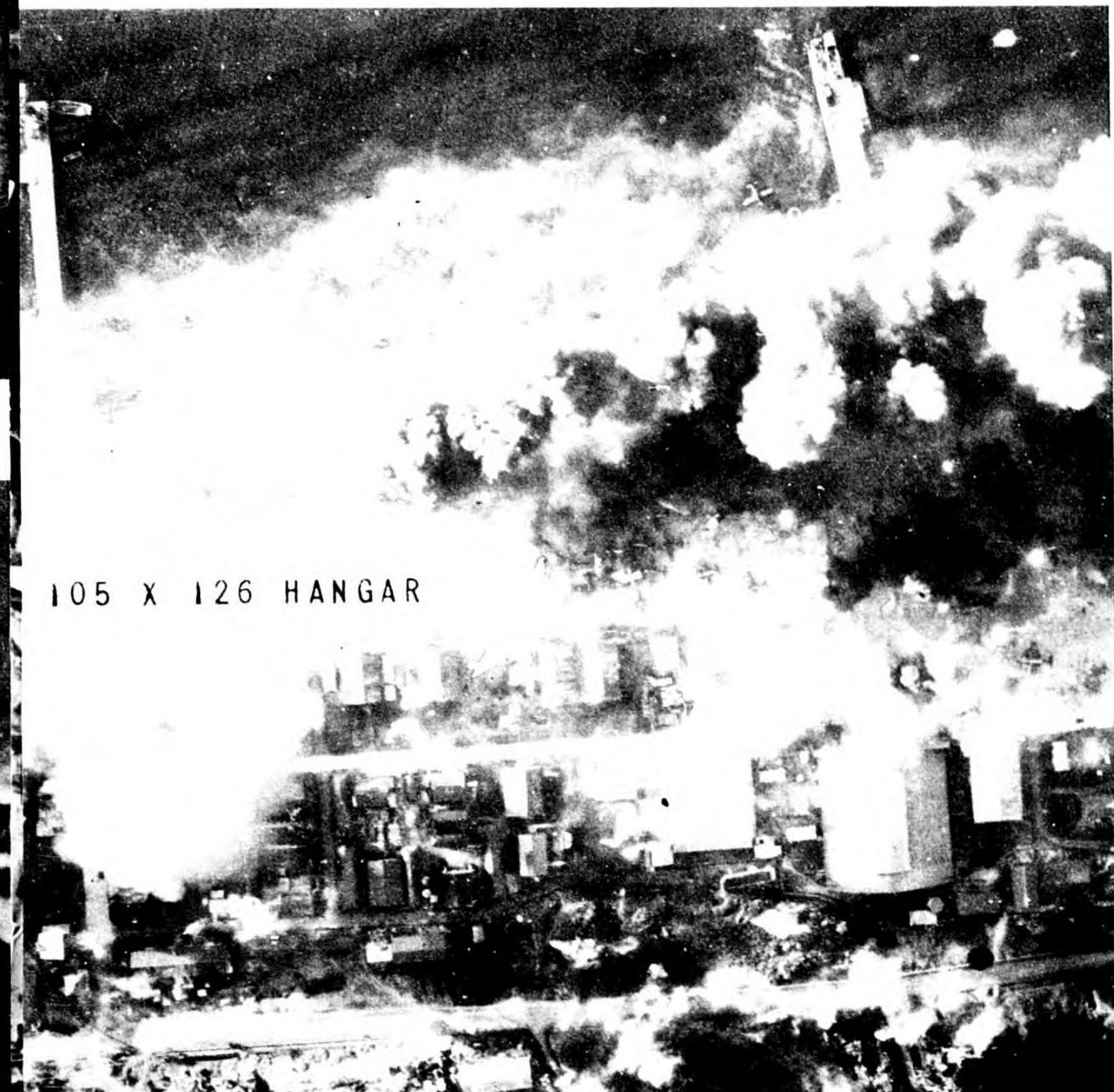


83 X 103 HANGAR

92 X 107 HANGAR

101 X 140 HANGAR

WOOD AND STEEL FRAMED HANGARS · · T R U K



105 X 126 HANGAR



55 X 90 HANGAR

140 X 140 HANGAR

92 X 107 HANGAR



40 X 101 HANGAR

140 X 180 HANGAR

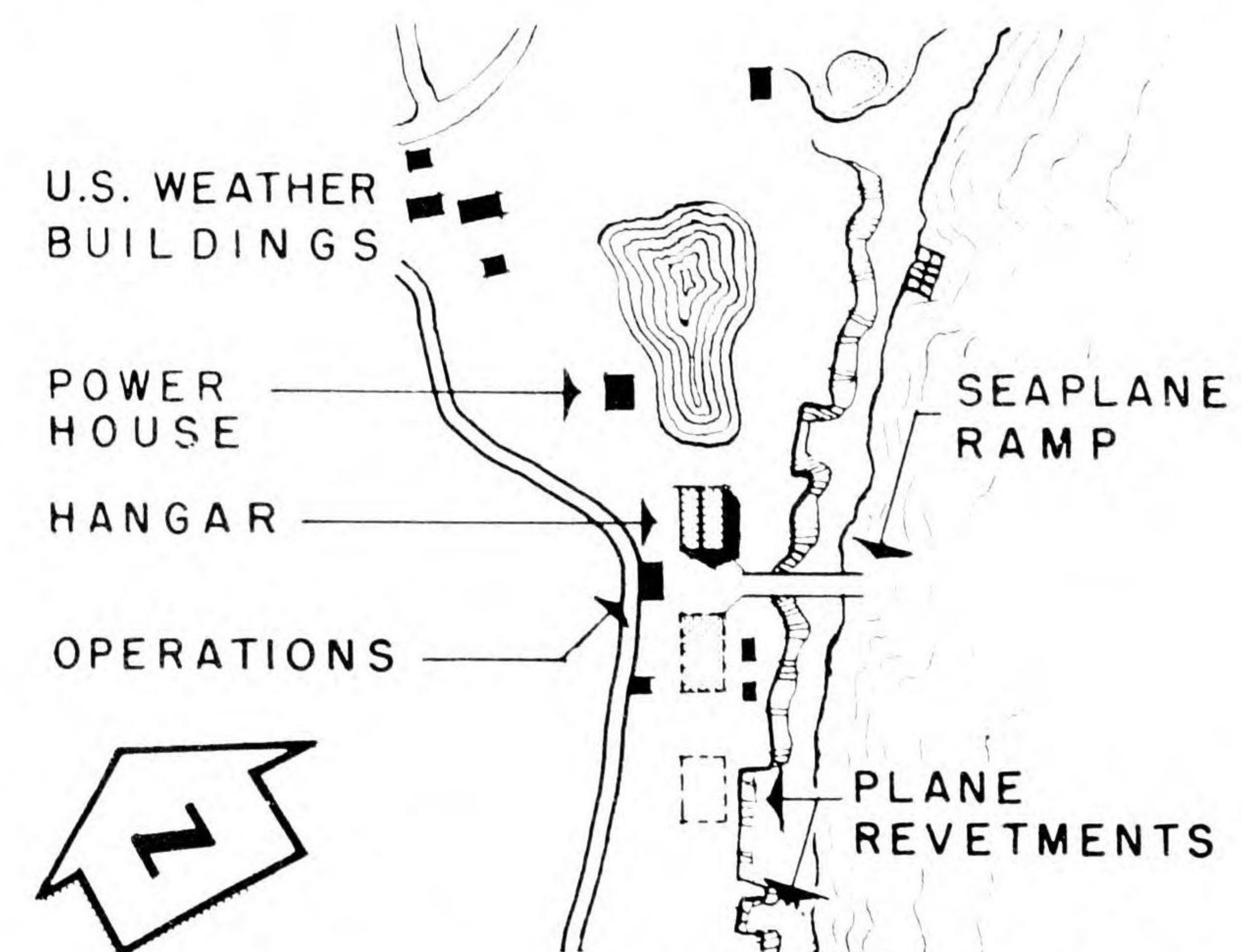
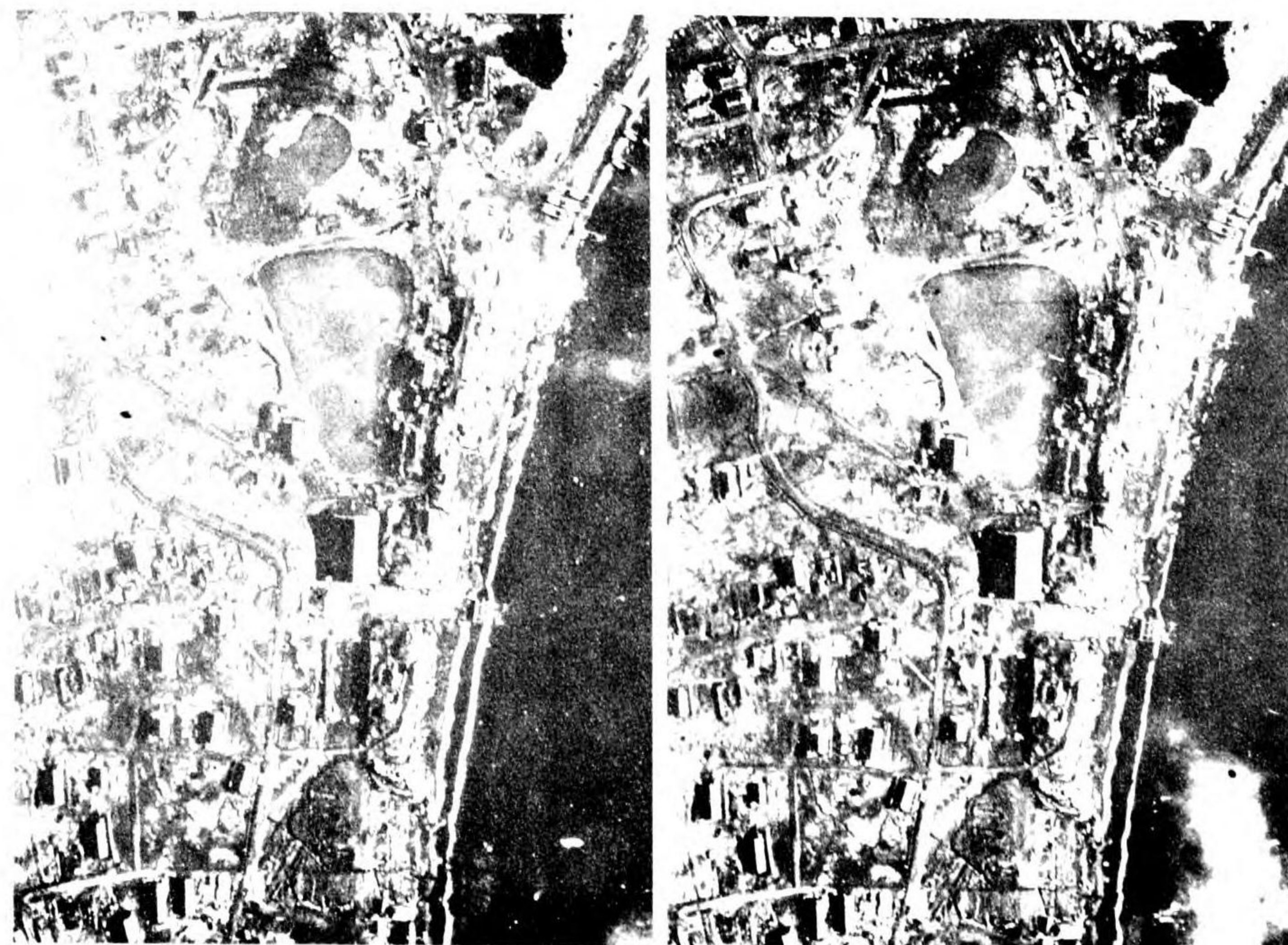


HANGARS

WOOD CONSTRUCTION



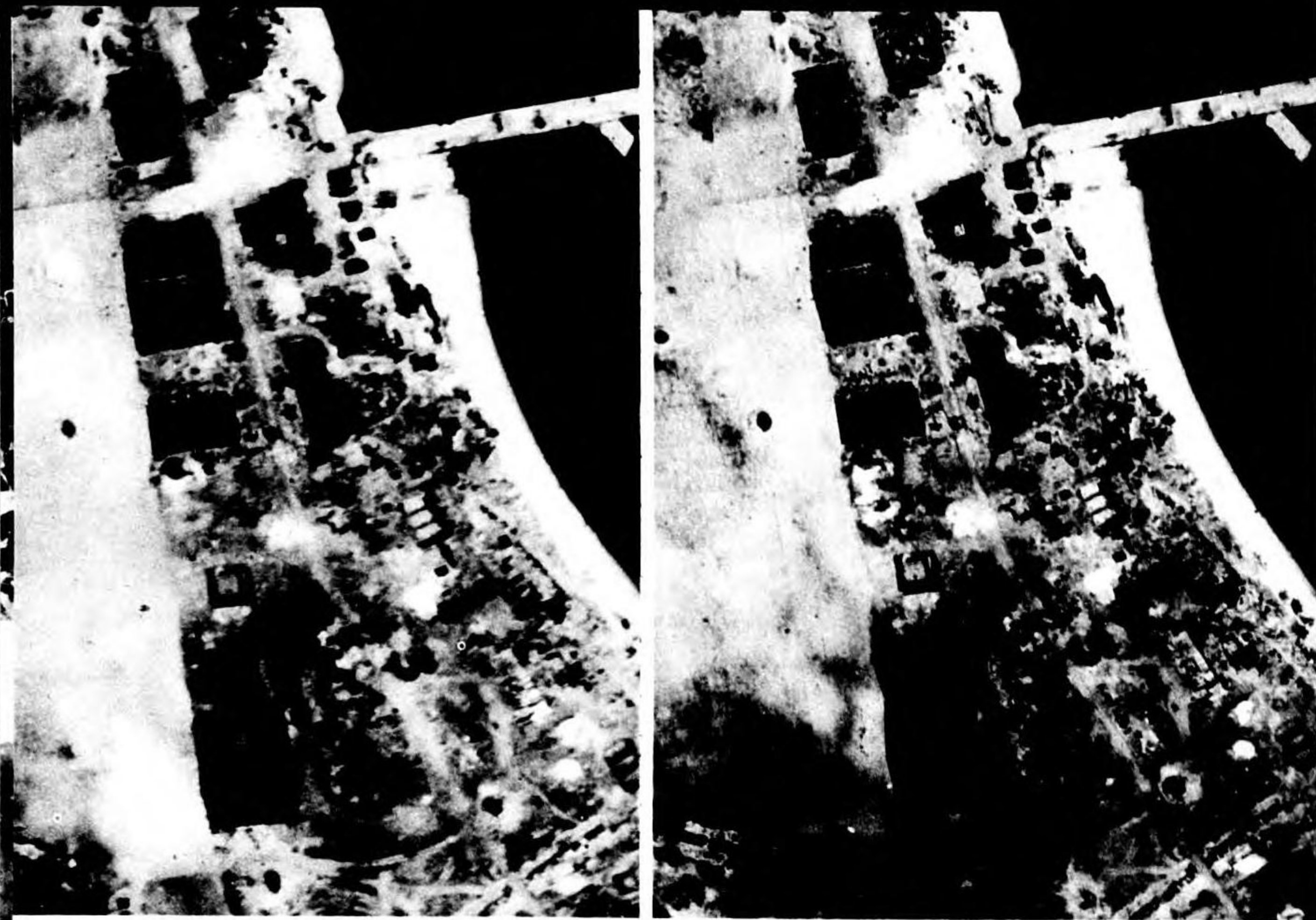
SEAPLANE BASE—KISKA 67' X 107' SEAPLANE HANGAR—KISKA HARBOR



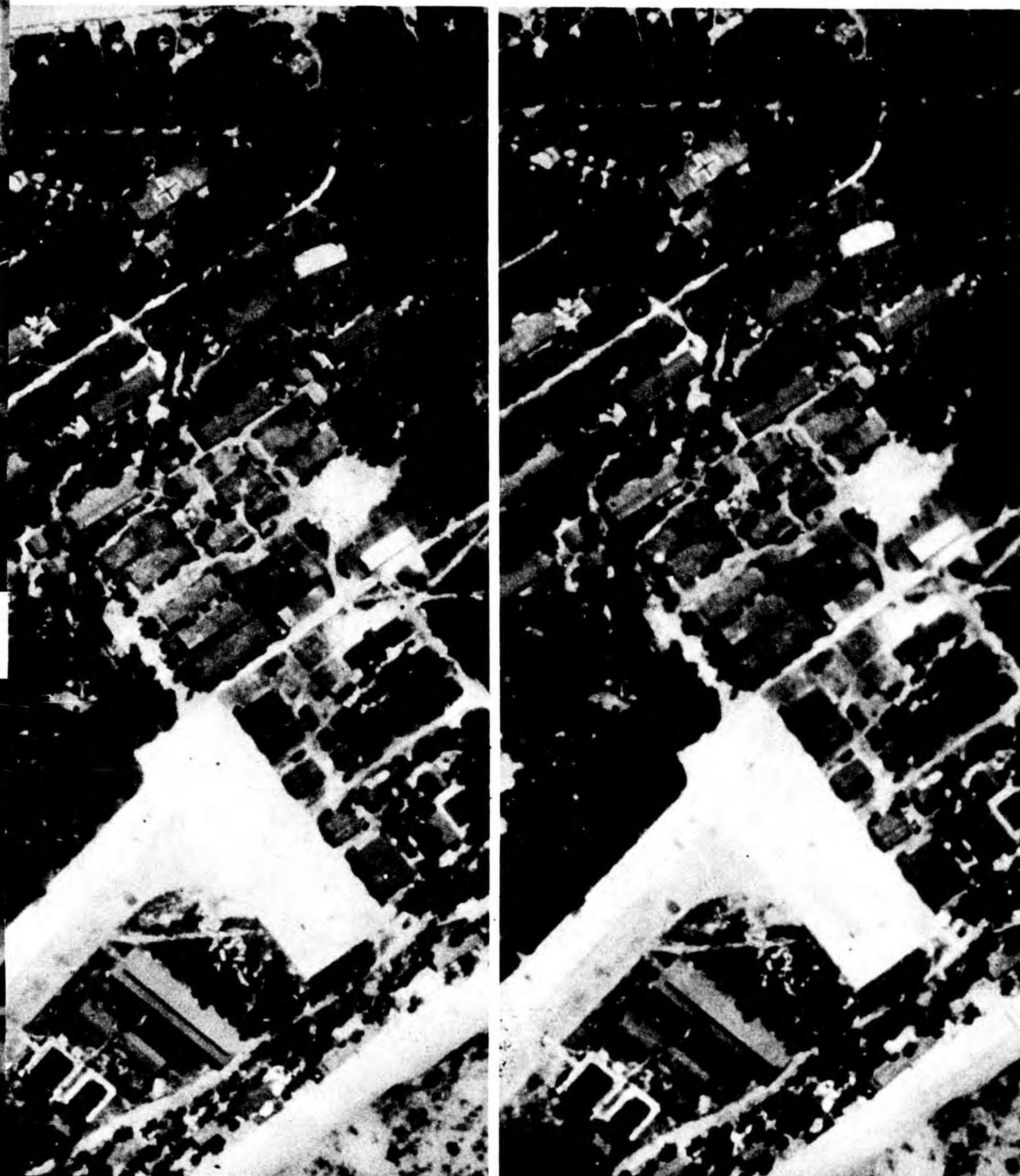
RESTRICTED 15.13

HANGARS

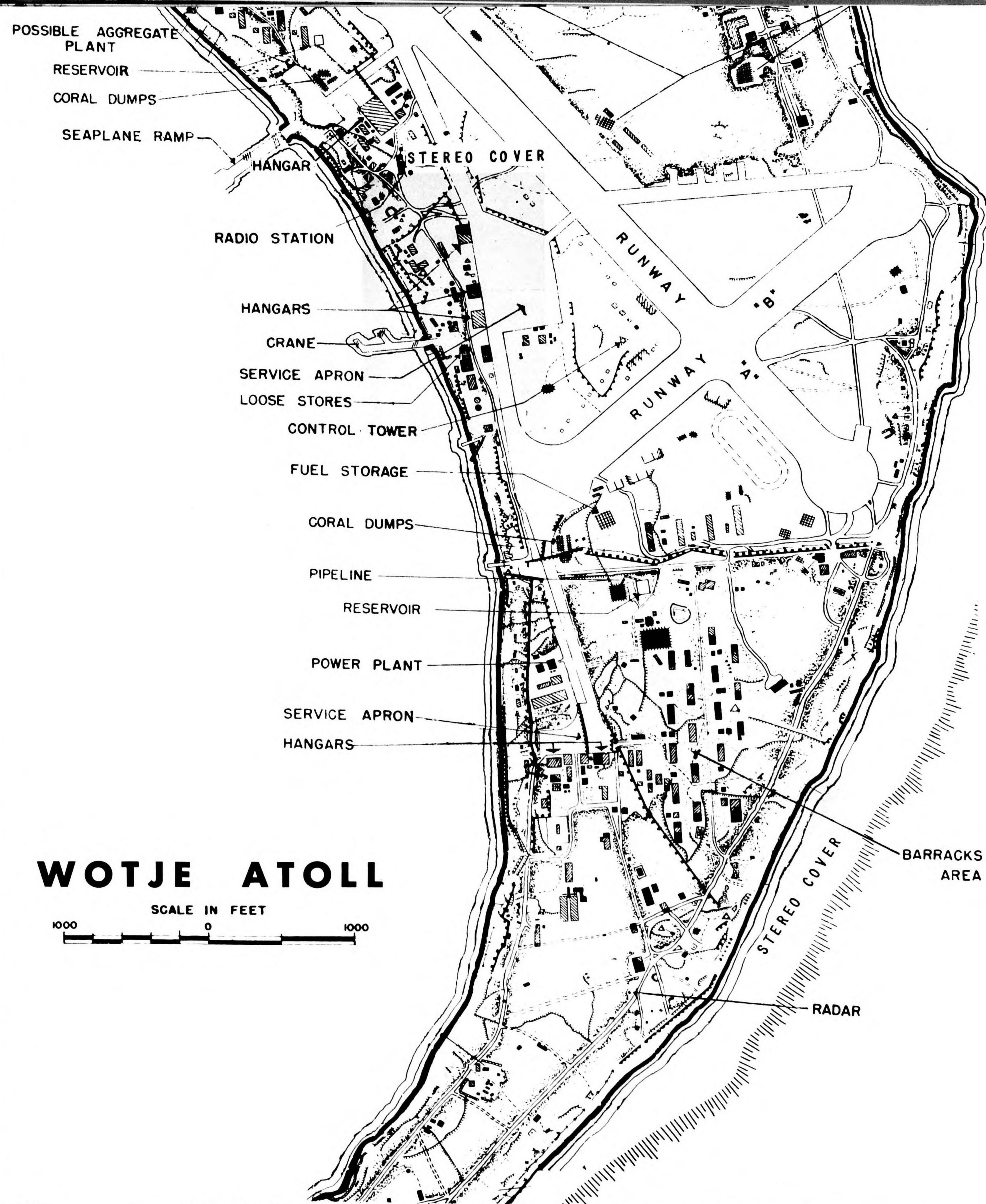
STEEL CONSTRUCTION



STEREO STUDIES OF HANGAR AREAS



15.14 RESTRICTED



GLOSSARY

ARCHITECTURAL TERMS

- BEAM** A piece of material supported on each end and placed horizontally or nearly so, to support a load over an opening or from column to column.
- BENDING** The moment tending to bend a beam.
- BRACING** An inclined member used in trussed partitions or in framed roofs, in order to form a triangle, and thereby stiffen the framing.
- BUTTRESS** A projecting structure for supporting or giving stability to, a wall or building, to receive lateral pressure or strain acting at a particular point in one direction.
- CHORD** In a truss, one of the principal members, usually approximately horizontal, two in number (upper and lower), braced by the web members.
- COLUMN** An upright support.
- COMPRESSION** Act of compressing or state of being compressed.
- EAVE** The edges or lower borders of the roof of a building which overhang the walls.
- FOOTING** An enlargement at the lower end of a wall, pier or column, to support and distribute the load.
- FOUNDATION** That part of a building or wall which is below the surface of the ground and supports the structure.
- GABLE** When a roof is not hipped or returned on itself at the ends, its ends are stopped by carrying up the walls under them in the triangular form of the roof itself.
- GIRDER** A large timber or iron beam, either single or built up, used to support joists or walls over an opening.
- HIP** A roof which rises by equally inclined planes from all four sides of the building.
- JOIST** A small member to which the boards of a floor or the laths of ceiling are attached. It rests on the wall or girders.
- MANSARD** A roof having on all sides two slopes, the lower one being steeper than the upper one.
- MONITOR ROOF** A roof with a raised central portion or clerestory.
- PIER** An auxiliary mass of masonry used to stiffen a wall or support a load.
- PURLIN** In roofs, a horizontal member supported on the principals and supporting the common rafters.
- RAFTER** The joist to which the roof-boarding is nailed.
- REINFORCED CONCRETE** Concrete in which metal usually steel, is embedded in such a manner that the two materials act together in resisting forces.
- RIDGE** The top of a roof which rises to an acute angle.
- SHEAR** An action or stress, resulting from applied forces, which causes or tends to cause two contiguous parts of a body to slide relatively to each other in a direction parallel to their plane of contact.
- SLAB** A comparatively thick plate or slice of building material.
- STUD** The small timbers used in partitions and outside wooden walls, to which laths and siding are nailed.
- TENSION** A force (either of two balancing forces) causing or tending to cause, extension.
- THRUST** The force or pressure, horizontal or diagonal, outward of one part of a construction against another part.
- TRUSS** An assemblage of members, such as beams, bars, rods, etc., so combined as to form a rigid framework.
- WALL, BEARING** A wall which supports any vertical load other than its own weight.
- WALL, CURTAIN** A wall that serves to enclose rather than support.

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