

Ministry of Infrastructure Development
Solomon Islands

IMPLEMENTATION REVIEW STUDY REPORT
ON
THE PROJECT FOR CONSTRUCTION
OF
MARKET AND JETTY IN AUKI
IN
SOLOMON ISLANDS

March 2010

JAPAN INTERNATIONAL COOPERATION AGENCY
FISHERIES ENGINEERING CO., LTD.

Preface

In response to a request from the Government of Solomon Islands, the Government of Japan decided to conduct an implementation review study on the Project for Construction of Market and Jetty in Auki and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA sent to Solomon Islands a study team from August 1 to August 15, 2009.

The team held discussions with the officials concerned of the Government of Solomon Islands, and conducted a field study at the study area. After the team returned to Japan, further studies were made, and as this result, the present report was finalized.

I hope that this report will contribute to the promotion of the project and to the enhancement of friendly relations between our two countries.

I wish to express my sincere appreciation to the officials concerned of the Government of Solomon Islands for their close cooperation extended to the teams.

March 2010

Takashima Izumi
Vice-President
Japan International Cooperation Agency

March 2010

Letter of Transmittal

We are pleased to submit to you the implementation review study report on the Project for Construction of Market and Jetty in Auki, Solomon Islands.

This study was conducted by Fisheries Engineering Co., Ltd., under a contract to JICA, during the period from July, 2009 to March, 2010. In conducting the study, we have examined the feasibility and rationale of the project with due consideration to the present situation of Solomon Islands and formulated the most appropriate basic design for the project under Japan's grant aid scheme.

Finally, we hope that this report will contribute to further promotion of the project.

Very truly yours,

Kuniaki Takahashi
Project manager,
Basic design study team on
The Project for Construction of Market and Jetty
in Auki, Solomon Islands
Fisheries Engineering Co., Ltd.

SUMMARY

Solomon Islands consists of six main islands and many small islands of various sizes, and has a total land area of 28,400km². With the annual rainfall exceeding 3,000mm, the sub-tropical climate and the volcanic soil, forests and timber resources are rich. The topography is comparatively mountainous, and only about 12% of the land is arable. However, as the exclusive economic zone waters amount to a huge 1.63 million square kilometers, marine fish resources, in particular tuna, are abundant. Malaita province is located north-east of the Guadalcanal island on which Honiara is situated, and consists of Malaita Island, Small Malaita Island and two atolls. Its land area is 4,225 km², of which 536 km² is arable. The gross national income (GNI) per capita of Solomon Islands is US\$730 (World Bank, 2007). Compared with other Pacific island countries the domestic land resources of Solomon Islands are comparatively plenty, but development has been slow. Since export of gold has stopped since 2000, due to ethnic tensions, the main exports are limited to agricultural and fishery products, such as timber, tuna, copra, cocoa, etc. The gross domestic product (GDP) comprises 36.1% primary industries, 9.2% secondary industries, and 54.7% tertiary industries. According to the World Bank, the population is about 506,000 (National Statistics Office, 2008 estimate), and only 23% of the population aged 14 or over are active in paid work. About 85% of the population in rural communities of Solomon Islands is engaged in subsistence production. The World Bank estimates that subsistence food production accounts for about 40% of the GDP of the Solomon Islands.

As a result of the ethnic tensions since March 1999, the main industries of the domestic economy, such as the mining industry, fisheries industry, and palm oil industry, suffered large reductions, and the GDP per person dropped by 35%. In addition to the above, during the conflict jetties and other transport infrastructure were not maintained properly, so marine transport which is so important to Solomon Islands was hindered. Though the production of the Non-Monetary sector has remained static despite the ethnic tensions, the domestic production of the monetary sector had dipped down and remained in the lower level. After the ethnic tensions have tamed, even though the fisheries sector has not yet recovered to the level of the production before the tensions, domestic production of the Monetary sector has shown a recovery as a result of an increase in timber exports, and the GDP has recovered to the level before the tensions. In 2007, GDP of the Solomon Islands is estimated to be 2,971 million SBD (IMF)).

The Government of Solomon Islands had formulated the National Economic Recovery, Reform and Development Plan 2003-2006 (NERRDP) to restore the economy that had been destroyed by the ethnic tensions, and adopted as the main strategies for the national development plan the revitalization of the production sector, reconstruction of the infrastructure and recovery of the basic social services in order to accelerate social development, and established the Medium Term Development Strategy 2008-2010, which focuses on the reconciliation and rehabilitation, sustaining of peace process and laws and orders, rehabilitation of the damaged social and economic infrastructures, and the basic needs of the peoples in rural areas. The Malaita Provincial Government took up the economic development of Malaita Province as the main objective in “the Strategic Plan of the People of Malaita Province 2007-2017” and plans to

promote the construction of a market to facilitate the sale of rural produce and products. Stress is also placed on the rehabilitation of transport infrastructures, such as roads and jetties.

For the people of Malaita Province, the market at the provincial capital Auki is a very important facility that trades the surplus products of rural subsistence households in Malaita Province and necessities of life transported from Honiara. However, the space in the market is small compared with the number of users, so at present many people are obliged to sit on the nearby roads selling their products. Also, since there is no roof, fish, vegetables, fruit, etc., that is displayed for sale is exposed to the direct sunlight, the freshness of such products deteriorates. In addition, there is frequent rain in Auki, and during the rain the produce is exposed to the rain. There is no paving, so the produce is displayed on the muddy ground. And to prevent the fish drying, fish vendors are splashing seawater, in which the *Escherichia coli* (*E. coli*) bacterium has been detected, on the fish. Although perishable produce is trading, the necessary equipment is not provided, which results in problems of loss of freshness, lowering of price, and health problems for the consumers.

The existing jetty is narrow, so on weekends when several ships from Honiara are arriving at the same time there is congestion with disembarking passengers and unloading cargos. It takes about 3 to 5 hours to disembark the passengers from the boats and to unload the cargos, which has an adverse effect on the convenience of distribution and safety of people and cargos. As 50 years have passed after construction of the existing jetty, parts of the concrete have spalled off, the reinforcements are exposed, and many parts of the reinforcement and steel members are corroding. In particular, deterioration of the superstructure is severe, and the danger of collapse of the concrete slabs is high. If the jetty were to collapse, transport with the other islands would be severed, including between Malaita Province and Honiara, and the economy of Malaita Province would be further adversely affected, so it is vital to re-build the jetty for Malaita Province.

Under such circumstances, the Solomon Islands Government has developed a Project for Construction of Auki Market and Renovation of Auki Jetty and has formulated a Request to the Government of Japan in August 2005 for a grant-aid to realize this Project. In response to this request, the Government of Japan had decided to carry out a basic design study from January 2007 to June 2007, and a study team was dispatched by the Japan International Cooperation Agency (hereinafter called “JICA”). Based on the result of the basic design study, the Government of Japan and the Solomon Islands Government exchanged the note regarding the grant aid project in 12th March 2008 and 19th June 2008 for the consultant service and the construction respectively.

The tender for the construction, however, was unsuccessful because of a hike in construction material prices and the supply-demand tightness on the worldwide construction market during the tendering stage, which results in failure to conclude the contract and the Project could not be implemented. Thus the Government of Japan carried out this implementation review study in order to grasp the change of the situation surrounding the Project, and to update the estimate of the project cost by studying local conditions of construction, fluctuation of materials and machinery prices as well as developing a construction method plan suitable for the up-to-date situation. JICA dispatched the implementation

review study team to the Solomon Islands from 1st August to 15th August 2009.

The team concluded that the contents of the Project shall be as it is on the Basic Design Study Report, of which the objective is to improve transport of the people between Malaita and Honiara and distribution of goods of Auki and Malaita Province and, in order to bring economic vitality to Malaita Province, by constructing the Auki Market and the Auki jetty.

The details of the appropriate scope for grant-aid cooperation are summarized as follows.

A. Building facility

Outline of the planned facility (building facility)

Facility name	Structure	Details of the facility	Scale (area)
1. Market facility	One story, RC structure Pile foundations * The access passage portion has partly direct foundations	- Market hall (fixed sales tables for agricultural produce, daily necessities, marine products: total 224 tables) - Access passage with roof (accommodating 100 lots of agricultural produce sales area)	Floor area: 1,710.6 m ²
	One story, Concrete block construction Direct foundations	- Shops (10 retailer's booths, 3 canteens) - Rooms for Butchery and Chest freezers (one shop each)	
2. Administrative office	One story, Concrete block construction Direct foundations	Contains several rooms for management and operation of the market	Floor area: 136.5 m ²
3. Other facilities	One story, Concrete block construction Direct foundations	- Public toilet (ladies and gents separate) - Temporary garbage shed - Guard's post	Floor area: 143.4 m ²
	Height 10.8m RC structure Pile foundations	- Elevated water tank (elevated water tanks for city water and rain water, provided a pump room in the first floor)	
4. Parking lot	Concrete pavement	Parking lot, roads within the Market facility	Paved area: 572.0 m ²
5. External grounds	Concrete flat slab pavement	Unloading area, pedestrian walkways, etc.	Paved area: 545.3 m ²
Total area			Building floor area: 1,990.5 m ² Park lot and external grounds: 1,117.3 m ²

B. Civil engineering facility

Outline of the planned facility (civil engineering facility)

Facility name	Structure	Details of the facility	Scale
1. Jetty	Substructure: steel pipe piles Superstructure: RC	Jetty: 1 No.	64.0m long × 12.0 m wide
		Access bridge: 1 No.	49.0m long × 8.0 m wide
		Ferry ramp: 1 No.	18.0m long × 8.0 m wide

		Ancillary facilities: Mooring posts, fenders, lighting	
2. Shore protection for the market site	Stepped gabion basket type	Shore protection combined with a small fishing vessel mooring facility will be constructed at the shore line of the market	Total length 105m

To implement the subject Project on the basis of grant-aid from the Government of Japan, a construction period, including the detailed design, of 21 months will be required. The project cost to be borne by the Solomon Islands Government, for the electrical and water installation cost to the site, and for the commission for banking arrangement is estimated to be about SBD190,000 (about 2.35million yen).

The Government of Solomon Islands is fully responsible for the proper operation and maintenance of the new market and jetty. The Ministry of Infrastructure Development (hereinafter called "MID"), at the initial stage, will take care of the operation and maintenance of the new market and jetty. At the same time, the Malaita Provincial Government is planning to establish a new organization as the registration is currently ongoing. As soon as the new organization is established, it will implement operation and management works under the supervision of MID, and once the new organization is capable of implementing more effective management, MID will hand over the responsibility to the Malaita Provincial Government. The direct costs of day-to-day maintenance and operation expenses of the facility are expected to be secured from the operation of the planned facility. Large-scale maintenance and repair costs are to be obtained from the budget of MID, so there should be no problem.

The implementation of this project is expected to have the following benefits in terms of solving the current problems in Malaita Province.

<Direct effects>

- ① The sales gross area per vender will be increased by a factor of 1.3 from the present 1.8 m²/person to 2.4 m²/person, so congestion within the market will be eased.
- ② As a roof be provided on the market place, vendors who would not have come to market in rainy days will come to the market, so the number of vendors in a year is expected to increase by 2,520 from the present 86,505 to 89,025.
- ③ As a result of enlarging the jetty, the time to disembark passengers from a vessel will be reduced by about 24% from the current average of 160 minutes per ship to 122 minutes per ship. The time for unloading cargos will be reduced by about 8% from the present 240 minutes per ship to an average of 222 minutes per ship.

<Indirect effects>

- ① The project will contribute to the stabilization of the local economy by improvement of transport and distribution of people and goods in Malaita Province.

- ② The project will eliminate difficulties due to parking vehicles for commercial activities in Auki shopping districts
- ③ Marine transport for an annual 99,000 passengers and 14,000 tons of freight between Malaita, for which the possibility of collapse and loss of the existing jetty is high, and Honiara and other islands will be secured.

Along with the above effects, providing the opportunity for rural people to trade their products in the Auki Market for earning cash will contribute to stabilization of the local economy of Malaita Province. These benefits would accrue to all of the 150,000 residents of Malaita Province. It is, therefore, appropriate and justified that this project be implemented on the basis of grant-aid cooperation.

Contents

Preface

Letter of Transmittal

Summary

Contents

Location Map/Perspective

List of Figures & Tables

Abbreviations

CHAPTER 1 BACKGROUND OF THE PROJECT.....1-1

1-1 BACKGROUND OF THE REQUEST.....1-1

1-2 NATURAL CONDITIONS OF THE PROJECT SITE.....1-2

1-2-1 Natural Conditions.....1-2

1-3 ENVIRONMENTAL AND SOCIAL CONSIDERATIONS.....1-2

CHAPTER 2 . CONTENTS OF THE PROJECT2-1

2-1 BASIC CONCEPT OF THE PROJECT2-1

2-2 BASIC DESIGN OF THE REQUESTED JAPANESE ASSISTANCE2-1

2-2-1 Design Policy.....2-1

2-2-2 Basic Plan.....2-1

2-2-3 Basic Design Drawing2-3

2-2-4 Implementation Plan.....2-11

2-3 OBLIGATIONS OF RECIPIENT COUNTRY2-14

2-4 PROJECT OPERATION PLAN.....2-15

2-5 PROJECT COST ESTIMATION.....2-18

2-5-1 Operation and maintenance cost.....2-19

2-6 OTHER RELEVANT ISSUES.....2-22

CHAPTER 3 PROJECT EVALUATION AND RECOMMENDATIONS.....3-1

3-1 PROJECT EFFECT.....3-1

3-1-1 Direct Effects.....3-1

3-1-2 Indirect Effects3-4

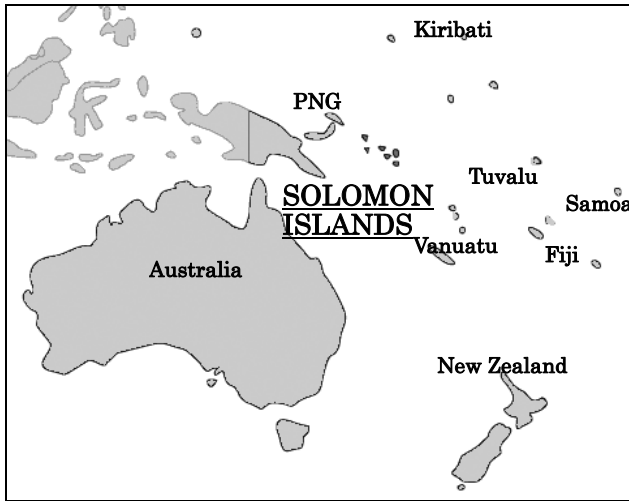
3-2 RECOMMENDATIONS.....3-4

3-2-1 Problems to Cope with by the Government of Solomon Islands : Recommendations3-4

3-2-2 Technical Cooperation and Tie-up with Other Donors3-5

[Appendices]

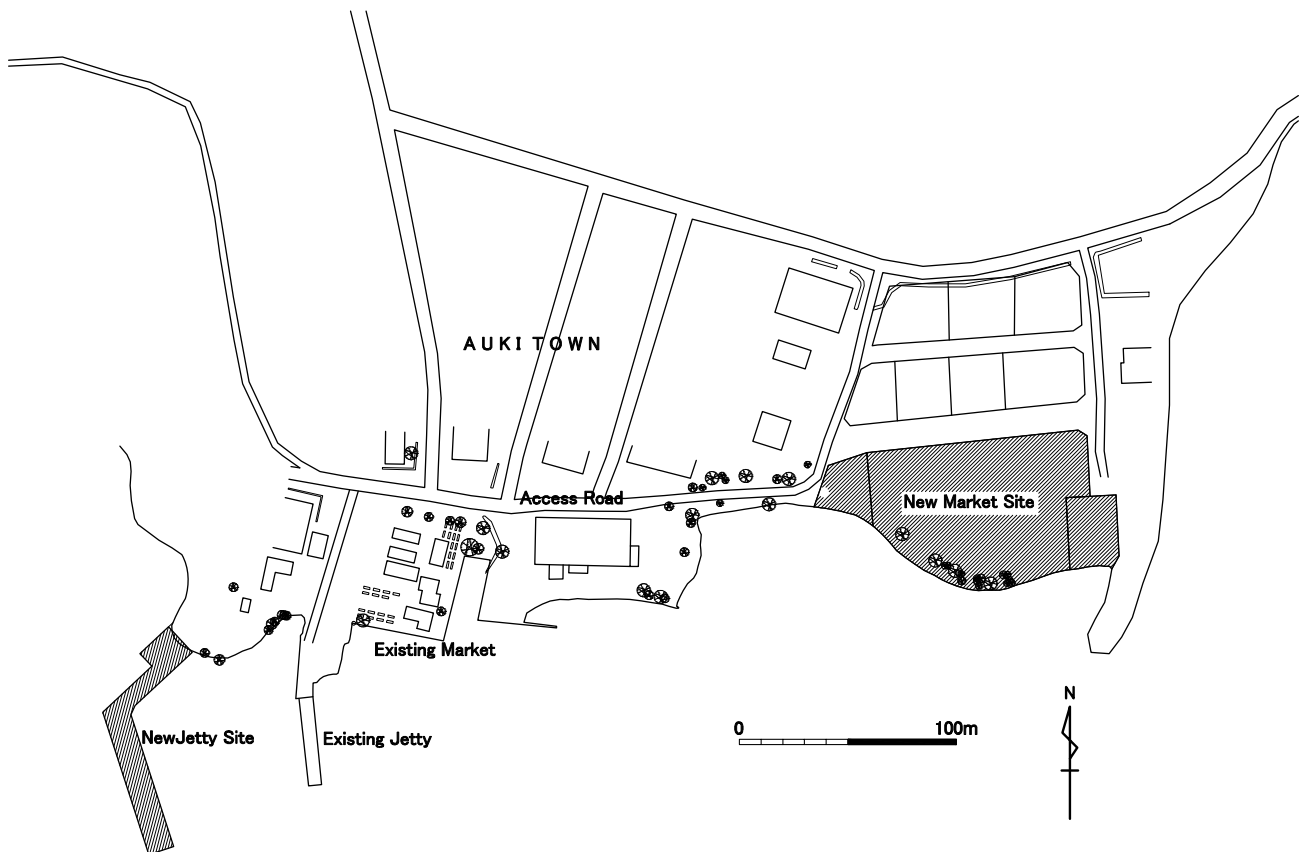
1. Member List of the Study Team
2. Study Schedule
3. List of Parties Concerned in the Recipient Country
4. Minutes of Discussion
5. References



Map of Solomon Islands



Map of Auki City and Malaita Province



Site Map

Location Map



Perspective (MARKET)



Perspective (JETTY)

List of Figures & Tables

Table 1-1 : Request components and priority order identified in the Minutes of Discussions of the Basic Design Study.....	1-2
Table 2-1 : Outline of the planned facility	2-2
Table 2-2 : Scope of work of Japan and The Solomon Islands	2-11
Table 2-3 : Procurement sources of major construction materials and equipment.....	2-12
Table 2-4 : Implementation Schedule.....	2-13
Table 2-5 : Annual income & expenditure of Auki Market & Jetty.....	2-21
Table 3-1 : Total selling floor space per weekend vendor in Auki market.....	3-1
Table 3-2 : Increase of vendors by construction of roofed selling floor space.....	3-2
Table 3-3 : Conditions of passengers' disembarkation, cargo unloading and loading from or on main ships.....	3-3
Table 3-4 : Conditions of passengers' disembarkation and cargo unloading from main ships	3-3
Figure 2-1 : Auki market and jetty operation and management plan.....	2-17
Figure 2-2 : Organization Chart for the operation and management of Auki Market and Jetty.....	2-17

Abbreviations

C.D.L.	Chart Datum Level
D.L.	Datum Level
EIA	Environmental Impact Assessment
EP	Emulsion Paint
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FRP	Fiber-Reinforced Plastic
G.L.	Ground level
GDP	Gross domestic product
GNI	Gross National Income
HIES	Household Income and Expenditure Survey
IEE	Initial Environmental Examination
IMF	International Monetary Fund
JICA	Japan International Cooperation Agency
JIS	Japanese Industrial Standards
M/D	Minutes of Discussions
MID	Ministry of Infrastructure Development
MOU	Memorandum of Understanding
MDPAC	Ministry of Development Planning and Aid Coordination
MSP	Management Service Provider
NERRDP	National Economic Recovery, Reform and Development Plan
NGO	Nongovernmental Organization
OFCF	Overseas Fishery Cooperation Foundation
PNG	Papua New Guinea
PVC	Polyvinyl chloride
RAMSI	Regional Assistant Mission to Solomon Islands
SBD	Solomon Islands Dollar
UNDP	UN Development Programme
USGS	US Geological Survey
WHO	World Health Organization

CHAPTER 1 BACKGROUND OF THE PROJECT

CHAPTER 1 BACKGROUND OF THE PROJECT

1-1 Background of the Request

In Solomon Islands, infrastructure facilities have been damaged by subversive activities during the “Ethnic Tensions” since 2000, in addition to the deterioration of facilities and equipment due to interruption of maintenance resulting from the stagnation of economic activities during the “Ethnic Tensions”. In the National Economic Recovery, Reform, and Development Program (NERRDP), the economic growth of Solomon Islands absolutely requires an efficient and effective system of physical distribution, and this development program is considered to be based on the development of a transport infrastructure for restoration of the foundation of human development.

In Malaita Province, 54.2% of households engage in subsistence farming and fishing activities, demonstrating a belated shift to a money economy in the province, whereas the nationwide average ratio of subsistence farming and fishing households in the Solomon Islands is 36.1%. The population in the province is 153,000 (2008 estimate), accounting for 30% of the total national population, and the population density is more than double that of the national average. Malaita Province ranks lowest in both the human development index and the human poverty index among all the provinces in the Solomon Islands. The social infrastructure facilities of Malaita Province are seriously inadequate, and the average income of the residents in Malaita Province is lower than that in other provinces in the Solomon Islands. The Malaita Provincial Government, therefore, states in the Strategic Plan of the people of Malaita Province (2007-2017) that it will promote the construction of a market to sell the province’s products in order to enable acquisition of cash income from village-based production. In addition, the Government also places stress on the rehabilitation or construction of the roads and jetties.

For rural residents who live in a society relying on a subsistence economy in Malaita Province, Auki Market is an important place to sell surplus products to earn cash income and to buy daily necessities. However, the market facilities are in such a poor condition that goods exposed to direct sunlight lose their freshness and their quality deteriorates, and many of the products are also exposed to rain, resulting in a harmful hygienic situation. In addition, Auki Jetty, the only entrance for everyday sundries and necessities such as rice and salt from Honiara, has also heavily deteriorated and been in a dangerous state due to the explosive fractures and spalling of its reinforced concrete.

Therefore, it is an urgent necessity to construct the Auki Market which will be a place for the rural residents in Malaita Province to earn cash income, and to rehabilitate the Auki Jetty which will support marine transport between Malaita Province and the other islands.

The Government of Solomon Islands has formulated the “Auki Market Construction and Jetty Rehabilitation Project” to improve the distribution in the Auki Market and transportation of Auki Jetty, and requested the Japanese grant aid to implement the project.

Japan International Cooperation Agency (JICA) dispatched a basic study team for the study of the Project for Construction of Auki Market and Jetty to the Solomon Islands for the period of January 29 to February 28, 2007 in order to clarify the background of the request by the Government of Solomon Islands and to confirm the contents of the Project for Construction of Auki Market and Jetty. The request components and their priority order as shown in Table 1-1 were confirmed through the field survey and discussions between both parties in the basic design study.

Table 1-1 : Request components and priority order identified in the Minutes of Discussions
of the Basic Design Study

	Request component	Description	Quantity	Priority
1	Market house	Market 1,800m ² , administrative office, fish processing room and farmers' storage	1	A
2	Ice-making plant	2 tons per day, ice storage of 6 tons	1	B
3	Cold storage	5 tons at -20°C and 3 tons at +5°C	1	B
4	External Booths for general retailers	20 units	1	A
5	Outdoor lighting		1	B
6	Parking lot and yard pavement	1,600 m ²	1	A
7	General External works	Elevated water tank, rainwater collector, rainwater drainage and wastewater treatment system	1	A
8	Market Accessories devices	Fish boxes, scales, etc.	1	C
9	Berthing facilities for fishing boats and canoe		1	A
10	Fishermen's gear lockers		1	B
11	Ablution Block (Public toilet) and garbage dump area	Separate buildings for men and women, each including 10 cells	1	A
12	Jetty for Inter-island Vessels	total length of 60 m and width of 12 m	1	A
13	Relating Works	Bank protection works for the jetty	1	A

A: Requires urgent construction, B: Important but needs examination, C: Necessary but relevance must be examined from technical and economical viewpoints

1-2 Natural Conditions of the Project Site

1-2-1 Natural Conditions

The natural conditions of the sites are confirmed to be the same as the ones at the time of the basic design study. No significant natural disasters, change of the shore profile, unusual tide or wave have not been observed after the basic design study.

1-3 Environmental and Social Considerations

The Initial Environmental Examination (IEE) has reached the conclusion that the Project for Construction of Market and Jetty in Auki does not require Environmental Impact Assessment (EIA) according to the environmental laws of the Solomon Islands.

Thus, the following measures were taken in the basic design study to avoid and mitigate such environmental and social impacts:

(1) Mooring facilities in front of the market site

It is considered desirable to construct mooring facilities for boats and canoes for the benefit of market users. However, it is impossible for small craft to always use the mooring facilities because the seawater area in front of the planned market is a sandbank at the mouth of Kwaibara River where the water depth is shallow and a dry beach is made at the ebb tide. In addition, mangroves grow in the vicinity of the river mouth and the present conditions have to be conserved to the maximum. However, the area along the shore line suffers from some erosion due to climbing waves, causing trees to fall down. Therefore, it is planned to construct a stepped gabion basket type embankment to enable small craft to use it at the full tide.

(2) Installation of public lighting

Public lighting will be installed at 4 points at the jetty site and at 4 points at the market premises as it is necessary to provide public lighting equipment at the jetty and market sites especially for crime prevention and for the safety of users in the nighttime.

(3) Installation of toilets for gender consideration

The toilets for women and men will fully be separated by a partition taking noise and visibility into consideration. The quantity of toilet equipment has been determined in accordance with the proportion of men-women among the market users.

(4) Scenic considerations

The roof slope and framework system of the market building will follow the common roof structure that is used in the Solomon Islands and colors that are common in this country will be adopted.

(5) Water supply and sewer treatment programs

This country is in a heavy rainfall region, but the city water drawn from the groundwater in mountains is constantly in short supply. Therefore, the cleaning water except drinking and cooking water shall be made available by collecting rainwater from the large roof of the market building into an underground tank. For miscellaneous wastewater, large scale processing will not be carried out within the market facility, so high concentration wastewater will not arise. However, the wastewater will be treated in a combined treatment tank, after removal of solid matter will be percolated into the underground.

(6) Rubbish collection and disposal plan

A volume of rubbish including coconut casks, banana leaves and vegetable garbage will arise in the market facilities. This rubbish will be collected daily by cleaning personnel of the market and temporarily kept in a temporary rubbish shed with doors which will be installed in the market facilities. The collected rubbish will be moved out of the market facilities by an outsourced rubbish collector several times per week and treated at a place of final disposal as designated by the Provincial Government.

CHAPTER 2 CONTENTS OF THE PROJECT

CHAPTER 2 . CONTENTS OF THE PROJECT

2-1 Basic Concept of the Project

It is confirmed that the policy, objective and outline of the project set in the basic design study and the current status of the site are not changed in this implementation review study.

2-2 Basic Design of the Requested Japanese Assistance

2-2-1 Design Policy

It is confirmed that the contents and design of facilities of the basic design study report are unnecessary to change.

2-2-2 Basic Plan

The design contents and the size of the facilities for civil engineering works and architectural works shall be as it is in the basic design study. The following table shows the outline of the planned facilities.

Table 2-1 : Outline of the planned facility

Outline of the planned facility (building facility)

Facility name	Structure	Details of the facility	Scale (area)
1. Market facility	One story, RC structure Pile foundations * The access passage portion has partly direct foundations	- Market hall (fixed sales tables for agricultural produce, daily necessities, marine products: total 224 tables) - Access passage with roof (accommodating 100 lots of agricultural produce sales area)	Floor area: 1,710.6 m ²
	One story, Concrete block construction Direct foundations	- Shops (10 retailer's booths, 3 canteens) - Rooms for Butchery and Chest freezers (one shop each)	
2. Administrative office	One story, Concrete block construction Direct foundations	Contains several rooms for management and operation of the market	Floor area: 136.5 m ²
3. Other facilities	One story, Concrete block construction Direct foundations	- Public toilet (ladies and gents separate) - Temporary garbage shed - Guard's post	Floor area: 143.4 m ²
	Height 10.8m RC structure Pile foundations	- Elevated water tank (elevated water tanks for city water and rain water, provided a pump room in the first floor)	
4. Parking lot	Concrete pavement	Parking lot, roads within the Market facility	Paved area: 572.0 m ²
5. External grounds	Concrete flat slab pavement	Unloading area, pedestrian walkways, etc.	Paved area: 545.3 m ²
Total area			Building floor area: 1,990.5 m ² Park lot and external grounds: 1,117.3 m ²

Outline of the planned facility (civil engineering facility)

Facility name	Structure	Details of the facility	Scale
1. Jetty	Substructure: steel pipe piles Superstructure: RC	Jetty: 1 No.	64.0m long × 12.0 m wide
		Access bridge: 1 No.	49.0m long × 8.0 m wide
		Ferry ramp: 1 No.	18.0m long × 8.0 m wide
		Ancillary facilities: Mooring posts, fenders, lighting	
2. Shore protection for the market site	Stepped gabion basket type	Shore protection combined with a small fishing vessel mooring facility will be constructed at the shore line of the market	Total length 105m

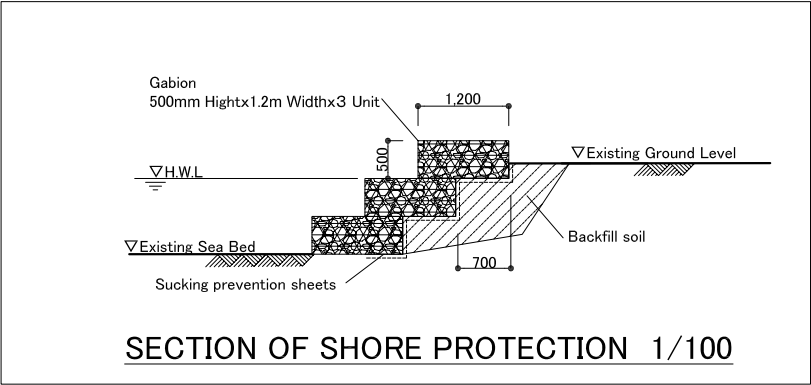
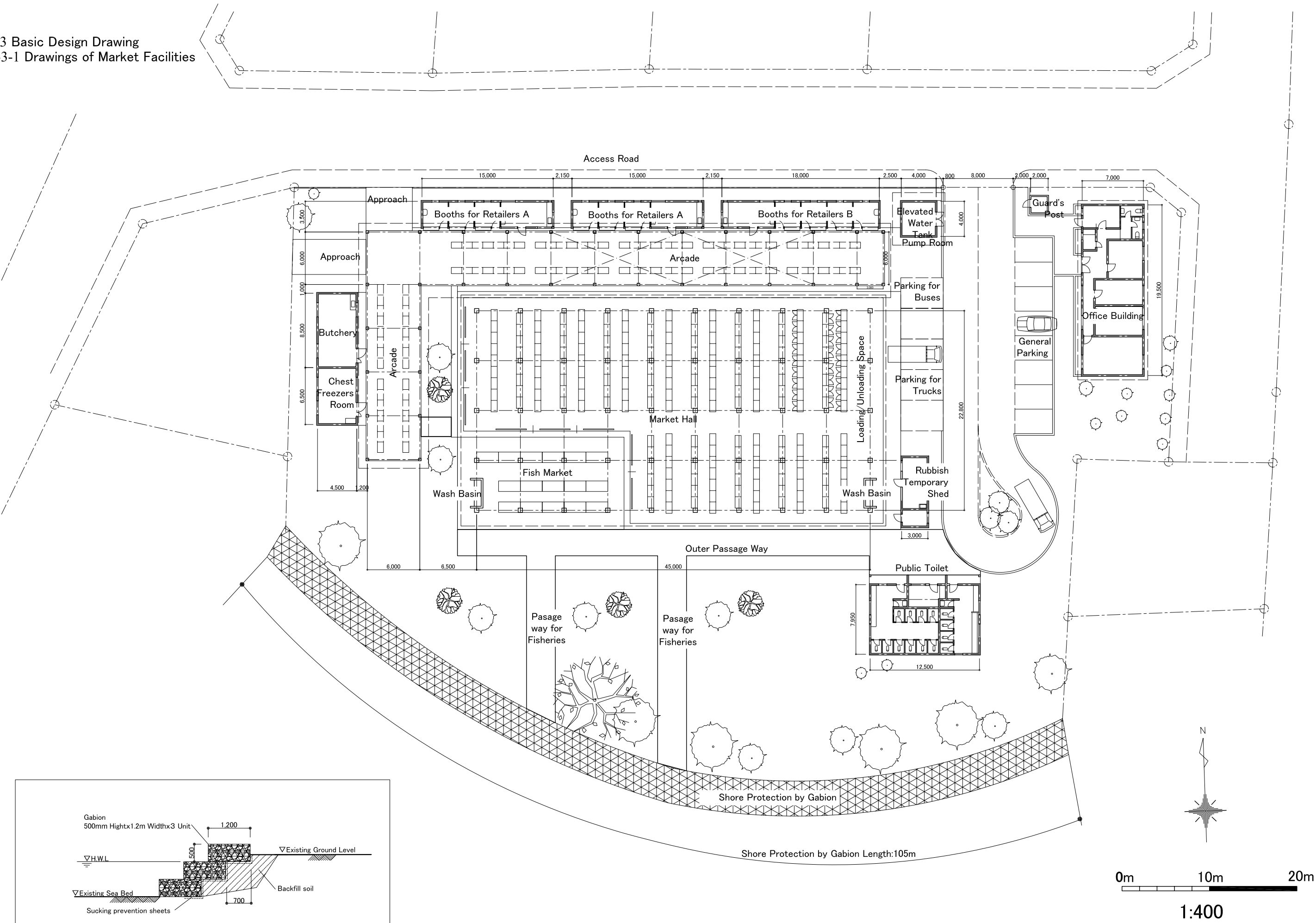
2-2-3 Basic Design Drawing

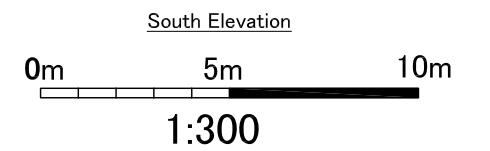
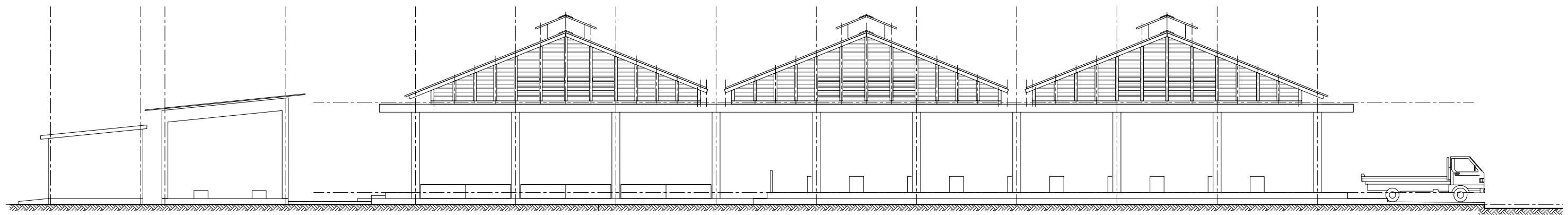
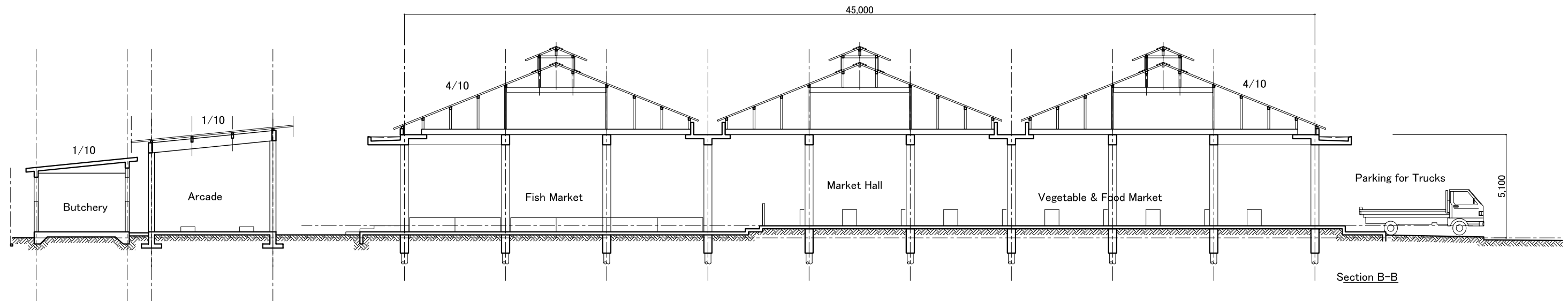
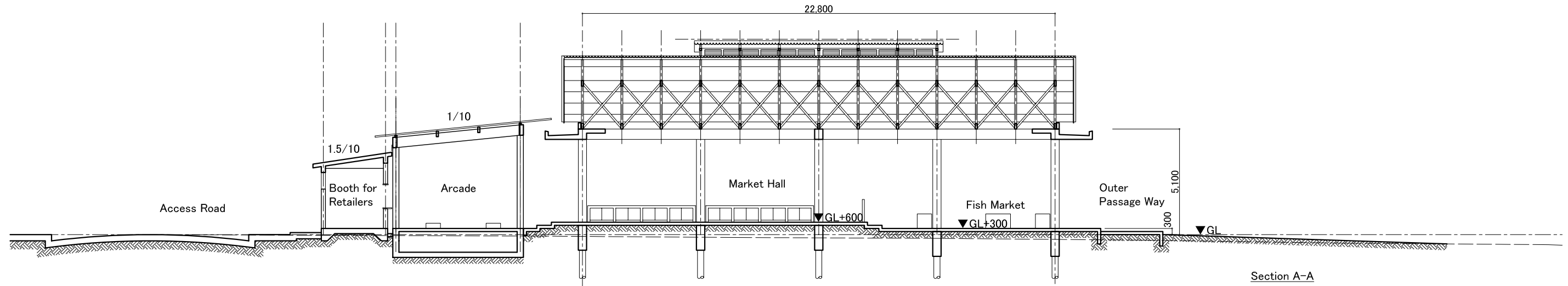
2-2-3-1 Basic Design Drawings of the Building Facilities

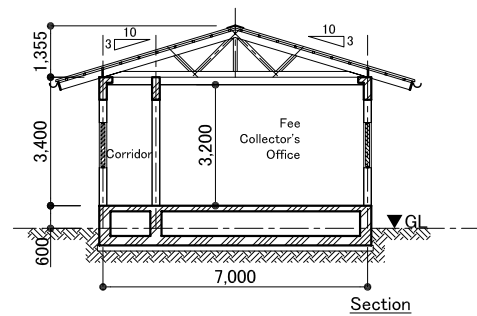
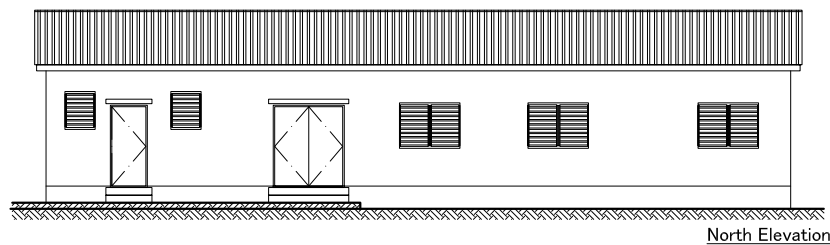
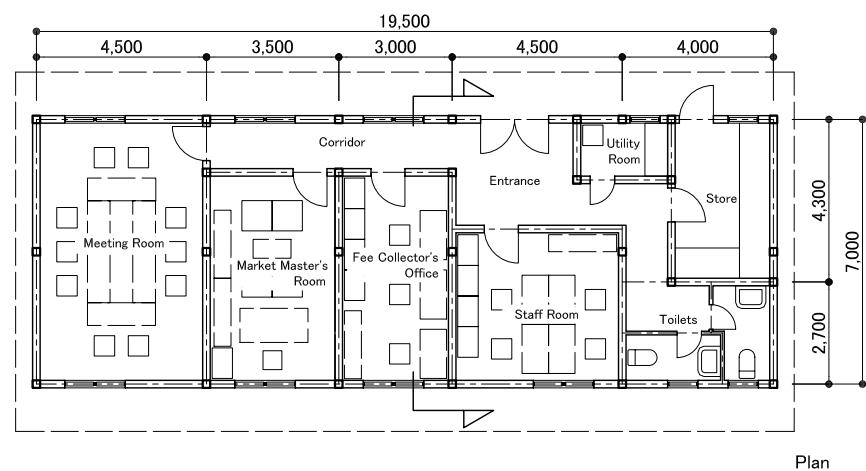
- A Site Plan of Market
- B Plan of Market Hall and Arcade
- C Elevation and Section of Market Hall and Arcade
- D Plan, Elevation and Section of Other Facilities

2-2-3-2 Basic Design Drawings of the Civil Engineering Facilities

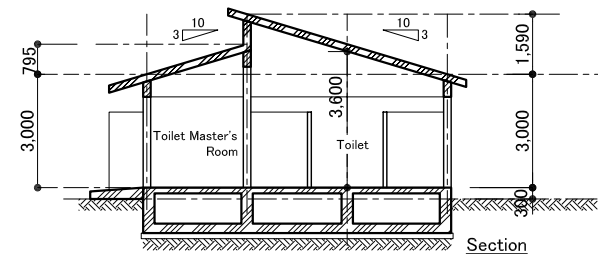
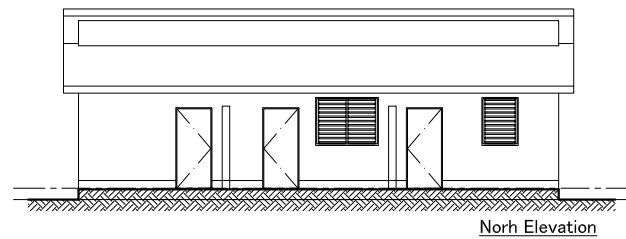
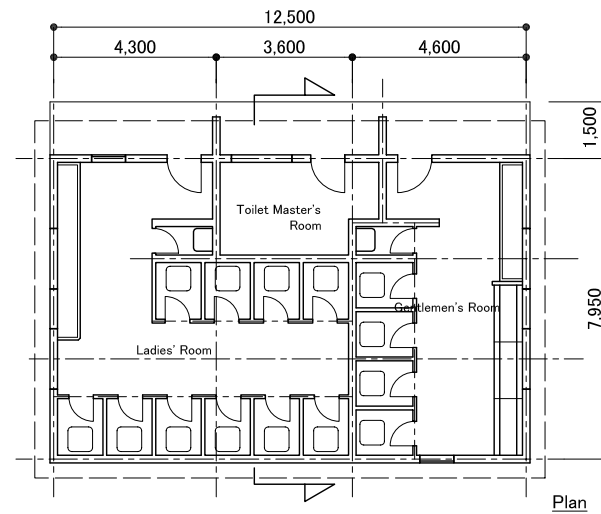
- E Plot Plan
- F Block Plan
- G Jetty Long Section (1/2) Main Landing Jetty
- H Jetty Long Section (2/2) Access Jetty
- I Typical Sections



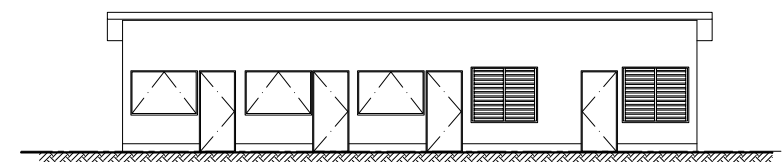
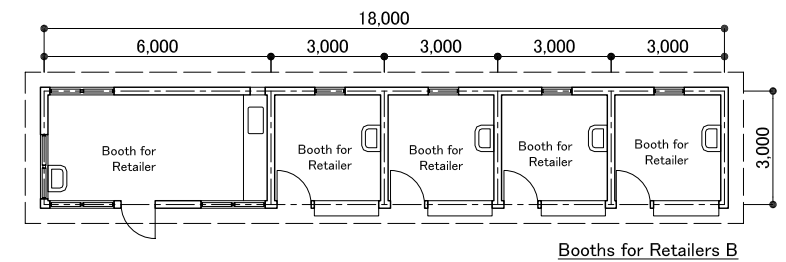
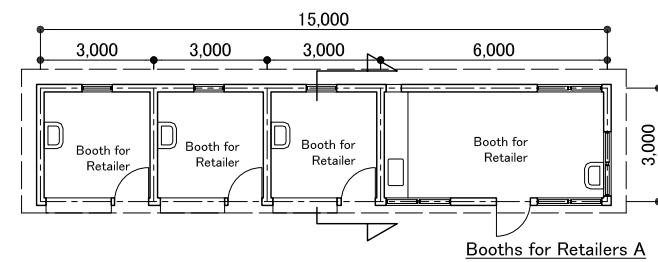




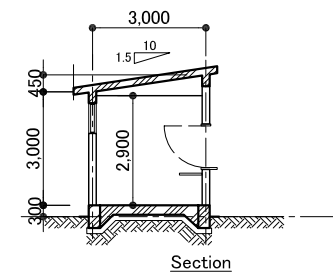
OFFICE BUILDING



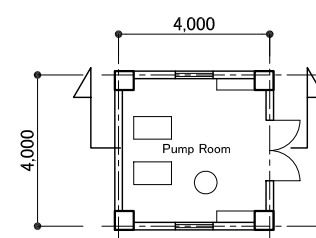
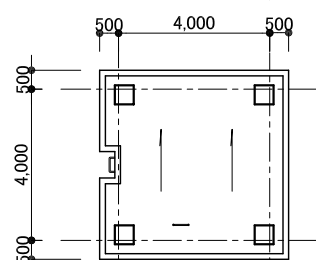
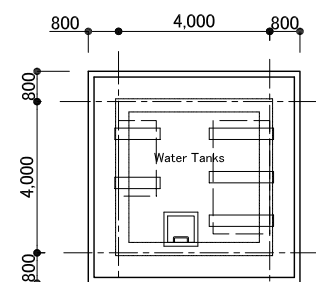
PUBLIC TOILET



Elevation of Booths for Retailers A



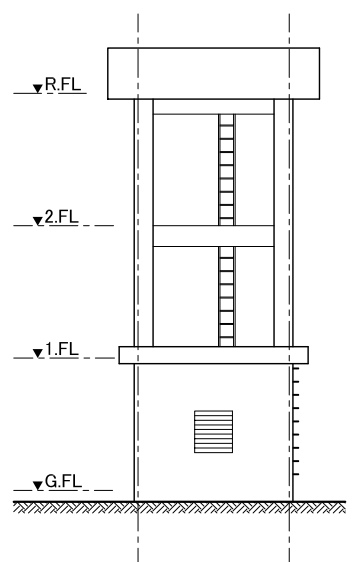
BOOTHS FOR RETAILERS



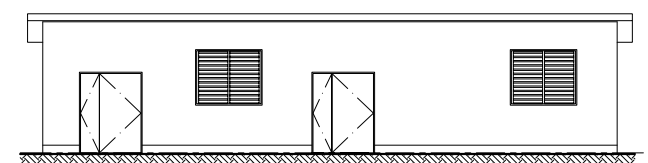
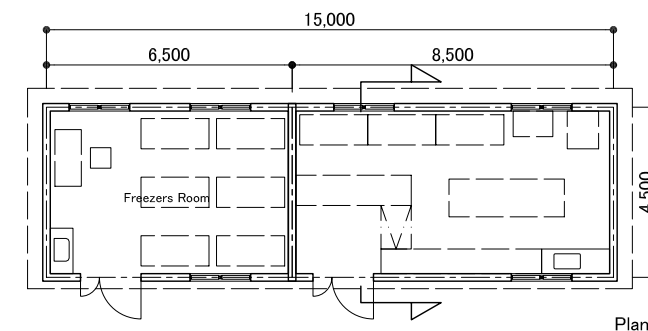
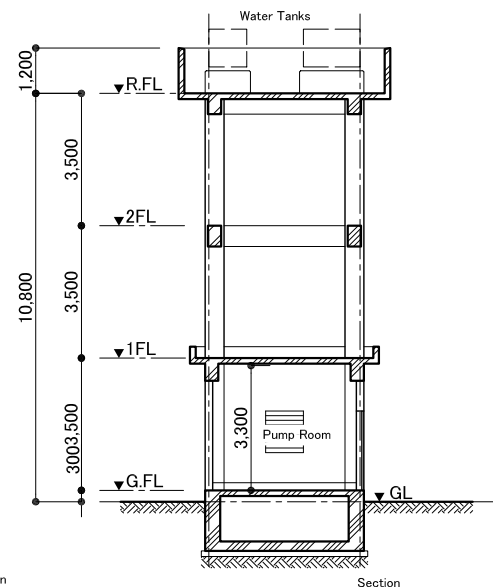
Plan R.F.L.

Plan 2.FL

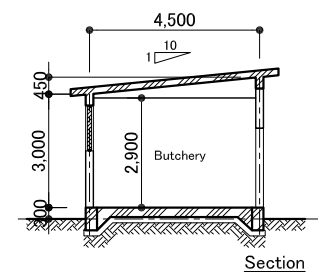
Plan G.F.L.



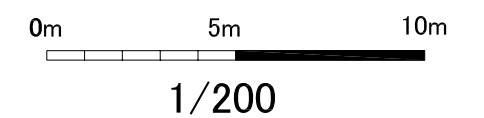
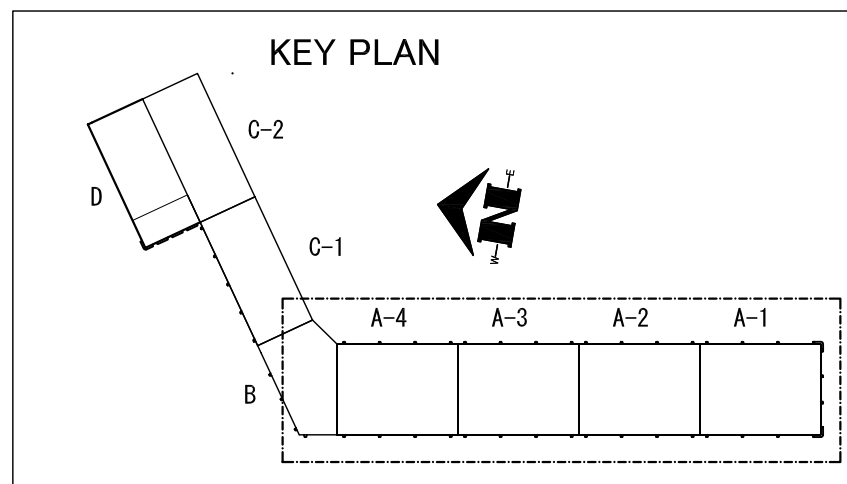
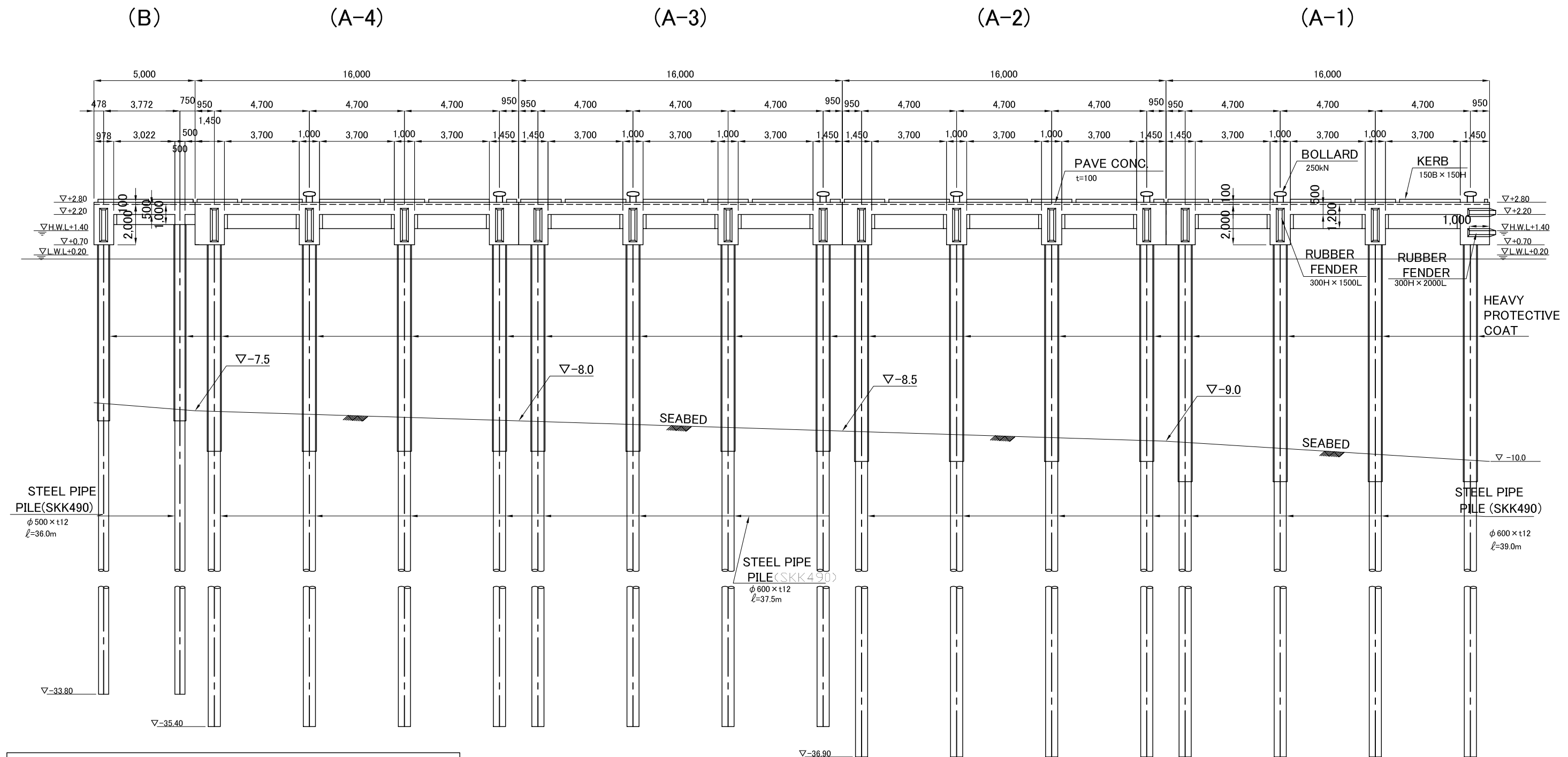
ELEVATED WATER TANKS



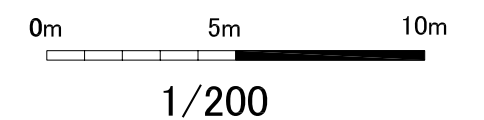
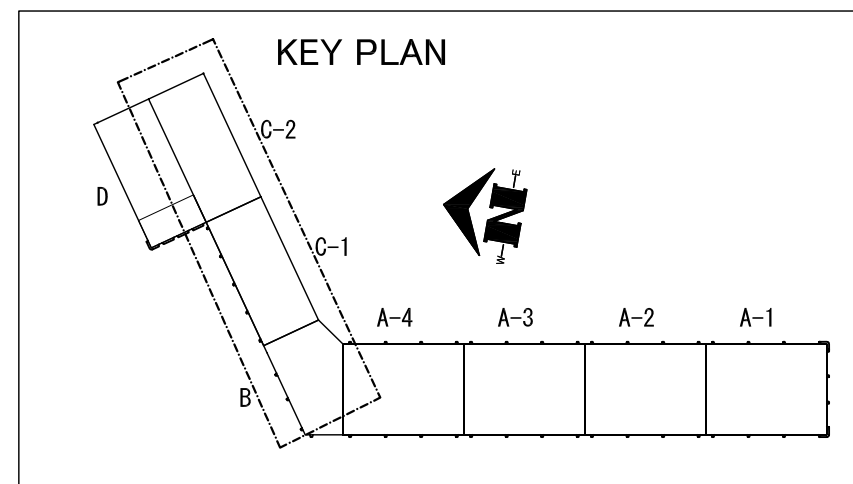
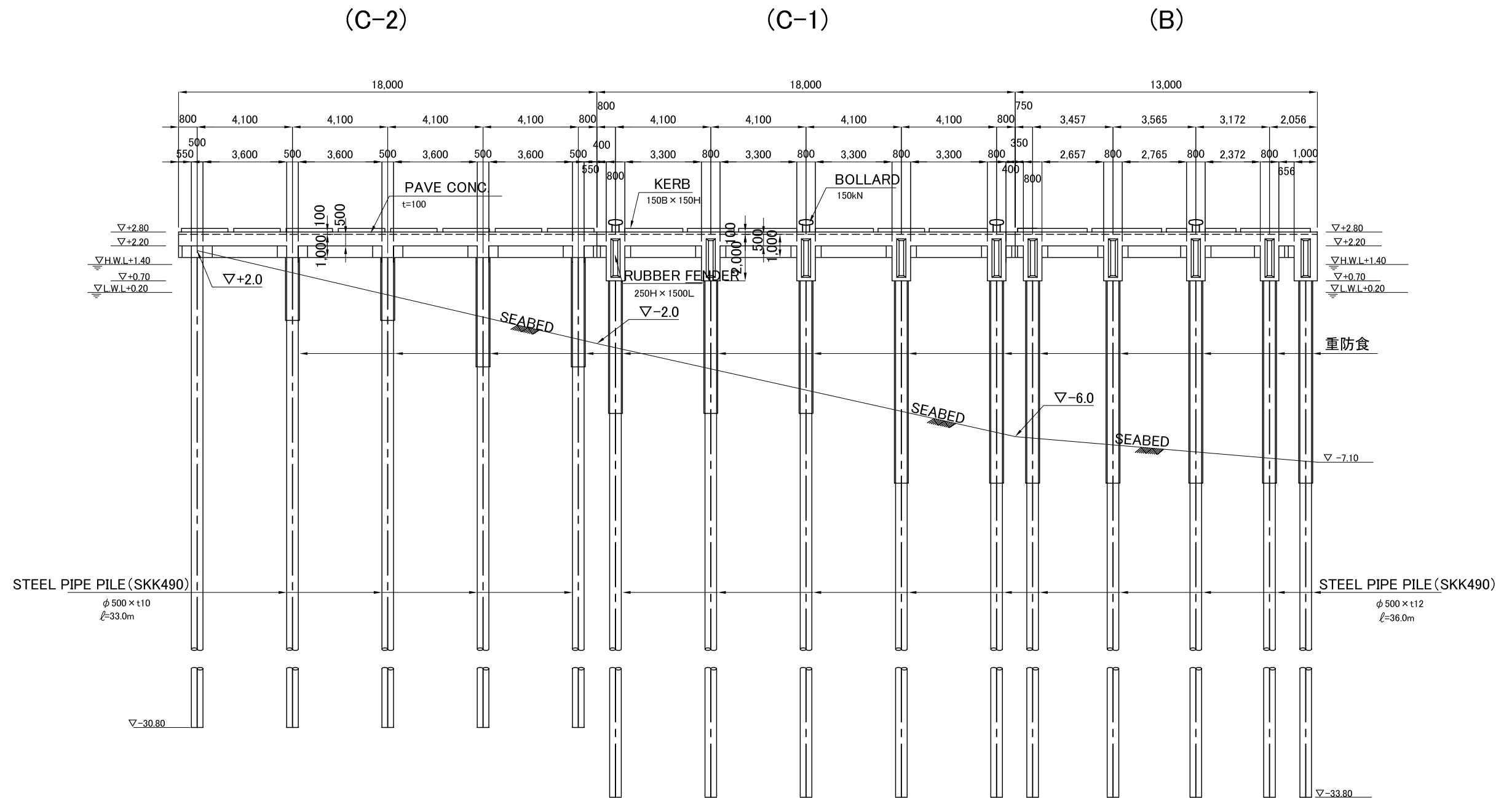
BUTCHERY & FREEZERS ROOM



1:200



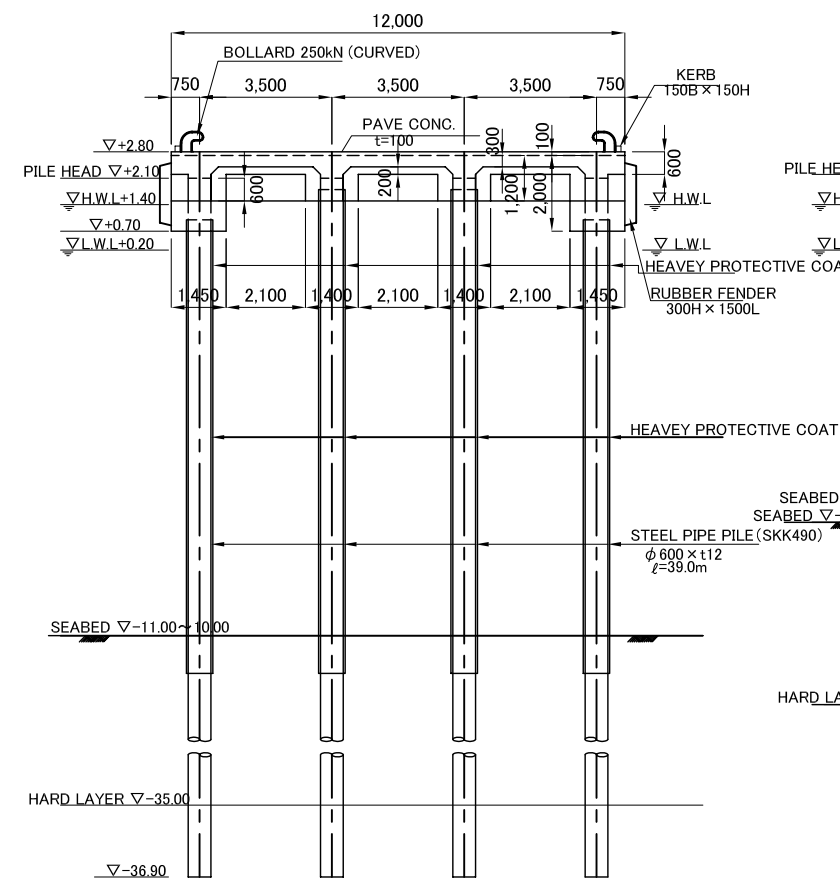
G. JETTY LONG SECTION (1/2) MAIN LANDING JETTY



H. JETTY LONG SECTION (2/2) ACCESS JETTY

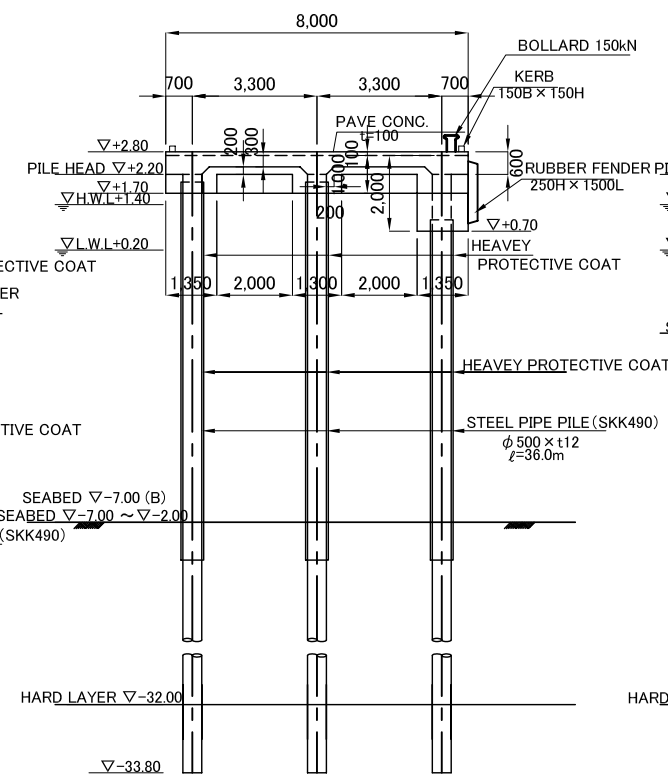
MAIN LANDING JETTY

Type A-1, A-2



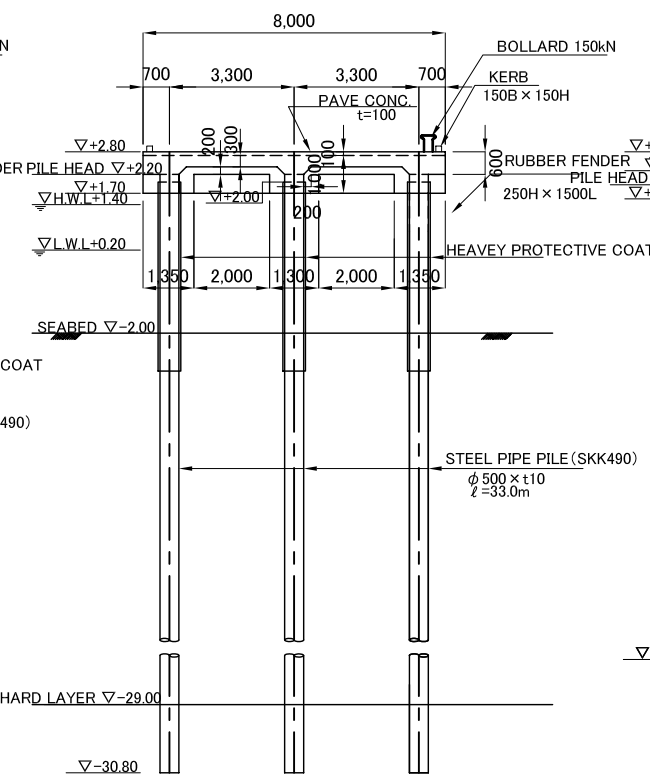
ACCESS JETTY

Type C-1 (Type B IS SIMILAR TO C-1)



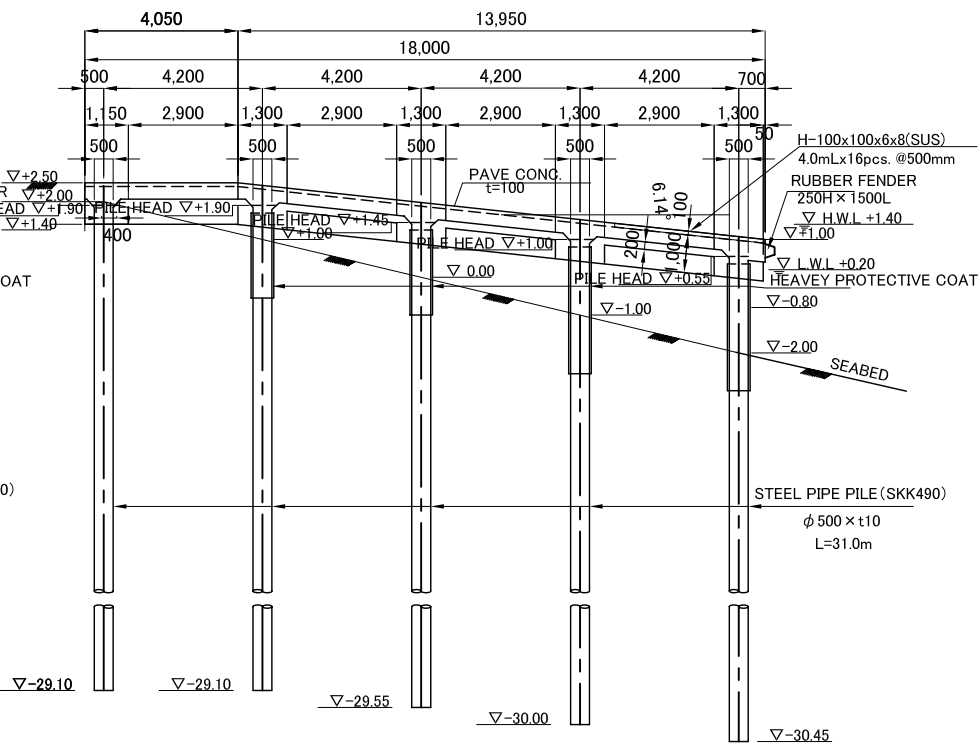
ACCESS JETTY

Type C-2

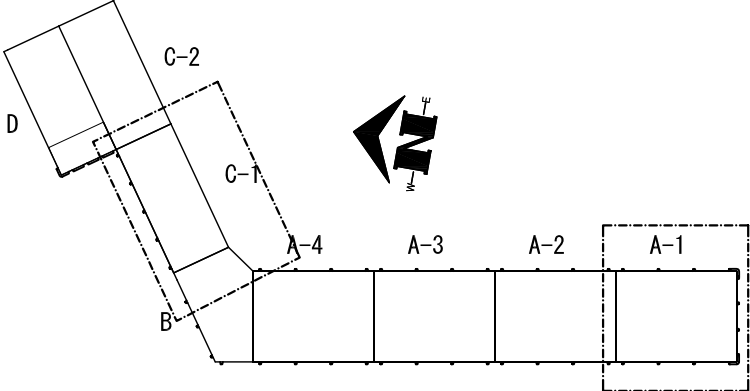


FERRY RAMP

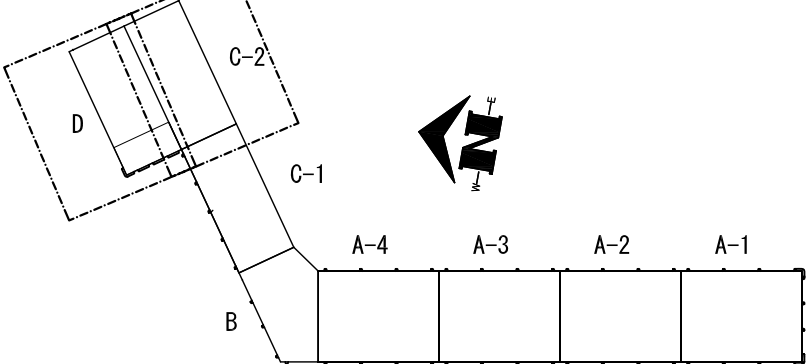
Type D



KEY PLAN



KEY PLAN



0m 5m 10m

1/200

I. TYPICAL SECTIONS

2-2-4 Implementation Plan

2-2-4-1 Implementation Policy

In case this plan is implemented under the Japan's Grant Aid, the project is to be implemented in accordance with the new Japan's grant aid scheme based on a grand agreement between the Government of Solomon Islands and JICA.

2-2-4-2 Implementation Conditions

Conditions on implementation are same as the basic design study.

2-2-4-3 Scope of Works

Table 2-2 below shows the scope of work in the project.

Table 2-2: Scope of work of Japan and The Solomon Islands

	Undertakings in construction, procedures and expenses	Japan	Solomon Islands
1.	Securing of construction site (including securing of site for a construction materials depot and an on-site office and handling of matters related to traditional land use rights)		○
2.	Landscaping, planting and provision of furniture and general goods in the facilities after completion of the work		○
3.	Installation of power and water supplies to the site		○
4.	Application for and acquisition of all the approvals and permits in the Solomon Islands related to the Project (including authorization of building, use of power supply and water supply infrastructure and construction license, etc.)		○
5.	Communication and coordination with vendors, customers and users of the jetty and market during the implementation of the Project		○
6.	Consultancy services including detailed design, assistance in the tender process and work supervision	○	
7.	Construction of the jetty facilities	○	
8.	Construction of the market facilities	○	
9.	Import and customs-clearance for the materials and equipment required for implementation of the Project		○
10.	Banking Agreement (B/A) with a Japanese bank and bank commissions for it		○
11.	Provision for the Japanese personnel to enter and stay in the Solomon Islands in relation with the implementation of the Project		○
12.	Appropriate and efficient operation and management of facilities and equipment provided under the Project		○
13.	Payment of or exemption from domestic taxes including value added tax imposed upon materials, equipment and services procured by the contractor of the Project in the Solomon Islands		○

2-2-4-4 Consultant Supervision

Same as the basic design study report

2-2-4-5 Quality Control Plan

Same as the basic design study report

2-2-4-6 Procurement Plan

The table below shows the procurement sources of major construction materials and equipment to be used in this plan.

Table 2-3 : Procurement sources of major construction materials and equipment

	Major construction materials	From Japan	Locally ^{*1}	From third country	Remarks
1	Cement		○		Inexpensively procurable locally
2	Aggregate for concrete		○		〃
3	Concrete blocks		○		〃
4	Form materials		○		〃
5	Reinforcement	○			〃
6	Pile materials	○			To be procured from Japan in consideration of quality guarantee and period required for procurement
7	Fenders	○			〃
8	Metal deck plates for roofs	○			To be procured from Japan in consideration of quality
9	Wood and plywood		○		Inexpensively procurable locally
10	Fittings and fixtures		○		〃
11	Electric wire and light fixtures		○		〃
12	Facilities and materials for water supply, sewerage and hygiene systems		○		〃
13	PVC pipes		○		〃
14	Pumps and valves	○			To be procured from Japan in consideration of quality and because it is more economic to procure them from Japan than to purchase imported items locally.
15	Switchboards and distribution boards	○			Impossible to procure locally

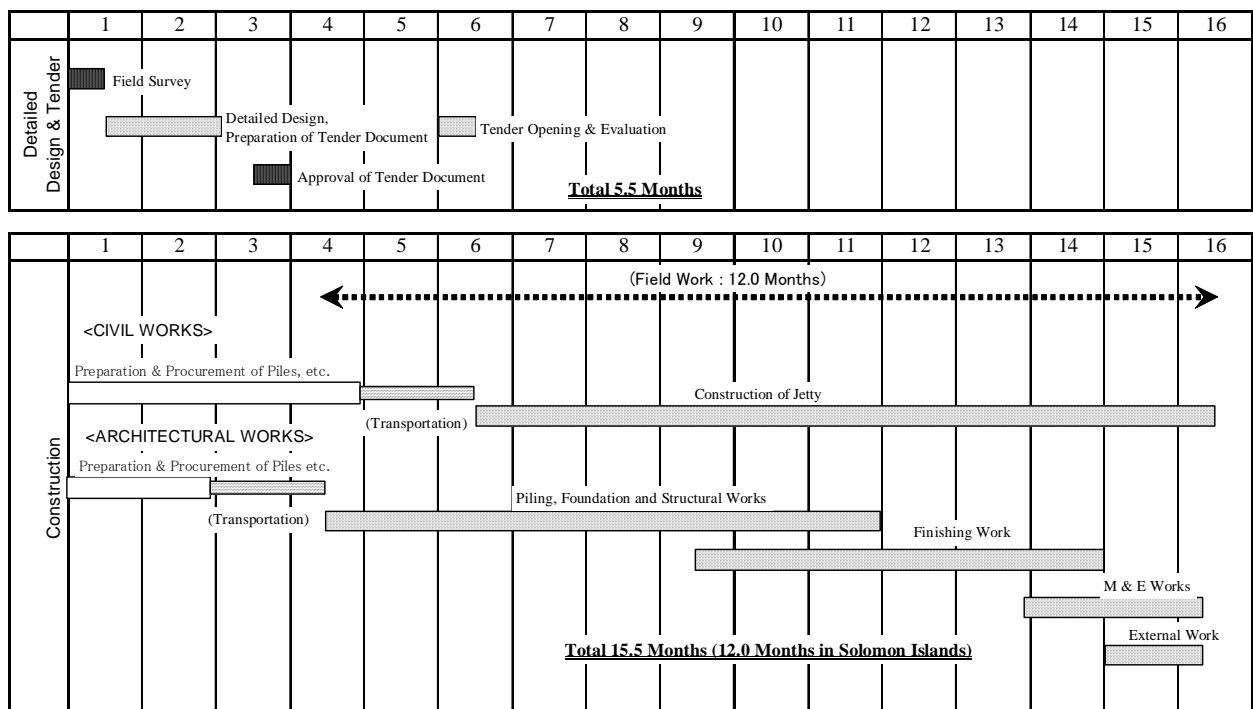
*1) Items produced locally and imported goods readily available for local procurement

2-2-4-7 Implementation Schedule

This Project will require a period of 5.5 months from the field study to the tender-related works. The total work execution period will require 15.5 months (including 12 months in the Solomon Islands) from the award of contracts with contractors and the preparation of construction works to the completion of the construction work.

Table 2-4 shows the table of work execution schedules.

Table 2-4: Implementation Schedule



2-3 Obligations of Recipient Country

In implementing the project, it is vital that the Solomon side shall carry out the following undertakings within the agreed period of time.

(1) Securing of the premises

The leveled land for the planned facilities of the project has been secured by the Malaita Provincial Government.

(2) Securing of sites for temporary use for construction

The Government of Solomon Islands shall secure sites for temporary use during the construction. There is no problem if vacant lots located by the existing jetty and in front of the planned market site can be used as sites for temporary use for construction work.

(3) Introduction of electricity, telephone line and water supply

The 50mm-diameter water pipes laid in the planned market site shall be connected to the water mains, as it is not yet connected to the water mains. The power line shall branch from the power grid line alongside the north road of the planned market site and be routed to the planned market site. The telephone line shall come from the telephone line alongside the west road of the planned market site. Electricity, telephone line and water supply shall be introduced into the construction site in a timely manner at the cost of the Solomon side, but not later than the commencement of the mechanical and electric works for the Project. The costs to be incurred are estimated at approximately 110,000 SBD.

(4) Acquiring all construction and other necessary permits, as required for Project implementation

All applications for authorizations related to construction works for the facilities in this Project such as permission for use of electric power, water supply system, construction permit, etc. shall be carried out by the Solomon side and the necessary authorizations must be obtained prior to the commencement of the construction works.

(5) Exemption from any duties, taxes or levies imposed upon any equipment or materials to be imported to the Solomon Islands in conjunction with the Project and prompt customs clearance thereof.

(6) Exemption from the value added tax, and other domestic taxes

Any domestic tax such as value added tax on the payment of material, equipment and services to be procured by the contractor(s) under the Project shall be exempted or borne by the Solomon side.

- (7) Issuance of authorizations to pay, based on Banking Arrangement (B/A) with a Japanese bank with respect to payments provided for in the contract(s) for the Project, and to bear commissions to the Japanese bank.
- (8) Exemption of taxes or surcharges to be imposed on Japanese nationals regarding the supply of services in relation to this project in the Solomon Islands
- (9) All other items required for the implementation of the Project not specifically included in the undertakings by the Government of Japan.

2-4 Project Operation Plan

At the initial stage, MID shall take care of the operation and maintenance of the new market and jetty. At the same time, the Malaita Provincial Government will establish the new organization, as the registration is currently ongoing. As soon as the new organization is established, it will implement operation and management works under the supervision of MID, and once the new organization is capable of implementing more effective management, MID will hand over the responsibility to the Malaita Provincial Government. The market and jetty operation and management organization will collect the market and jetty fees and undertake the daily management including cleaning and rubbish treatment, security and traffic control, check on conformance to the rules, and the maintenance management of market facilities, external works, furniture and equipment.

The Management Service Provider (MSP) shall fairly select appropriate operators for the chest freezer room and other stores (such as butchery, retailers and canteens) and enter into fixed-term lease agreements with the selected operators. The operators of these facilities shall, based on the lease agreement, supply services to market users at a charge and assume responsibility for appropriate maintenance of the equipment of these facilities. The MSP shall also assign sales counter space to retailers, collect usage fees, clean the premises of the market and collect rubbish in the temporary shed. The collected rubbish shall be transported for disposal every day by a garbage disposal company contracted with the MSP to a designated garbage disposal site outside the market. The MSP shall collect parking fees from vehicles that come to the market and manage the parking lot. The MSP shall be responsible for everyday management such as security in the market and checking of compliance with regulations and conduct maintenance of the market facilities other than those leased, such as buildings, outdoor facilities and equipment as well as the outdoor lighting and security facilities of the jetty.

The MSP, commissioned by the Malaita Provincial Government, shall issue port entry permits to vessels that intend to use Auki Jetty and collect port entry permit fees from them. It shall also collect jetty usage fees from vessels moored at Auki Jetty. The MSP shall manage the access of vehicles and people to Auki Jetty and, if required, limit entry to ensure the safety of the traffic on the

jetty and loading, unloading and transportation of cargo.

The work items related to the operation and management of the market are as follows:

1. Conclusion of lease agreements for stores (chest freezers room, butchery, retailers' booths, etc.)
2. Collection of rents according to the lease agreement
3. Collection of electricity and water charges
4. Allocation of stores (vegetables, marine products, daily necessities, etc.) to retailers
5. Collection of store usage charges
6. Collection of parking fees
7. Collection of toilet usage fees
8. Conclusion of rubbish disposal commissioning contracts with rubbish disposal companies
9. Payment of rubbish disposal fees
10. Payment of electricity and water charges
11. Cleaning and rubbish collection in and around the market facilities
12. Cleaning of toilets and management of sanitary facilities
13. Management of fresh-water and rainwater tanks, waterworks, pumps, etc.
14. Management of public lighting and electric facilities
15. Repair and management of store and market facilities
16. Check of the amount of electricity and water used by each retailer's booth
17. Traffic control in the market
18. Sanitary control in the market
19. Establishment of market regulations, public relations, and check of observance to the regulations
20. Guard duties and maintenance of security in the market

The work items related to the operation and management of the jetty are as follows:

1. Reception of vessels intending to use the jetty by handling applications for port entry permits and passing on port entry permits that have been issued
2. Collection of port entry permit fees
3. Collection of jetty usage fees
4. Management of public lighting
5. Traffic control, admission restriction, etc. on the jetty
6. Cleaning on the jetty
7. Daily inspection of the jetty and additional facilities

Figure 2-1 illustrates the Auki market and jetty operation and management plans.

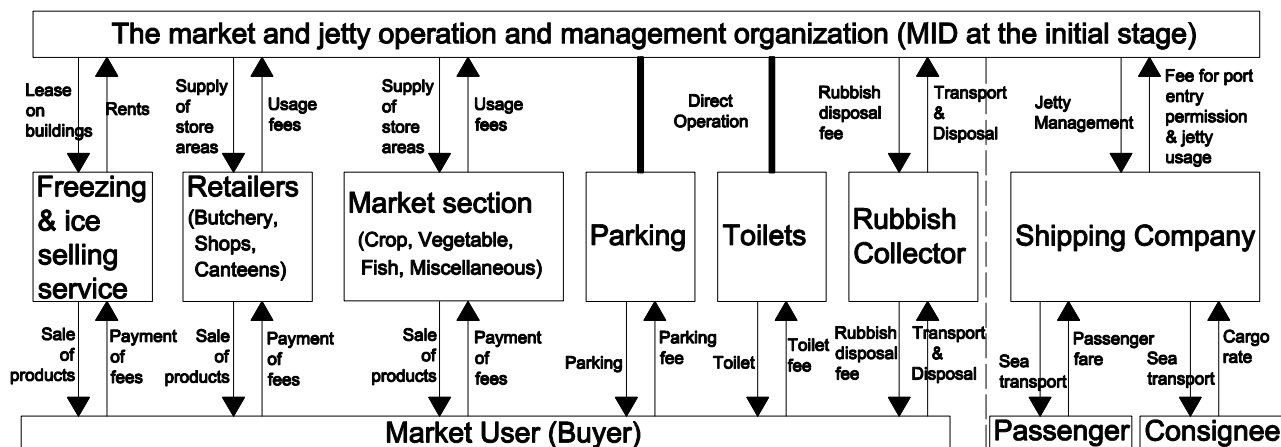


Figure 2-1 : Auki market and jetty operation and management plan

The operation and management of Auki Market and Jetty shall need the following numbers of persons:

Market/jetty master	1
Jetty supervisor	1
Fee collector	3
Market cleaner	3
Guards (both for market and jetty)	3
Toilet custodian (men's/women's)	2
Total	13

Figure 2-2 shows the chart of the organization for the operation and management of Auki Market and Jetty.

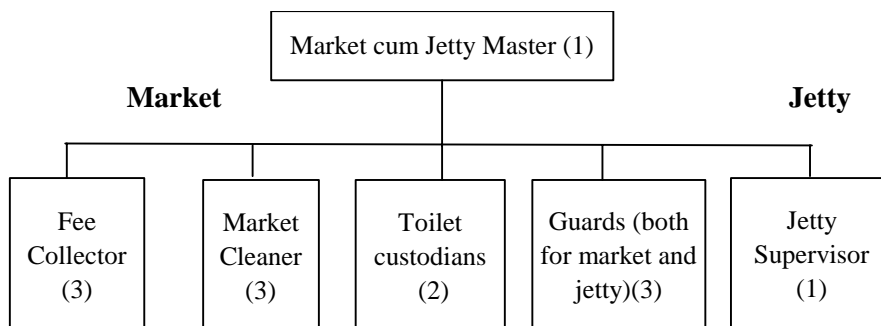


Figure 2-2: Organization Chart for the operation and management of Auki Market and Jetty

Until an appropriate MSP is selected and the selected MSP starts the operation and management of the market facilities and jetty or, if the selected MSP does not adequately conduct the operation and management of the market and the commissioning contract is canceled, until a commissioning contract is concluded with a new NGO, the Malaita Provincial Government shall assign full-time personnel as market and jetty master, and supervise him to ensure smooth operation and management of the market and jetty.

The market and jetty master shall:

- 1) Have basic knowledge on accounting and finance,
- 2) Manage cashier operations,
- 3) Create and manage account ledgers,
- 4) Have knowledge and experience in organization management,
- 5) Secure necessary persons for the operation and management of the market and jetty such as fee collectors and cleaners, and
- 6) Give appropriate instructions and commands to carry out daily routines regarding the maintenance and management.

2-5 Project Cost Estimation

The cost required to implement this project of which Solomon Islands shall be borne is calculated as SBD 109,902. The breakdown of the costs according to the demarcation of the works between the two countries as described before is estimated as follows, based on the calculation parameters given in (2) later. However, this cost estimate is provisional and would be further examined.

(1) Cost to be borne by the Solomon Islands

In implementing this Project under Japanese grant aid cooperation, the expenses that the Solomon Islands will share are as follows:

Power lead-in work cost	101,990 SBD	(approx. 1.25 million yen)
Water supply piping work cost	7,910 SBD	(approx. 0.1 million yen)
Commissions on Banking Arrangement	80,000 SBD	(approx. 1.0 million yen)
Total	189,900 SBD	(approx. 2.35 million yen)

(2) Calculation parameters

- 1) Time of calculation August 2009
- 2) Exchange rate 1.00 US\$ = 97.19 yen
1.00 SBD = 12.28 yen
- 3) Implementation period Implementation period for detailed design, construction and procurement are as proposed in the implementation schedule above.
- 4) Others This project shall be carried out under Japan's grant-aid scheme.

* SBD... Solomon Islands Dollar

2-5-2 Operation and maintenance cost

The Auki Market and Jetty will be operated on a self-supporting basis, in which the operation and maintenance costs of the market and jetty and the maintenance cost of the market facilities and equipment will be able to be covered by the operation income including, jetty fees, vehicle parking fees, selling space fees, store rents and toilet charges. The Auki Market and Jetty operation income and expenditure and the operating budget which will be calculated in accordance with the operation plan will be described below.

2-5-2-1 Income

Vessels intending to use the jetty are required to pay an annual entrance permit fee to the provincial government to obtain a permit. The annual entrance permit fee will be 2,500 and 1,500 SBD for regular service and chartered service vessels, respectively. At present, nine regular service and three chartered service vessels are known to be operating on the Auki route. A passenger service fee will be charged in accordance with the provincial ordinance which stipulates that a passenger service fee of 1 SBD per passenger shall be charged. The number of passengers a year using Auki Jetty is estimated at 99,724.

As the parking fee at Honiara Market is 4 SBD/vehicle, the parking fee at Auki will be set at 2 SBD/vehicle. It is assumed that, on average, twenty vehicles will use the parking lot daily.

The user fee for an ordinary sales table is set at 2 SBD/day, while a user fee of 1 SBD/day will be charged for the open vending space which is used by vegetable and fruits vendors, who come to the market in large numbers at weekends. These fees are reasonable, as the fee for a sales table at Honiara Market is 6 SBD/day and the existing Auki Market charges a user fee of 1SBD/day. On average, 224 vendors are expected to use the sales tables every day and 100 vendors are expected to use the open vending space for half a day every Friday and Saturday. The user fee for the space under the sales table for overnight storage of root crops and coconuts on weekdays is set at 1 SBD/night. Honiara Market charges 10 SBD/night for storage in a storage room. On average, 25 people per day are expected to use the storage space under the sales tables on weekdays.

The rental fees for the booths are set at 330 SBD/month and 550 SBC/month for the booths for retailers and for the butchery and chest freezer room, which are larger than the ordinary booths. The number of booths for retailers, butchery and chest freezer room are 13, one and one, respectively.

The charge for the toilets is set at 0.3 SBD/visit. On average, 500 people a day are expected to use the toilets.

From the fees mentioned above, annual income of 392,748 SBD is expected.

2-5-2-2 Expenditure

The details of personnel expenses are as follows:

Market / Jetty Master (one person)	2,000 SBD/month
Jetty Supervisor (one person)	1,500 SBD/month
General workers (11 people)	1,000 SBD/month

The cost of garbage disposal is estimated at 3,000 SBD/month.

The average monthly electricity consumption, including operation of the pumps for the elevated water tanks and lighting in the market and at the jetty and excluding consumption in the booths, is estimated at 1,000kWh. The electricity charge is 4.26 SBD/kWh. Assuming that rainwater supplies half of the water consumption in the market, 26 tons per month of service water will be consumed at the market, excluding service water consumption in the booths. The service water charge is 3 SBD/M³ up to 15M³ and 4.5 SBD/M³ for over 15M³.

The maintenance and management expenses, including expenses for replacing light bulbs and simple repair of the facilities, is estimated at 5000 SBD/year. 54,000 SBD will be appropriated as miscellaneous expenses. 36,000 SBD/year will be allocated for accumulated depreciation of the facilities.

Thus, the total annual expenditure is estimated at 357,254 SBD.

2-5-2-3 Annual Operating Budget of Auki Market/Jetty

An estimated annual profit of 35,494 SBD is expected to enable MSP, which is responsible for the operation of Auki Market and Jetty, to sustainably manage the facilities.

Table 2-5 shows the operating budget of Auki Market and Jetty.

Table 2-5 : Annual income & expenditure of Auki Market & Jetty

INCOME		
Item	Breakdown	Amount(SBD)
Entrance Permit Fee	11 Regular Boats x 2,500 SBD/Y 5 Charter boats x 1,500 SBD/Y	27,500 7,500
Passenger Service Fee	99,724 x 1 SBD	99,724
Parking Charge	20 Cars x 2 SBD x 24 day x 12 Months	11,520
Market Section Rental Fee	224 Sections x 2 SBD x 24 days x 12Months	129,024
Market Section	25 Sections x 1 SBD x 16 days x 12 Months	4,800
Storage Space	100 Space x 1 SBD x 4 days x 12 Months	4,800
Open space		
Retailer's Booth Rental Fee	2 Booths x 550 SBD/month x 12 Months	13,200
Butchery/Freezing & Ice Storage	13 Stores x 330 SBD/month x 12 Months	51,480
Store		
Toilet Charge	500 Person x 0.3 SBD x 24 days x 12 Months	43,200
Total Income		392,748
EXPENDITURE		
Item	Breakdown	Amount(SBD)
Personnel Expenses	1 Master x 2,000 SBD/month x 12 Months	24,000
	1 Supervisor x 1,500 SBD/month x 12 Months	18,000
	11 Workers x 1,000 SBD/month x 12 Months	132,000
Garbage	3,000 SBD x 12 Months	36,000
Electricity, Water & Maintenance		
Electricity	1,000 kWh x 4.26 SBD/kWh x 12 Months	51,120
Water	(15M ³ x3SBD+11M ³ x 4.5SBD) x 12 Months	1,134
Others		5,000
Incidental Expenses & others		54,000
Depreciation Reserve		36,000
Total Expenditure		357,254
Annual Profit		35,494

*1 Consumption of City Water and Electricity by individual shop is not included.

2-6 Other Relevant Issues

The items which are considered to have direct influence on the smooth implementation of this Project are described below.

(1) Removal of the stranded (sunken) ship

A stranded steel ship (approx. 30m long x approx. 6m wide) is left at a water depth of about -3 to 4m at a distance of 38m on the northwest of the existing jetty. The construction and operation of the planned facilities are designed not to be disturbed by the stranded (sunken) ship, but it is desirable that such obstacle does not exist in order to secure the safety of navigation of the ships using the jetty. The Government of Solomon Islands has promised to remove this stranded (sunken) ship and it has been confirmed that the procedures of the tender for removing the ship are being taken. It is desired that the removal will be completed as soon as possible.

(2) Provision of temporary sites

The Government of Solomon Islands should provide the temporary sites necessary for the construction work including a temporary storage yard for construction materials such as piles and a field office site.

(3) Betterment of road between the planned jetty and planned market

A public road between the planned jetty and the planned market is not included in the scope of work for this Project, but it is required that such public road will be improved by the Government of Solomon Islands to secure smooth traffic and distribution between the jetty and the market.

(4) Cautions and information regarding safety of users of the existing facilities during construction

The existing jetty and market will be operated during the construction work of the planned facilities in this Project and continuously used for the embarkation and disembarkation of passengers and the loading and unloading of cargo, the arrivals and departures of ships, the selling and buying activities in the market. Notices of no admittance to the work sites, traffic regulations necessary for entries and departures of work boats and vehicles as well as for execution of the works, and other safety-related warnings and information should be given to the users of the facilities and the ship operators in a thorough manner.

(5) Land Exploitation

The Government of Solomon Islands is fully responsible to secure the land and would take necessary measures to solve any land issues occurred about the Project.

CHAPTER 3 PROJECT EVALUATION AND RECOMMENDATIONS

CHAPTER 3 PROJECT EVALUATION AND RECOMMENDATIONS

3-1 Project Effect

3-1-1 Direct Effects

(1) Market facilities

1) Relief of market congestion – Increase of total selling floor space per vendor

The floor space of the existing Auki market was so narrow that the comings and goings of people and the sales activity within the market became difficult because the vendors and shoppers drastically increased on Fridays and Saturdays on weekends, resulting in higher congestion. The total selling floor space per vendor on Fridays and Saturdays is 1.8m²/vendor at present, but after completion of the planned market facilities the total selling floor space per vendor is increased by about 30%, 0.5m²/vendor to 2.3m²/vendor, the congestion in the market will be fully relieved, in particular, the selling floor spaces for vendors of crops, root and vegetables who increase on weekends from rural communities will be secured.

Table 3-1 : Total selling floor space per weekend vendor in Auki market
– Present Status and Future Plan –

	Vegetables/ fruits selling space	Betel nuts selling space	Processed foods selling space	Daily necessities selling space	Marine products selling space	Total
Current average number of stores	195	32	36	34	16	313
Current average number of vendors	390	64	72	68	32	626
Current total selling floor space(m ²)	720	95	105	115	120	1,155
Current total selling space per vendor (m ²)	1.8	1.5	1.5	1.7	3.8	1.8
Planned total selling floor space (m ²)	880	144	162	154	159	1,499
Planned total selling space per vendor (m ²)	2.3	2.3	2.3	2.3	5.0	2.4
Ratio of planned to current total selling floor space	1.3	1.5	1.5	1.4	1.3	1.3

2) Increase of number of vendors on rainy days

The number of vendors in the existing Auki market is 18% lower on rainy days than on fine days. This is mainly because the selling space is in the open air and unpaved, and in rainy weather, vendors have to carry out their selling activities with umbrellas and on muddy ground, discouraging their sales motivation. According to the results of the hearing, more than about 50% of vendors do not carry out sales activities in rainy weather. The yearly number of rainy days in Auki is 240 days, of which it is presumed that 120 days are rainy in the daytime.

Therefore, the vendors will come to the market even in rainy days if the roofed selling floor space is provided. The daily average number of vendors per rainy day will increase by 21 and it is

expected that the yearly total number of vendors will increase to 2,520.

Table 3-2: Increase of vendors by construction of roofed selling floor space

Daily average number of vendors	237
Current yearly total number of vendors	86,505
Yearly number of rainy daytime days	120 days
Rate of improvement due to the roofed market	18%×50%
Increase of daily number of vendors on rainy days	$237 \times 18\% \times 50\% = 21$
Increase of yearly total number of vendors	$21 \times 120 \text{ days} = 2,520$
Yearly total number of vendors after project implementation	89,025

3) Improvement in hygienic conditions and freshness of products in the market

The selling space of the existing Auki market is not paved and most of it lies in the open air. Most products are exposed to direct sunlight in fine weather and to rain in rainy weather, and vendors have to carry out sales activities on muddy ground. In the marine product selling space, contaminated seawater is splashed over the fish for cooling and protection against drying, and the fish for sale are contaminated with *Escherichia coli* (E. coli). In these poor hygienic conditions, the products rapidly deteriorate and lose freshness. If the planned market facilities are provided, the selling space will be protected against rain, sunlight and mud and the fish can be cleaned with clean water, thereby allowing the hygienic conditions in the market to be improved and the products to be kept fresh.

(2) Jetty facilities

1) Shortening of the time of passengers' disembarkation and the time of cargo unloading from inter-island ships

The Auki jetty is most congested when 3 passenger ships arrive at the jetty one after another at midnight on Fridays and it takes much time for passengers' disembarkation and unloading their baggage and cargo. All the cargos are handled by manpower and it takes about 4 to 5 hours to unload the cargos from one ship and about 3 to 4 hours to load cargoes.

The conditions of passengers' disembarkation, cargo unloading and loading from or on main ships using the Auki jetty are shown in Table 3-3.

Table 3-3 : Conditions of passengers' disembarkation, cargo unloading and loading from or on main ships

Name of Ship	Temotu	Bikoi	Tomoko	Average
L×B (m)	20.15×6.4	32.1×7	32.1×7	
Average number of passengers	168	114	289	190
< Arrival time >				
Cargo unloading time	Approx. 3 hours	Approx. 4 hours	Approx. 5 hours	4 hours
Time of passengers' disembarkation	Approx. 2 hours	Approx. 2 hours	Approx. 4 hours	2 hours and 40 minutes
< Departure time >				
Cargo loading time	Approx. 3 hours	Approx. 3 hours	Approx. 4 hours	3 hours and 20 minutes
Time of passenger's embarkation	Approx. 2 hours	Approx. 2 hours	Approx. 4 hours	2 hours and 40 minutes

If the congested conditions are improved by rehabilitation of the Auki jetty, it is estimated that the time required for passengers' disembarkation will be shortened by 37 minutes, and the cargo unloading time by approximately 19 minutes as shown in Table 3-4 below.

Table 3-4 : Conditions of passengers' disembarkation and cargo unloading from main ships

	Name of Ship	Temotu	Bikoi	Tomoko	Average
a.	Currently required time of disembarkation (min.)	120	120	240	160
b.	Currently required time of cargo unloading (min.)	180	240	300	240
c.	Time for preparation for disembarkation (min.)	10	10	10	10
d.	Total required time of disembarkation for all passengers (min.)	46	34	121	67
e.	Total required time for all passengers' leaving the jetty (min.)	7	5	11	8
f.	Shortest time required for disembarkation (min.) [c + d + e]	63	49	142	85
g.	Lost time due to congestion (min.) [a – f]	57	71	98	75
h.	Relief of congestion by jetty rehabilitation (%)	50	50	50	50
i.	Shortened time of disembarkation (min.)	28	35	49	37
j.	Required time of disembarkation after project implementation (min.)	92	85	191	122
k.	Shortened time of cargo unloading (min.)	14	18	25	19
l.	Required time of cargo unloading after project implementation (min.) [b – k]	166	223	276	222
m.	Currently required time of disembarkation (min.)	42	53	74	56

The ships which have finished the disembarkation of passengers and the unloading of cargo will turn the lighting and the auxiliary machines OFF until the next morning when passengers embark

and cargos are loaded on them. The fuel cost saving effect by stopping the auxiliary machines is estimated to be 155.9 SBD per voyage.

12 regular ships and 12 non-regular ships navigate to Auki Port weekly. The regular ships make 50 voyages and the non-regular ships 12 voyages on average in a year. The fuel cost saving by relieved congestion at the Auki jetty is estimated to amount to 115,990 SBD.

3-1-2 Indirect Effects

(1) Market facilities

1) Contribution to stabilization of the local economy in Malaita Province

By constructing the planned market facilities, the rural communities people in Malaita Province will be able to obtain the opportunity of earning cash incomes through sale of surplus products. By increasing the number of selling spaces in rainy weather, the yearly total sales in the entire Auki market will be increase, allowing an increase in cash incomes for rural communities people. This will contribute to stabilization of the local economy of Malaita Province.

2) Elimination of difficulties due to parking vehicles for commercial activities in Auki shopping districts

The rural communities people who are vendors as well as shoppers visit the market by trucks and buses from every corner of the Islands. The existing market and its surrounding districts are congested with these vehicles, which disturb the traffic and particularly obstruct the commercial activities of stores outside the market. By operating the parking space in the planned market facilities, illegally parked vehicles will be reduced to eliminate the difficulties in the commercial activities in the Auki shopping districts.

(2) Jetty facilities

1) Securing of marine transportation of 99,700 passengers and 14,000 tons of cargos per year

The rehabilitation of the Auki jetty will secure the marine transportation of 99,700 passengers and 14,000 tons of cargos per year which are transported between Malaita Island and Honiara and other Islands and which may be lost in the event that the existing jetty is broken down.

3-2 Recommendations

3-2-1 Problems to Cope with by the Government of Solomon Islands : Recommendations

(1) Passing on experience and technology transfer from the operation and management of Honiara Market:

Honiara Central Market has been operated, maintained, and managed by the Honiara City Council since it was constructed in 1994 as a Japanese grant aid cooperation. Although the operation,

maintenance, and management has not necessarily been perfect, over a period of more than 10 years valuable experience has been accumulated in operation and maintenance, such as pricing of services, fee collection method, documentation, control of vendors, repair & maintenance plan, etc.. For the operation, maintenance, and management of the Auki Market, it is important to pass on the experience obtained in operating the Honiara Market for the operation and management system, operating rules, etc., of the Auki Market. Therefore it is necessary that there should be guidance in operation and management from personnel experienced in the Honiara Market, and staff of Auki Market should receive training at Honiara Market, to achieve technology transfer.

(2) Restoring of navigation aids in the Auki Harbour to ensure the safety of vessel using the jetty:

Most of the regular boats depart from Honiara before sundown, and arrive in Auki Harbour during the night. To enter Auki Harbour it is necessary to pass through a narrow channel of about 200m wide in the reef. However, during the ethnic tensions, the red and green lights indicating the entrance of the harbour, and the channel guide beacons that indicate the ship's course were destroyed. Therefore at present boats entering the harbor during the night without the navigation aids are exposed to danger at the harbor mouth. In the past there was an accident of a small ship contacting the reef on the north side of the harbour entrance. Therefore, to ensure the safety of ship using the jetty, it is necessary for the Solomon Islands Government to provide necessary navigation aids within Auki Harbour.

3-2-2 Technical Cooperation and Tie-up with Other Donors

The technical cooperation programs for the activities of the Fishermen's Union and the catch fish selling activities of fishermen's organizations had been implemented, including the JOCV dispatch to the Fishery Center as part of the existing market and the Malaita Development Agency (MDA), and the Cooperation for Coastal Fisheries Development Assistance (COFDAS) Project in North Malaita by the Overseas Fishery Cooperation Foundation (OFCF). However, the activities of these organizations have been inactive or discontinued due to reasons such as the "Ethnic Tension".

In order to ensure the Auki Market and Jetty Operating Agency continue the operation of the Project, it is essential to establish a new organization structure, to formulate the operation and accounting rules, the accounting system and other necessary procedures, and to make them take root among governmental staff and users. The essential point to organize persons who have only poor experience in the operation of an organization is to ensure that the right operating method or system will take root in the initial stage. It is desirable that the Auki Market and Jetty Operating Agency will receive experts and/or volunteers such as JOCVs from Japan in the initial operation stage so that the governmental staff and users will be guided and trained on the principles of organizational operations including establishment of accounting transparency.

[Appendices]

1. Member List of the Study Team
2. Study Schedule
3. List of Parties Concerned in the Recipient Country
4. Minutes of Discussion
5. References

[Appendices]

1. Member List of the Study Team
2. Study Schedule
3. List of Parties Concerned in the Recipient Country
4. Minutes of Discussion
5. References

1. Member List of the Study Team

Mr. Hiroyuki TANAKA	Team Leader	Program Officer, Paddy Field Based Farming Area Team III, Paddy Field Based Farming Area Group, Rural Development Department, Japan International Cooperation Agency
Mr. Kuniaki TAKAHASHI	Chief Consultant cum Operation, Maintenance & Management Planner	Fisheries Engineering Co., Ltd.
Mr. Tadashi OGAWA	Engineering Work Planner and Cost Surveyor	Fisheries Engineering Co., Ltd.

2. Study Schedule

Date	Team Leader JICA	Chief Consultant / Operation, Maintenance & Management Planner	Engineering Work Planner & Cost Surveyor
Aug. 1 (Sat)	From Tokyo to Port Moresby (PNG)		
Aug. 2 (Sun)	From Port Moresby to Honiara Internal Meeting		
Aug. 3 (Mon)	Meeting in JICA Office Visit to Ministry of Development Planning & Aid Coordination & Ministry of Infrastructure Development : Explanation of Inception Report and Questionnaire From Honiara To Auki, Site Visit		
Aug.4 (Tue)	Meeting with the Malaita Provincial Government Meeting with Provincial Lands and Survey Office		
	From Auki to Honiara	Site Visit	
Aug. 5 (Wed)			From Auki To Honiara
	Discussion with MID, Preparation of the Minutes of Discussions		
Aug. 6 (Thu)	Discussion with MID, Preparation of the Minutes of Discussions		
Aug. 7 (Fri)	Visit to Honiara Central Market Signing of the Minutes of Discussions Report to JICA Office		Investigation on conditions of construction, Survey for materials & machines
Aug. 8 (Sat)	Leave Honiara via Port Moresby for Tokyo		Cost Survey Visit to Local Contactors
Aug. 9 (Sun)			Data analysis
Aug.10 (Mon)			Investigation on conditions of construction, Survey for materials & machines Discussion with MID
Aug.11 (Tue)			Ditto
Aug.12 (Wed)			Ditto
Aug.13 (Thu)			Cost Survey Visit to Honiara Central Market
Aug.14(Fri)			Cost Survey Visit to Honiara Port Report to JICA Office & Japanese Embassy
Aug.15 (Sat)			From Honiara Via Port Moresby To Tokyo

3. List of Parties Concerned in the Recipient Country

Name	Title
Prime Minister's Office, Government of Solomon Islands	
Hon. Fred Fono	Acting Prime Minister (Deputy Prime Minister)
Chris Hunufauro	Deputy Secretary, Prime Minister's Office
Ministry of Infrastructure Development<MID>	
John Ta'aru	Permanent Secretary
Ambrose F. Kirei	Director of Civil Engineering
Harry Rini	Deputy Director of Transport Policy & Planning
James H Nonone	Chief Civil Engineer
Malaita Province Government	
Hon. Richard Na'amo. Irosaea	Premier
Ben L. Foukowa	Deputy Premier
Harold Leka	Provincial Secretary
Roy Mae	Chief Planning Officer
Ministry of Development Planning and Aid Coordination<MDPAC>	
Jane Wa'etara	Permanent Secretary
Nozomi Hakata	JICA Specialist
Provincial Lands & Survey Office, Ministry of Land	
Bobby Waitara	Provincial Land Officer
Alphonsus W. Osifo'oa	Physical Planner
Solomon Islands Port Authority	
Captain Robs Wale'ele	Marine Inspector
Honiara Central Market, Honiara City Council	
Jones Fono	Acting Market Master
Embassy of Japan in Solomon Islands	
Akira Iwanade	Chargés d' Affaires a.i.
Akira Ichioka	Researcher / Advisor
JICA Solomon Office	
Tokuro Watanabe	Resident Representative
Yoko Asano	Project Formulation Advisor

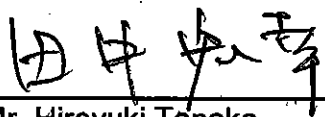
4. Minutes of Discussion

**MINUTES OF DISCUSSIONS
ON IMPLEMENTATION REVIEW STUDY
ON THE PROJECT FOR CONSTRUCTION OF MARKET AND
JETTY IN AUKI IN SOLOMON ISLANDS**

In August 2009, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched an Implementation Review Study Team (hereinafter referred to as "the Team") on the project for Construction of Market and Jetty in Auki (hereinafter referred to as "the Project"). The Team is headed by Mr. Hiroyuki Tanaka, Assistant Director, Rural Development Department, JICA and is scheduled to stay in the country from 2nd to 15th August 2009.

The Team held a series of Discussion with the officials concerned of the Government of the Solomon Islands and conducted a field survey at the study area. In the course of discussion and field survey, both sides confirmed the main items as described on the attached sheets. The Team will proceed to further works and report the findings to the Government of Japan.

Honiara, August 7th, 2009



Mr. Hiroyuki Tanaka
Leader
Japan International Cooperation Agency

Witness



Mr. John Ta'aru
Permanent Secretary
Ministry of Infrastructure Development
Solomon Islands



Ms. Jane Wa'etara
Permanent Secretary
Ministry of Development Planning and
Aid Coordination
Solomon Islands



Mr. Harold Leka
Provincial Secretary
Malaita Province
Solomon Islands

ATTACHMENT

1. Objective of the Project

The Objective of the Project is to improve the convenience of the distribution of goods and services, by constructing the market and jetty.

2. Components of the Project

Both sides confirmed that the final components of the Project are as shown in ANNEX-1.

3. Japan's Grant Aid Scheme

The Team explained that the position of JICA had been changed to be a direct responsible organization for the Project until completion of the construction.

The Solomon Islands understood Japan's Grant Aid Scheme and would take necessary measures described in ANNEX-2.

4. Schedule of the Study

JICA will complete the final report taking a result of the last study in account and send it to the Government of the Solomon Islands by the end of February, 2010.

5. Other Relevant Issues

5-1. Undertakings by the Government of the Solomon Islands

The Solomon Islands side explained that progress of these issues for this Project as were confirmed between the Solomon Islands and the Basic Design Study Team.

The Solomon Islands will report any development of the following issues to JICA Solomon Office.

Land Exploitation

- securing the Project site and the site for temporary use for construction
- construction of road in front of the new jetty before the beginning of the Project

The Solomon Islands explained that the necessary procedure of expropriation of the land and the sea fronts at the new market and jetty shall be completed by the end of January 2010.

The Solomon Islands promised that the necessary procedure for securing the land for sand, aggregates and stones for the construction for the Project shall be made by the Solomon Islands side by the commencement of the construction work.

Basic Infrastructure

- connecting electricity, telephone line and water supply to the site.

The Solomon Islands side agreed to provide basic infrastructure such as electricity and water supply, etc. to the Project site with its own expense by the time of the tender.

Necessary Permission

- acquiring all construction and other necessary permits required for the Project implementation

The Solomon Islands ensured, through Ministry of Infrastructure Development, all required formalities with regard to any applicable permission before implementation of the Project.

Custom Duties

- exemption from custom duties, internal taxes and other fiscal levies imposed upon any equipment or materials concerned of the Project

The Solomon Islands promised that, exemption of custom duties, internal taxes and other fiscal levies shall be granted in accordance with the Exchange of Notes and the Grant Agreement.

Necessary actions for the future

- maintenance and removal of the exiting jetty in the future
- transferring market function from the existing to the new market site
- removal of the sunken ship

The Solomon Islands side confirmed that it shall be responsible for maintenance and removal of the exiting jetty.

Malaita Provincial Government confirmed that the market function shall be transferred to the new market site and that the future plan of utilization of the existing market site shall be established by the completion of the Project.

The Solomon Islands side explained that the contract for removal of the sunken



ship has been concluded and the work is on going, and shall be completed within a month.

Operation and Maintenance

- securing necessary personnel and budget for the proper operation and maintenance of the new market and jetty

The Solomon Islands side explained that the personnel and budget for the existing market have been increased after the Basic Design Study, and necessary personnel and budget for the proper operation and maintenance of the new market and jetty in line with the Basic Design Study Report shall be secured by the completion of the construction.

5-2. Security Issues

The Solomon Islands side agreed to take necessary measures to ensure the security of personnel concerned of the Project.

END

fl
A 12 J.

Components of the Project

A. Building facility


Outline of the planned facility (building facility)

Facility name	Structure	Details of the facility	Scale (area)
1. Market facility	One story, RC structure Pile foundations The access passage portion has partly direct foundations	- Market hall (fixed sales tables for agricultural produce, daily necessities, marine products: total 224 tables) - Access passage with roof (accommodating 100 lots of agricultural produce sales area)	Floor area: 1,710.6 m ²
	One story, Concrete block construction Direct foundations	- Shops (10 retailer's booths, 3 canteens) - Rooms for Butchery and Chest freezers (one shop each)	
2. Administrative office	One story, Concrete block construction Direct foundations	Contains several rooms for management and operation of the market	Floor area: 136.5 m ²
3. Other facilities	One story, Concrete block construction Direct foundations	- Public toilet (ladies and gents separate) - Temporary garbage shed - Guard's post	Floor area: 143.4 m ²
	Height 10.8m RC structure Pile foundations	- Elevated water tank (elevated water tanks for city water and rain water, provided a pump room in the first floor)	
4. Parking lot	Concrete pavement	Parking lot, roads within the Market facility	Paved area: 572.0 m ²
5. External grounds	Concrete flat slab pavement	Unloading area, pedestrian walkways, etc.	Paved area: 545.3 m ²
Total area			Building floor area: 1,990.5 m ² Park lot and external grounds: 1,117.3 m ²

B. Civil engineering facility

Outline of the planned facility (civil engineering facility)

Facility name	Structure	Details of the facility	Scale
1. Jetty	Substructure: steel pipe piles Superstructure: RC	Jetty: 1 No.	64.0m long × 12.0 m wide
		Access bridge: 1 No.	49.0m long × 8.0 m wide
		Ferry ramp: 1 No.	18.0m long × 8.0 m wide
		Ancillary facilities: Mooring posts, fenders, lighting	
2. Shore protection for the market site	Stepped gabion basket type	Shore protection combined with a small fishing vessel mooring facility will be constructed at the shore line of the market	Total length 105m

H2


JAPAN'S GRANT AID

The Government of Japan (hereinafter referred to as "the GOJ") is implementing the organizational reforms to improve the quality of ODA operations, and as a part of this realignment, a new JICA law was entered into effect on October 1, 2008. Based on the law and the decision of the Government of Japan (hereinafter referred to as "the GOJ"), JICA has become the executing agency of the Grant Aid for General Projects, for Fisheries and for Cultural Cooperation, etc.

The Grant Aid is non-reimbursable fund to a recipient country to procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under principles in accordance with the relevant laws and regulations of Japan. The Grant Aid is not supplied through the donation of materials as such.

1. Grant Aid Procedures

The Japanese Grant Aid is conducted as follows-

- Preparatory Survey (hereinafter referred to as "the Survey")
 - The Survey conducted by JICA
- Appraisal & Approval
 - Appraisal by The GOJ and JICA, and Approval by the Japanese Cabinet
- Determination of Implementation
 - The Notes exchanged between the GOJ and a recipient country
- Grant Agreement (hereinafter referred to as "the G/A")
 - Agreement concluded between JICA and a recipient country
- Implementation
 - Implementation of the Project on the basis of the G/A

2. Preparatory Survey

(1) Contents of the Survey

The aim of the Survey is to provide a basic document necessary for the appraisal of the Project by JICA and the GOJ. The contents of the Survey are as follows:

- Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of agencies concerned of the recipient country necessary for the implementation of the Project.
- Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, financial, social and economic point of

view.

- Confirmation of items agreed on by both parties concerning the basic concept of the Project.
- Preparation of a basic design of the Project.
- Estimation of costs of the Project.

The contents of the original request by the recipient country are not necessarily approved in their initial form as the contents of the Grant Aid project. The Basic Design of the Project is confirmed considering the guidelines of the Japan's Grant Aid scheme.

JICA requests the Government of the recipient country to take whatever measures are necessary to ensure its self-reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside of the jurisdiction of the organization in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country through the Minutes of Discussions.

(2) Selection of Consultants

For smooth implementation of the Survey, JICA uses (a) registered consulting firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms.

(3) Result of the Survey

The Report on the Survey is reviewed by JICA, and after the appropriateness of the Project is confirmed, JICA recommends the GOJ to appraise the implementation of the Project.

3. Japan's Grant Aid Scheme

(1) The E/N and the G/A

After the Project is approved by the Cabinet of Japan, the Exchange of Notes(hereinafter referred to as "the E/N") will be signed between the GOJ and the Government of the recipient country to make a pledge for assistance, which is followed by the conclusion of the G/A between JICA and the Government of the recipient country to define the necessary articles to implement the Project, such as payment conditions, responsibilities of the Government of the recipient country, and procurement conditions.

(2) Selection of Consultants

The consultant firm(s) used for the Survey will be recommended by JICA to the recipient country to also work on the Project's implementation after the E/N and the G/A, in order to maintain technical consistency.

(3) Eligible source country

Under the Japanese Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased. When JICA and the Government of the recipient country or its designated authority deem it necessary, the Grant Aid may be used for the purchase of the products or services of a third country. However, the prime contractors, namely, constructing and procurement firms, and the prime consulting firm are limited to "Japanese nationals".

(4) Necessity of "Verification"

The Government of the recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by JICA. This "Verification" is deemed necessary to secure accountability to Japanese taxpayers.

(5) Major undertakings to be taken by the Government of the Recipient Country

In the implementation of the Grant Aid Project, the recipient country is required to undertake such necessary measures as shown on Table 1.

(6) "Proper Use"

The Government of the recipient country is required to maintain and use the facilities constructed and the equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for this operation and maintenance as well as to bear all the expenses other than those covered by the Grant Aid.

(7) "Export and Re-export"

The products purchased under the Grant Aid should not be exported or re-exported from the recipient country.

(8) Banking Arrangements (B/A)

- a) The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in a bank in Japan (hereinafter referred to as "the Bank"). JICA will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the Verified Contracts.

Hz
A B JS

- b) The payments will be made when payment requests are presented by the Bank to JICA under an Authorization to Pay (A/P) issued by the Government of the recipient country or its designated authority.

(9) Authorization to Pay (A/P)

The Government of the recipient country should bear an advising commission of an Authorization to Pay and payment commissions to the Bank.

(10) Social and Environmental Considerations

A recipient country must ensure the social and environmental considerations for the Project and must follow the environmental regulation of the recipient country and JICA socio-environmental guideline.

th
A 12 yr.

Major Undertakings to be taken by Each Government

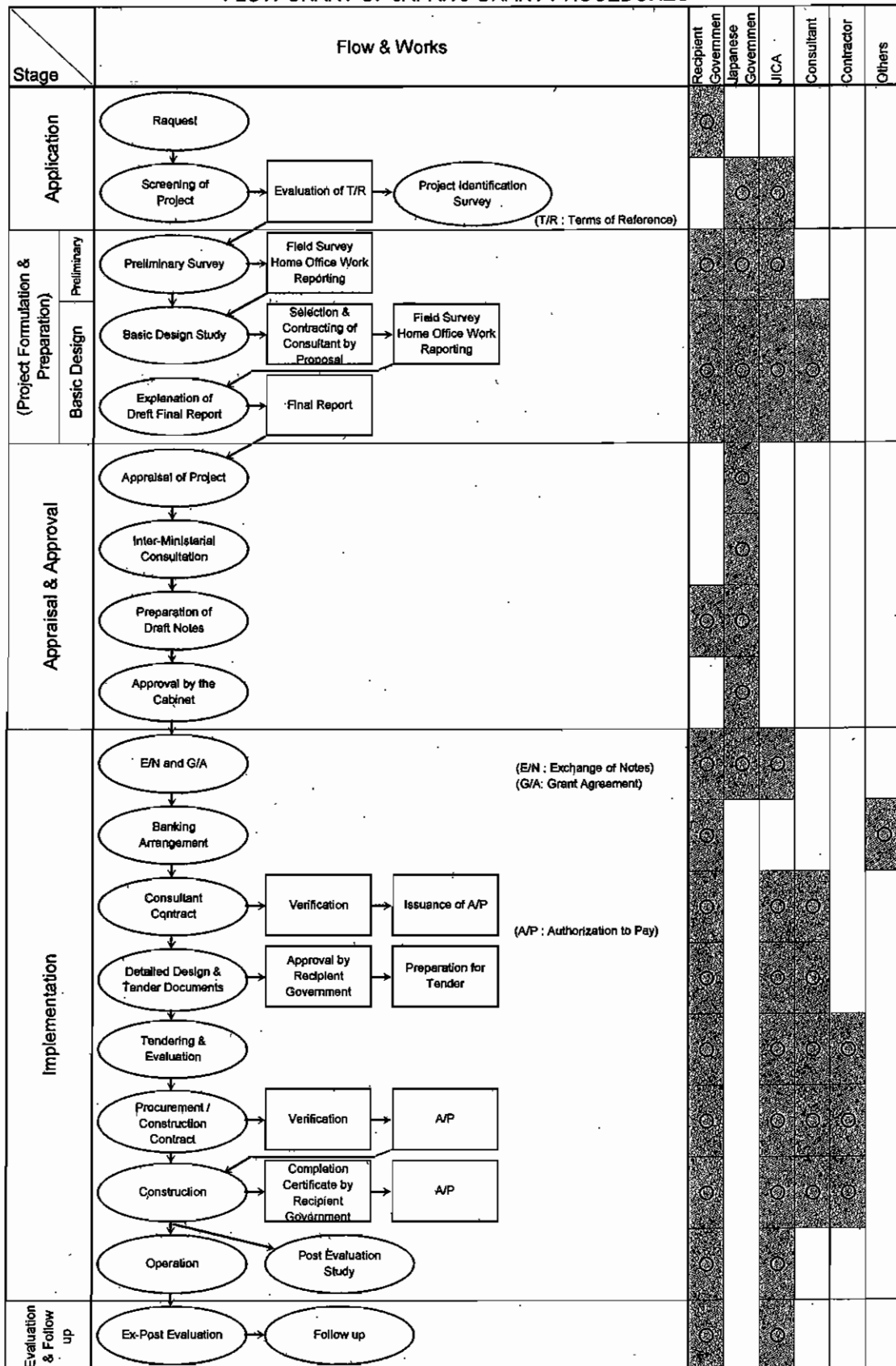
Table 1

No.	Items	To be covered by the Grant	To be covered by Recipient side
1	To secure land		•
2	To clear, level and reclaim the site when needed		•
3	To construct gates and fences in and around the site		•
4	To construct the parking lot	•	
5	To construct roads		
	1) Within the site	•	
	2) Outside the site		•
6	To construct the building	•	
7	To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities		
	1) Electricity		•
	a. The distributing line to the site		
	b. The drop wiring and internal wiring within the site	•	
	c. The main circuit breaker	•	
	2) Water supply		
	a. The city water distribution main to the site		•
	b. The supply system within the site (receiving and/or elevated tanks)	•	
	3) Drainage		
	a. The city drainage main (for storm, sewer and others) to the site		•
	b. The drainage system (for toilet sewer, ordinary waste, storm drainage and others) within the site	•	
	4) Gas Supply		
	a. The city gas main to the site	N/A	N/A
	b. The gas supply system within the site	N/A	N/A
	5) Telephone System		
	a. The telephone trunk line to the main distribution frame/panel (MDF) of the building		•
	b. The MDF and the extension after the frame/panel		•
	6) Furniture and Equipment		
	a. General furniture		•
	b. Project equipment	•	
8	To bear the following commissions to the Japanese bank for banking services based upon the B/A		
	1) Advising commission of A/P		•
	2) Payment commission		•
9	To ensure unloading and customs clearance at port of disembarkation in recipient country		
	1) Marine (Air) transportation of the products from Japan to the recipient country	•	
	2) Tax exemption and custom clearance of the products at the port of disembarkation		•
	3) Internal transportation from the port of disembarkation to the project site	•	
10	To accord Japanese nationals, whose service may be required in connection with the supply of the products and the services under the verified contract, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work		•
11	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts		•
12	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant		•
13	To bear all the expenses, other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and installation of the equipment		•

(B/A: Banking Arrangement, A/P: Authorization to Pay, N/A: Not Applicable)

Handwritten signature and initials.

FLOW CHART OF JAPAN'S GRANT PROCEDURES



Handwritten signature and date: 2011.10.12

5. References

	Title	Year	Publisher / Author
1	Approved 2009 Development Estimates (Abstract only)	2009	Solomon Islands Government
2	Statistical Bulletin: 06/2009 Honiara Consumer Price Index (June 2009)	2009	Solomon Islands National Statistics Office, Ministry of Finance & Treasury