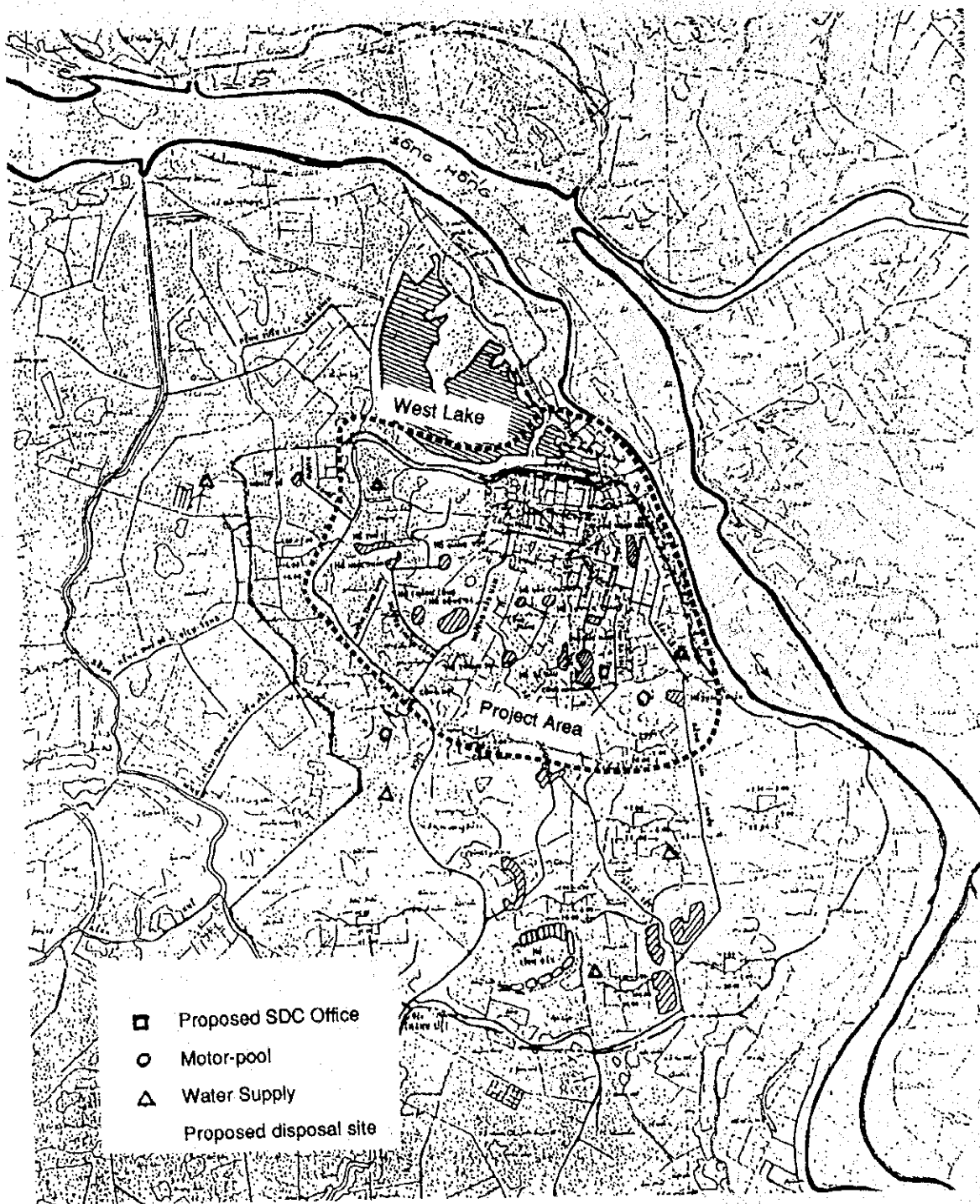


SOCIALIST REPUBLIC OF VIET NAM
 THE STUDY ON URBAN DRAINAGE AND WASTEWATER
 DISPOSAL SYSTEM IN HANOI CITY

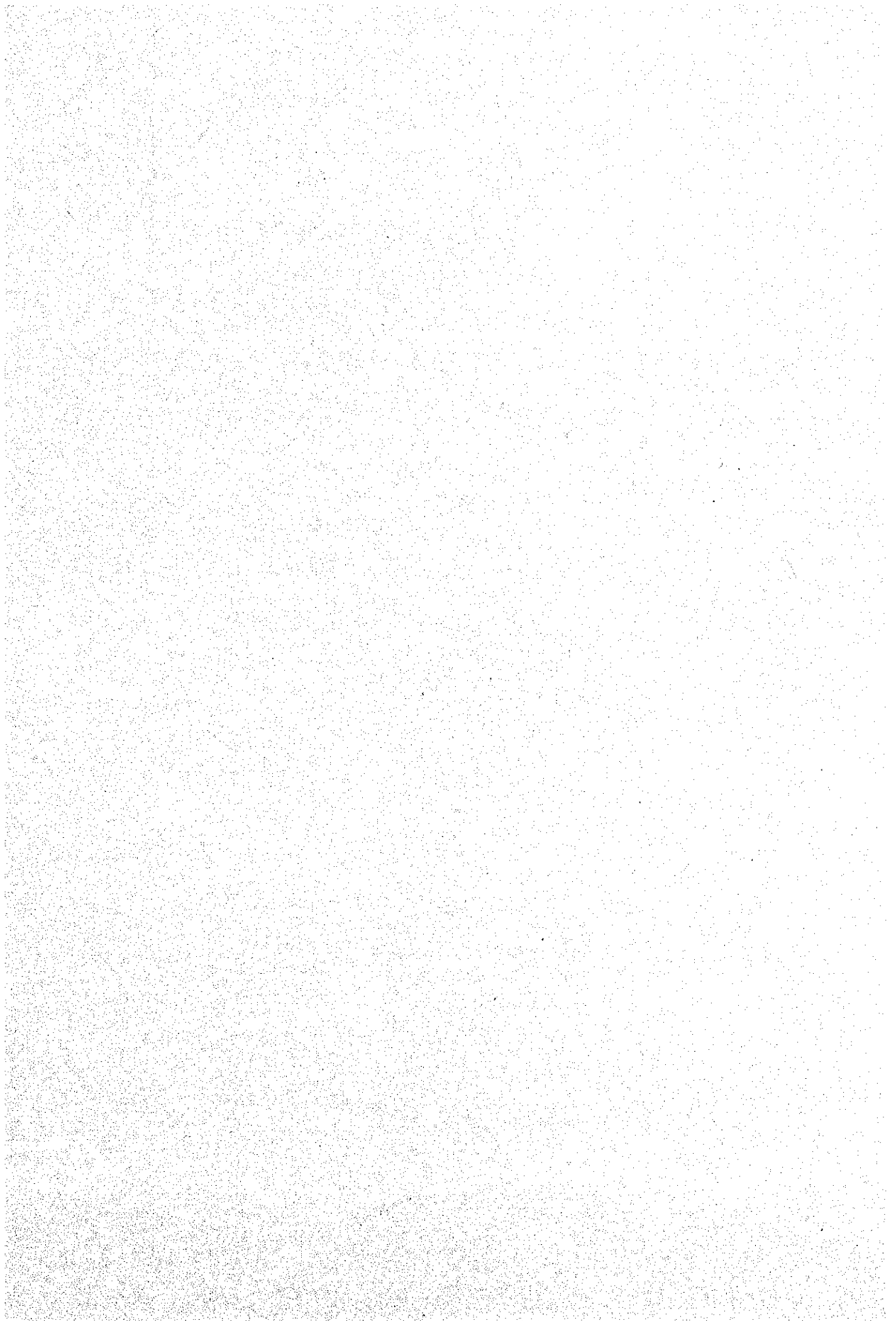
Fig. L1.1
 LOCATION MAP

JAPAN INTERNATIONAL COOPERATION AGENCY



SOCIALIST REPUBLIC OF VIET NAM
 THE STUDY ON URBAN DRAINAGE AND WASTEWATER
 DISPOSAL SYSTEM IN HANOI CITY
 JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. L3.1
 LOCATION OF OFFICE, MOTOR-POOL,
 DISPOSAL SITE AND WATER SUPPLY POINT



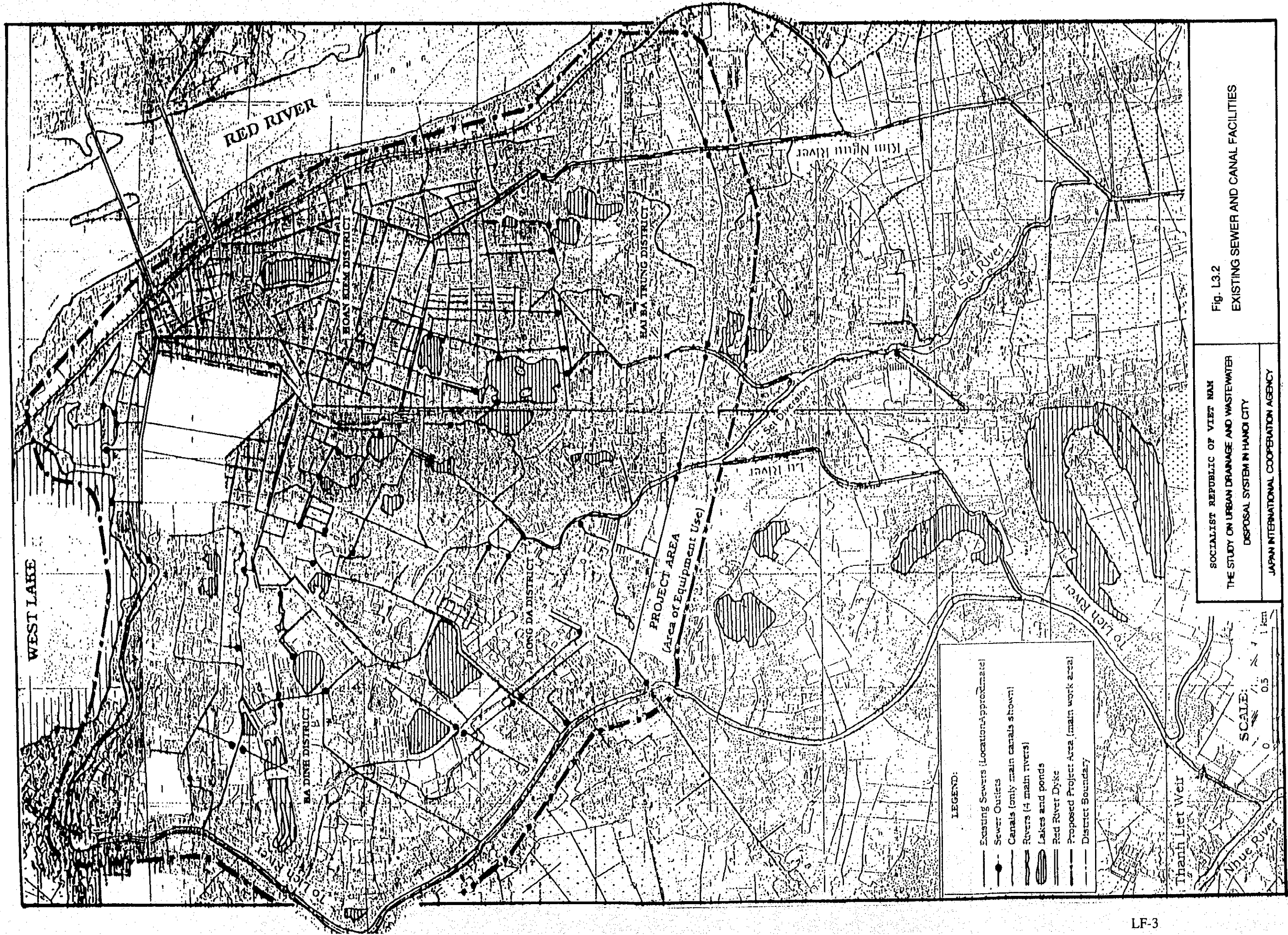
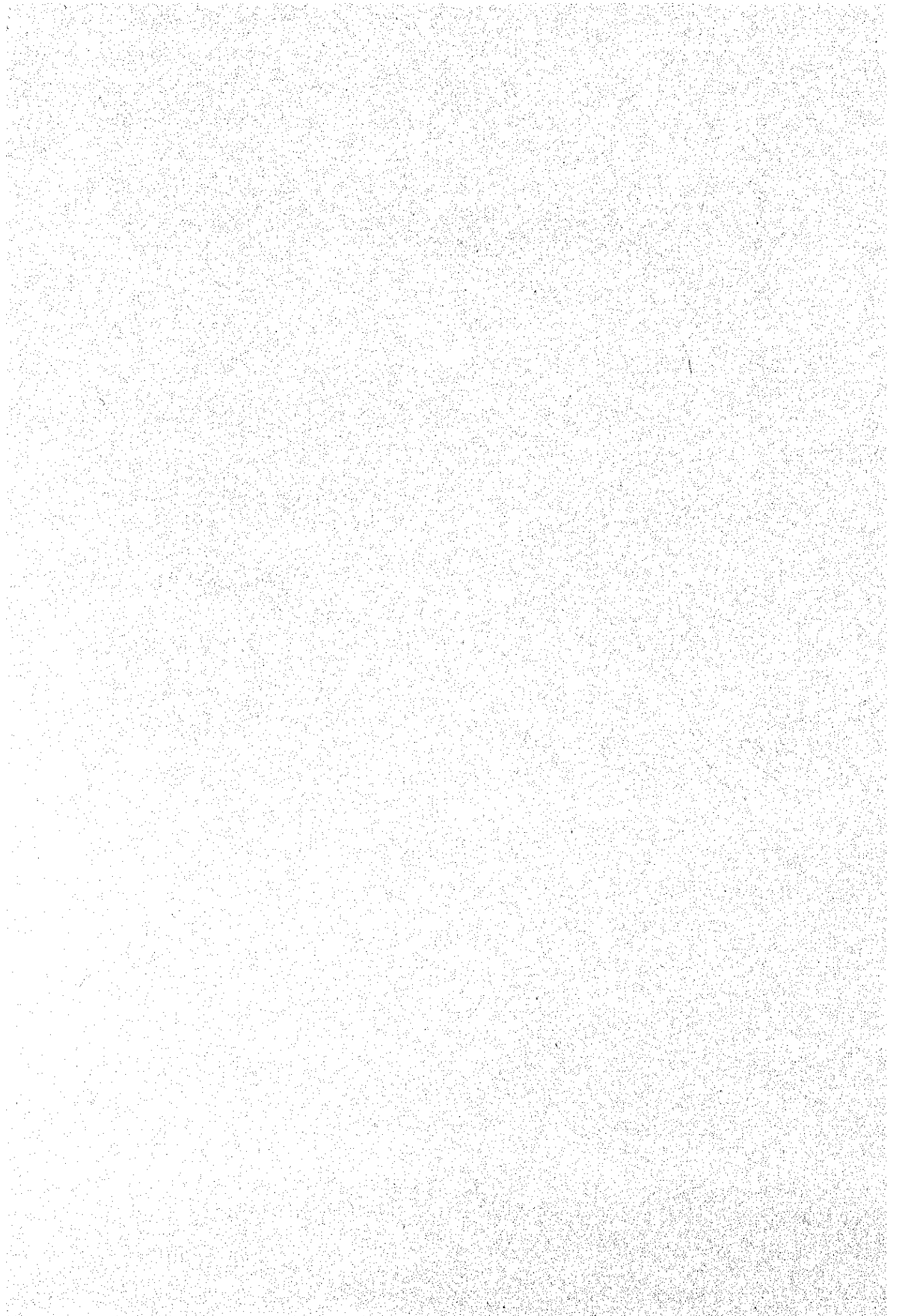


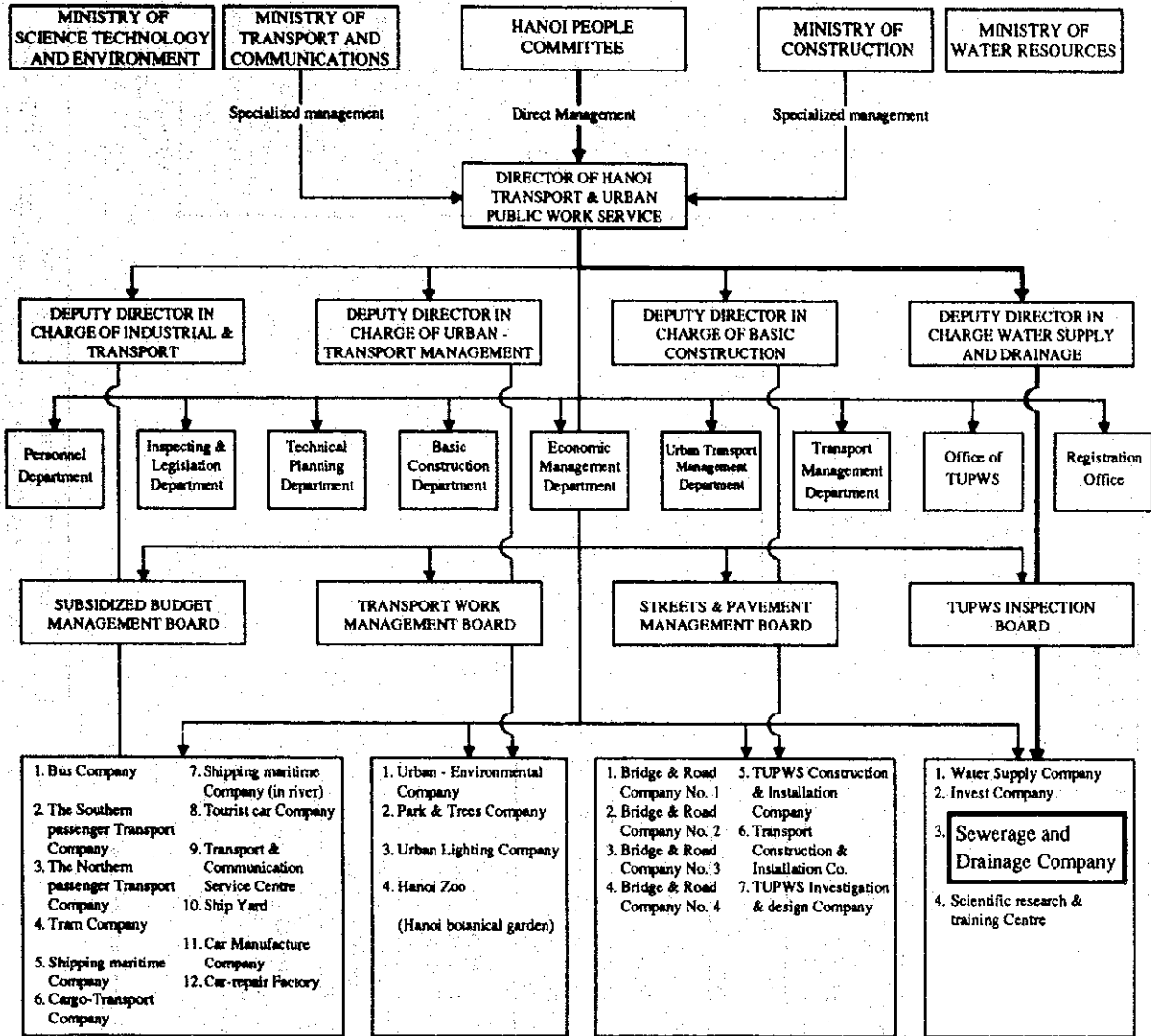
Fig. L3.2
EXISTING SEWER AND CANAL FACILITIES

SOCIALIST REPUBLIC OF VIET NAM
THE STUDY ON URBAN DRAINAGE AND WASTEWATER
DISPOSAL SYSTEM IN HANOI CITY
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- LEGEND:
- Existing Sewers (Location-Approximate)
 - Sewer Outlets
 - Canals (only main canals shown)
 - Rivers (4 main rivers)
 - Lakes and ponds
 - Red River Dyke
 - Proposed Project Area (main work area)
 - District Boundary



STRUCTURE OF HANOI TRANSPORTATION AND URBAN PUBLIC WORK SERVICE



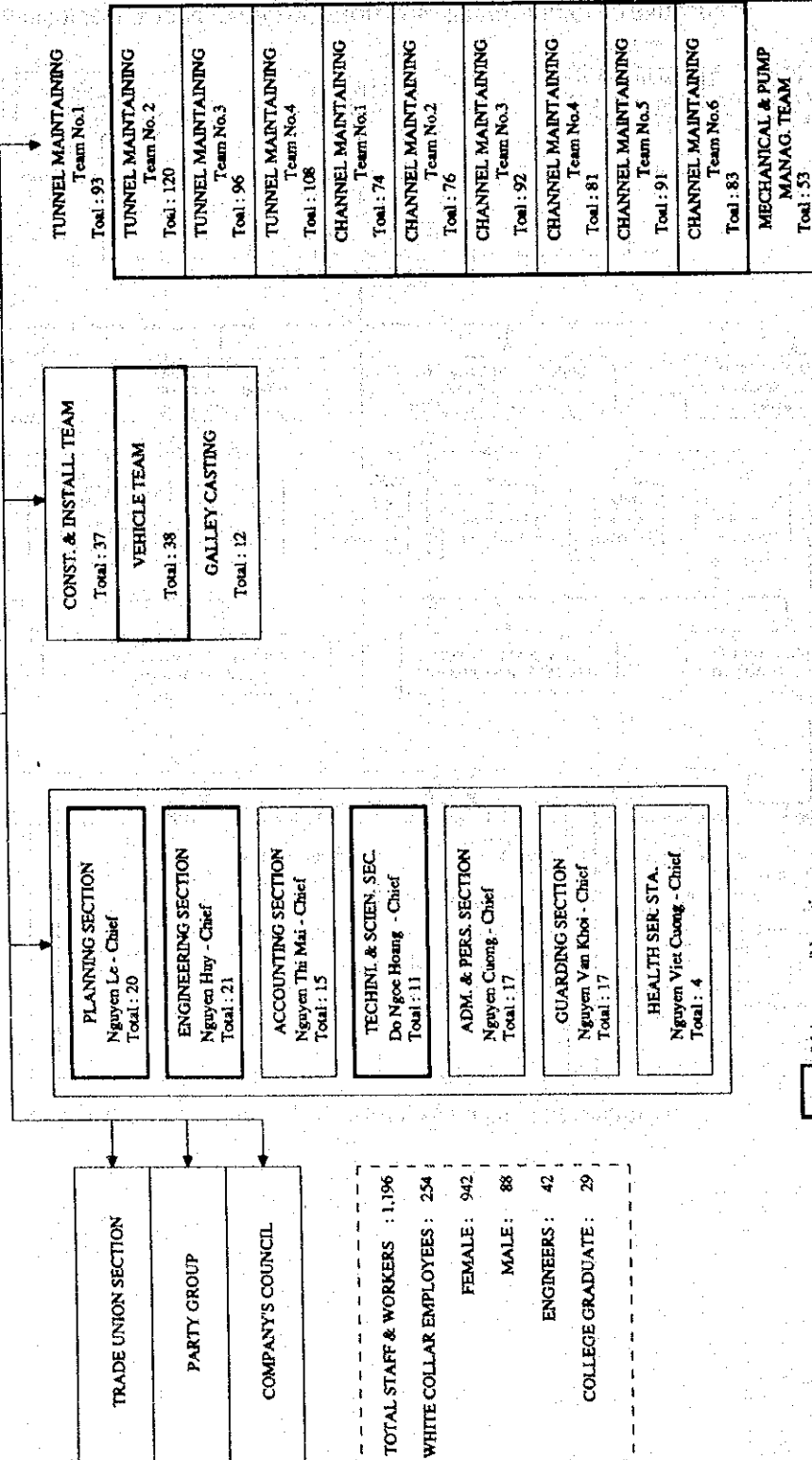
PRODUCTION & BUSINESS GROUP - STATE RUN BUSINESSMENT

SOCIALIST REPUBLIC OF VIET NAM
 THE STUDY ON URBAN DRAINAGE AND WASTEWATER
 DISPOSAL SYSTEM IN HANOI CITY
 JAPAN INTERNATIONAL COOPERATION AGENCY

Fig L3.3
 STRUCTURE OF TUPWS

ORGANIZATION CHART OF HANOIS & D Co. (Date : Dec. 1993)

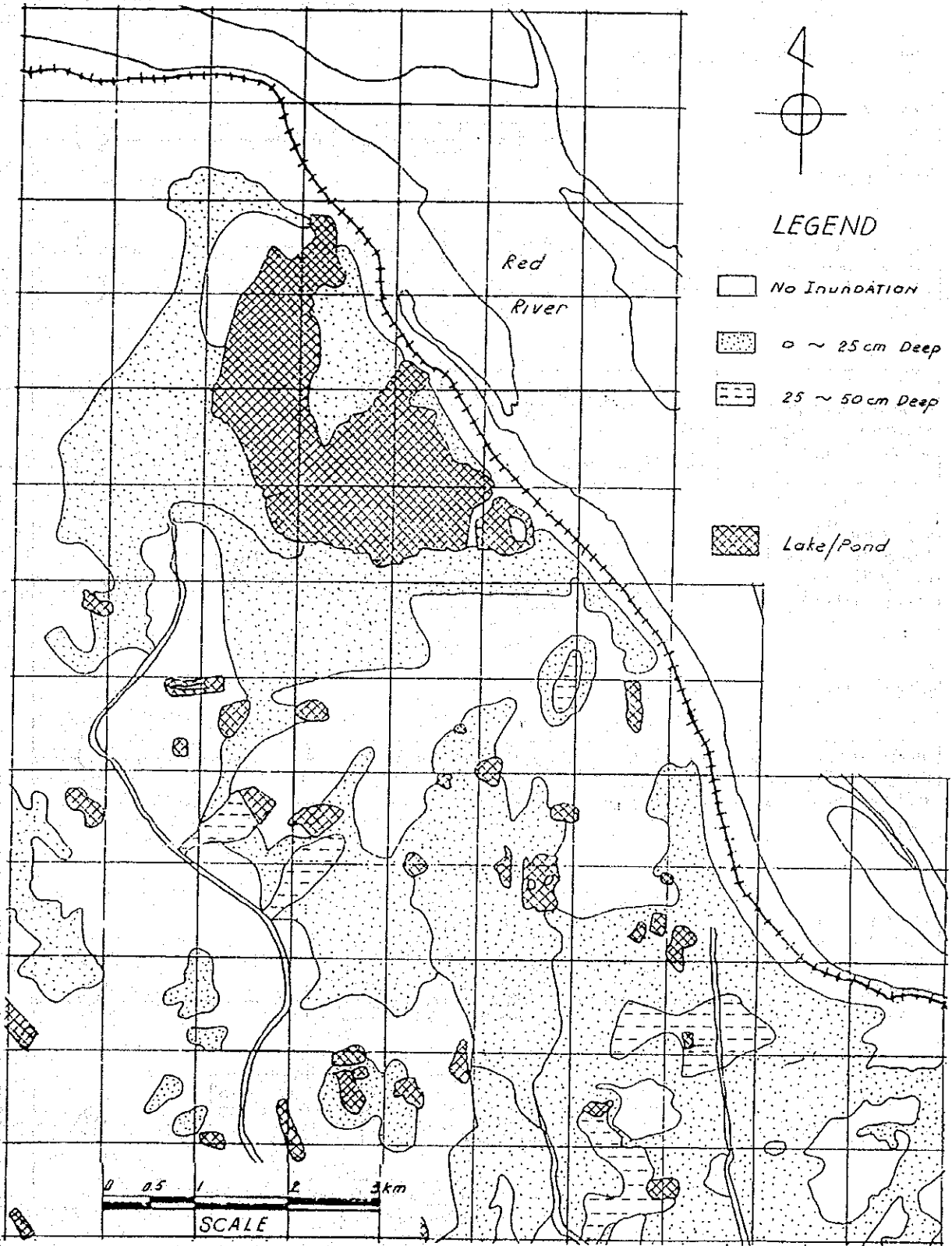
DIRECTORY BOARD OF
HANOIS & D Co.
Le Minh Chau - Dir.
Pham Van Cuong - V. Dir.
Nguyen Van Bo - V. Dir.



□ Main responsible section

SOCIALIST REPUBLIC OF VIET NAM
THE STUDY ON URBAN DRAINAGE AND WASTEWATER
DISPOSAL SYSTEM IN HANOI CITY
JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. L.3.4
ORGANIZATION CHART OF HSDC



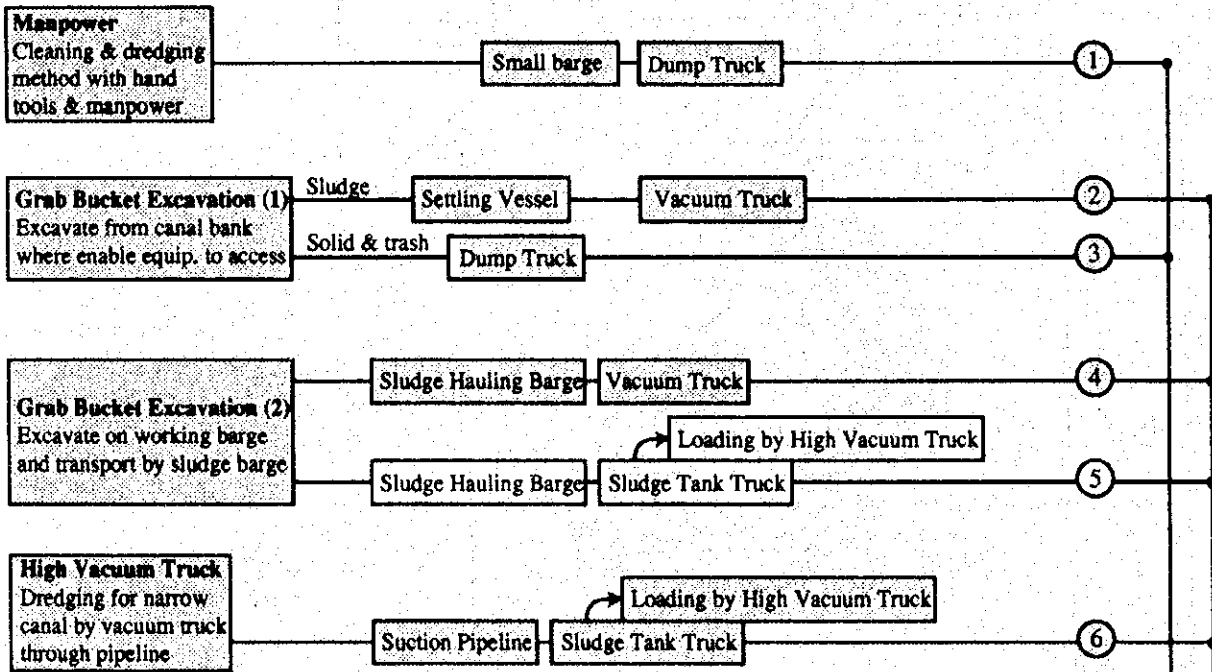
SOCIALIST REPUBLIC OF VIET NAM
THE STUDY ON URBAN DRAINAGE AND WASTEWATER
DISPOSAL SYSTEM IN HANOI CITY

JAPAN INTERNATIONAL COOPERATION AGENCY

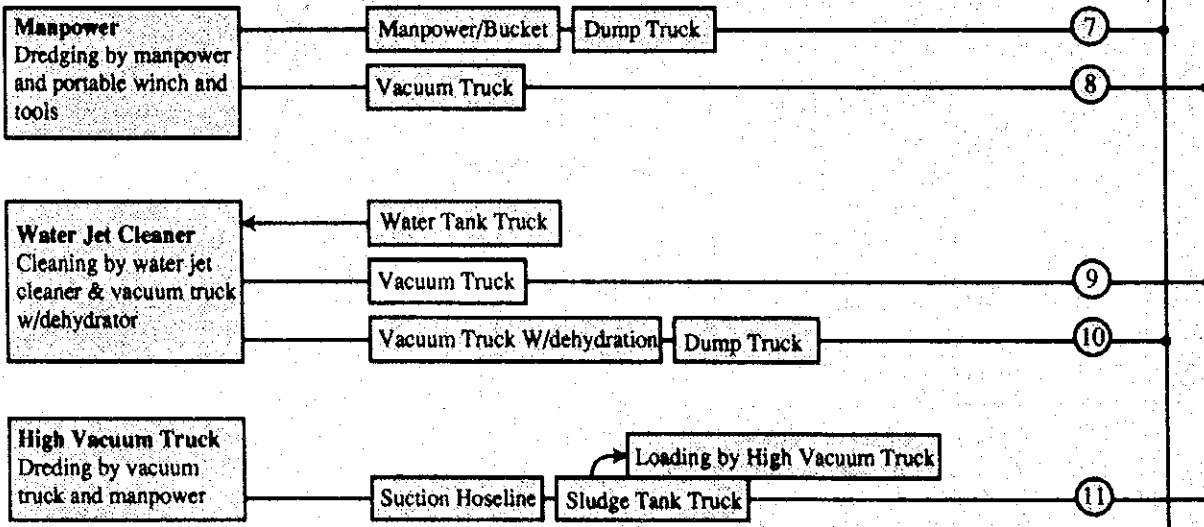
Fig. L3.5
AVERAGE ANNUAL FLOODING MAP

Cleaning and Dredging Methods of Sewer and Drainage Canal

Cleaning and Dredging of Drainage Canal



Cleaning and Dredging of Sewer



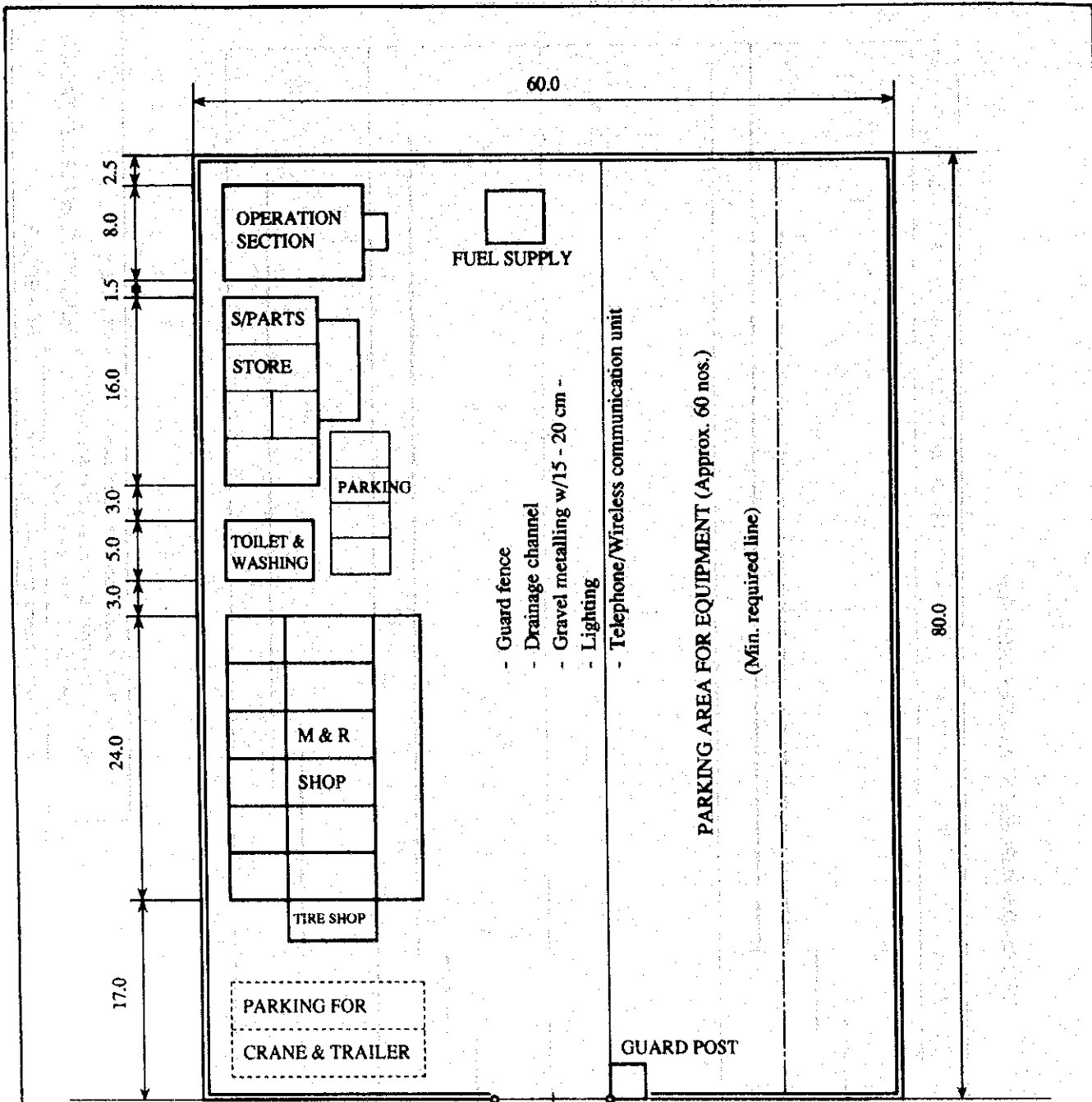
Disposal Site A (Dewatered) (By Dump Truck)

Disposal Site B (W/high water content) (By Vacuum Truck)

TENTATIVE IMPLEMENTATION SCHEDULE

| ITEM | MONTH | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | ~ | 47 | | | | | | | |
|--|-------|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|----|--|--|--|--|--|--|--|
| General Schedule (1) Detailed design (2) Tendering (3) Supply of equipment and technical guidance (4) Retrieval Work | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Exchange of Notes and Contract (1) Exchange of Notes (2) Contract of Consultant (3) Contract of Supplier | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Consultant (1) Detailed design and preparation of tender documents (2) Prequalification, tendering and evaluation (3) Construction supervision | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Supplier (1) Procurement and transportation of equipment (2) Technical guidance at site | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| SOCIALIST REPUBLIC OF VIET NAM THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL SYSTEM IN HANOI CITY | Fig. L4.2 TENTATIVE IMPLEMENTATION SCHEDULE |
| JAPAN INTERNATIONAL COOPERATION AGENCY | |



PUBLIC ROAD (W ≥ 10 m)

Area required = 0.48 ha
min. = 0.40 ha

Scale: 1 : 50
Unit: meter

| | |
|---|--|
| <p>SOCIALIST REPUBLIC OF VIET NAM THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL SYSTEM IN HANOI CITY JAPAN INTERNATIONAL COOPERATION AGENCY</p> | <p>Fig. L4.3 ARRANGEMENT OF MOTOR POOL FOR CLEANING AND DREDGING EQUIPMENT</p> |
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