

付 属 資 料

資料 1 S / W 及び M / M

資料 2 ウクライナ国鉄道網図

資料 3 Questionnaire の回答状況

資料 4 収集資料

資料 1 S / W 及び M / M

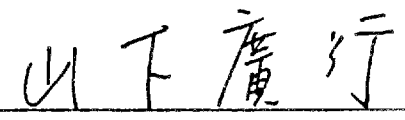
SCOPE OF WORK
FOR
THE STUDY
ON
MASTER PLAN FOR DEVELOPMENT OF RAILWAYS
IN
UKRAINE
AGREED UPON BETWEEN
THE STATE ADMINISTRATION OF RAILWAY TRANSPORT OF UKRAINE
AND
JAPAN INTERNATIONAL COOPERATION AGENCY
KIEV, UKRAINE

April 20th, 2000



Mr. Yu. PHEDYUSHYN

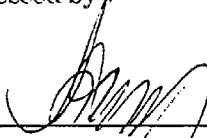
First Deputy General,
The State Administration of Railway Transport
of Ukraine (UkrZaliznytsya)



Mr. H. YAMASHITA

Leader,
Preparatory Study Team,
Japan International Cooperation Agency
(JICA)

Witnessed by:



Mr. A. DEMIDENKO

Deputy Head of the Ministry,
Ministry of Transport of Ukraine
(MOT)



Mr. V. IGNASCHENKO

Head of Directorate for International Development and European Integration,
Ministry of Economy of Ukraine
(MOE)

I. INTRODUCTION

In response to the request of the Government of Ukraine (hereinafter referred to as "GOU"), the Government of Japan (hereinafter referred to as "GOJ") has decided to conduct the study on the Master Plan for Development of Railways in Ukraine (hereinafter referred to as "the Study"), in accordance with the relevant laws and regulations in force in Japan.

Accordingly, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programs of GOJ, will undertake the Study in close cooperation with the authorities concerned of Ukraine.

The present document sets forth the scope of work with regard to the Study.

II. OBJECTIVES OF THE STUDY

The objectives of the Study are;

1. to formulate a long term Master Plan for rehabilitation, modernization and expansion of Ukraine Railways with the target year of 2020, short and intermediate plan should be prepare with due consideration on priority of improvement items for the target year of 2005, 2010.
2. to carry out the feasibility study on urgent projects selected from the short term master plan.
3. to pursue technology transfer to the counterparts.

III. SCOPE OF THE STUDY

In order to achieve the objectives mentioned above, the Study shall cover the following items, and the Study consists of the 1st and 2nd phases;

1. Phase 1 : Master plan on long term rehabilitation, modernization and expansion for Ukraine Railways
 - (1) Evaluation of the present conditions
 - 1) collection and analysis of relevant report, data and information
 - 2) survey of socioeconomic condition in connection with the study area
 - 3) survey of transport situation in the country
 - 4) examination of the present conditions of Ukraine Railways

MT



(2) Formulate a master plan

- 1) projection of socioeconomic framework
- 2) forecast of transportation demand for the period up to the year of 2020
- 3) estimation of railway traffic volume by passenger and freight
- 4) preparation of transport plan, facility and equipment plan
- 5) preparation of implementation plan on priority basis
- 6) economic and financial analysis of master plan
- 7) Initial Environmental Examination along the railway transport route
- 8) management analysis and recommendation on management improvement
- 9) selection of urgent projects for feasibility study

2. Phase 2: Feasibility study on urgent projects selected from the short term Master Plan

Based on the rehabilitation, modernization and expansion Master Plan formulated in Phase 1, carry out a feasibility study on the urgent projects selected from the short-term urgent projects

- 1) supplemental investigations and survey necessary for the feasibility study
- 2) conduct a total demand forecast for all traffic modes in the feasibility study area and then the model split between railways other modes of transport with due consideration on future service level of each transport mode
- 3) prepare transport plan, facility and equipment plan
- 4) prepare cost estimates and implementation plan
- 5) prepare operation and maintenance plan
- 6) management analysis and improvement plan
- 7) conduct economic and financial analysis
- 8) Environmental Impact Assessment
- 9) overall evaluation and recommendation

IV. STUDY SCHEDULE

The Study shall be carried out in accordance with the attached tentative study schedule as shown in appendix.

V. REPORTS

JICA shall prepare and submit the following reports in English to GOU.

1. Inception Report

Thirty (30) copies

At the commencement of the Study:

CT



2. Progress Report

Thirty (30) copies

Within four (4) months after the commencement of the Study.

3. Interim Report

Thirty (30) copies

Within nine (9) months after the commencement of the Study.

4. Draft Final Report and its Executive Summary

Thirty (30) copies, same number of copies of executive summary in English and Russian.

Within fourteen (14) months after the commencement of the Study.

GOU will provide JICA with its comments within one (1) month after the receipt of the Draft Final Report .

5. Final Report

Fifty (50) copies, same number of copies of executive summary in English and Russian.

Within two (2) months after the receipt of the comments on the Draft Final Report.

VI. UNDERTAKINGS OF THE UKRAINIAN SIDE

1. To facilitate smooth conduct of the Study, the Ukrainian Side shall take necessary measures;

(1) to secure the safety of the Japanese study team (hereinafter referred to as "the Team") in Ukraine,

(2) to permit the members of the Team to enter, leave and sojourn in Ukraine for the duration of their assignment therein, and exempt them from foreign registration requirements and consular fees,

(3) to provide necessary facilities to the Team for remittance as well as utilization of the funds introduced into Ukraine from Japan in connection with the implementation of the Study,

(4) to secure permission for entry into all areas concerned for the implementation the Study,

(5) to secure permission for the Team to take all data and documents including maps, photographs related to the Study out of Ukraine to Japan , and

(6) to provide the medical services as needed and its expenses will be chargeable on members of the Team.

2. The Ukrainian Side shall bear claims, if any arises, against the members of the Team resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Study, except when such claims arise from

UT



gross negligence or willful misconduct on the part of the members of the Team.

3. The State Administration of Railway Transport Of Ukraine (hereinafter referred to as "UkrZaliznytsya ") shall act as counterpart agency to the Team and also as coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.

4. UkrZaliznytsya shall, at its own expense, provide the Team with the following, in cooperation with other organizations concerned ;

- (1) available data and information related to the Study, including maps,
- (2) counterpart personnel,
- (3) suitable office space with necessary equipment in Kiev; and
- (4) credentials or identification cards to the members of the Team.

VII. UNDERTAKINGS OF THE JAPANESE SIDE

For the implementation of the Study, the Japanese Side shall take the following measures;

1. to dispatch, at its own expense, the Team to Ukraine, and
2. to pursue technology transfer to the Ukraine counterpart personnel in the course of the Study.

VIII. OTHERS

JICA and UkrZaliznytsya shall consult with each other in respect of any matter that may arise from or in connection with the Study.

MF



Appendix

Tentative Study Schedule

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Work in Ukraine																	
Work in Japan																	
Report Presentation	△ IC/R			△ P/R					△ IT/R					△ DF/R			△ F/R

[Legend]

IC/R : Inception Report
DF/R : Draft Final Report


P/R : Progress Report
F/R : Final Report

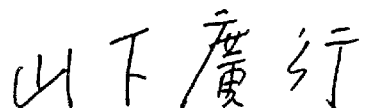
IT/R : Interim Report

urF


[Signature]


MINUTES OF MEETING
FOR
THE STUDY
ON
MASTER PLAN FOR DEVELOPMENT OF RAILWAYS
IN
UKRAINE
AGREED UPON BETWEEN
THE STATE ADMINISTRATION OF RAILWAY TRANSPORT OF UKRAINE
AND
JAPAN INTERNATIONAL COOPERATION AGENCY
KIEV, UKRAINE
April 20th, 2000


Mr. Yu. PHEDYUSHYN
First Deputy General,
The State Administration of Railway
Transport Agency of Ukraine
(UkrZaliznytsya)


Mr. H. YAMASHITA
Leader of Preparatory Study Team,
Japan International Cooperation
(JICA)

Witnessed by


Mr. A. DEMIDENKO
Deputy Head of the Ministry,
Ministry of Transport of Ukraine
(MOT)


Mr. V. IGNASCHENKO
Head of Directorate for International Development and European Integration
Ministry of Economy of Ukraine (MOE)

In response to the request of the Government of Ukraine, the Government of Japan dispatched the preparatory study team headed by Mr. Hiroyuki YAMASHITA (hereinafter referred to as "the pre-Study Team"), from April 10 to April 21, through the Japan International Cooperation Agency (hereinafter referred to as "JICA"), to discuss technical cooperation on the proposed THE STUDY ON MASTER PLAN FOR DEVELOPMENT OF RAILWAYS IN UKRAINE (hereinafter referred to as "the Study").

The pre-Study Team conducted field survey and had a series of discussions with authorities of The State Administration of Railway Transport of Ukraine (hereinafter referred to as "UkrZaliznytsya").

Meetings were held between officials of UkrZaliznytsya, the authorities concerned, and the pre-Study Team from April 11 to April 20, 2000. The list of participants to the meetings is shown in Annex 1.

The following summarizes the result of the major issues discussed and agreed between UkrZaliznytsya and the pre-Study Team during the meetings. This summary refers to the Scope of Work and aims to supplement and clarify the contents of the Scope of Work.

I. OBJECTIVES AND SCOPE OF THE STUDY

Ukraine side explained that UkrZaliznytsya could prepare the data for the Study before starting the Study. Both sides agreed that the Study Team carries out the Study referring the reports, which are offered by Ukraine side.

II. UNDERTAKINGS OF THE UKRAINIAN SIDE

Clause 1

Taxes and Charges

Ukraine side explained that it is difficult to exempt the members of the Team from taxes and other charges as mentioned in Sub-clauses (3) and (4) of the Draft of Scope of Work. However, Japan side explained that such an exemption is a standard requirement relative to any Development Study undertaking by Japan.

Both sides agreed not to include the above-indicated sub-clauses for now in the Scope of Work and expressed their intention to make a final decision on the subject

dt-



after in due course of negotiations between respective authorities of both sides.

It is recognized that such exemption is an exceptional provision for the present document and shall not apply to any cooperation agreement beyond the present document.

Sub-clause (6)

Considering there is no private land in Ukraine, both sides agreed to change the draft.

Clause 4

Sub-clause (3)

Ukraine side explained that it is very difficult to provide suitable office space with necessary equipment, due to space condition in the main building of UkrZaliznytsya. Japan side answered that it would convey the UkrZaliznytsya's condition to the Government of Japan.

Both sides agreed that "equipment" at this sentence does not include Facsimile, Copy machine, Computer.

Sub-clause (4)

Ukraine side explained that it is difficult to issue credentials or identification cards to the members of the Team.

Both sides agreed that UkrZaliznytsya provides the member of the Team with the document that confirms that the owner of the document is staying in Ukraine for survey work on the project of UkrZaliznytsya.

Vehicles

Japan side requested UkrZaliznytsya to provide the study team, UkrZaliznytsya's expense, with vehicles. In response, UkrZaliznytsya mentioned that it is difficult to provide these vehicles because of budgetary constraints of UkrZaliznytsya.

Both sides agreed that the pre-Study Team would convey the above UkrZaliznytsya response to JICA Headquarter.

MF



List of Attendants

(Ukraine side)

The State Administration of Railway Transport of Ukraine

Mr. Yu. M. PHEDYUSHYN	First Deputy General
Mr. A. ZUBKO	Chief of Development & Investments Department
Mr. J. KRANTS	Chief of Department of Development
Mr. Y. SENTSOV	Head of Division for Information Analysis and Data Base

Ministry of Transport

Mr. A. F. DEMIDENKO	Deputy Head of the Ministry
Ms. L.G. YEVGRAFOVA	Manager of Department of Policy of Investment

Ministry of Economy

Mr. V. IGNASCHENKO	Head of Directorate for International Development and European Integration
Ms. O. KUCHERENKO	Head of Department for Bilateral Economic and Technical Cooperation
Mr. S. KHUDYASH	Deputy Head of the Department for Bilateral Economic and Technical Cooperation
Ms. O. LYTUVNENKO	Senior Expert, Department for Bilateral Economic and Technical Cooperation

(Japanese side)

JICA Preparatory Study Team

Mr. Hiroyuki YAMASHITA	Team Leader
Mr. Jiro DAMBARA	Member
Mr. Koichi TANAHASHI	Member
Mr. Toyohito YUDA	Member
Mr. Kazuyuki SHIBAYAMA	Member
Ms. Atsuko KIKUTSUGI	Member

Mr. Daisuke MINAMINO

The Embassy of Japan. economic attaché

Mr. Isao KAWANISHI

JICA, ODA Coordination Advisor

47

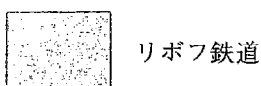
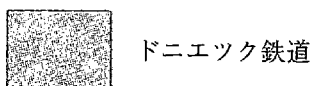
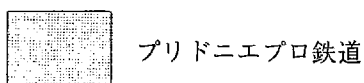
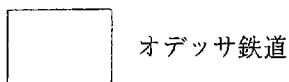
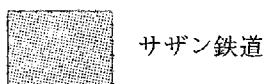
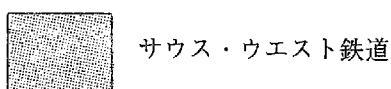


資料2 ウクライナ国鉄道網図

[illegible]

図 例

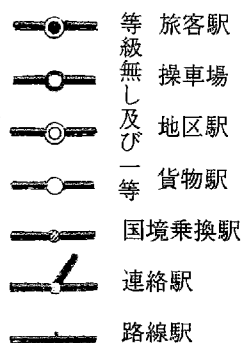
鉄 道



略

б.п.	- 信号扱い所	Півд.	- 南の
Вантаж.	- 貨物用	Пів.	- 北の
Голов.	- 主要	рзд.	- 待避線 (駅)
Зах.	- 西の	Сорт.	- 操車場
Пас.	- 旅客の	Схід.	- 東の

鉄 道 駅



КИЇВ ウクライナの首都

СУМИ 州都

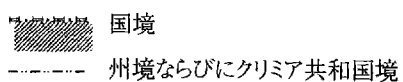
ТЕРЕБОВЛЯ }
БАГЛІЙ } 都市及び他の人口集結地点
Іванівка }

ЛЬВІВ 鉄道管理局所在地

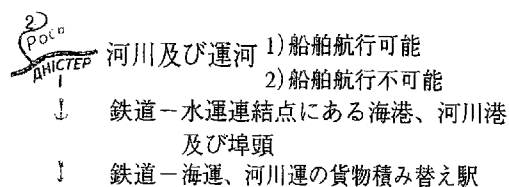
ЖМЕРИНКА 輸送企業所在地

52 連絡駅、終着駅、
22 接続駅間の距離、km
30 路線駅間の距離

境 界 線



そ の 他



Варна 456 鉄道フェリー連絡、距離、km

о Обухів 地区中心地及び他の人口集結地点

縮尺 1:1500,000

資料 3 Questionnaire の回答状況

QUESTIONNAIRE
FOR
THE TECHNICAL COOPERATION
FOR
THE MASTER PLAN STUDY
FOR
THE DEVELOPMENT
OF
RAILWAYS IN UKRAINE

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

MARCH 31,2000

This questionnaire is prepared by the Japanese Preparatory Study Team for the Master Plan Study on the Development of the Ukraine Railways. The Japanese preparatory study team expects the Ukraine counterpart to facilitate the provision of basic information and data for the study.

The Japanese Preparatory Study Team wishes to obtain updated information before their departure on Apr.20th 2000.

Please answer to all questions in English and attach available document/materials (preferably in English) requested in this questionnaire by the arrival of the Japanese Preparatory Study Team scheduled on th April 2000.

Answers to the questionnaire need not to be too much in detail but should be brief and precise.

Note: 1. Description column with "O" indicates data required by the Pre-study Team.

The Team would be grateful if it could be provided by April 20th 2000.

2. Please mark "Y" in the "availability" column for data /item which are available.

3. Please mark "N" in the "availability" column for data /item which are not available.

4. Please indicate in the column, "Data available by Apr.20 '00", for those Document/Materials that will be "Ready for Handover" to the Japanese Pre-Study Team who will depart KIEV on April 21th 2000.

5. Please make arrangements to retain data that will not be available to the Japanese Pre-Study Team during their official visit. The remaining data will be picked up by the Study Team (seperately formed) in summer 2000.

Your co-operation is highly appreciated.

質問状回収結果

Availability 列に “Yes” 記載はウクライナ国家鉄道交通局へのヒアリングよりデータがあるといわれている物を示す。

“No” 記載はデータが存在しないあるいは非公開であることを示し、“?” 記載はデータがあるか確認がとれないことを示す。

カウンターパート連絡先

国家鉄道交通局（キエフ）

Mr. Josif KRANTS（英語によるコミュニケーションは困難）

Chief of Department of Development

Tel. (380. 44) 223-40-92 Fax. (380. 44) 227-03-23

I. Organization Concerned for the Implementation of the Study

ITEM	DESCRIPTION	AVAILABILITY	DATA AVAILABLE BY APR. 20 '00	TITLE OF DOCUMENT
(1) Transport policy	(a) Traffic control and management	○ YES	NO	運輸省にある
	(b) Promotion of public transport utilization	○ NO	NO	
	(c) Environment	?	NO	UZ関係のみであればある
(2) Planning and construction/ implementation	(a) Transport network and system	○ YES	NO	
	(b) Traffic control and management	○ NO	NO	
	(c) Public transport (Bus network, route, time table, etc.)	○ NO	NO	
	(d) Transportation transfer facilities at major hub centers	○ NO	NO	
	(e) Road network maps, proposed/committed development plan	○ NO	NO	
	(f) Road inventories (class, length, surface type, lane, width, etc.)	○ NO	NO	
	(g) Organization chart of (a) to (f)	○ NO	NO	
	(h) Oil pipeline network and specifications	○ NO	NO	
2. Agencies Responsible for the following tasks :	(a) Name and position of contactee for the Japanese Study team	○ YES	YES	クランツ国家鉄道局開発局長
	(b) Permission of areal photographing	○ NO	NO	
	(c) Custodian of topographic maps and areal photographs	○ NO	NO	
	(d) Geological data/information	○ NO	NO	
	(e) Area conservation	○ NO	NO	
3. Supervising / steering committee for the management of the Study				

II. Socio-economic data/information

ITEM	DESCRIPTION	AVAILABILITY	DATA AVAILABLE BY APR.20 '00	TITLE OF DOCUMENT
1. Latest socio-economic indices Statistical abstract of the past decade(1994-1998)	(a) GNP and GDP	YES	NO	
	(b) Population, number of households, labor force and products by industrial sector	○ YES	NO	
	(c) Administrative boundary maps	YES	NO	
	(d) Past and future population growth rate	○ YES	NO	
	(e) Yearly budget for transport	○ ?	NO	UZ関係のみであればある
2. Existing development plans and reports	(a) The National Plan	○ NO	NO	
	(b)	NO	NO	
	(c) Economic development plans of the past decade	○ NO		NO
	(d) Transport development plans of the past decade	○ NO		NO
	(e) Industrial development plans of the past decade	○ NO		NO
	(e) Housing development plans of the past decade	NO		NO
	(f) Forecast of socio-economic indicators	NO		NO
3. Major development plan	(a) Existing land usage	NO	NO	UZ関係のみであればある
	(b) Future land utilization plan	NO	NO	UZ関係のみであればある
	(c) Development plan/project	○ NO	NO	UZ関係のみであればある
4. Current economic situations including structural reforms toward market economy and progress of privatization		○ YES	NO	ウクライナ鉄道輸送リストラの コンセプトとプログラム
5. Current situations of the transport sector including structural reforms toward a market economy and progress of privatization		○ YES	NO	ウクライナ鉄道輸送リストラの コンセプトとプログラム

III.-1 Operation/Management of Ukraine Railways (U.R)

ITEM	DESCRIPTION	AVAILABILITY	DATA AVAILABLE BY APR.20 '00	TITLE OF DOCUMENT
1.Railway Related Law and Regulation	(1) Railway business	<input type="radio"/> YES	NO	
	(2) Environment	<input type="radio"/> YES	NO	
2.Organization and Staifing	(1) Organization chart of U.R	<input type="radio"/> YES	YES	
	(2) Number of staff in each section	<input type="radio"/> YES	NO	
	(3) Number of staff by age, seniority classification	<input type="radio"/> YES		NO
	(4) History of number of staff in U.R	<input type="radio"/> YES	NO	
	(5) Staff training, educational systems & facilities	<input type="radio"/> YES	NO	
	(6) Staffing by station and staff rotation system	<input type="radio"/> YES		NO
3.Fare and Ticket System	(1) Passenger fare	<input type="radio"/> YES	NO	
	(2) Freight fare	<input type="radio"/> YES	NO	
	(3) Discount Ticket Rate (Commuters, Students, etc.)	<input type="radio"/> YES		NO
	(4) Fare and rates of competitors (bus, trucks, etc.)	<input type="radio"/> NO		NO
	(5) Policies for establishing fares	<input type="radio"/> YES	NO	
4 Financial Conditions of Entity	(1) Financial statement, (B/S, P/L, Cash Flow Statement, revenue details by freight & passenger since 1992)	<input type="radio"/> YES	NO	96年以降のものがある
	(2) Details of Expenditure (Overhead, repairs & maintenance, by freight & passenger classification)	<input type="radio"/> YES	NO	96年以降のものがある
	(3) Amount and details of subsidies from the Governmentfor the past decade	<input type="radio"/> YES	NO	96年以降のものがある
	(4) Financial forecast of 2000	<input type="radio"/> YES	NO	96年以降のものがある
	(5) Accounting system	<input type="radio"/> YES	NO	96年以降のものがある
	(6) All income(freight cargo etc.)	<input type="radio"/> YES	NO	96年以降のものがある
	(7) Salary and wage system	<input type="radio"/> YES	NO	96年以降のものがある
	(8) Depreciation for fixed assets (rolling stock, etc.)	<input type="radio"/> YES	NO	96年以降のものがある
	(9) Cargo collection and delivery system	<input type="radio"/> YES	NO	96年以降のものがある
	(10) Financial performance of investments by sectors	<input type="radio"/> YES	NO	96年以降のものがある
	(11) Physical performance of investments by projects	<input type="radio"/> YES	NO	96年以降のものがある

III.2 Operation/Management of Ukraine Railways (U.R)

ITEM	DESCRIPTION	AVAILABILITY	DATA AVAILABLE BY Apr.20 '00	TITLE OF DOCUMENT
5. Operational Activities	(1) Fund of operation cost (repayment / interest)	O NO		NO
	(2) Train operational regulations	O YES	NO	
	(3) Train operational plan	O YES	NO	
	(4) Train diagram and time table (by passenger, freight, etc.)	O NO	NO	表定速度ならある
	(5) Passenger (Person-Kilometer) (by type of trains, line sections, regions)	O YES		NO
	(6) Freight (Gross Tonne-Kilometers) (by type of trains, line sections, regions)	O YES		NO
	(7) International freight traffic	O YES	NO	
	(8) Freight traffic by type of commodity	O YES	NO	
	(9) O-D Matrix for passenger & freight by type of commodity	O YES		NO
	(9) Statistics of Accidents	O ?	NO	
	(10) Countermeasures for accidents	O YES	NO	
	(11) Labor unions	O YES	NO	
	(12) Information transmitting practices	O YES	NO	
6. Passenger Traffic	(1) Number of passenger by stations	O NO	NO	
	(2) Transfer traffic volume between U.R stations and bus	O NO		NO
	(3) Inter-station OD matrices	O NO	NO	
	(4) Hourly and daily fluctuation of passengers	O NO		NO
7. New Line Construction Plan	(1) Drawings	O NO	NO	
	(2) Cost Breakdown	O NO	NO	

IV. Railway Trackside Facilities (1)

ITEM	DESCRIPTION	AVAILABILITY	DATA AVAILABLE BY APR.20 '00	TITLE OF DOCUMENT
1. Map	(1) Railroad Network Map	<input type="radio"/> YES	YES	
	(2) Power Transmission Line(voltage)	<input type="radio"/> ?	NO	
2. Inventory of equipment & facilities	(1) Station	<input type="radio"/> YES	NO	
	(2) Track Length (Classification by age, design axle load, track grade, etc.)	<input type="radio"/> YES		NO
	(3) Machinery	<input type="radio"/> NO	NO	
	(4) Mechanical & Electrical Equipment (for track and station)	<input type="radio"/> YES		NO
	(5) Rolling Stocks (length, weight, capacity, etc.)(Locomotives, Wagons, Coach)	<input type="radio"/> YES	NO	
	(6) Depot	<input type="radio"/> YES	NO	
3. Drawings	(1) Station Cross section Longitudinal section Track Layout	<input type="radio"/> NO		NO
	(2) Depots Location	<input type="radio"/> NO		NO
	(3) Repair Workshops Location Track Layout	<input type="radio"/> NO	NO	
4. Technical standards, design standards, regulations, etc. including drawings	(1) Structural Standards (Construction, Rolling Stocks)	<input type="radio"/> YES		NO
	(2) Track (Gauge, Center to Center Distance, etc.)	<input type="radio"/> YES		NO
	(3) Track Grade Classification	<input type="radio"/> YES	NO	
	(4) Machinery	<input type="radio"/> YES	NO	
	(5) Signaling system	<input type="radio"/> YES	NO	
	(6) Communication system	<input type="radio"/> YES	NO	
	(7) Electric power supply	<input type="radio"/> YES	NO	
	(8) Depot, marshaling, freight terminal	<input type="radio"/> YES	NO	
	(9) Rolling stocks inspection standards	<input type="radio"/> YES	NO	
	(10) Standards/manual for safety and maintenance activities	<input type="radio"/> YES		NO

V. Other informations

ITEM	DESCRIPTION	AVAILABILITY	DATA AVAILABLE BY APR.20 '99	TITLE OF DOCUMENT
1 List and brochures of local consultants	(1) Capability of consulting service		別紙コンサルタント会社概要のとおり	
	1 Drawing preparation	○		
	2 Structural calculation	○		
	3 City planning	○		
	(4) Architectural & Civil design	○		
	(5) Mechanical and electrical design	○		
	6 Collection of data	○		
	(7) Planning of operation/ management of railways	○		
	(2) Facility and equipment (PC, Printer, CAD, Scanner, etc.)			
	(3) Number of staff	○		
2 Fee for consultant services	(1) Standard price list and/or typical example of cost for drawing preparation, structural calculation, city planning, architectural design, mechanical and electrical design, collection of data and planning of operation /management of U.R	○		

