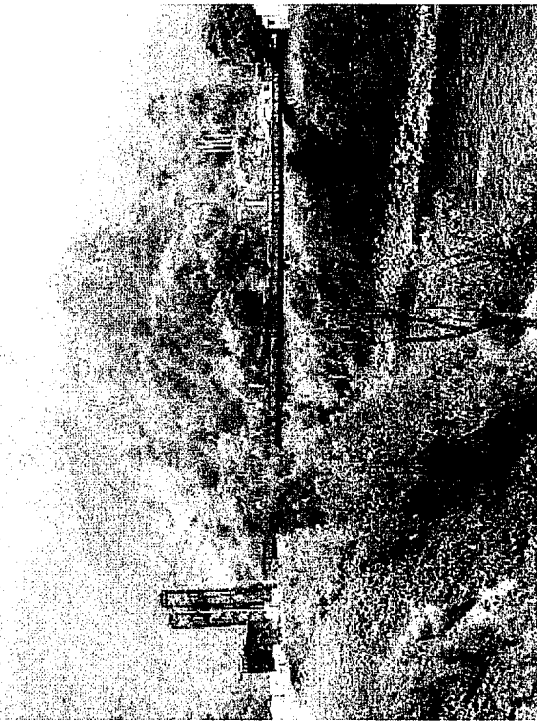


Bridge Inventory SER No. 5

NAME OF BRIDGE Mangdi Bridge		CLASS OF LOAD N.H.Rt.No.4		CROSSING: NAME OF RIVER OR ROAD Mangdi River		COMPLETED 1965		MAINTENANCE BY DOR (Shermang)	
Design Information		Yes		No		DATE of Inspection 19/Apr/2000		Inspected by	
Type of Bridge		Superstructure Bailey Suspension		Deck Timber		Design Loading		Load Limitation	
		Substructure Abutment Masonry		Pier		Design Standard		No	
Length of Bridge		97.6		Span m		Skew of Bridge		Deg.R= 9.0	
Width of Bridge		4.02		Carriageway m		Condition of Crossing		Skew deg	
Affixed Articles Traffic Volume		Overall		97.4		Others		Design Quantity m ³ /sec	
Final Record of Repair		Pavement		Deck Slab		Expansion Joint		Free Board m	
		Others		Greasing & Cleaning at Apr. 1999		Substructure		m	
		Pavement		Main Beam		Painting		m	
		Deck Slab		Ratio of Heavy Vehicle %		Apr/1999		m	
		Main Beam		Painting		Apr/1999		m	
		Ratio of Heavy Vehicle %		Painting		Apr/1999		m	
		Painting		Apr/1999		Apr/1999		m	

General View

Notes
1. Sag of main girders is 46cm.



Result of Visual Inspection	Bearing	Abutment
Pavement & Slab	1	1
Curb	1	Pier
Railing	1	Wing Wall
Deck Slab	3	River Bank
Main Beam	4	Approaches
Others	—	Others
Superstructure	3.7	Bridge Accessory
Overall Rating	3.7	Substructure
Rating	0.8	1.0

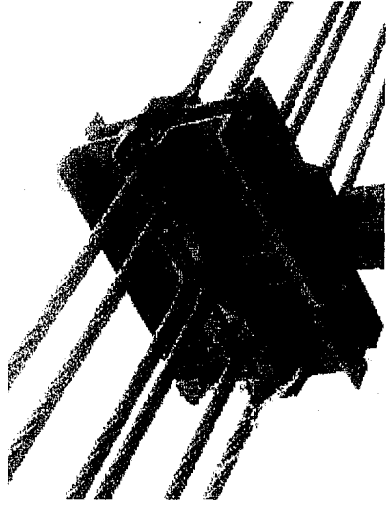
Comment

- 1.No damage detected on the basis of the inspection results.
- 2.Damage has been detected and a follow-up survey is required.
- 3.There is significant damage and a detailed survey needs to be carried out to establish whether repair work is to be carried out or not.
- 4.There is significant damage and urgent repair is required or the bridge has to be closed to traffic or restrictions on vehicle weight have to be imposed.

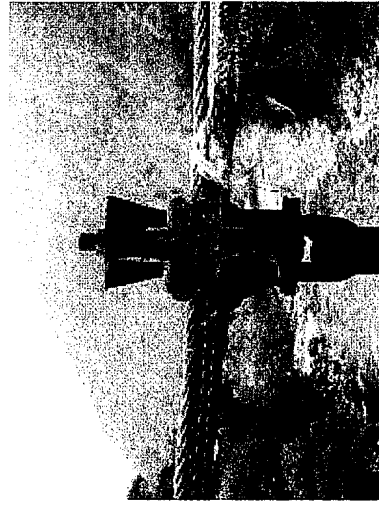
Bridge Inspection Form

SER No.5

NAME OF BRIDGE Manggi Bridge		CLASS OF LOAD NH.Rt.No.4		CROSSING: NAME OF RIVER OR ROAD		COMPLETED	DATE OF INSPECTION	MAINTENANCE BY
Component	Type	Condition of Damage	Condition		Rating			
Bridge Surface	Pavement	Timber+Asphalt	Good	Fair				
	Curb	Timber	Good	Good				
	Railing	Bailey	Good	Fair				
Deck Slab	Type	Timber on stringers	Good	Fair				
	Good	1 direction	2 direction	Flaking	Rebar exposed	Others	1.Minor 2.Intermediate 3.Major	
	Type	Bailey	Good	Poor	Poor due to cables damage			
Main Beam	Type	Corrosion, Buckling, Excessive deformation, Rivet off, Others	Good	Poor				
	Diaphragm	Corrosion, Buckling, Excessive deformation, Rivet off, Others	Good	Poor				
Sway Bracing	Type	Corrosion, Buckling, Excessive deformation, Rivet off, Others	Good	Poor				
	Lateral Bracing	Corrosion, Buckling, Excessive deformation, Rivet off, Others	Good	Poor				
Painting	Expansion Joint	Truss is good. Other materials are no good.	Condition	Condition				
	Bearing	Visible, Existed, Good, Abnormal sound, Clogged, Deformation, Gap, Other	Type	Condition	Good			
Drainage	Condition	Visible, Existed, Good, Broken, Anchor bolt, Abnormal displacement	Condition	Condition				
	Abutment	Clogged, Broken, Water leakage, Support broken, Pipe broken, Other	Type	Masonry	Condition	Good	Cable band was broken.	
Abutment	A1	Body broken (Scaling, Cracking, Spalling, Exposure and corrosion of reinforcement, wear of surfaces), Others	Type	Masonry	Condition	Good		
	A2	Body broken (Scaling, Cracking, Spalling, Exposure and corrosion of reinforcement, wear of surfaces), Others	Type	Masonry	Condition	Good		
Pier	Condition	Body broken (Scaling, Cracking, Spalling, Exposure and corrosion of reinforcement, wear of surfaces), Others	Type	Masonry	Condition	Good		
	Foundation	Settlement, Leaning, Moving, Crack, Scouring, Others	Type	Masonry	Condition	Good		
Wing Wall	Condition	Good, Scaling, Cracking, Spalling, Exposure and corrosion of reinforcement, wear of surfaces	Type	Masonry	Condition	Good		
	Embankment	River Bank	Side Bank	Back Filling	Others			
Others	Affixed Article							
	Traffic Sign							
Rating	Approaches							
	Others							



Some wires were cut.



Cable band was broken.

Note: Further inspection shall be carried out on the "major damage" detected in the inspection.

- 1.No damage detected on the basis of the inspection results.
- 2.Damage has been detected and a follow-up survey is required.
- 3.There is significant damage and a detailed survey needs to be carried out establish whether repair work is to be carried out or not.
- 4.There is significant damage and urgent repair is required or the bridge has to be closed to traffic or restriction on vehicle weight to be imposed.

Photographs

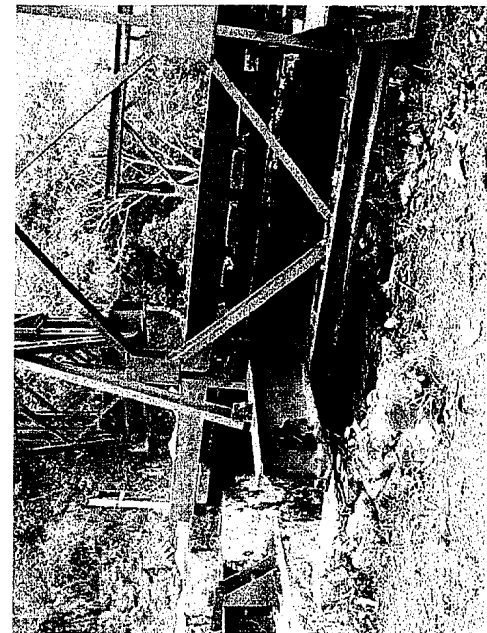
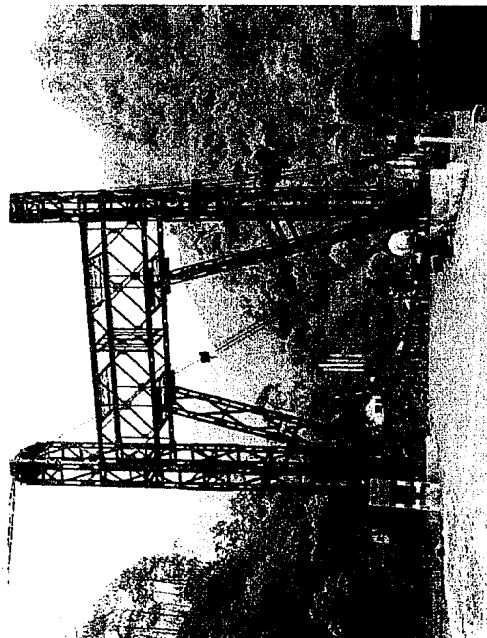
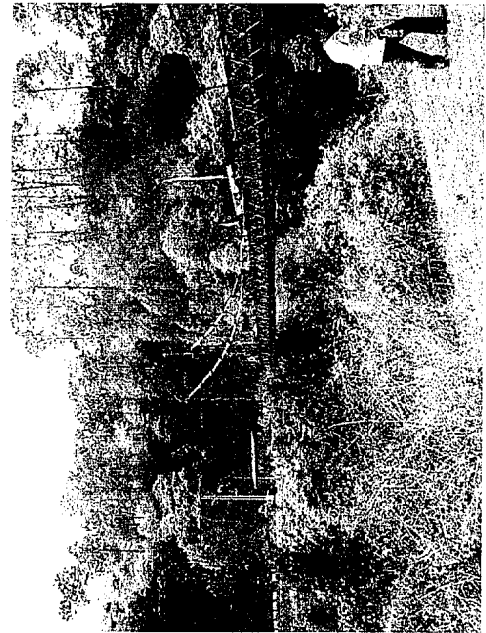
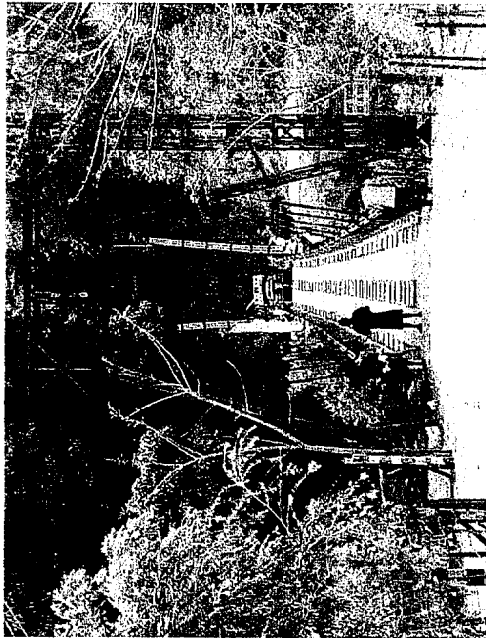
NAME OF BRIDGE

Mangdi Bridge

SER No. 5

Date of Inspection

Front view from the left bank.



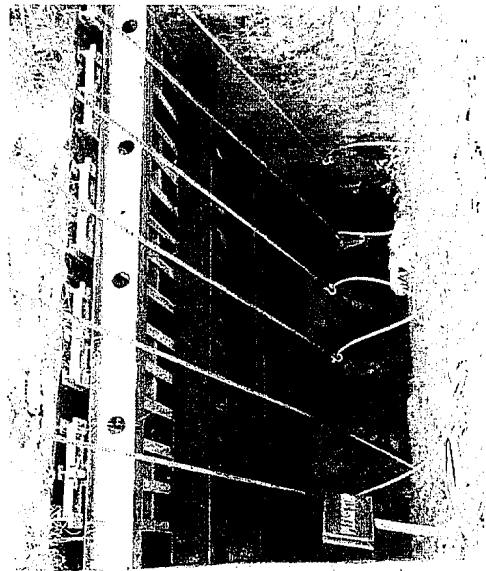
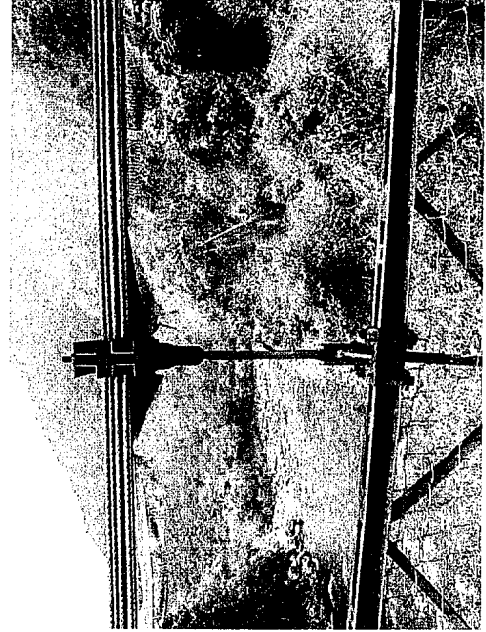
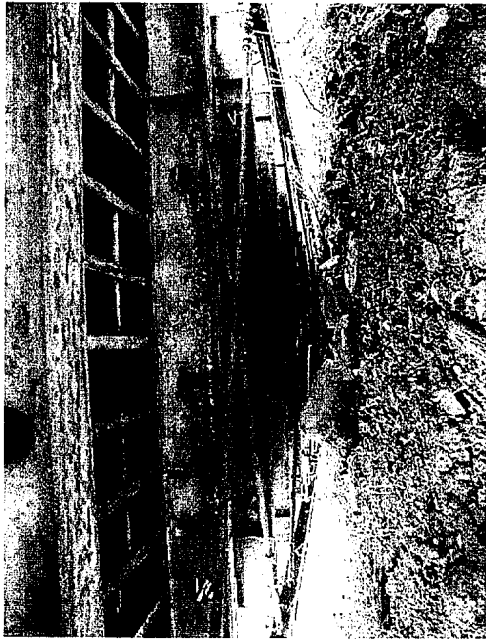
Photographs

NAME OF BRIDGE

Mangdi Bridge

SER. No. 5

Date of Inspection



測量調査結果

(1) 地形測量

地形測量データは 1998 年の F/S 時に測量したものをベースにし、今回は新たに次の内容の追加測量を行った。

- 対象 5 橋近傍への新しい仮ベンチマーク設置のための基準点測量
- No. 4 Wachy 橋および No. 5 Mangde 橋周辺での追加平面測量
- ボーリング位置特定のための測量

(2) 河川測量

1) 調査内容

測量内容は河川担当者との打ち合わせをもとに、河川解析に必要な次の測量を実施した。

- 1) 対象 5 橋の上流・下流の水面勾配測量
- 2) 対象 5 橋の河川横断（一橋につき 3 河川横断）測量
- 3) 対象 5 橋の流速測定
- 4) 水位計が設置してある 4 橋 (No. 1 Kuri bridge, No. 2 Chamkar bridge, No. 3 Bjee Bridge, No. 5 Mangde Bridge) の水位の標高測量

2) 測量結果

(a) 対象 5 橋の上・下流付近の流速、最大水深、水面勾配

橋梁名	流速(m/sec)	水深(m)	水面勾配
No. 1 Kuri 橋	1.2	7.1	-
No. 2 Chamkar 橋	0.43	3.3	1:168
No. 3 Bjee 橋	1.1	3.8	1:21
No. 4 Wachy 橋	1.0	1.9	1:29
No. 5 Mangde 橋	1.0	1.7	1:140

(注) 調査期間：2000 年 5 月 16 日から 5 月 26 日

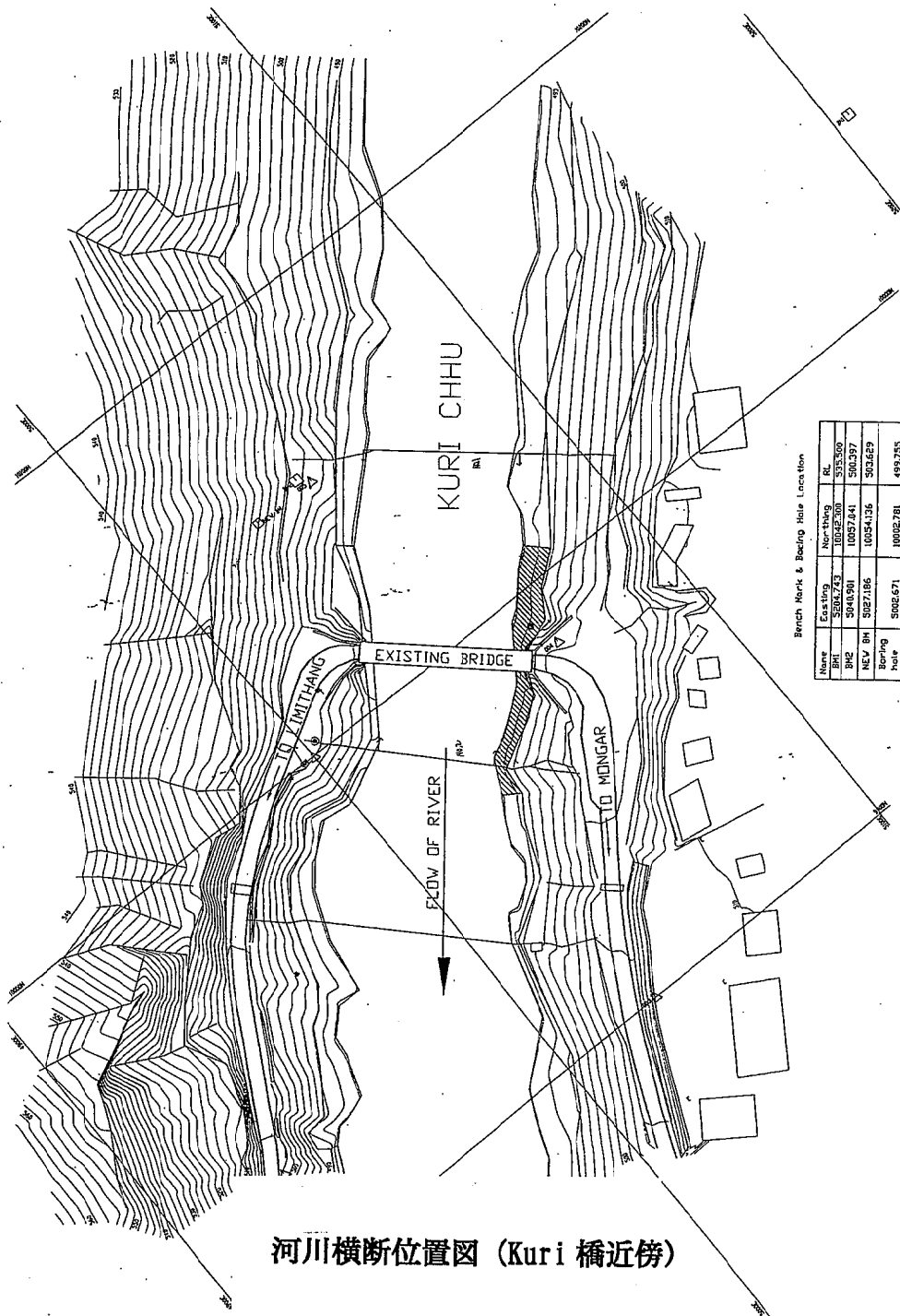
(b) 水位計が設置してある 4 橋 (No. 1 Kuri Bridge, No. 2 Chamkar Bridge, No. 3 Bjee Bridge, No. 5 Mangde Bridge) の水位の標高測量

橋梁名	水位計(m)	標高(m)
No.1 Kuri 橋	7.00	488.608
No.2 Chamkar 橋	5.00	493.186
No.3 Bjee 橋	2.90	484.738
No.5 Mangde 橋	5.25	477.771

(注) ・調査期間：2000年5月16日から5月26日

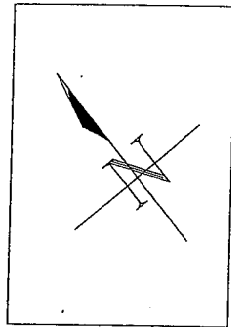
・標高は仮ベンチからの高さ

測量調査に基づく対象橋梁周辺地形図および河川断面図を以下に示す。



LEGENDS:

□	Bench Mark
△	Station
E	Electricity Pole
*	Anchor Point
K	Kilometer Post
	Sign Pole
○	Boring Hole
—	Bottom of Bank
—	Top of Bank
▬	Retaining Wall
—	Contour
—	Gully
▬	Existing Road
▭	House / Building
▭	Kurichu Chorten
—	Foot Path
—	High Flood Level
—	Low Water Level
▬	Proposed Bridge
▬	Proposed Road Alignment
—	Change of Grade
▨	Exposed Rock Face




Bench Mark & Boring Hole Location

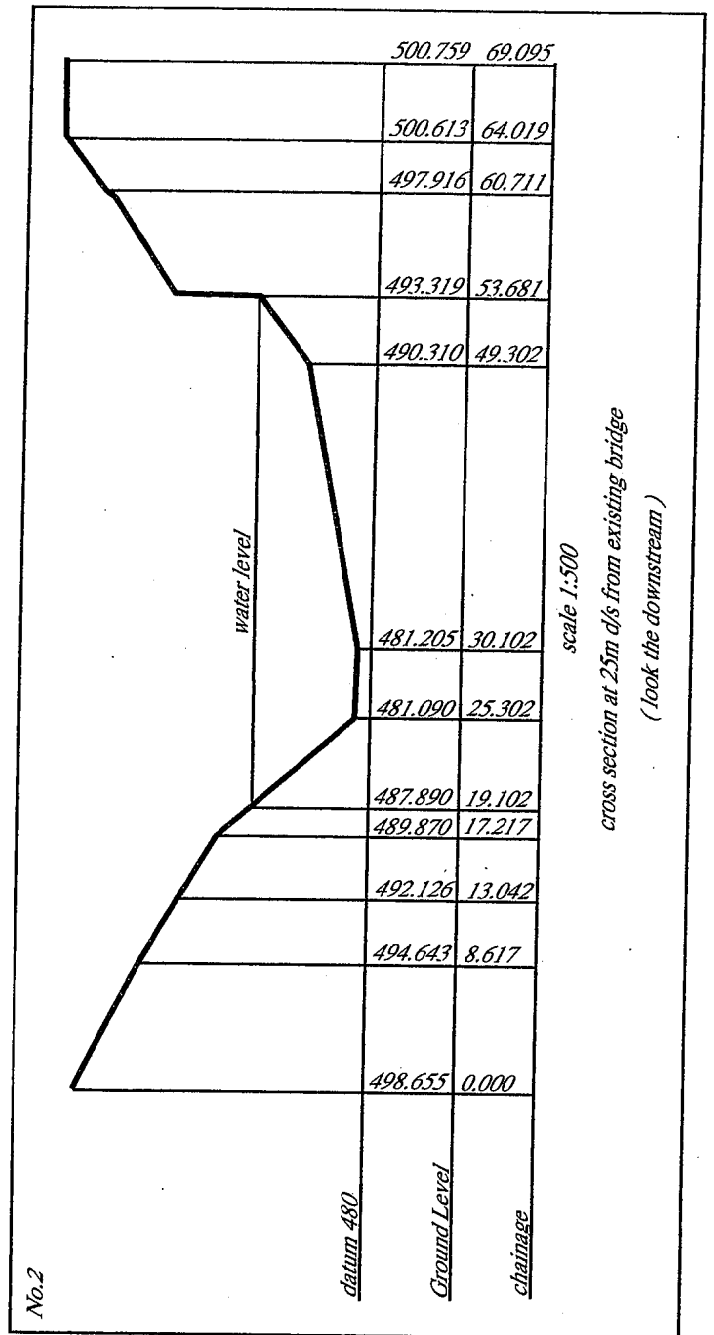
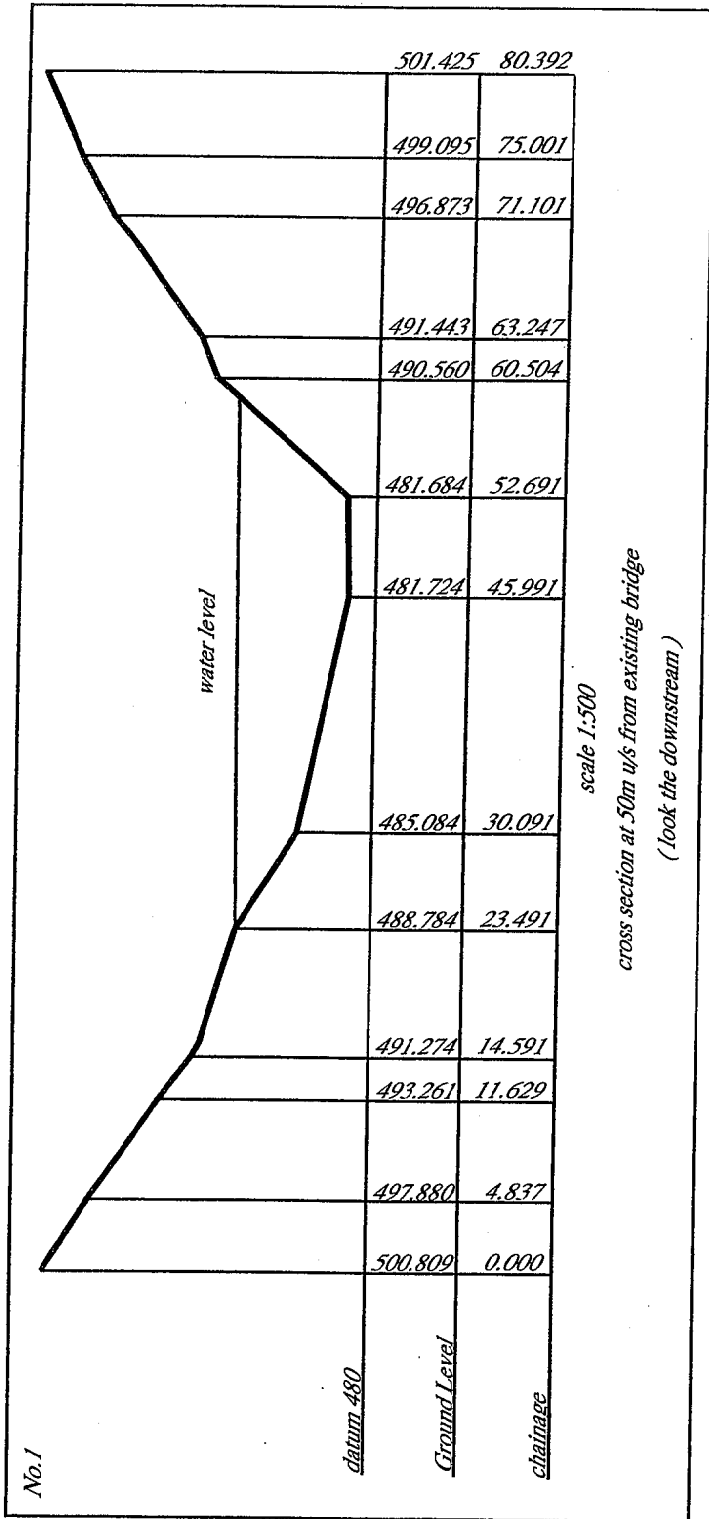
Name	Existing	Non-Fing	RL
B.M.	3684723	10042300	535.500
B.M.	3684690	10037441	500.397
Boring Hole	5027186	10034136	503.629
Boring Hole	5026571	10022781	499.235

Note: The RLs are calculated from Station No. 1 with assumed Height as 500.000m.

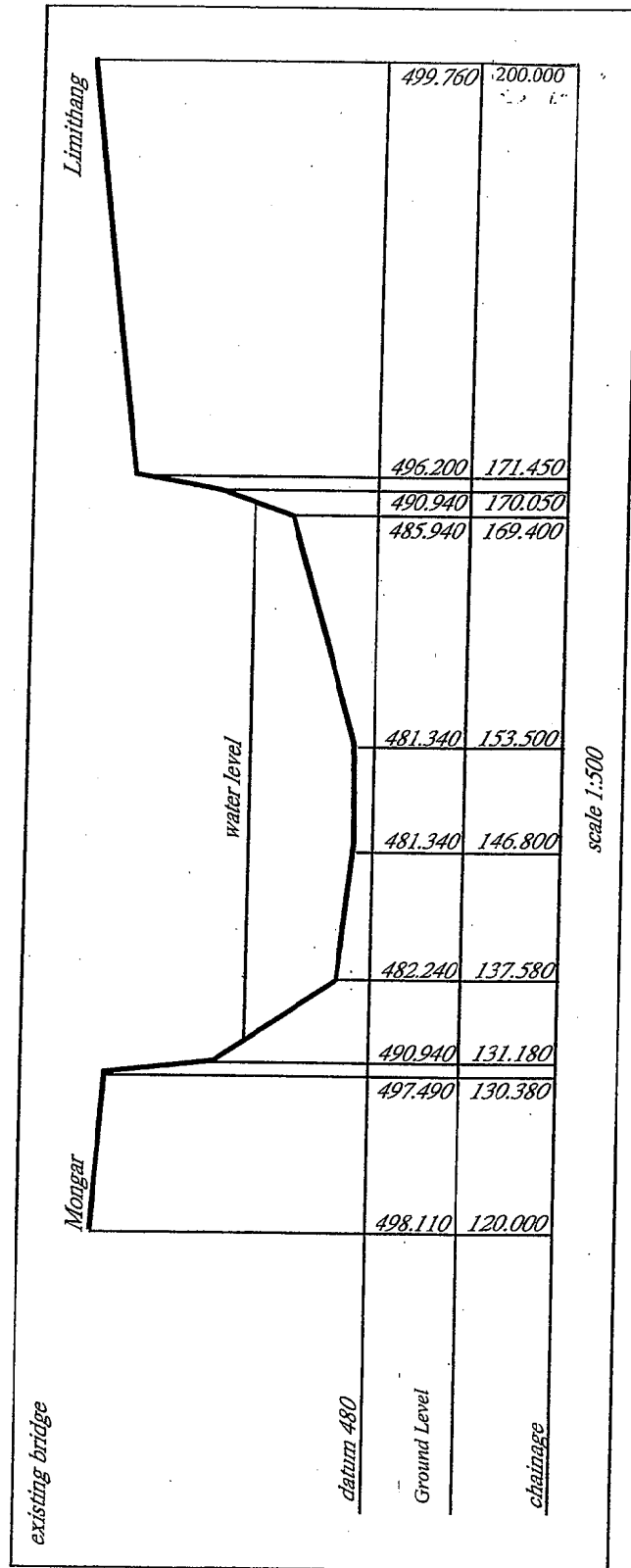
河川横断位置図 (Kuri 橋近傍)

	TRIPURA STATE DEPARTMENT OF NATURAL RESOURCES & ENVIRONMENTAL CONSERVATION	SHIMLON DISTRICT	SURVEY AND DESIGN CELL DEPARTMENT OF NATURAL RESOURCES & ENVIRONMENTAL CONSERVATION
	KURIZAPPA BRIDGE SITE PLAN	PROJECT NO. 0809 10 (4/1)	DATE: 2014
	SCALE: 1:500	DRAWN BY: _____ CHECKED BY: _____ APPROVED BY: _____	DATE: _____ COMMENTS: _____ DATE DESCRIPTION: _____
	PROJECT NO. 0809 10 (4/1)	PROJECT NAME: KURIZAPPA BRIDGE SITE PLAN	PROJECT LOCATION: SHIMLON DISTRICT, TRIPURA STATE

KURI BRIDGE

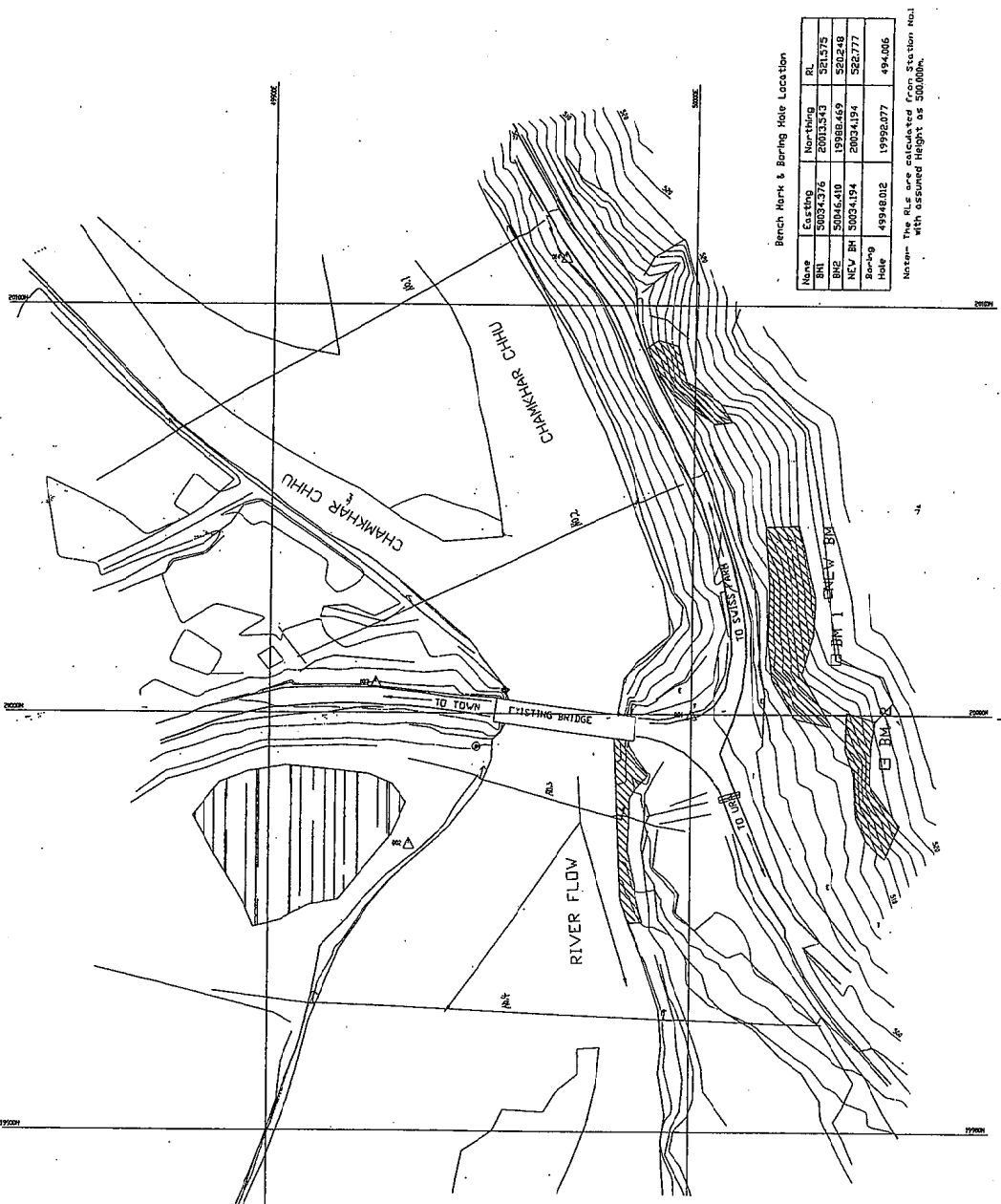
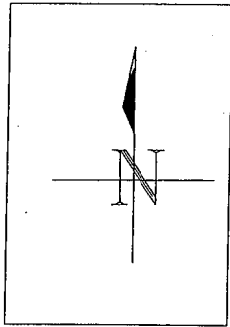


KURI BRIDGE



LEGENDS:

□	Bench Mark
△	Station
E	Electricity Pole
⊕	Anchor Point
T	Telephone Pole
○	Boring Hole
—	Bottom of Bank
—	Top of Bank
—	Retaining Wall
—	Contour
—	Gully
—	Existing Road
—	House / Building
—	Char-ten
—	Foot Path
—	High Flood Level
—	Low Water Level
—	Existing Road CL
—	Proposed Road Alignment
—	Change of Grade
—	Exposed Rock Face
—	Water Pond



河川横断位置图 (Chamkar 橋近傍)

SURVEY AND DESIGN CELL,
 DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE,
 CHAMKHAR I.D.W.G.
 JOB NUMBER: 0101.20

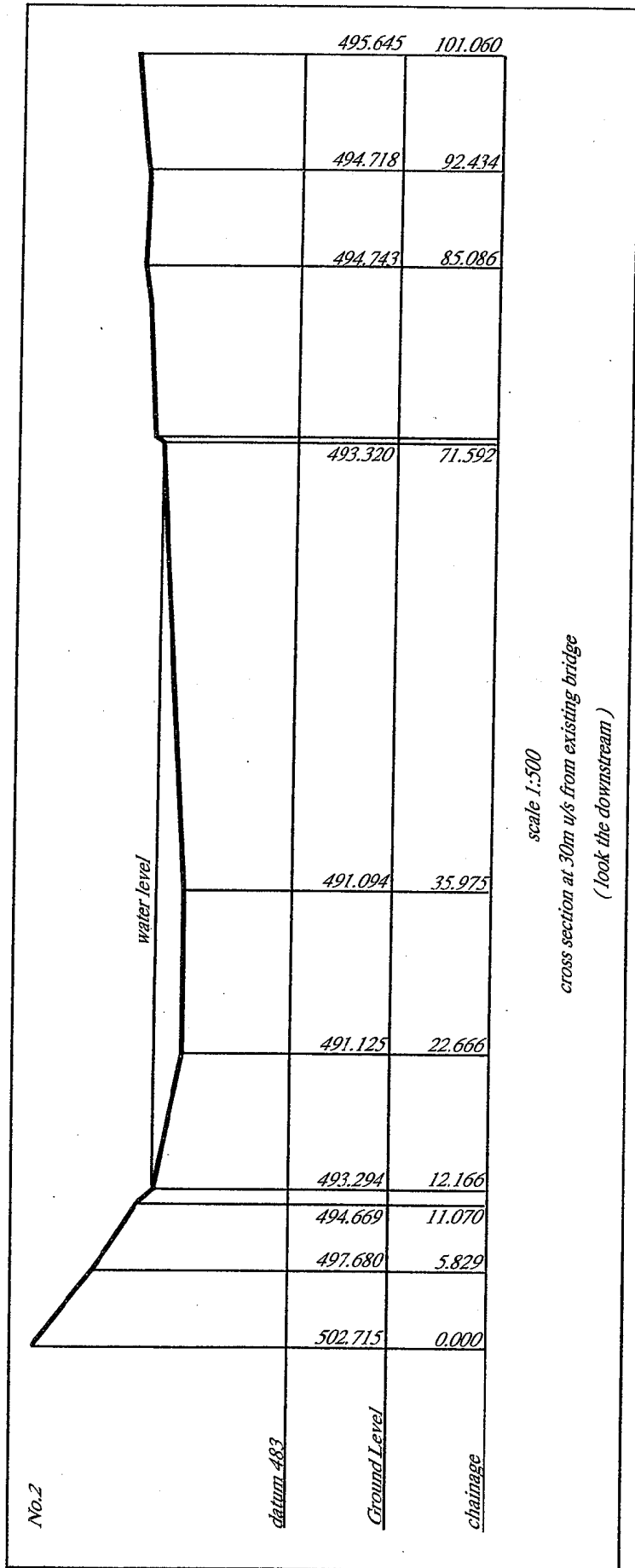
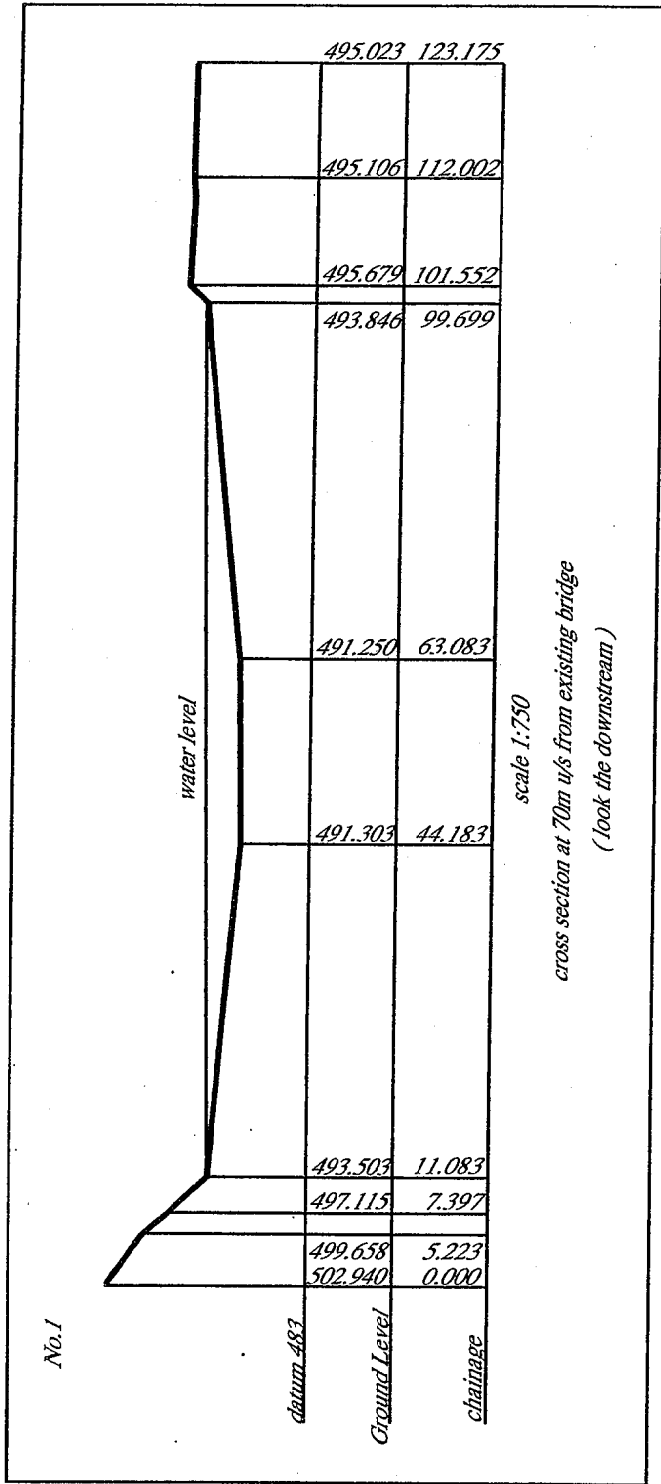
THIMPHU
 BRUTAN
 PLAN

DATE OF ISSUE	APPROVED BY	DESIGNED BY	DRAWN BY	SCALE
				1:500

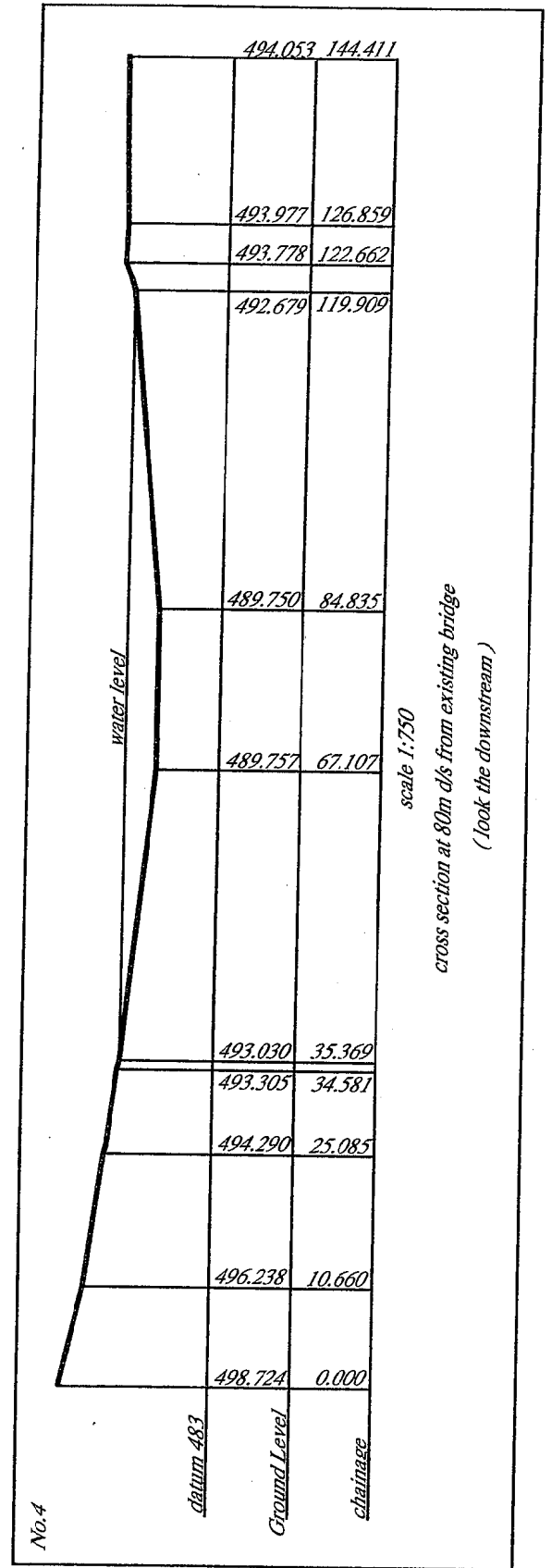
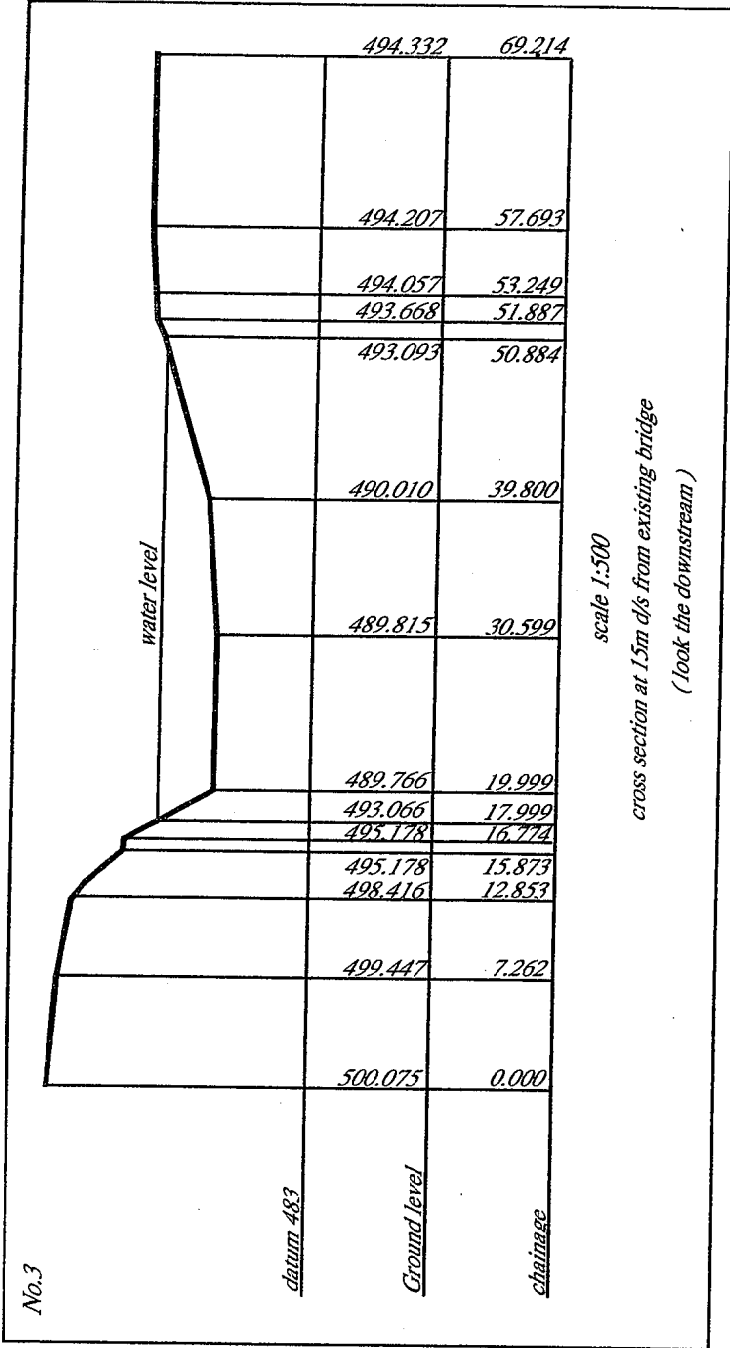
DATE OF ISSUE	APPROVED BY	DESIGNED BY	DRAWN BY

DATE OF ISSUE	APPROVED BY	DESIGNED BY	DRAWN BY

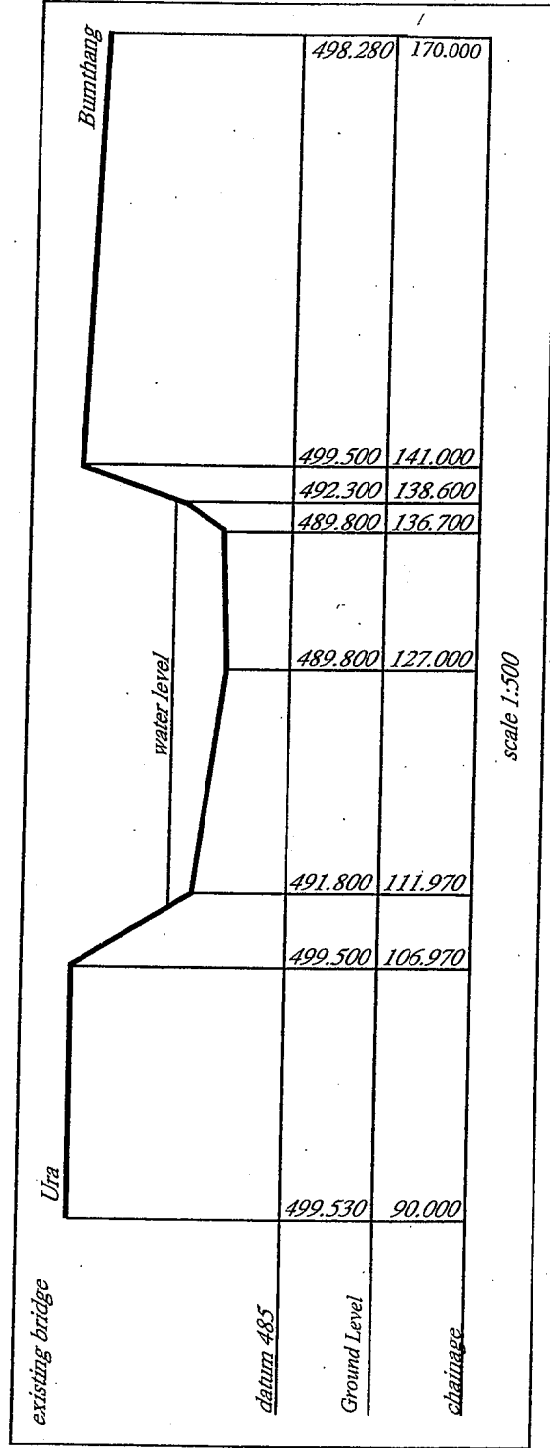
HAMKAK BRIDGE (1/2)

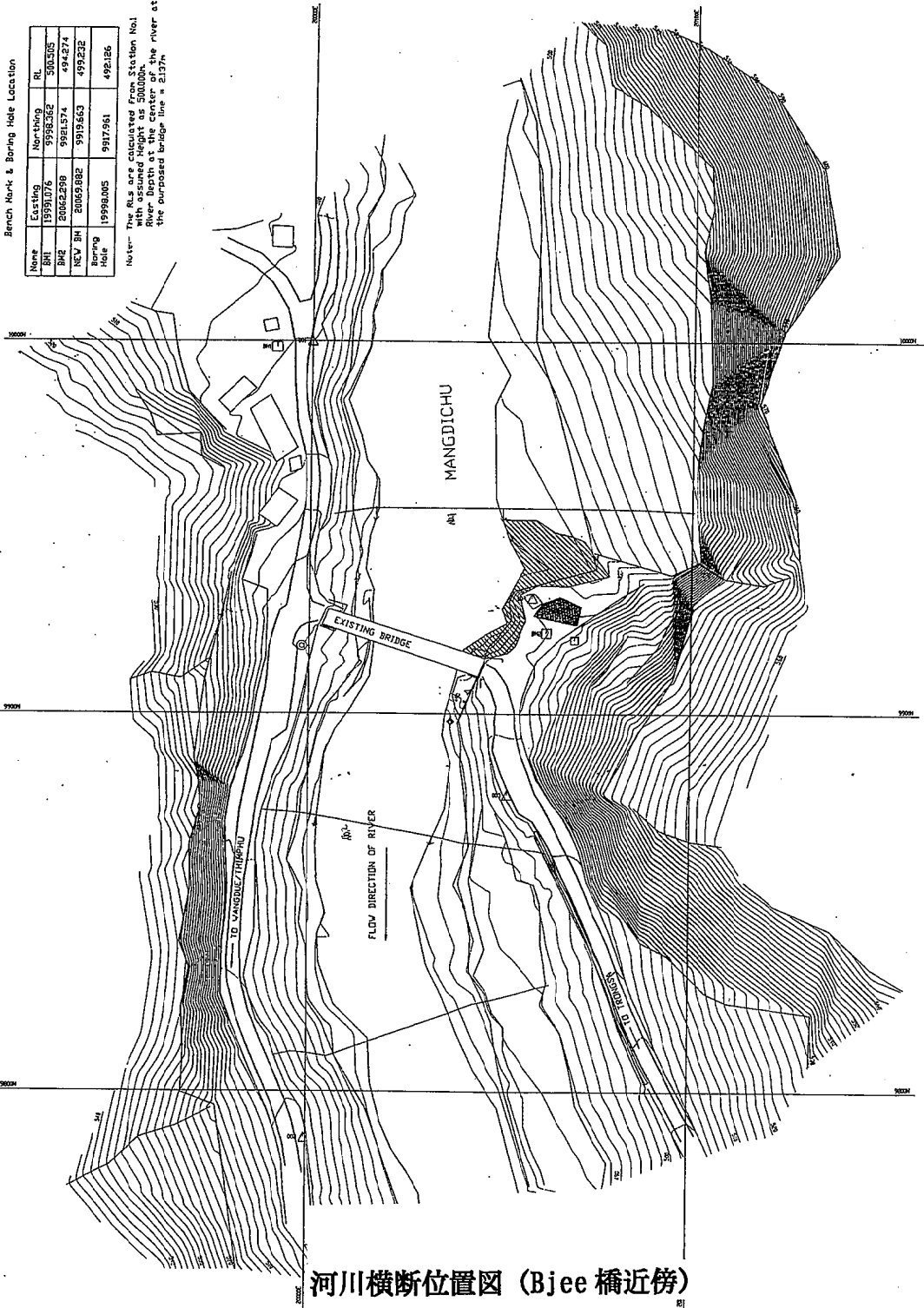


CHAMKAR BRIDGE (2/2)



CHAMKAR BRIDGE





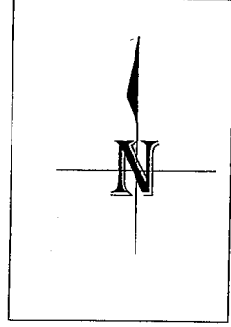
Bench Mark & Boring Hole Location

Name	Existing B.M.	Boring Hole	RL
B.M. 1	19931076	9395352	500.505
B.M. 2	2062229	9915174	494.274
REV. B.M.	2065982	9919563	495.232
Boring Hole	19990005	9917561	492.126



Note: The RLs are calculated from Station No. 1 with assumed height as 500.00m. River Depth at the center of the river at the proposed bridge line = 2.17m.

LEGENDS:

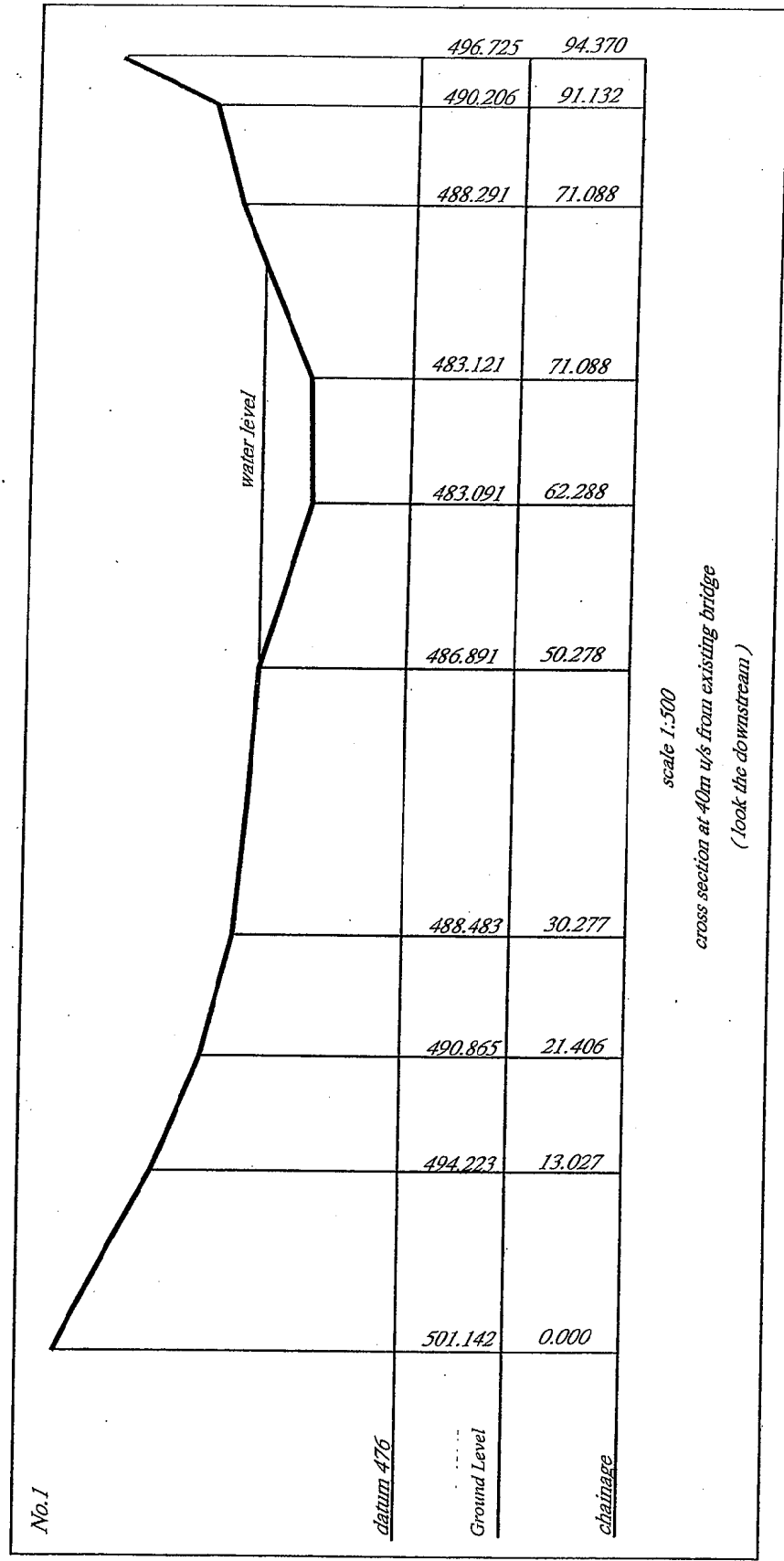
- Bench Mark
- △ Station
- ⊙ Boring Hole
- ┆ Sign Post
- Bottom of Bank
- Top of Bank
- Bottom of Cliff
- Top of Cliff
- Retaining Wall
- Contour
- Gully
- Drive Way
- Existing Road
- House / Building
- Chorten
- Change of Grade
- High Flood Level
- Low Water Level
- Proposed Road Alignment
- Existing Road CL
- ⬤ Boulder
- ▨ Exposed Rock Face



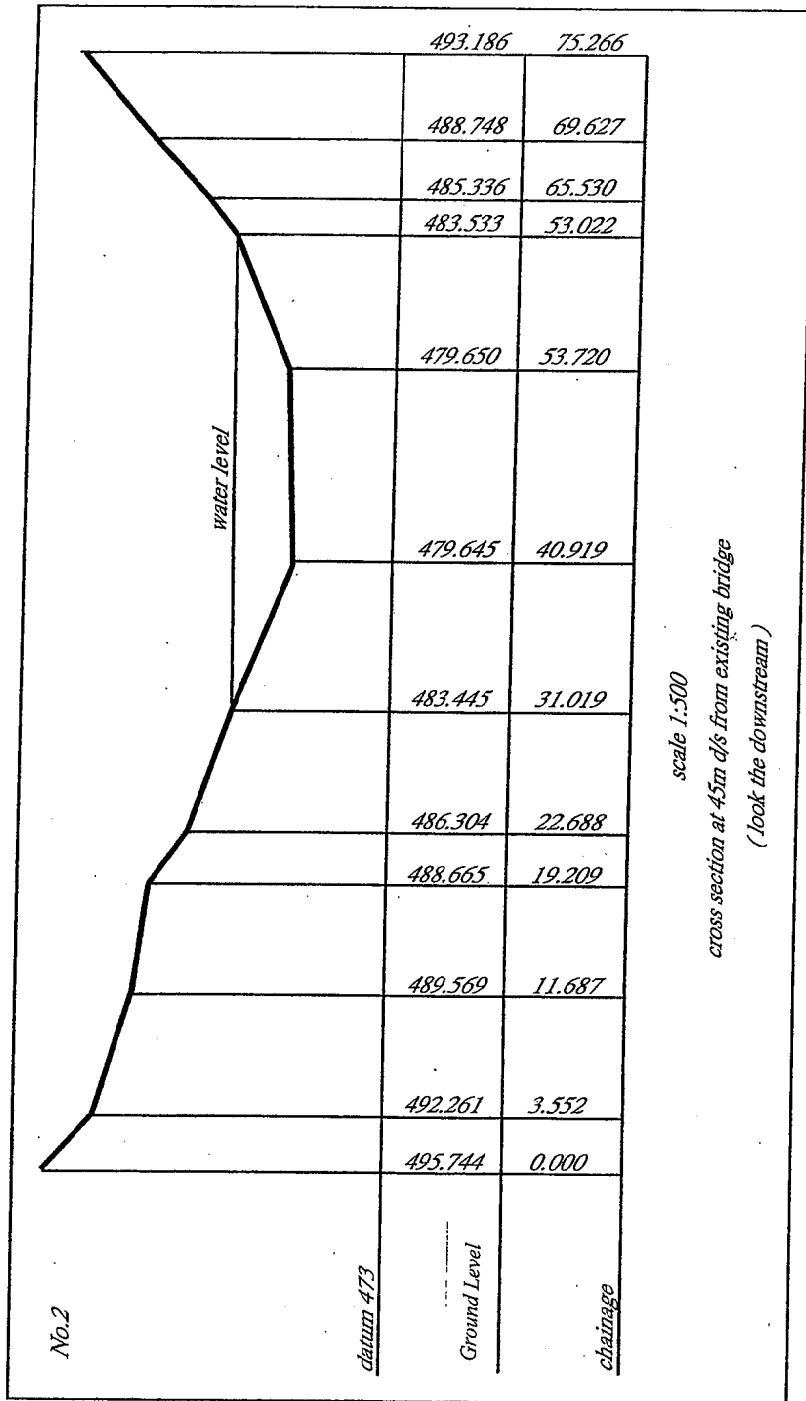
河川横断位置図 (Bjee 橋近傍)

			SURVEY AND DESIGN CELL DEPARTMENT OF ROAD, BRIDGE AND AIRPORTS BLUE BRIDGE SITE PLAN	Job No. 1919 4
DATE OF SURVEY	SCALE	DRAWN BY	CHECKED BY	APPROVED BY
DATE OF DESIGN	SCALE	DRAWN BY	CHECKED BY	APPROVED BY
PROJECT DESCRIPTION BLUE BRIDGE SITE PLAN				
PROJECT COMMENT				

BJEE BRIDGE(1/2)



BJEE BRIDGE(2/2)



BJEE BRIDGE

