

# ENVIRONMENTAL IMPROVEMENT OF MANIKARNIKA GHAT VARANASI

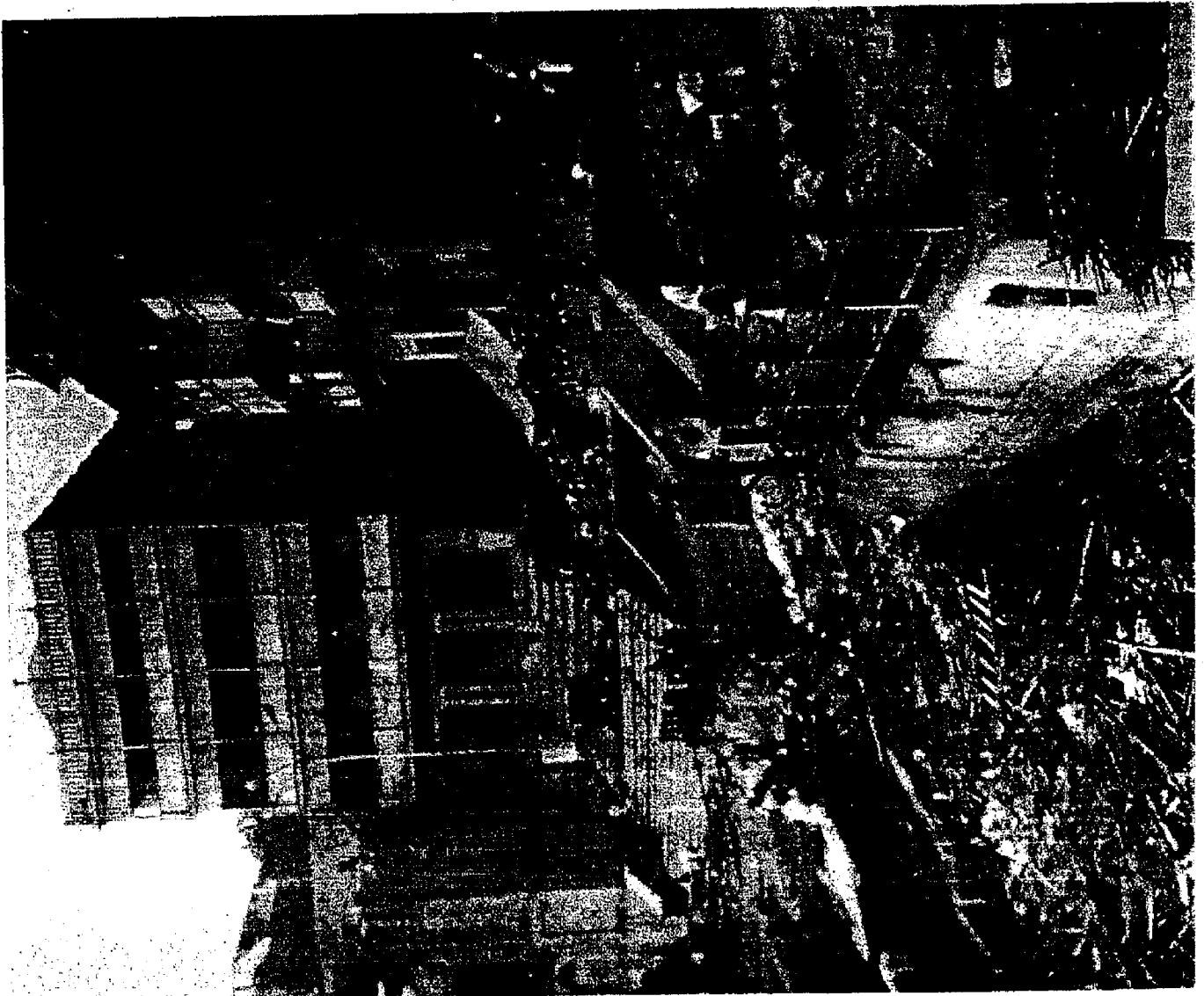
SET OF DRAWINGS  
Volume-II

Clients

JAPAN INTERNATIONAL CO-OPERATION AGENCY (JICA)

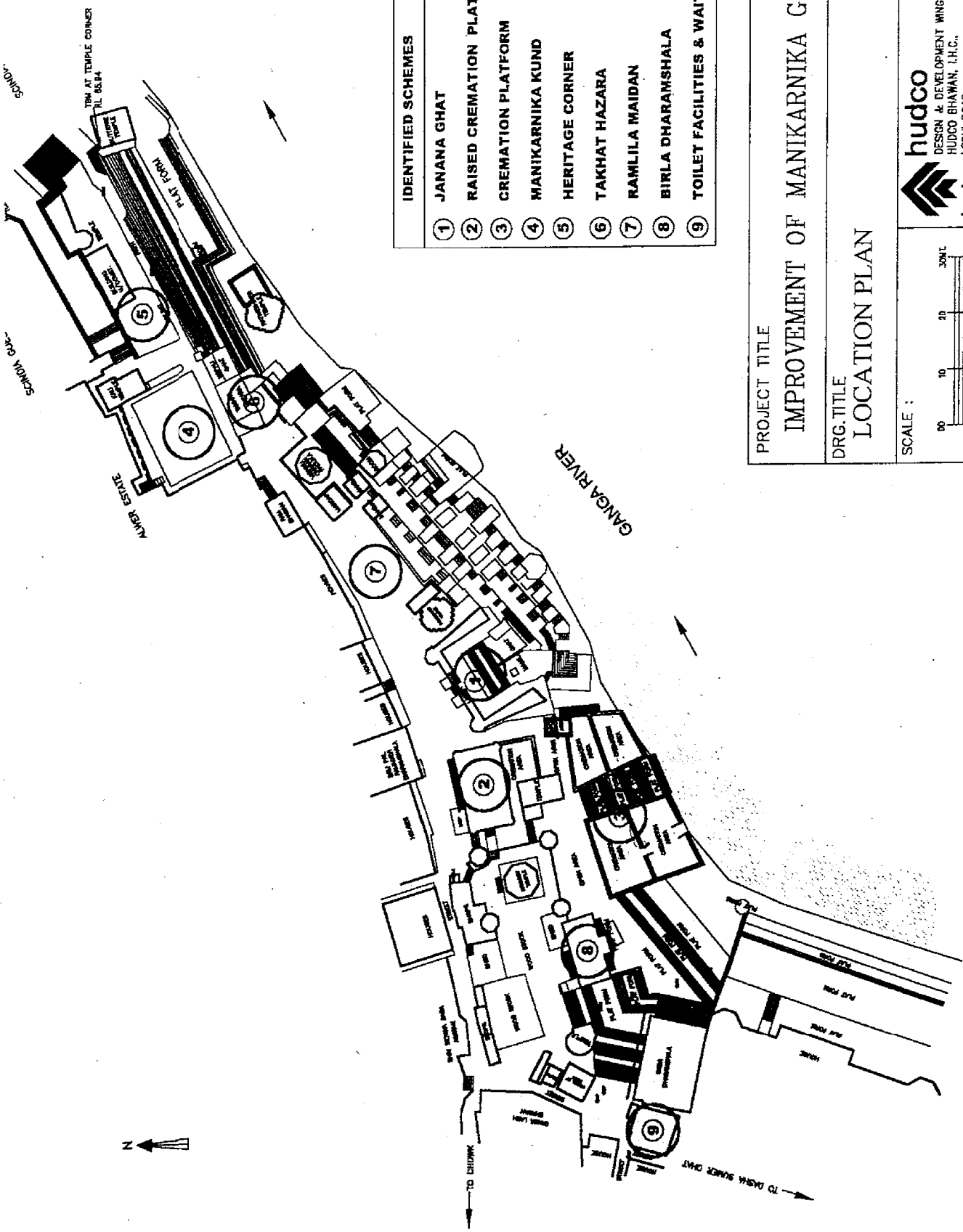
Consultants

HOUSING AND URBAN DEVELOPMENT CORPORATION (HUDCO)




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01

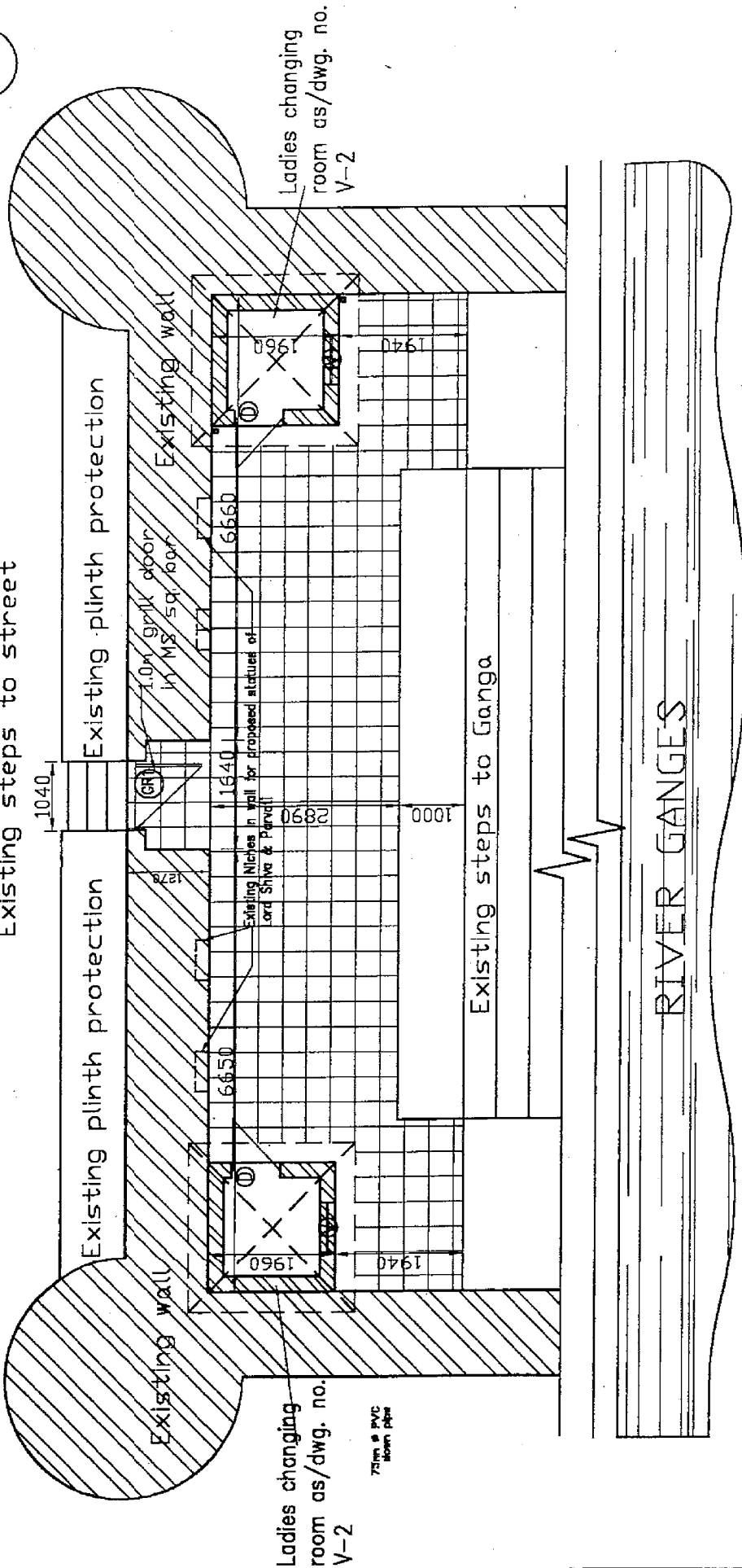


IDENTIFIED SCHEMES	
①	JANANA GHAT
②	RAISED CREMATION PLATFORM
③	CREMATION PLATFORM
④	MANIKARNIKA KUND
⑤	HERITAGE CORNER
⑥	TAKHAT HAZARA
⑦	RAMLILA MAIDAN
⑧	BIRLA DHARAMSHALA
⑨	TOILET FACILITIES & WAITING ROOM

PROJECT TITLE <b>IMPROVEMENT OF MANIKARNIKA GHAT</b>		DRG. NO <b>LP-01</b>
DRG. TITLE <b>LOCATION PLAN</b>		 <b>HUDCO</b> DESIGN & DEVELOPMENT WING HUDCO BHAWAN, I.I.C., LODHI ROAD, NEW DELHI-110003.
SCALE : 		

02

STREET  
Existing steps to street



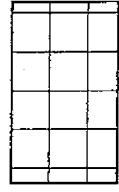
Ladies changing room as/dwg. no. V-2

75mm Ø PVC down pipe

Ladies changing room as/dwg. no. V-2

PLINTH AREA: Ladies changing room = 3.84 Sq. m.  
TOTAL AREA: (3.84x2) = 7.68 Sq. m.

TOTAL AREA: Re-Paving to be = 42.8 Sq. m.  
done with 100mm thk rough Chunar stone in locally available size



PROJECT TITLE  
REDEVELOPMENT PLAN- JANANA GHAT, VARANASI

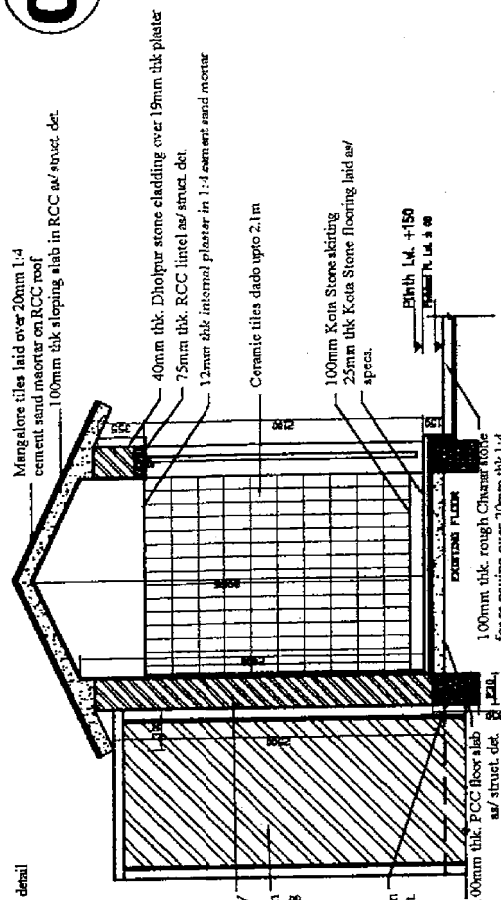
DRG. TITLE  
LAYOUT PLAN

SCALE  
00 1.0m 2.0m 3.0m 4.0m

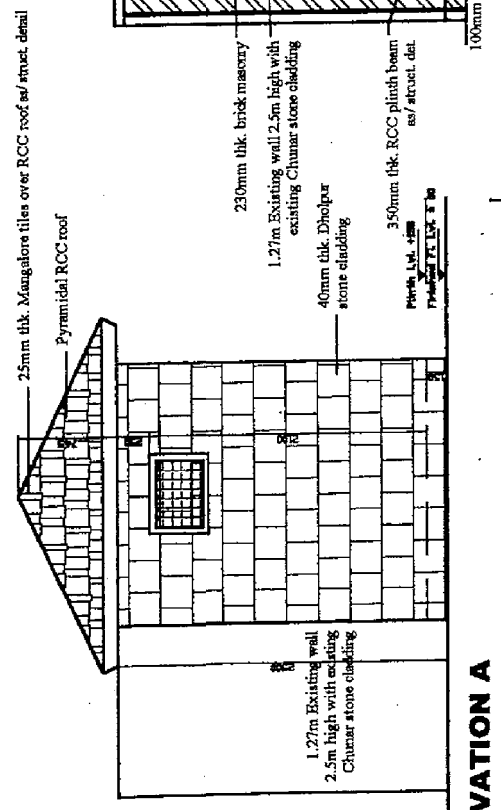
HUDCO  
DESIGN & DEVELOPMENT WING  
HUDCO BAVAN, LAUNIA ROAD, NEW DELHI-110002

DRG. NO.  
JG-1

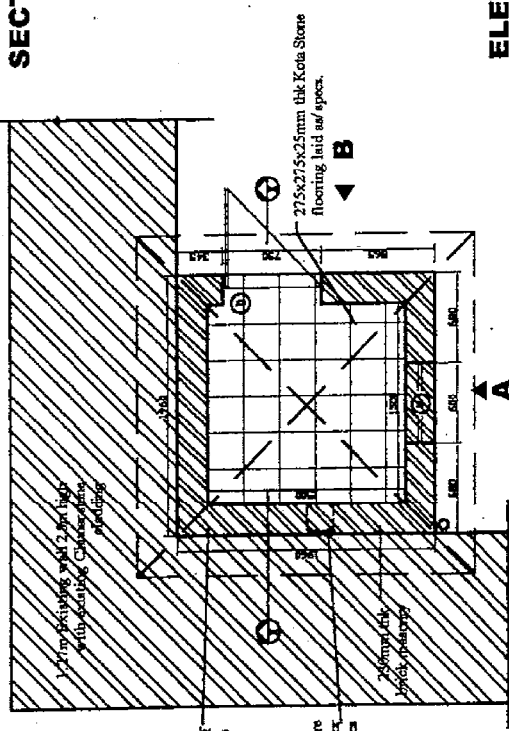
03



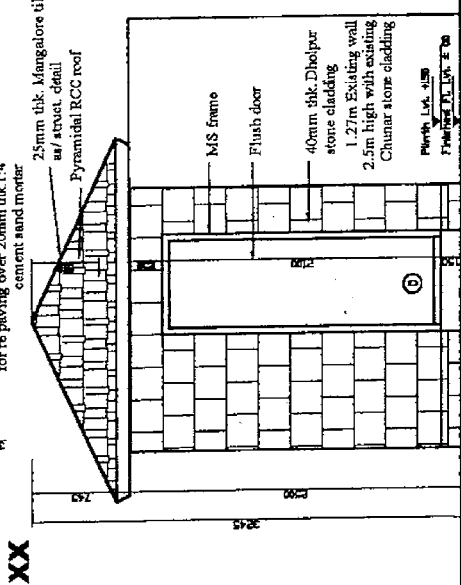
SECTION XX



ELEVATION A



PLAN



ELEVATION B

SCHEDULE OF OPENINGS

S.NO	TYPE	SIZE	CILL LVL.	LINTEL	REMARKS
1.	GR	1200X2100	-	2100	Cell door in MS frame & steel frame
2.	D	750X2100	-	2100	Flush door with steel frame
3.	V	600X450	1500	2100	RCC fall in wall/door

PLINTH AREA= 3.84 Sq. m.

SPECIFICATIONS

INTERNAL WALL	230mm brick wall with 20mm 1:4 cement sand plaster. Thee upto 2.1m and textured paint above as/architect approved.
EXTERNAL WALL	40mm thk Dholpur stone cladding over 20mm 1:4 cement sand mortar
SLAB	Sloping RCC Slab with mangalore tiles over 20mm 1:4 cement sand plaster
FLOORING	275x275x25mm Kota stone over cement sand mortar as/ specifications

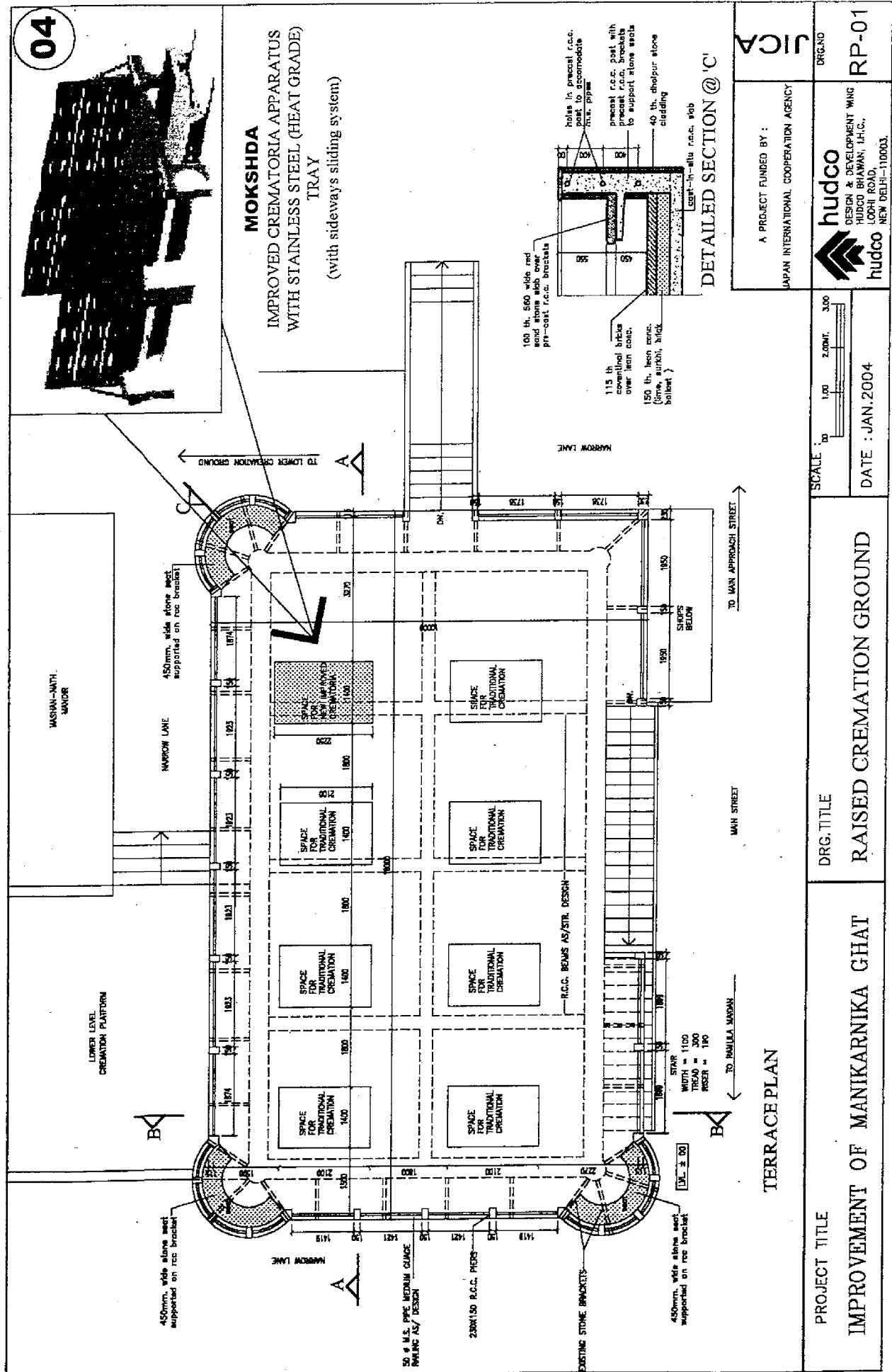
PROJECT TITLE  
**CHANGING ROOM- JANANA GHAT, VARANASI**

DRG. TITLE  
**PLAN, SECTION & ELEVATIONS**

SCALE  
00 1.0m 2.0m 3.0m 4.0m

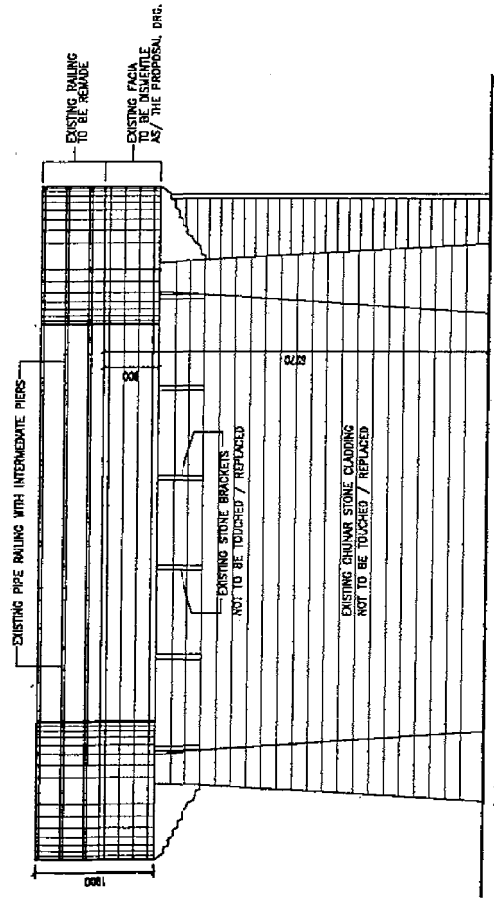
DRG. NO.  
**JG-2**

HUDCO DESIGN & DEVELOPMENT WING  
PO BOX 26, VARANASI,  
NEW DELHI 110003

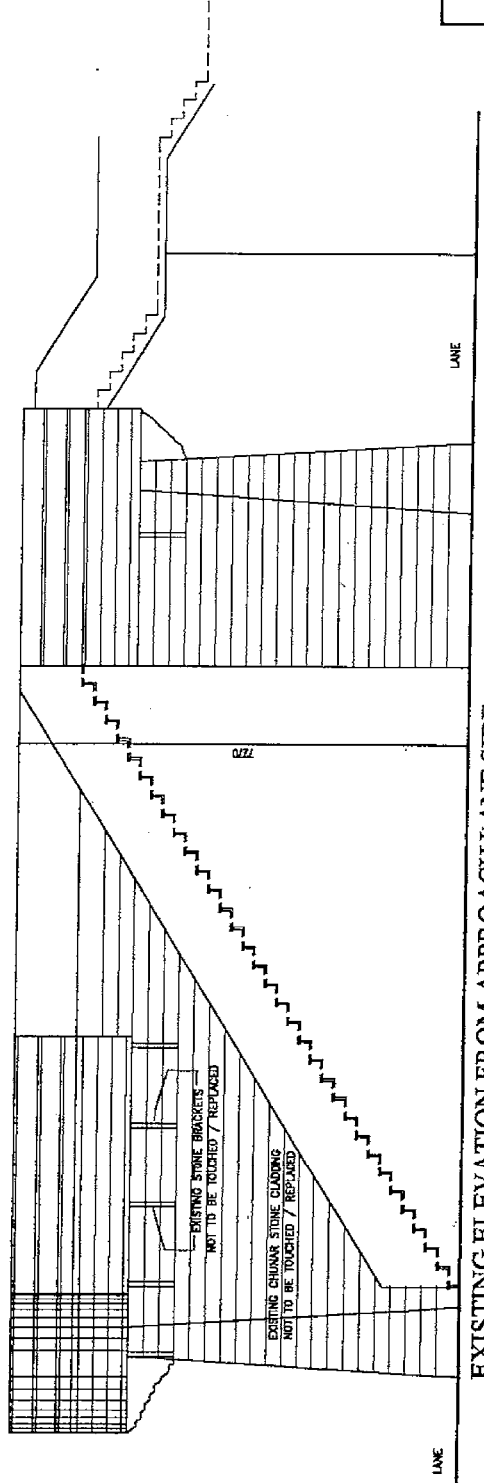


A PROJECT FUNDED BY :	JICA
	JAPAN INTERNATIONAL COOPERATION AGENCY
hudco	DESIGN & DEVELOPMENT WING
	HUDCO BHAWAN, I.H.C., LOCHI ROAD, NEW DELHI-110003.
DRG. NO.	RP-01

05



EXISTING ELEVATION FROM RAMLI A MAIDAN SIDE



EXISTING ELEVATION FROM APPROACH LANE SIDE

SCALE 1:100 1:200 1:300

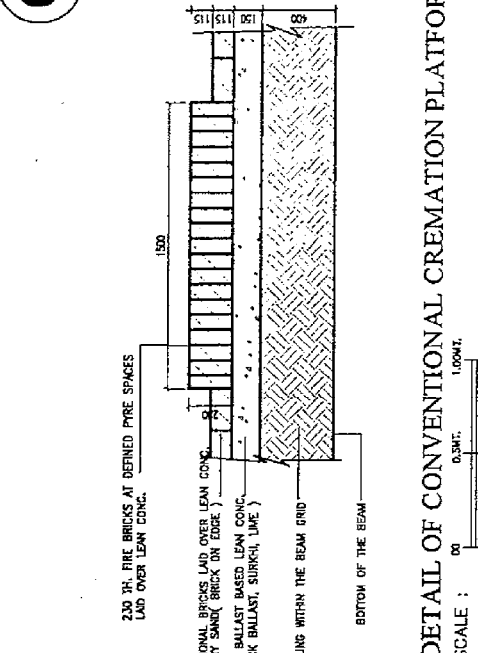
DATE : JAN. 2004

PROJECT TITLE  
 IMPROVEMENT OF MANIKARNIKA GHAT

DRG. TITLE  
 RAISED CREMATION GROUND

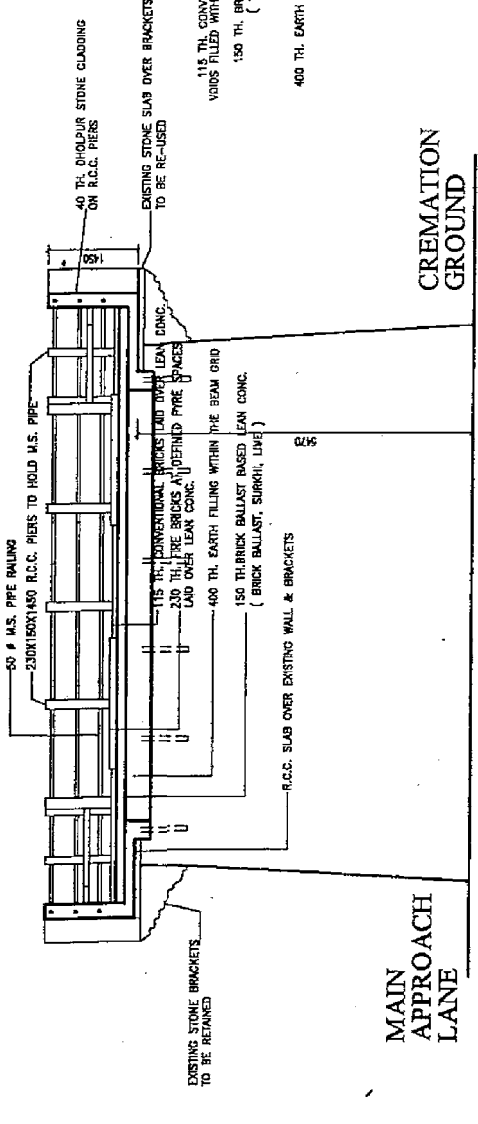
A PROJECT FUNDED BY : JAPAN INTERNATIONAL COOPERATION AGENCY <b>hidco</b> DESIGN & DEVELOPMENT WING HUDCO BHAWAN, I.H.C., LODHI ROAD, NEW DELHI-110003.	JICA
	DRG. NO RP-02

06



DETAIL OF CONVENTIONAL CREMATION PLATFORM

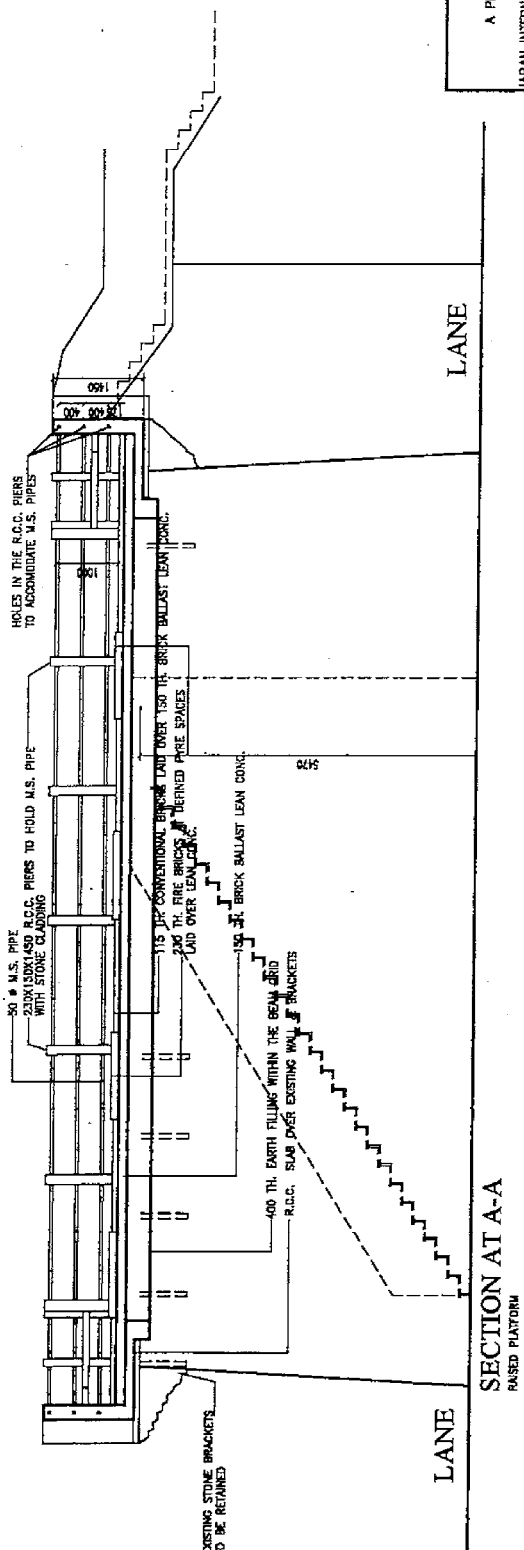
SCALE : 00 0.5MT. 1.00MT.



CREMATION GROUND

MAIN APPROACH LANE

SECTION AT B-B



SECTION AT A-A

RAISED PLATFORM

LANE

LANE

SCALE : 00 1.00 2.00MT. 3.00

DATE : JAN.2004

DRG. TITLE

RAISED CREMATION GROUND

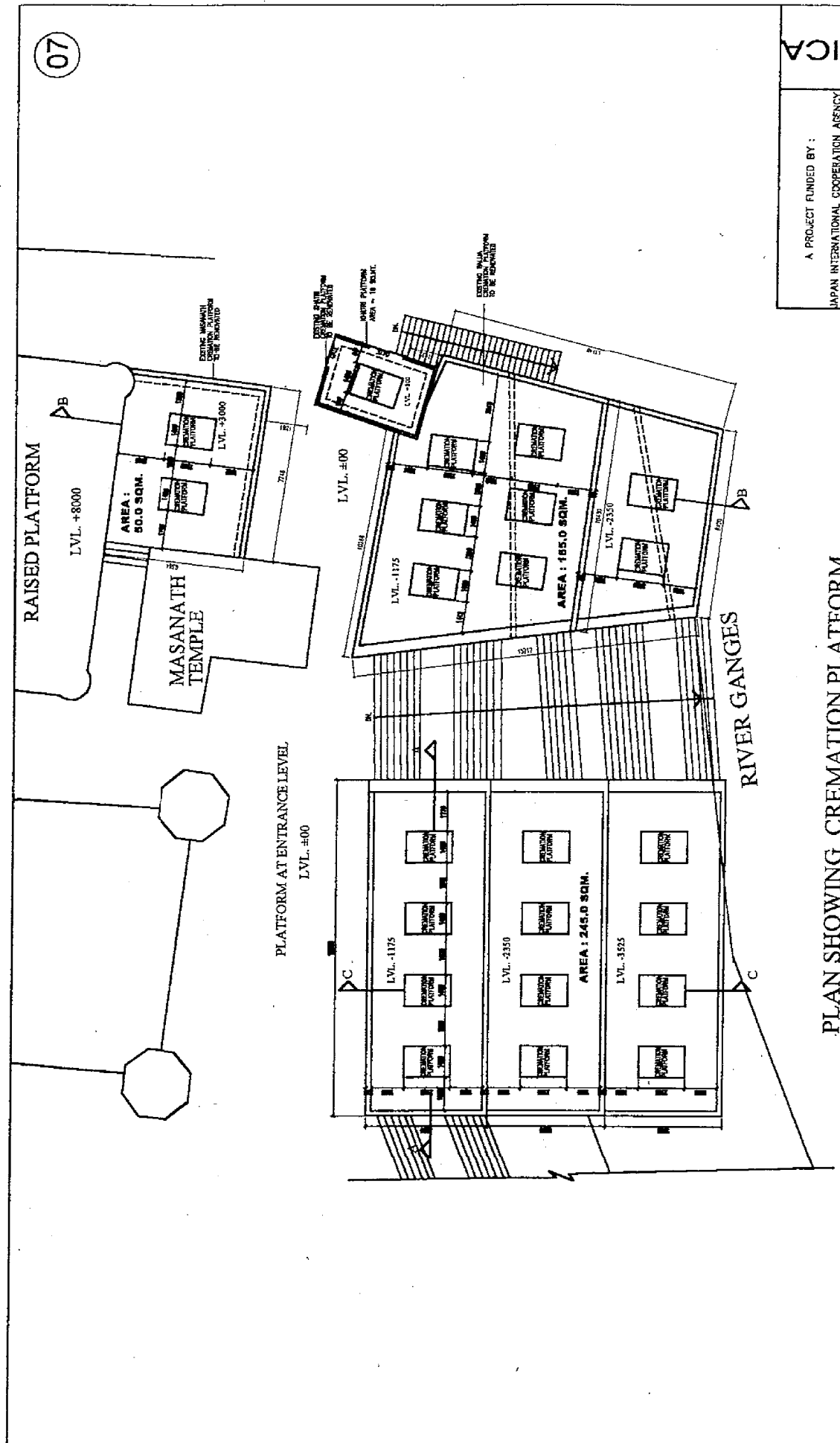
PROJECT TITLE

IMPROVEMENT OF MANKARNIKA GHAT

JICA  
 A PROJECT FUNDED BY :  
 JAPAN INTERNATIONAL COOPERATION AGENCY

DRG.NO  
 RP-03  
**hudco**  
 DESIGN & DEVELOPMENT WING  
 HUDCO BHAWAN, I.H.C.,  
 LODHI ROAD,  
 NEW DELHI-110003.





07

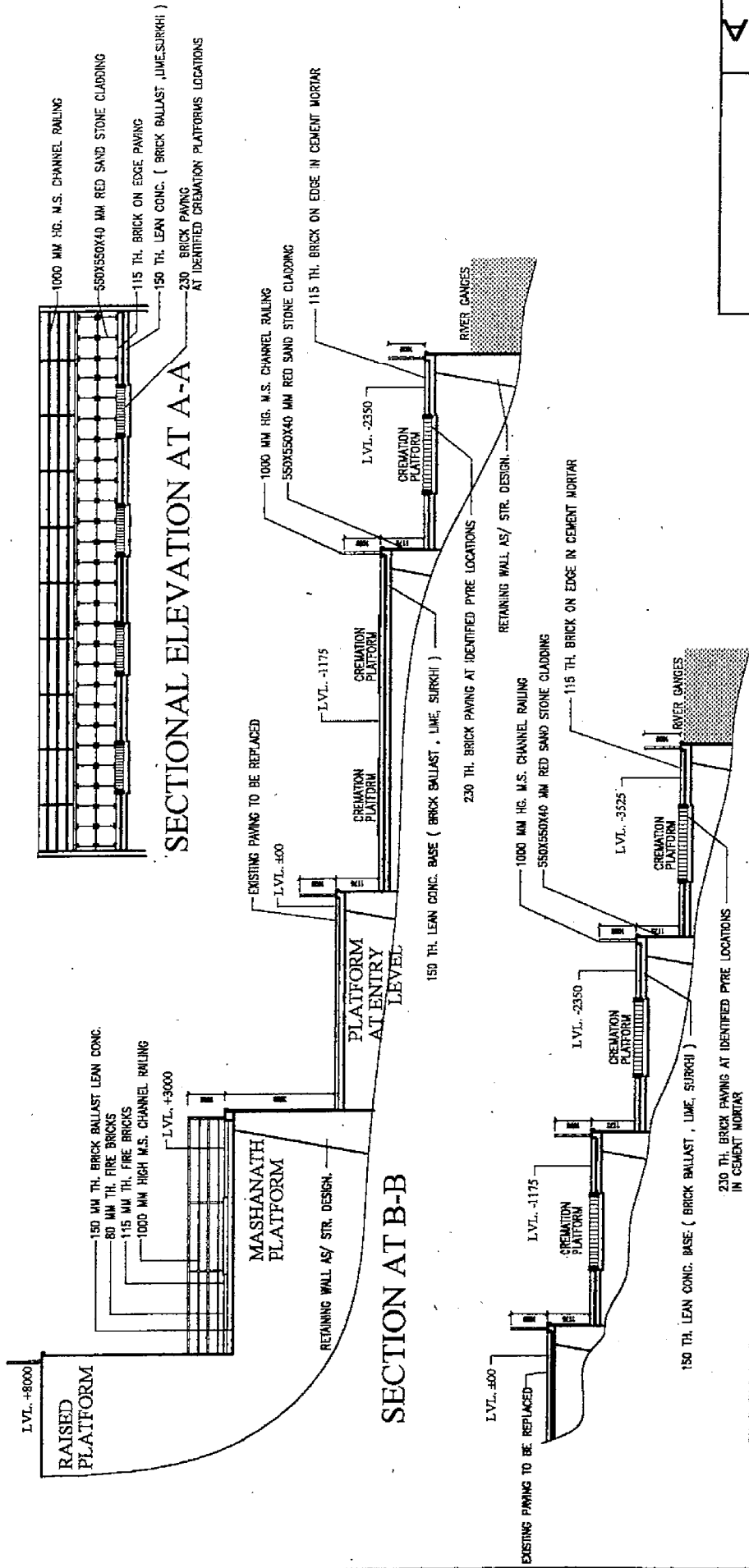
A PROJECT FUNDED BY : JAPAN INTERNATIONAL COOPERATION AGENCY	JICA
	DRG.NO CG-01

 hudco DESIGN & DEVELOPMENT WNG HUDCO BHAWAN, I.H.C., LODHI ROAD, NEW DELHI-110003.	SCALE : 1:50 3:00 6:00 M.L. DATE : JAN. 2004
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PLAN SHOWING CREMATION PLATFORM

PROJECT TITLE	DRG. TITLE
IMPROVEMENT OF MANIKARNIKA GHAT	CREMATION GROUND

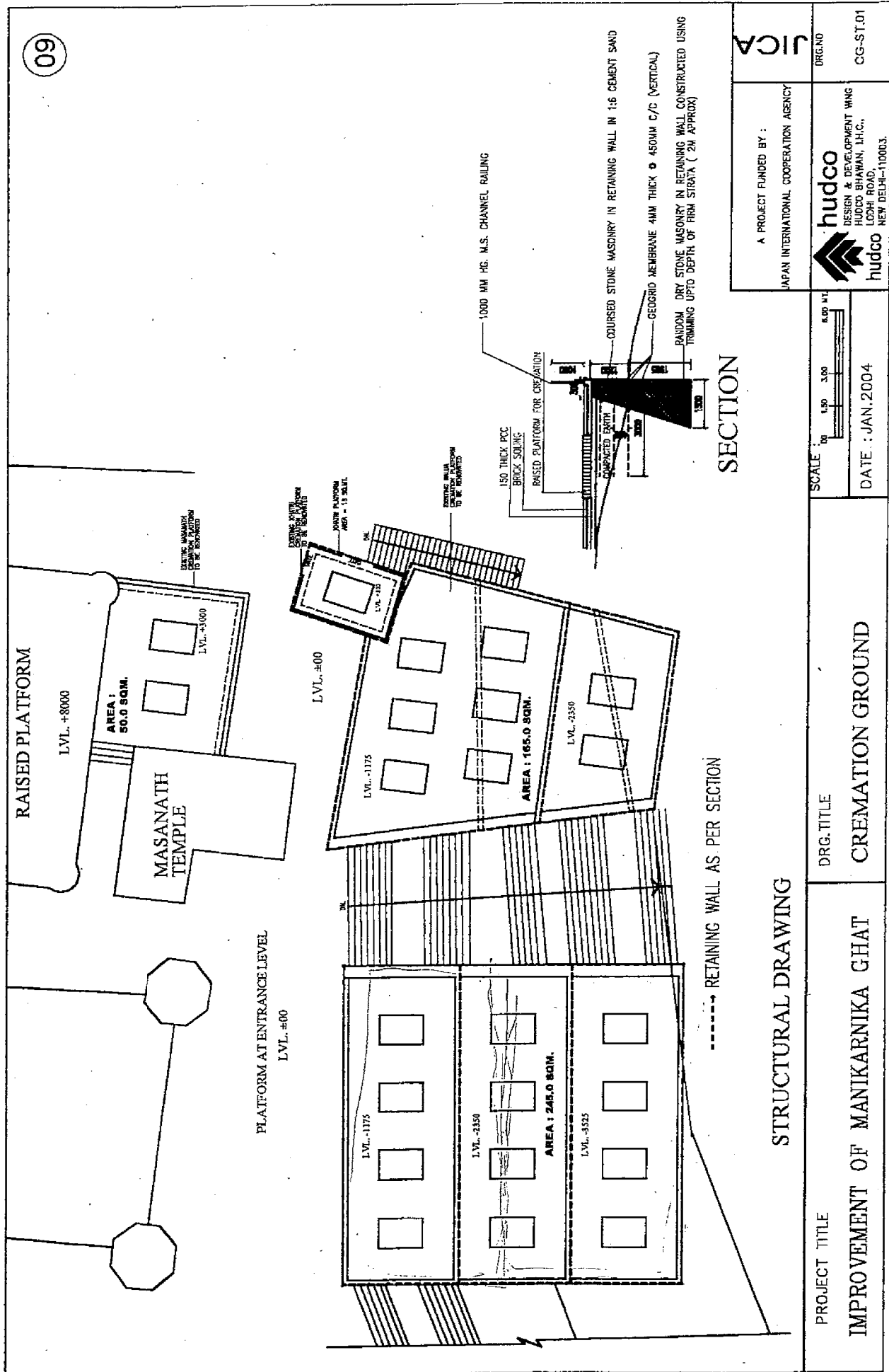
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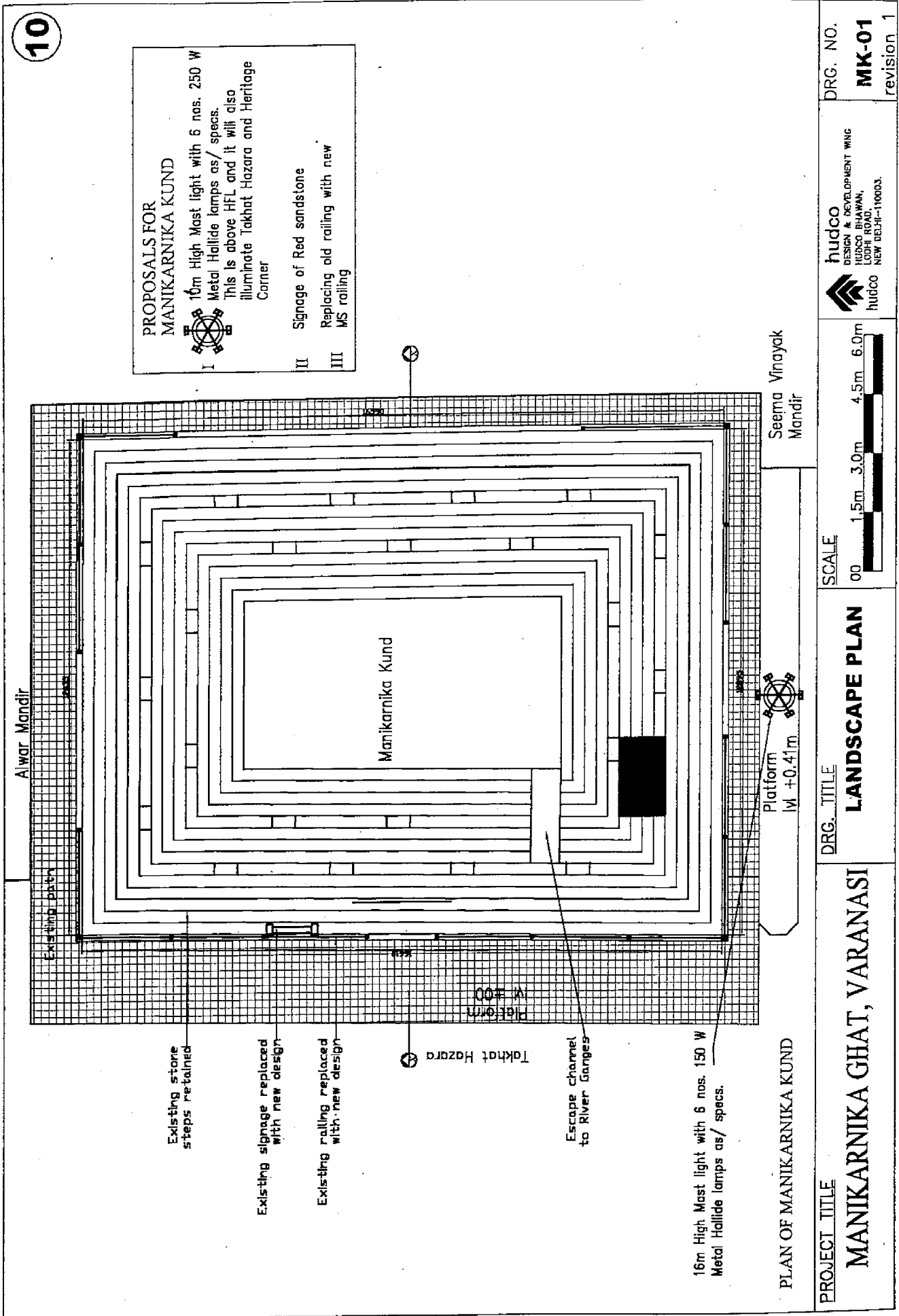


A PROJECT FUNDED BY : JAPAN INTERNATIONAL COOPERATION AGENCY	DRG. NO
	CG-02

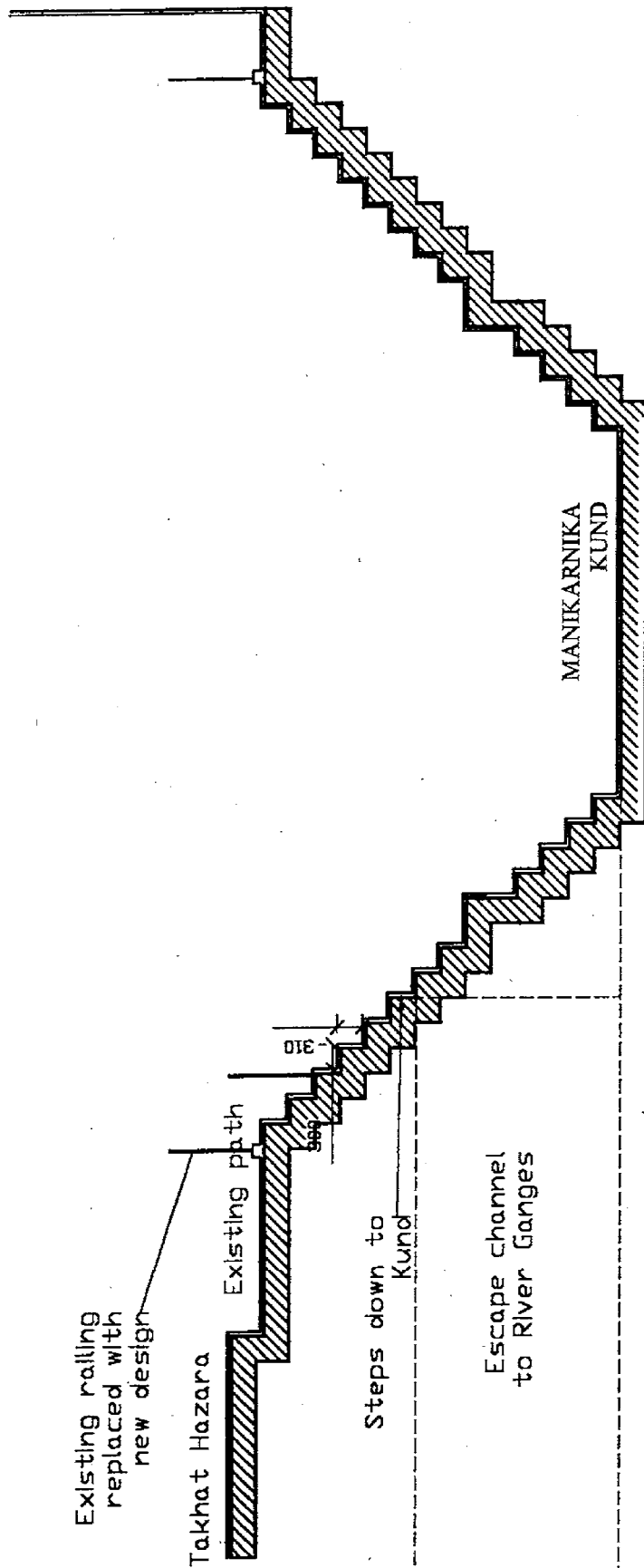
 hudco DESIGN & DEVELOPMENT WING HUDCO BHAWAN, I.H.C., LODHI ROAD, NEW DELHI-110003.	SCALE : 00 1.00 2.00 4.00 m DATE : JAN. 2004
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PROJECT TITLE	DRG. TITLE
IMPROVEMENT OF MANIKARNIKA GHAT	CREMATION GROUND





11



PROJECT TITLE

**MANIKARNIKA GHAT, VARANASI**

DRG. TITLE

**SECTION THRU KUND**

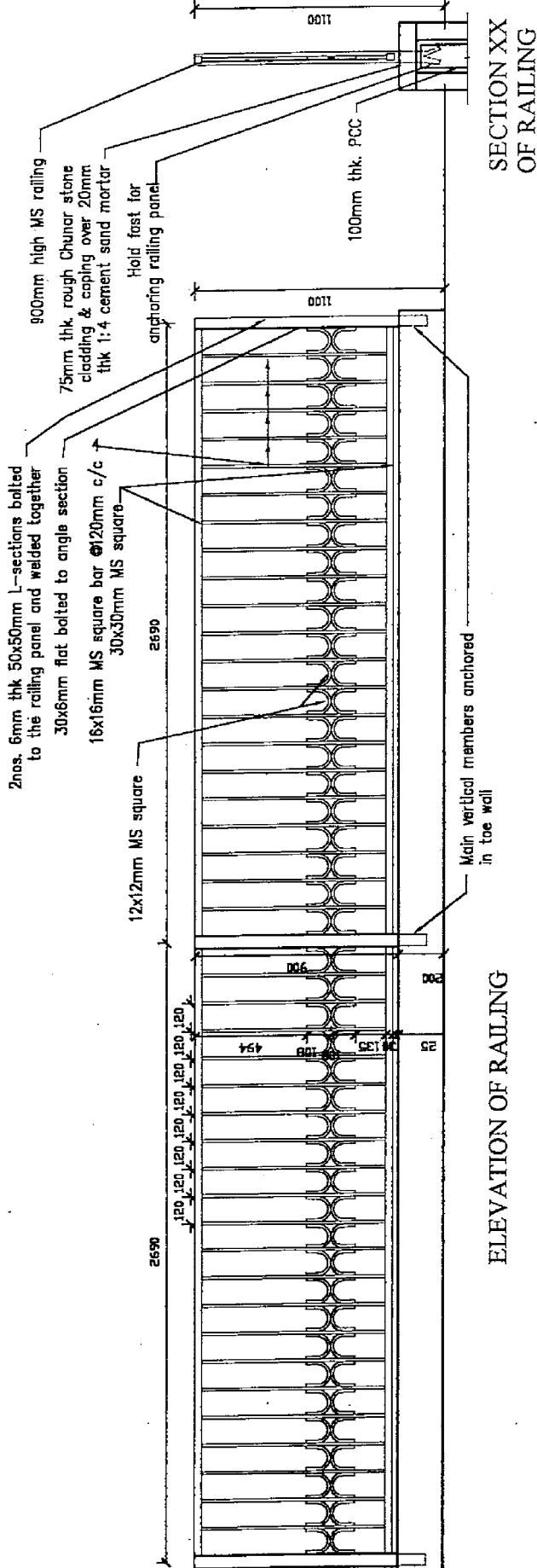
SCALE



**hudco**  
 DESIGN & DEVELOPMENT WING  
 HUDCO BHAWAN,  
 LODHI ROAD,  
 NEW DELHI-110003.

DRG. NO.  
**MK-02**

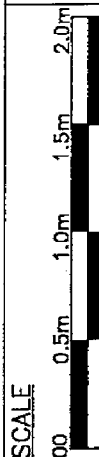
12



**NOTE:**  
The MS bars in the railing should be painted black in enamel paint over primer

DRG. NO.  
**MK-03**

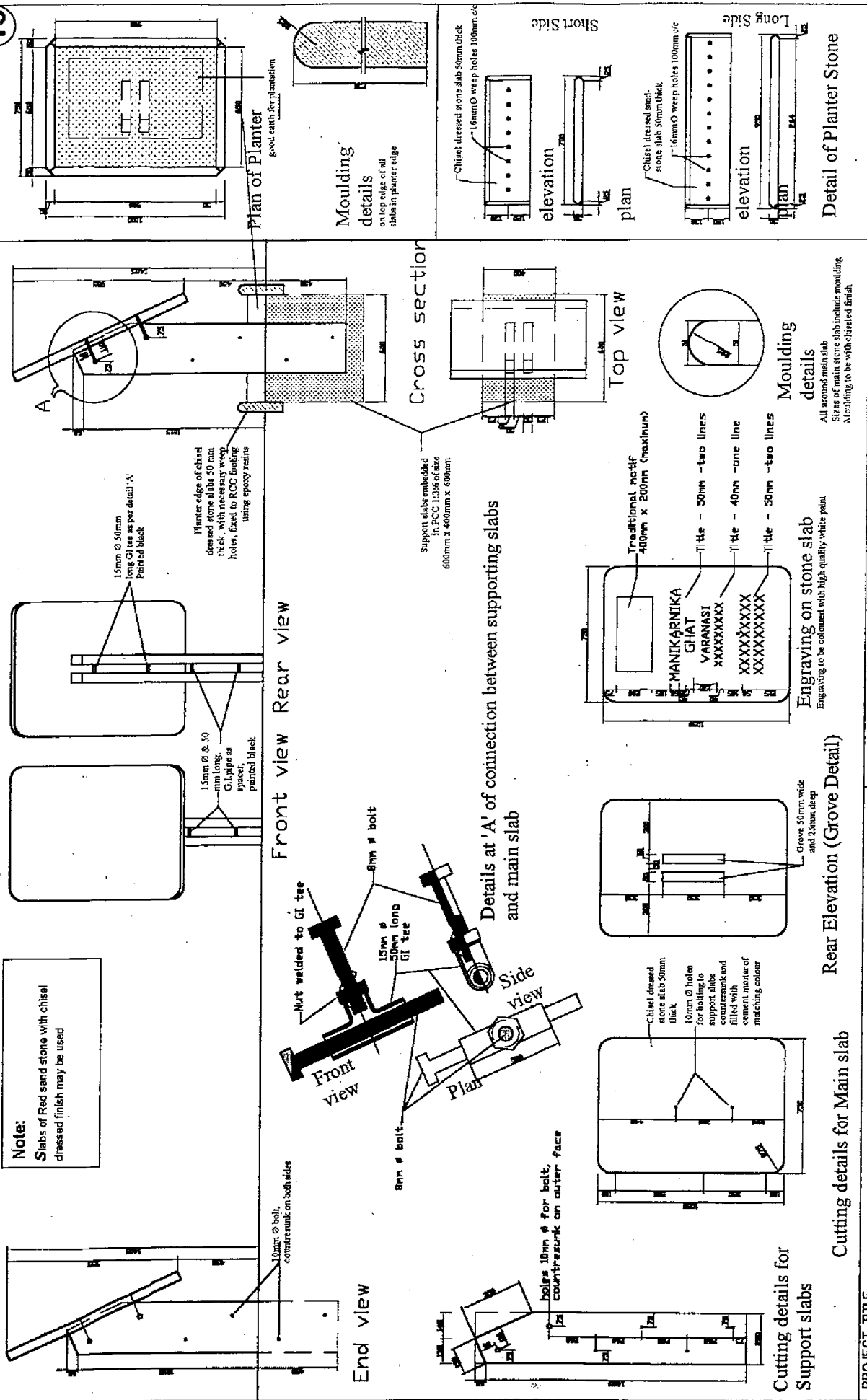
HUDCO  
DESIGN & DEVELOPMENT WING  
HUDCO BHAWAN,  
LOCHI ROAD,  
NEW DELHI-110003.



DRG. TITLE  
**RAILING DESIGN**

**MANIKARNIKA KUND, VARANASI**

13



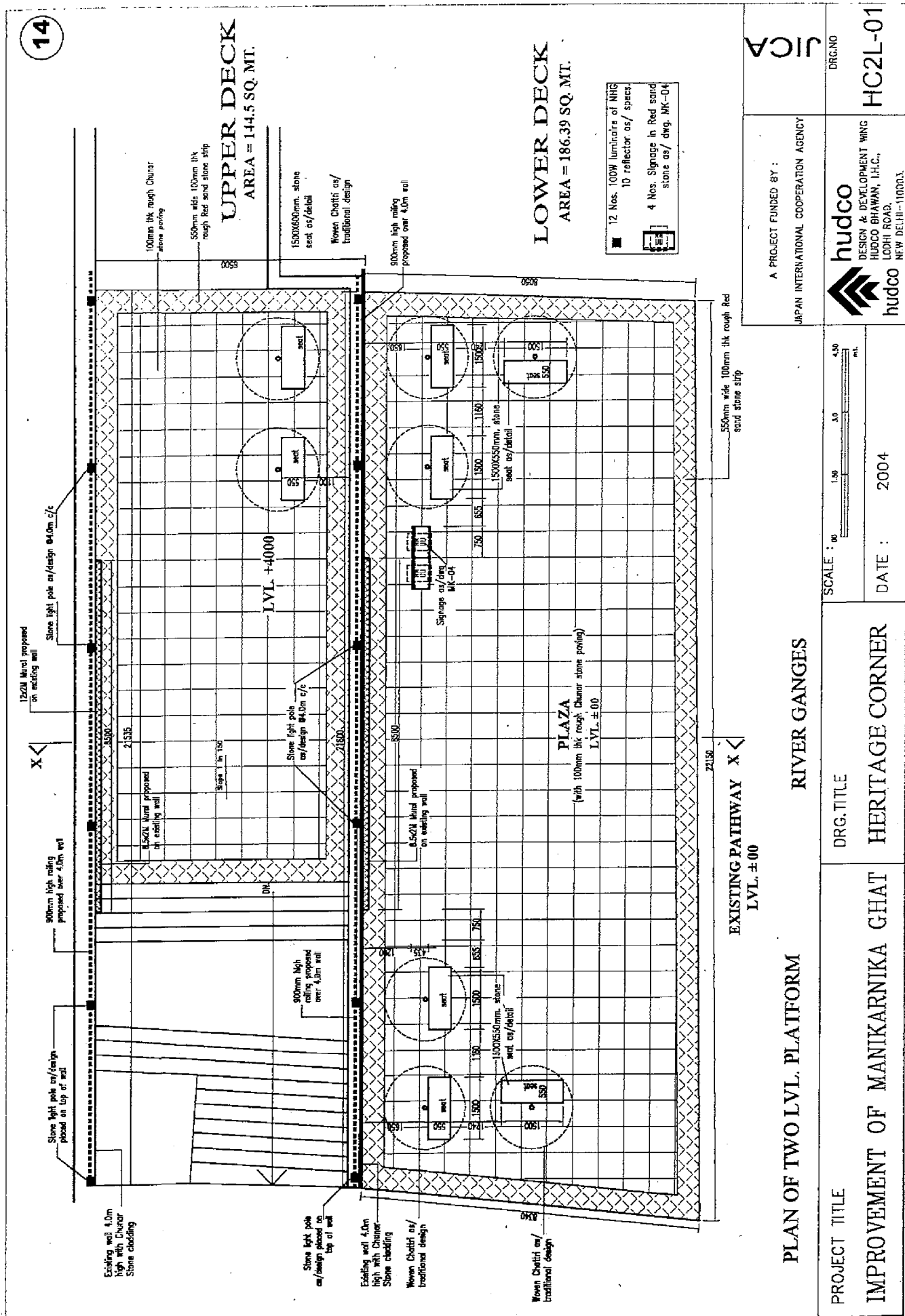
PROJECT TITLE  
**PROPOSED SIGNAGE DESIGN FOR MANIKARNIKA KUND, VARANASI**

DRG-TITLE  
**SIGNAGE -TYPE 'A'**

SCALE  
 0.1M  
 0.5M  
 0.3M  
 0.7M

DRG.NO  
**MK-04**

hudco  
 DESIGN & DEVELOPMENT WING  
 HUDCO BHAWAN, I.H.C.,  
 LOHI ROAD,  
 NEW DELHI-110003.



14

**UPPER DECK**  
 AREA = 144.5 SQ. MT.

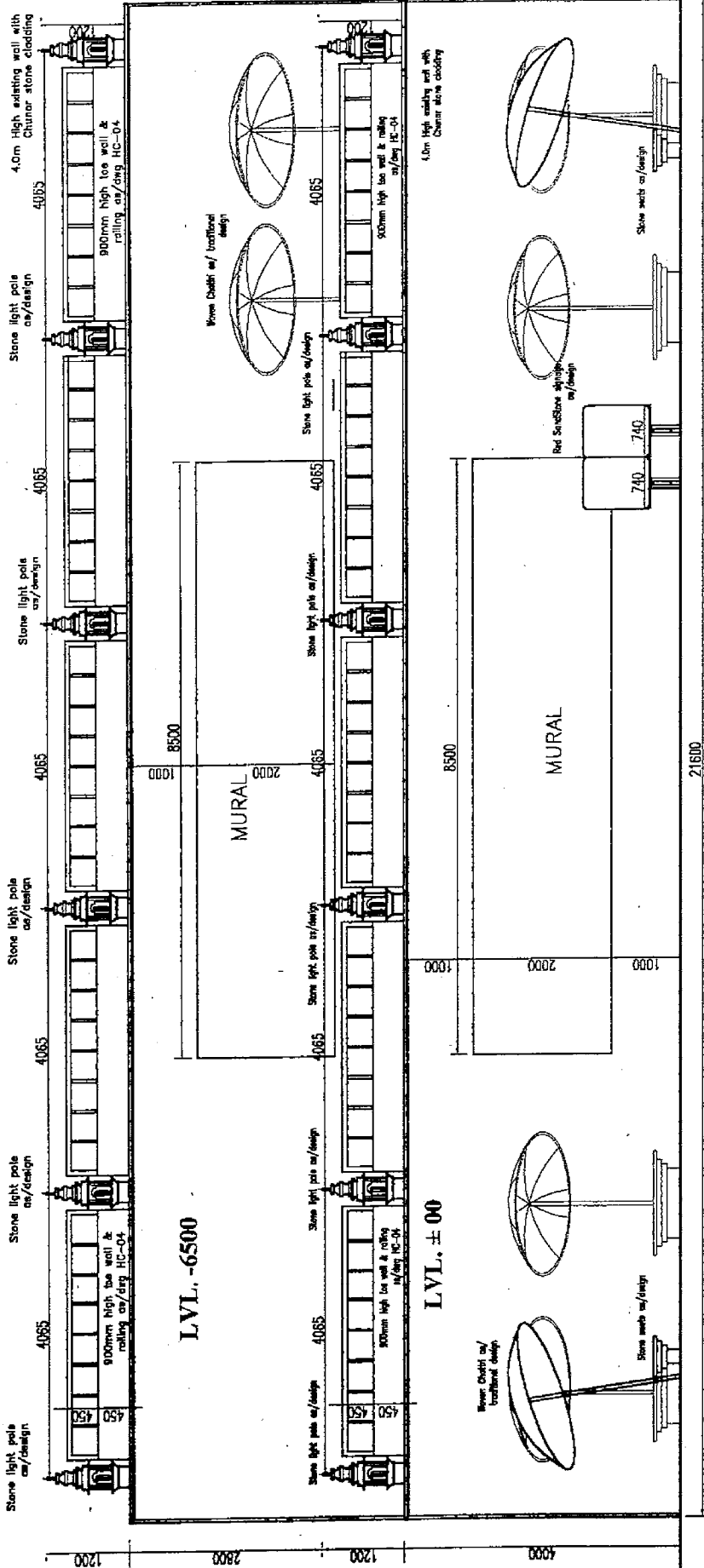
**LOWER DECK**  
 AREA = 186.39 SQ. MT.

PROJECT TITLE <b>IMPROVEMENT OF MANIKARNIKA GHAT</b>		DRG. TITLE <b>HERITAGE CORNER</b>	
PLAN OF TWO LVL. PLATFORM <b>RIVER GANGES</b>		DRG. NO <b>HC2L-01</b>	
A PROJECT FUNDED BY : JAPAN INTERNATIONAL COOPERATION AGENCY		hudco DESIGN & DEVELOPMENT WING HUDCO BHAWAN, I.H.C., LODHI ROAD, NEW DELHI-110003.	
SCALE : 00 1:50 3:0 4:50 m.		DATE : 2004	



15

NOTE:  
The Mural (12.0m x 2.0m) is proposed on the existing rear  
veranda wall. The design/ material of the same will be decided  
in consultation with a competent artist. The area of the mural  
is 40 sqm. approximately.



# FRONT ELEVATION OF HERITAGE CORNER

PROJECT TITLE  
IMPROVEMENT OF MANIKARNIKA GHAT

DRG. TITLE  
HERITAGE CORNER

SCALE : 1:1000  
DATE : JAN. 2004

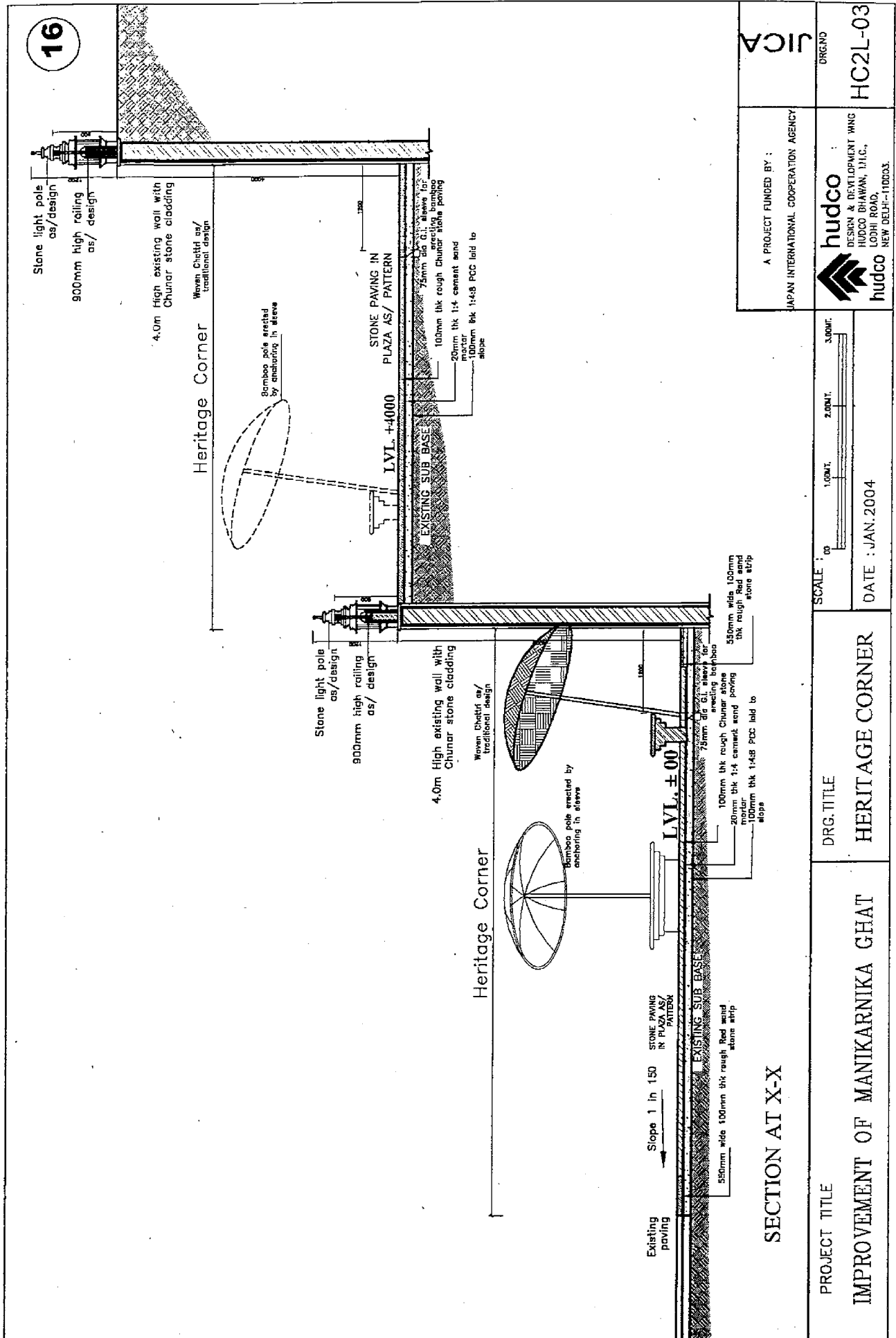
A PROJECT FUNDED BY :

JAPAN INTERNATIONAL COOPERATION AGENCY

ORG. NO  
HC2L-02

hudo  
DESIGN & DEVELOPMENT WING  
HODO BRAWAN, I.H.C.,  
LOOH ROAD,  
NEW DELHI-110003.

JICA



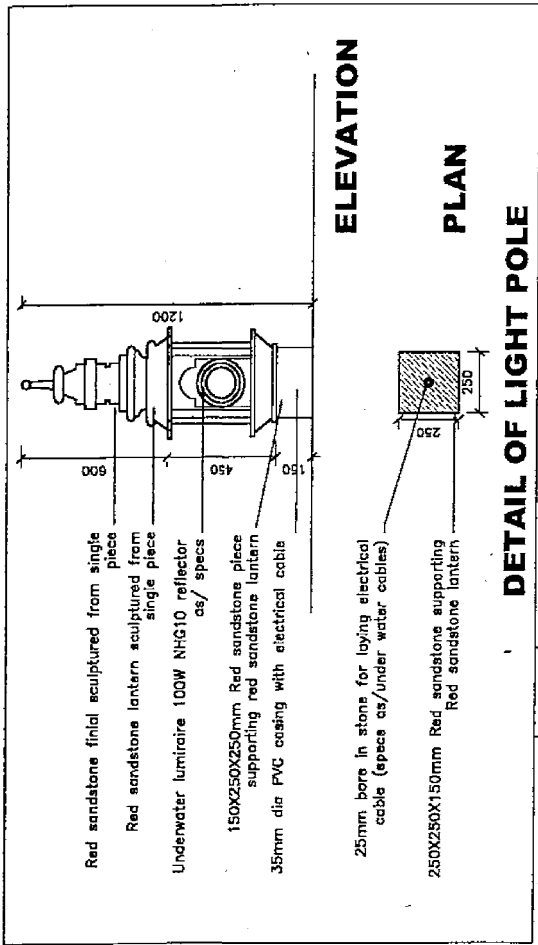
16

A PROJECT FUNDED BY :	JICA
	JAPAN INTERNATIONAL COOPERATION AGENCY
ORG.NO	HC2L-03
	DESIGN & DEVELOPMENT WING HUDCO BHAWAN, 111C, LODI ROAD, NEW DELHI-110003.

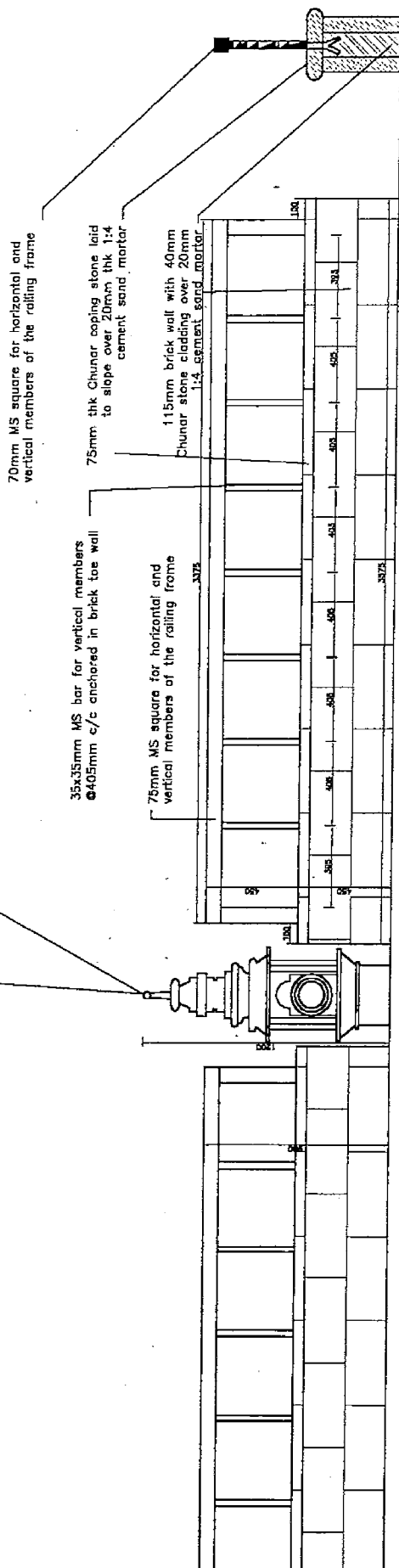
PROJECT TITLE	HERITAGE CORNER
DRG. TITLE	HERITAGE CORNER
SCALE :	OP 1:1000, 2:2000, 3:3000
DATE :	JAN.2004

SECTION AT X-X

17



**DETAIL OF LIGHT POLE**



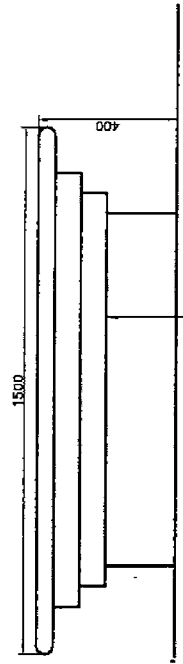
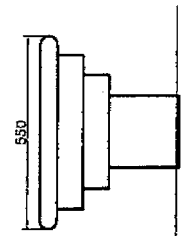
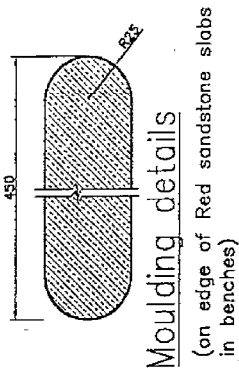
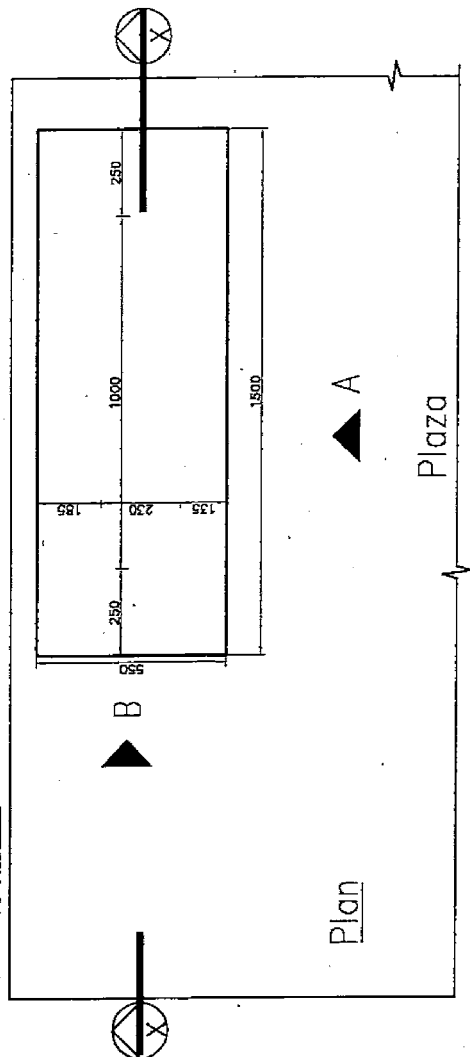
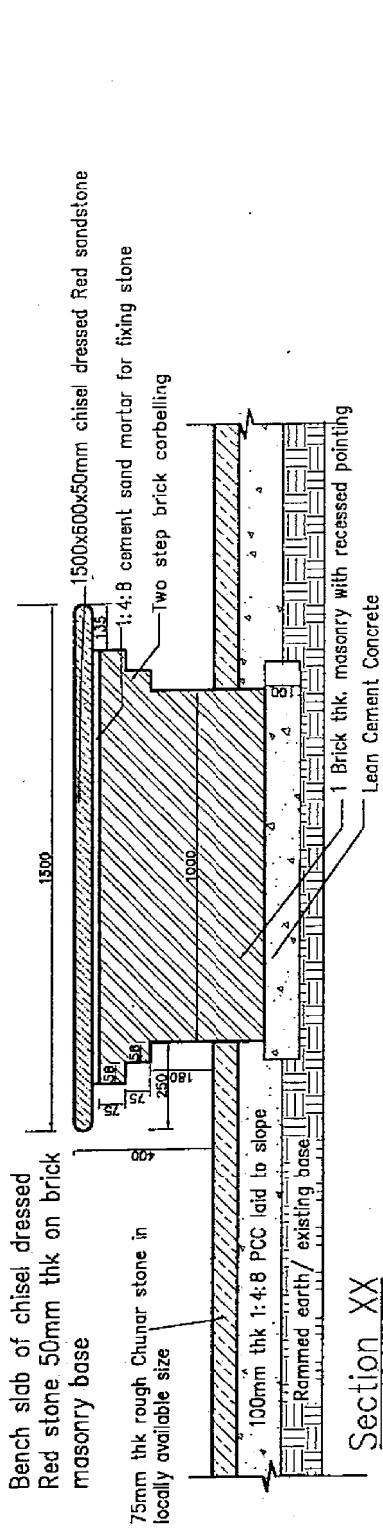
**FRONT ELEVATION**

**TYPICAL SECTION**

**TOE WALL & RAILING DESIGN**

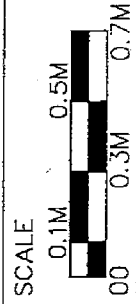
<p><b>HERITAGE CORNER MANIKARNIKA GHAT, VARANASI</b></p>	<p>DRG. TITLE</p> <p><b>LIGHT POLE &amp; RAILING DESIGN</b></p>	<p>SCALE</p> <p>00 0.4m 0.8m 1.2m 1.6m</p>	<p>DRG. NO.</p> <p><b>HC2L-04</b></p>
	<p> <b>HUDCO</b>                  DESIGN &amp; DEVELOPMENT WING                  LODI CHOWK BHAWAN,                  LODI ROAD                  NEW DELHI-110003.             </p>		

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Elevation B

Elevation A



DRG. TITLE  
**DETAIL OF BENCHES**

PROJECT TITLE  
**HERITAGE CORNER  
 MANIKARNIKA GHAT, VARANASI**

DRG. NO  
**HC-05**

**hudco**  
 DESIGN & DEVELOPMENT WING  
 HUDCO BHAWAN, I.H.C.,  
 LODHI ROAD,  
 NEW DELHI-110003.

19

## STUDY FOR PERMANENT STRUCTURE ON TAKHT HAZARA

**Requirement: To study the possibility of building a permanent roof above Takht Hazara.**

### **Option 'A'**

RCC roof supported by masonry/RCC columns, ultimately delivering point loads on the supports and transmitting to the existing structure.

### **Option 'B'**

Sheet roofing on MS truss structure. This will be an open structure providing only the shade not having any walls around or inside.

### **Observations**

#### **a. For Option 'A'**

Case A- On the walls: To support a permanent structure at points 1 and 1a. This is not possible due to the following two reasons.

1. The existing structures beneath Takht Hazara are of masonry and are apparently very old (1000 years). It does not seem to be appropriate to put point vertical loads, moments and hydrodynamic forces on the existing, old masonry structure which do not have any strength to resist these additional forces.
2. The existing structures being very old, have very high heritage value and ideally the existing skyline should be retained.

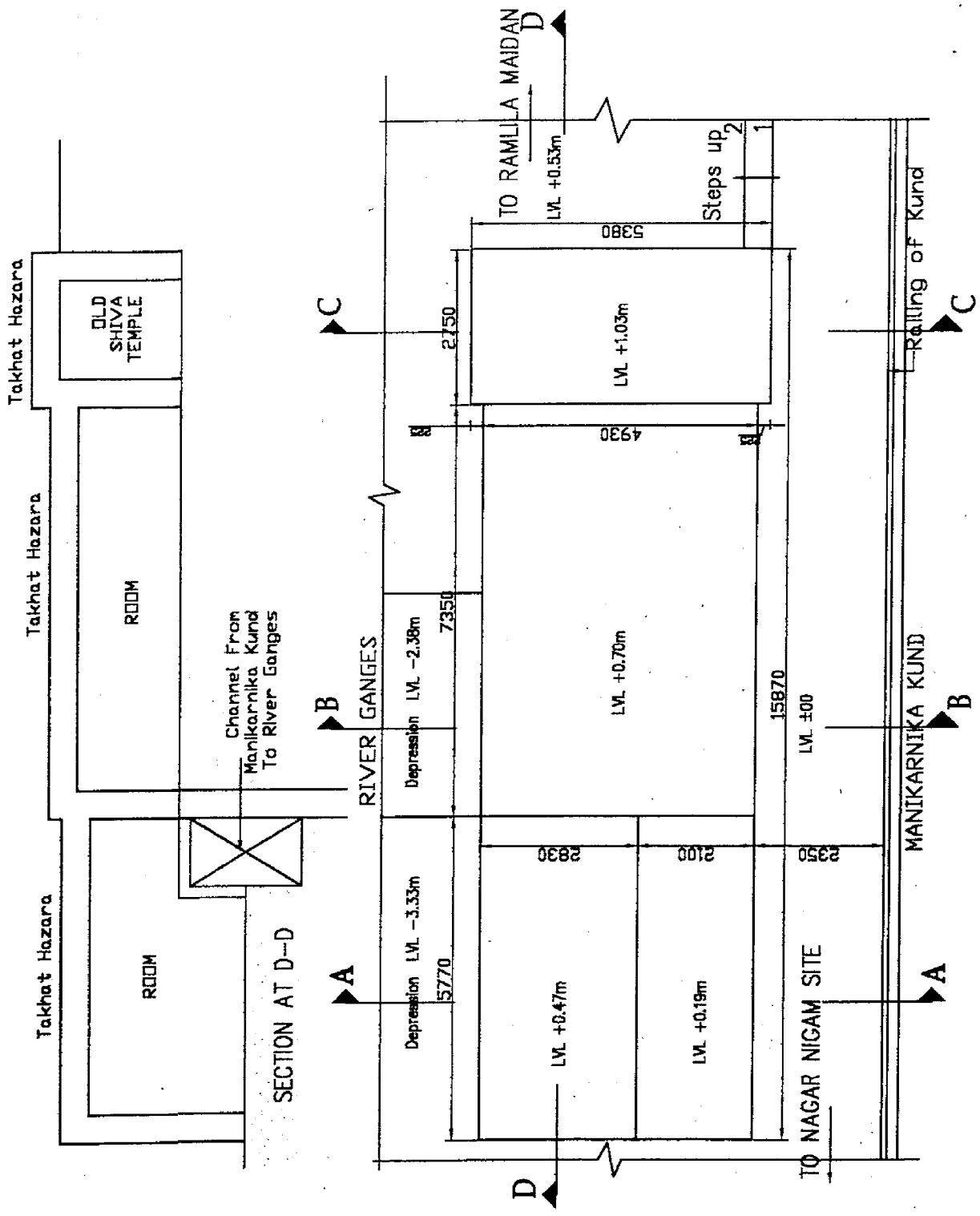
Case B- On the Sides: To support a permanent structure at points 2 and 2a. This is not possible due to the following two reasons.

1. Ref. Section CC. The riverside of Takht Hazara in section CC has a room underneath. This implies that the roof of this room will have to be punctured for supporting at point 2, which is not feasible.
2. The RCC columns to span about 5.5m will have to be about 450mm x 300mm, at point 2a. This will reduce the effective width of the passage between Takht Hazara and Manikarnika Kund from 2350 to 1900. A reduction of about 20%. This is not advisable as this is one of the most important pedestrian artery in the Ghat area. Further, the construction of the foundations for these columns would render the pedestrian spine useless for a considerable period of time. Also, it is felt that it may damage the structure of the Manikarnika Kund.

#### **b. For Option 'B'**

1. The hydrodynamic forces during the flood season will carry away the sheet roofing.
2. The M.S. supporting structures while submerging in flood water will create navigational hazards.

20



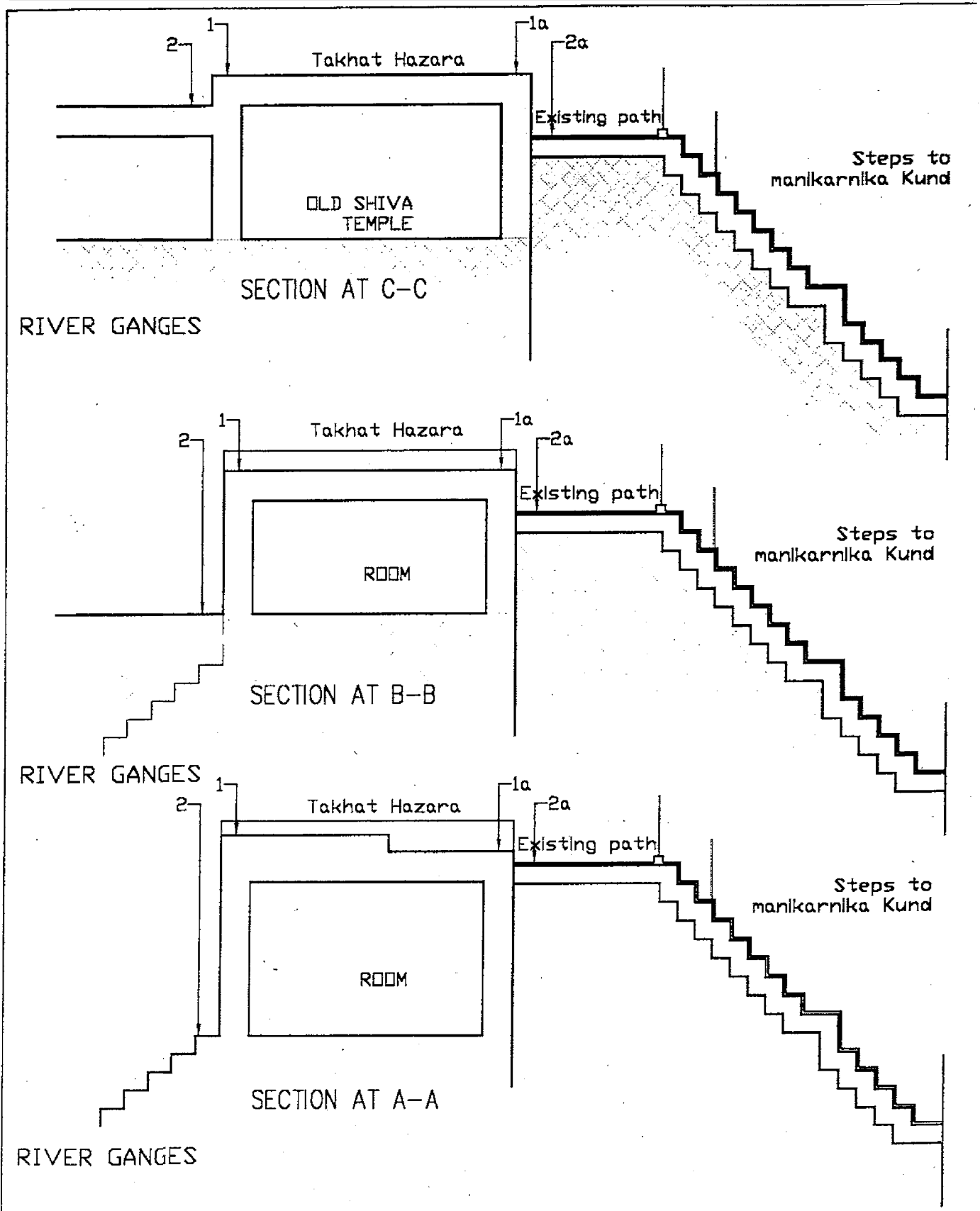
PROJECT TITLE  
**TAKHAT HAZARA, VARANASI**

DRG. TITLE  
**EXISTING PLAN & SECTIONS**


SCALE  
00 1.0m 2.0m 3.0m 4.0m

hudco  
DESIGN & DEVELOPMENT WING  
HUDCO BHAYAN,  
LIGHT ROAD,  
HUDCO NEW DELHI-110003

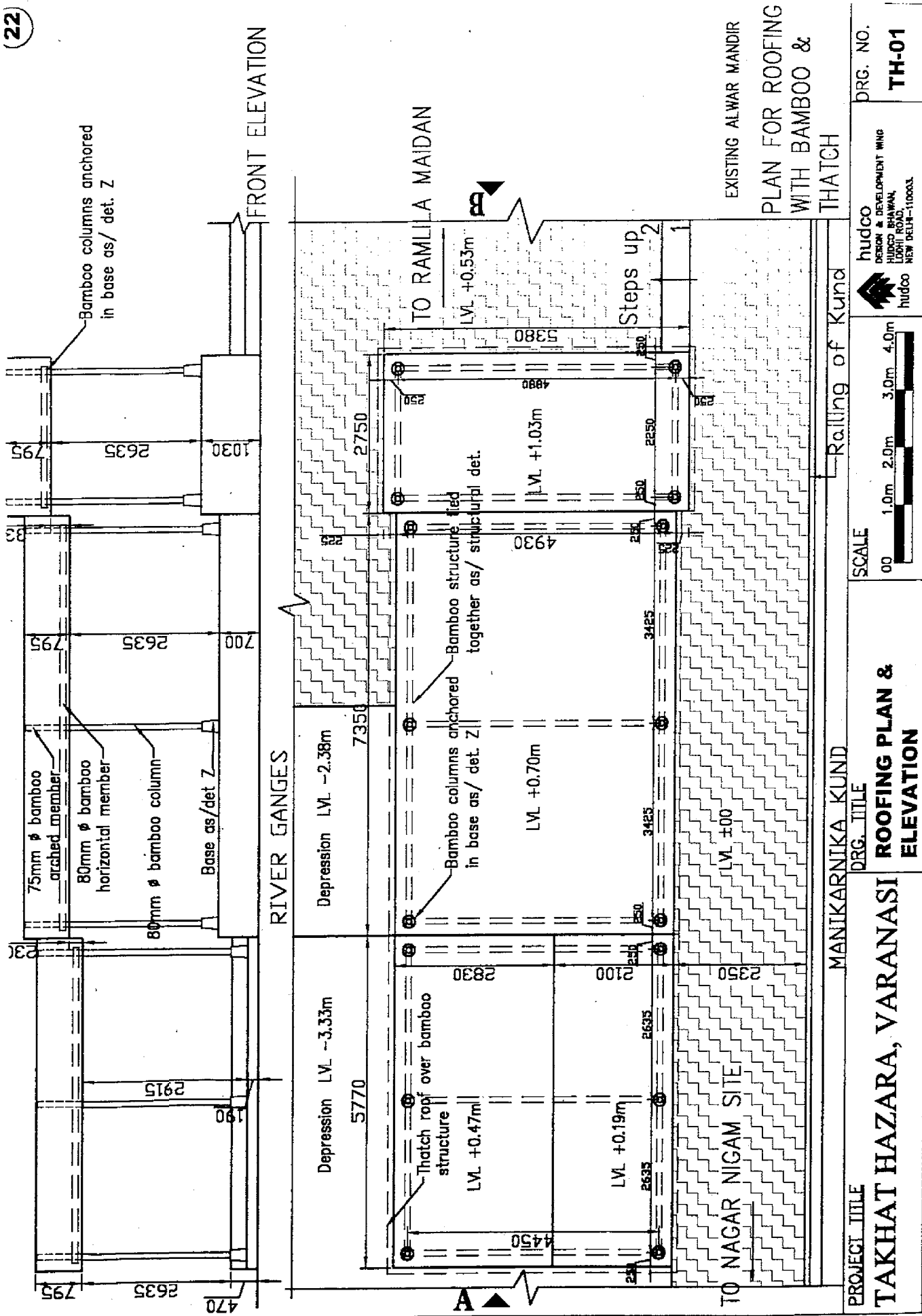
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**ETH-01**



21

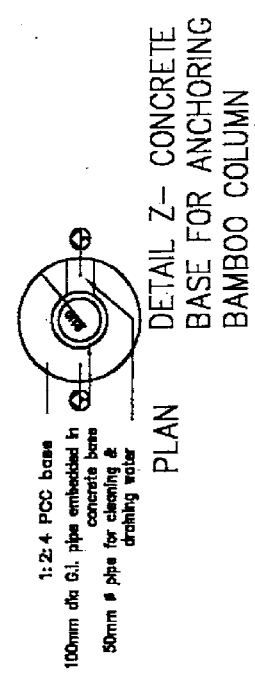
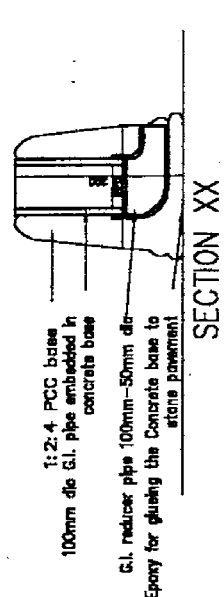
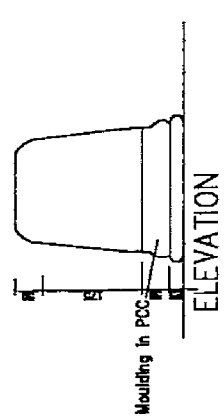
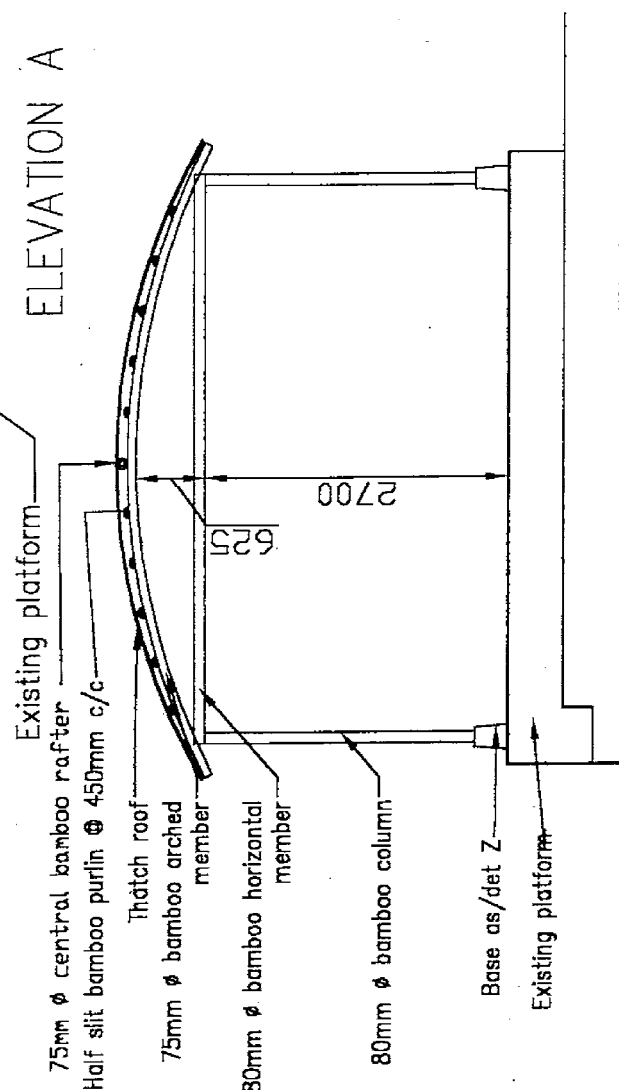
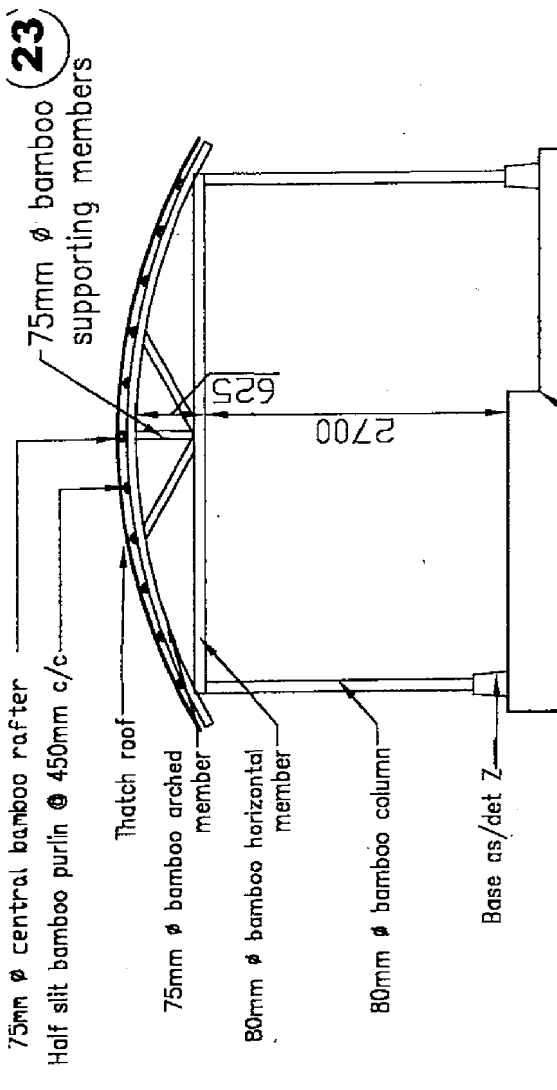
PROJECT TITLE <b>TAKHAT HAZARA, VARANASI</b>	DRG. TITLE <b>SECTIONS</b>	 <b>hudco</b> DESIGN & DEVELOPMENT WING HUDCO BHAWAN, LODHI ROAD, NEW DELHI-110003	DRG. NO. <b>ETH-02</b>
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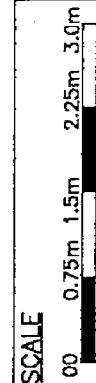
**NOTE:**  
Vertical and horizontal bamboo members to be tied with ropes



DETAIL Z- CONCRETE  
BASE FOR ANCHORING  
BAMBOO COLUMN

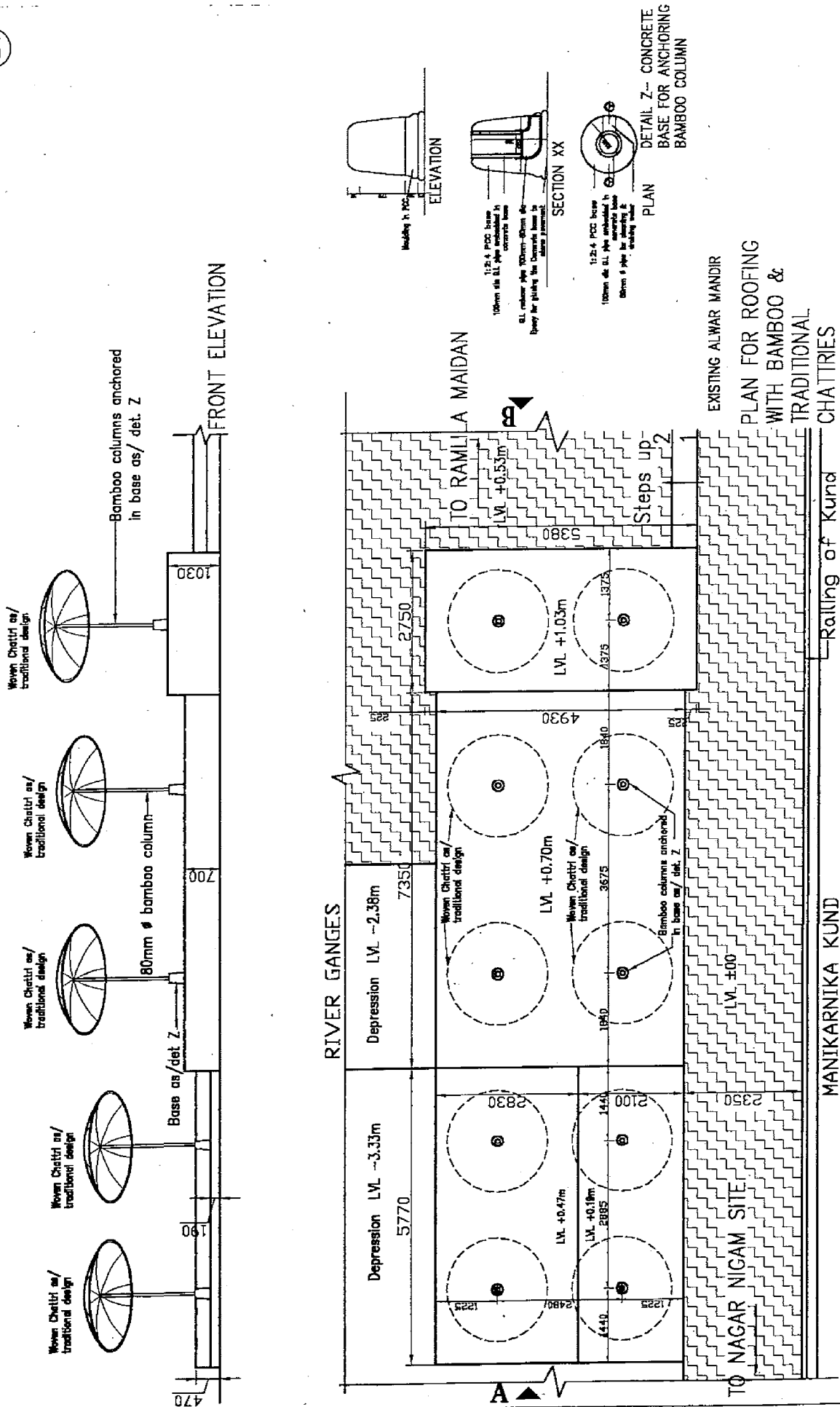
PROJECT TITLE  
**TAKHAT HAZARA, VARANASI**

DRG. TITLE  
**ELEVATION & DETAIL ZZ**



hudco  
DESIGN & DEVELOPMENT WING  
HUDCO BHAWAN,  
LOHI ROAD,  
HUDCO NEW DELHI-110003.

DRG. NO.  
**TH-02**



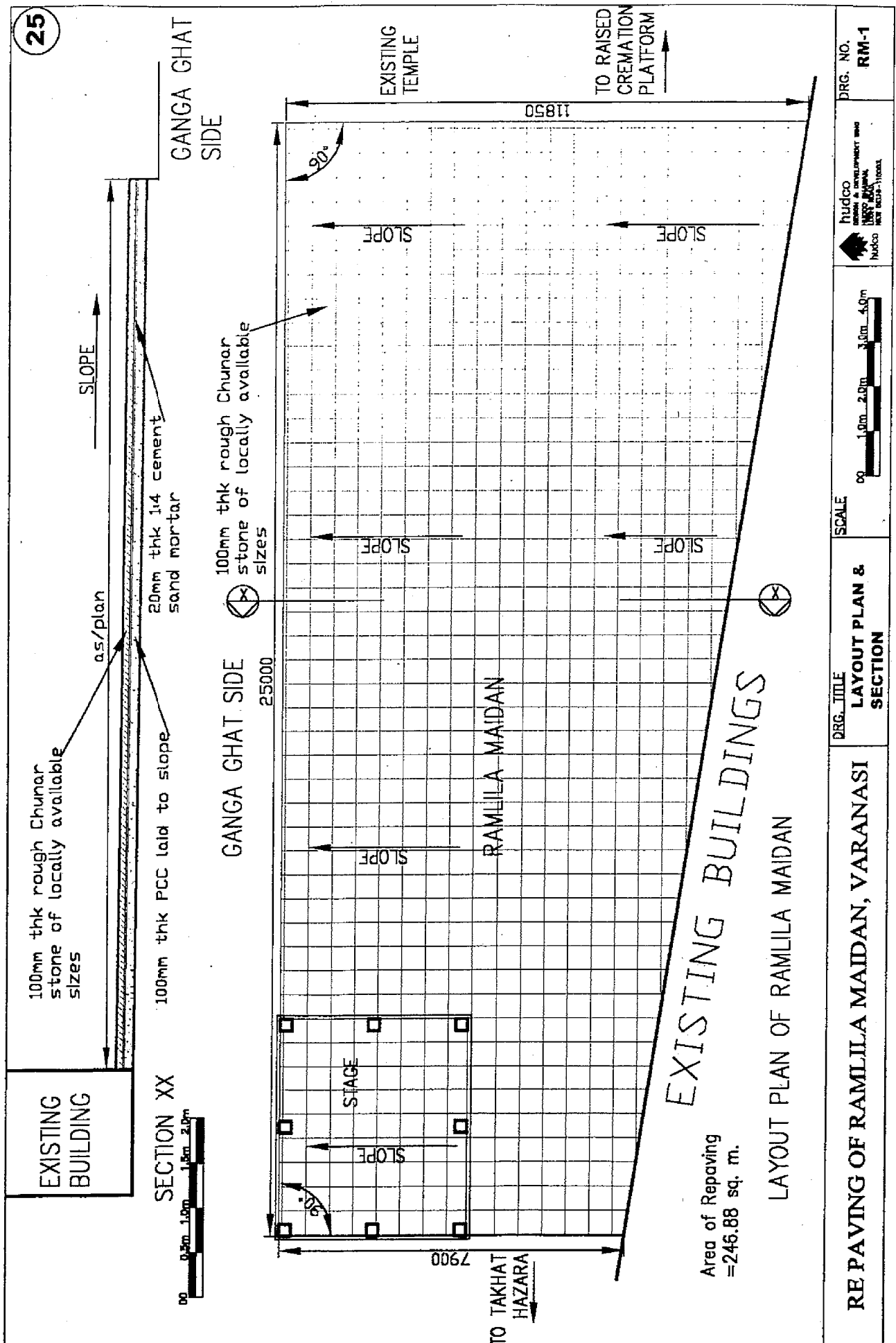
PROJECT TITLE  
**TAKHAT HAZARA, VARANASI**

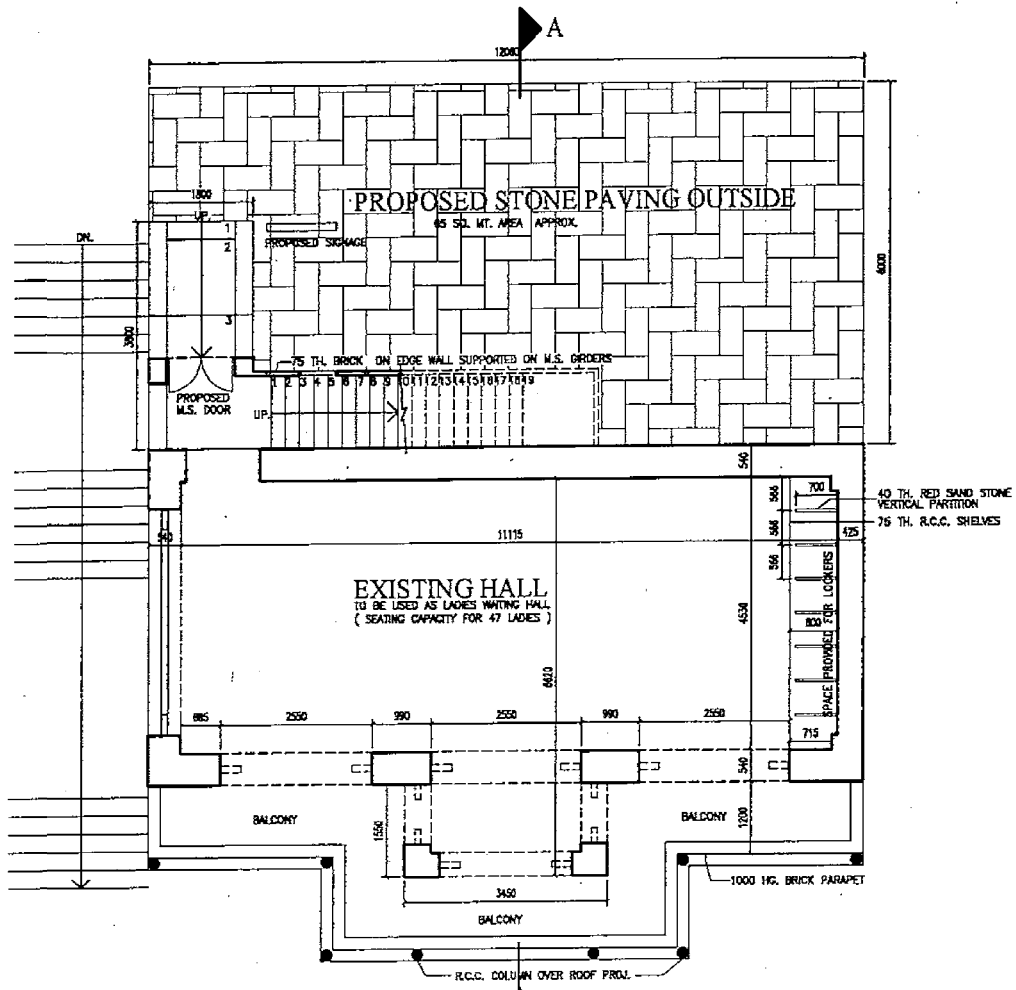
DRG. TITLE  
**PLAN, ELEVATION & DETAIL (ALT.-II)**

SCALE  
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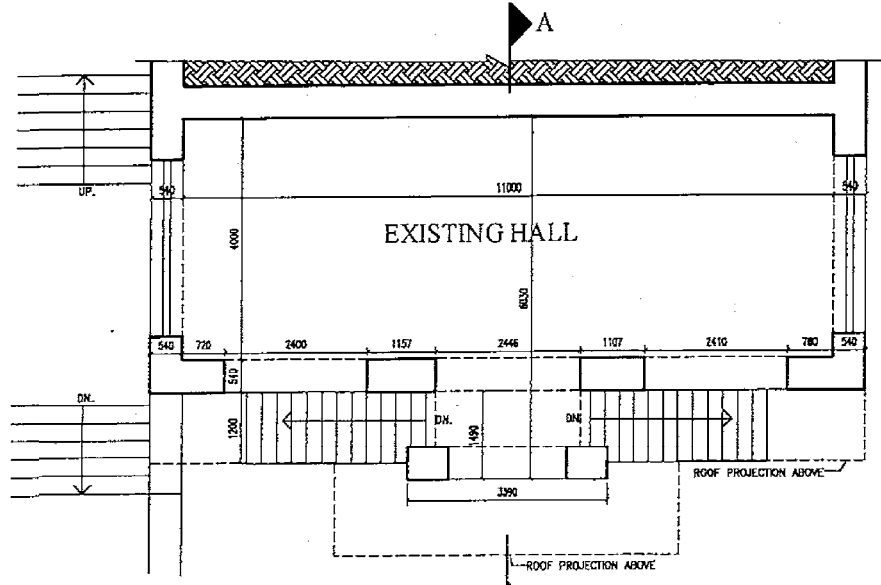
hudo  
DESIGN & DEVELOPMENT WING  
HUDO BHAWAN,  
LODHI ROAD,  
hudo  
NEW DELHI-110003.

DRG. NO.  
**TS-01**






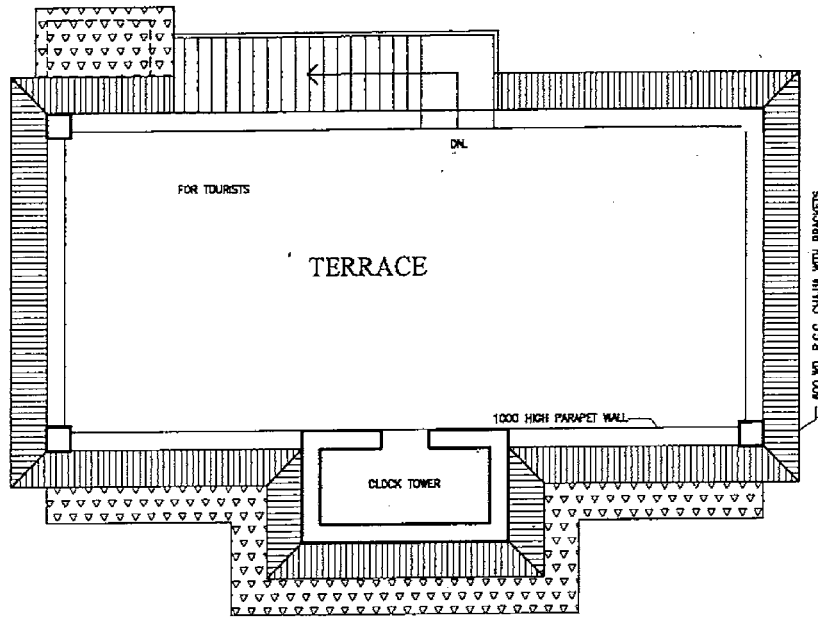
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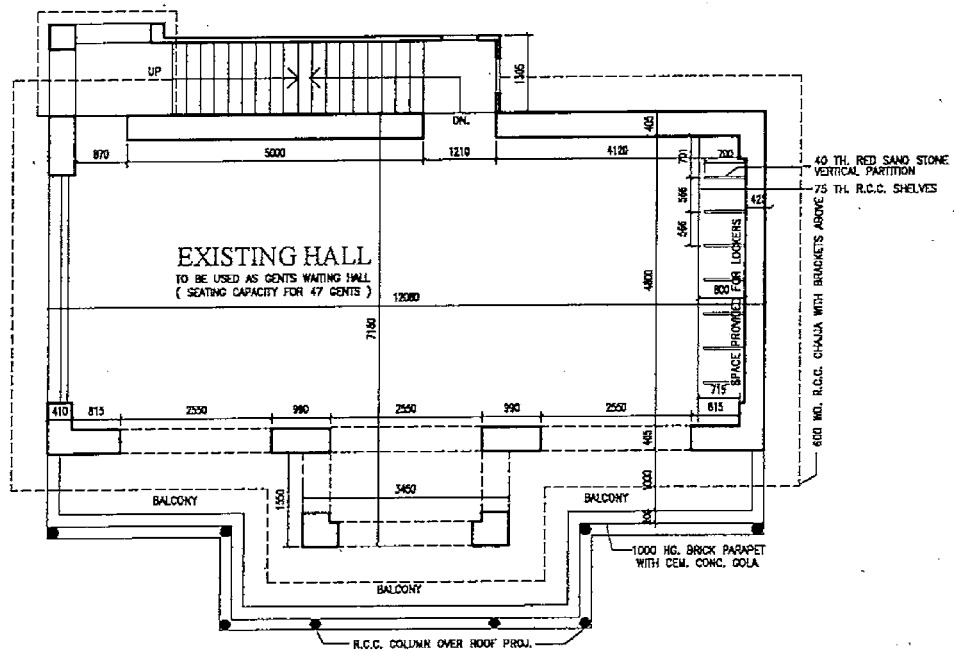
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26

<p>DRG. TITLE                  BIRLA DHARAMSHALA/WAITING HALL</p>	<p>SCALE :                  DATE : JAN.2004</p>	<p>A PROJECT FUNDED BY :                  JAPAN INTERNATIONAL COOPERATION AGENCY</p> <p>  <b>hudco</b>                  DESIGN &amp; DEVELOPMENT WNG                  HUDCO BHAWAN, I.H.C.,                  LODHI ROAD,                  NEW DELHI-110003             </p>	<p>JICA</p> <p>DRG.NO                  WH-01</p>
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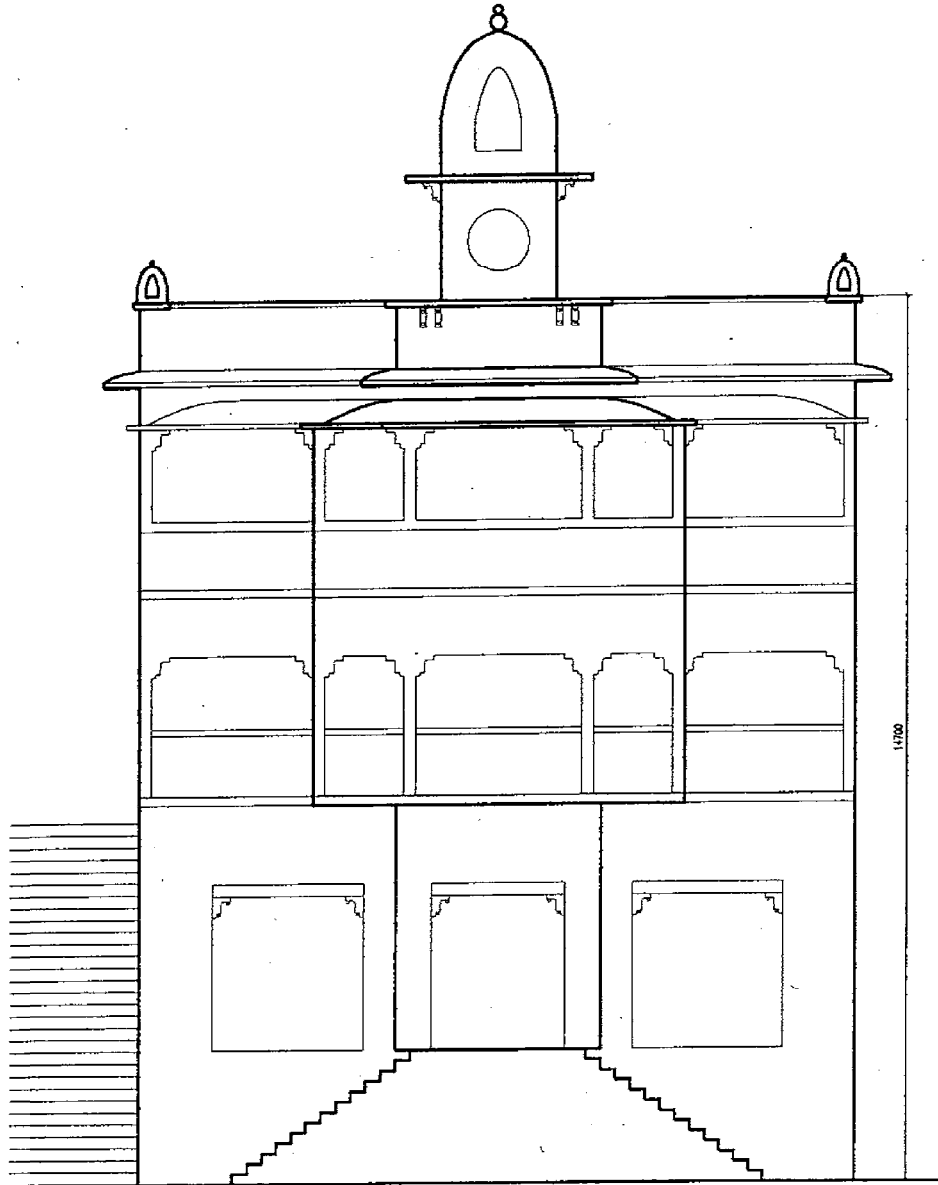
EXISTING TERRACE PLAN



EXISTING SECOND FLOOR PLAN WITH PROPOSED LOCKER SPACES



27

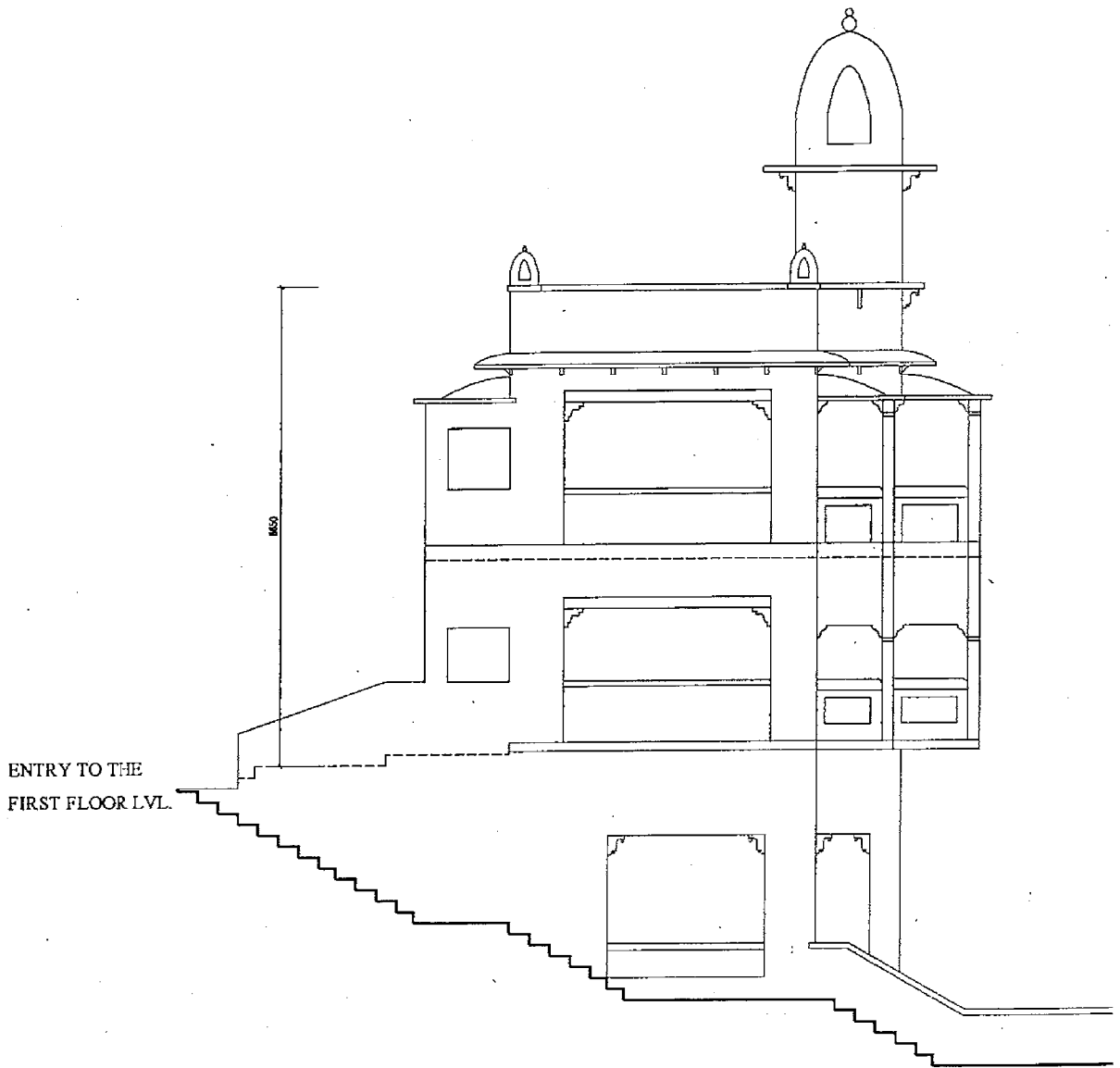
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FRONT ELEVATION FROM GHAT



28

DRG. TITLE <b>BIRLA DHARAMSHALA</b>	SCALE :  DATE : JAN.2004	A PROJECT FUNDED BY : JAPAN INTERNATIONAL COOPERATION AGENCY  <b>hudco</b> DESIGN & DEVELOPMENT WING HUDCO BHAWAN, I.H.C., LOCHI ROAD, NEW DELHI-110003.	JICA DRG.NO <b>WH-03</b>
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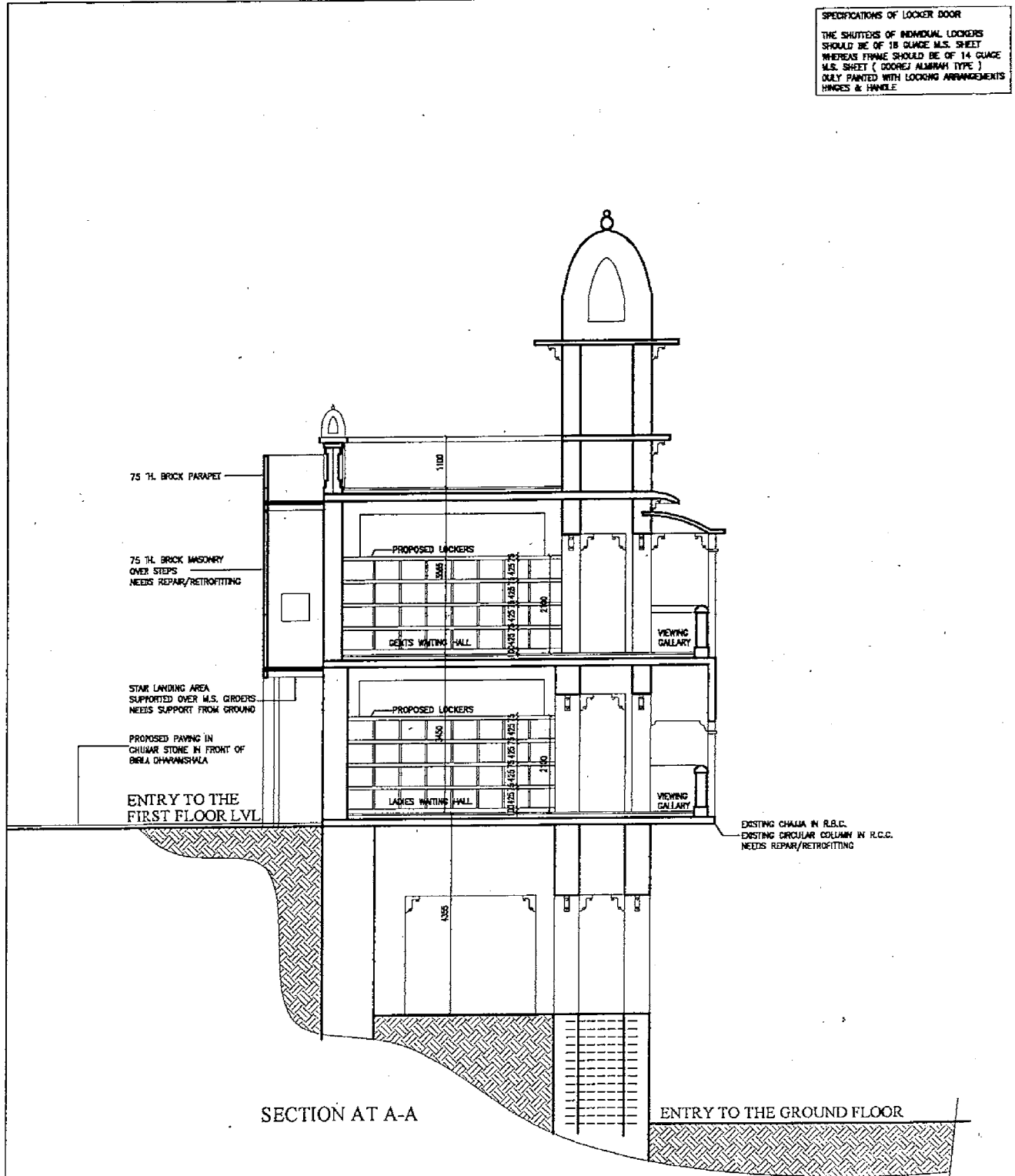


SECTIONAL ELEVATION FROM SULABH SHOCHALAYA SIDE

29



DRG. TITLE <b>BIRLA DHARAMSHALA</b>		SCALE : 	A PROJECT FUNDED BY : JAPAN INTERNATIONAL COOPERATION AGENCY	JICA DRG.NO
DATE : JAN.2004		 <b>hudco</b> DESIGN & DEVELOPMENT WING HUDCO BHAWAN, I.H.C., LOCHI ROAD, NEW DELHI-110003.	WH-04	

**SPECIFICATIONS OF LOCKER DOOR**  
 THE SHUTTERS OF INDIVIDUAL LOCKERS SHOULD BE OF 18 GAUGE M.S. SHEET WHEREAS FRAMING SHOULD BE OF 14 GAUGE M.S. SHEET ( DOOREJ ALUMINUM TYPE ) ONLY PAINTED WITH LOCKING ARRANGEMENTS HINGES & HANDLE



SECTION AT A-A

30

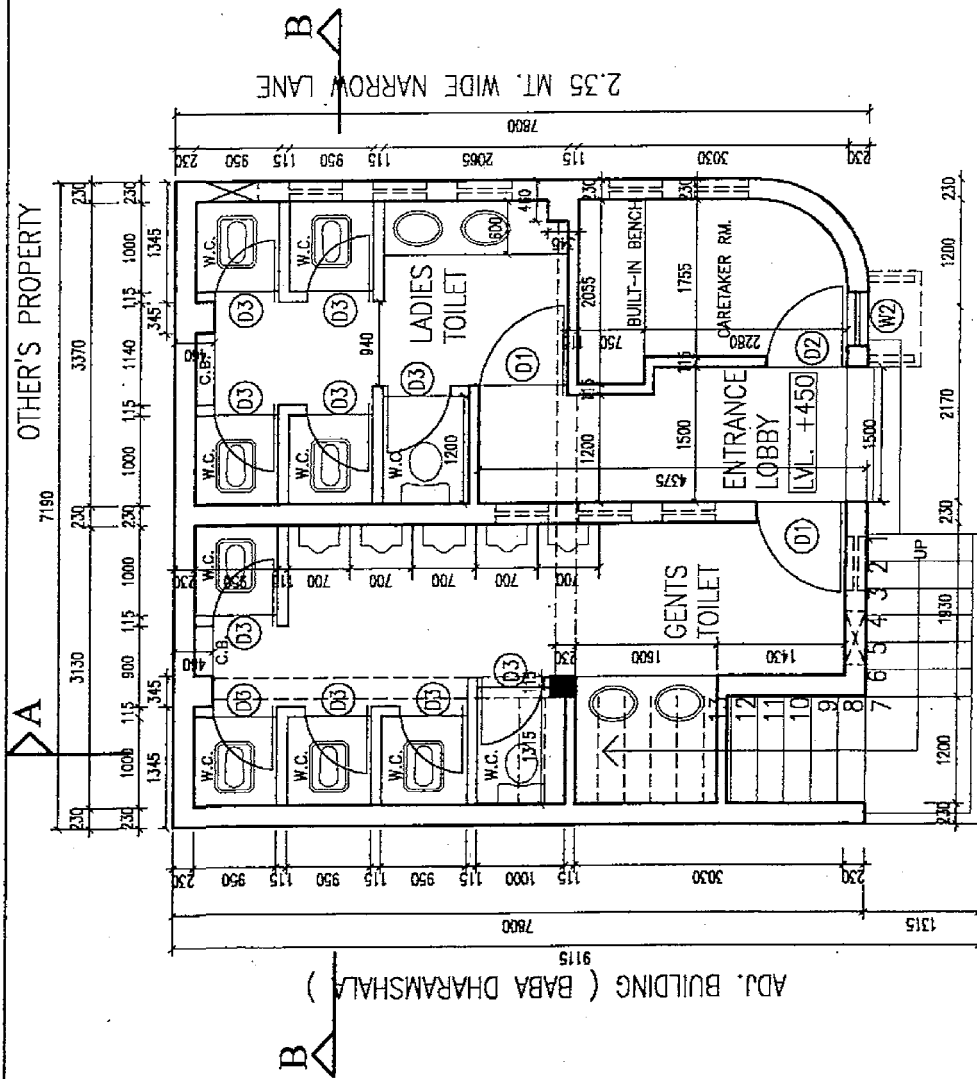
DRG. TITLE <b>BIRLA DHARAMSHALA</b>	SCALE :  DATE : JAN. 2004	A PROJECT FUNDED BY : JAPAN INTERNATIONAL COOPERATION AGENCY  <b>hudco</b> DESIGN & DEVELOPMENT WING HUDCO BHAWAN, I.H.C., LOCHI ROAD, NEW DELHI-110003.	JICA DRG. NO <b>WH-05</b>
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31

SCHEDULE OF DOORS & WINDOWS

S.No.	TYPE	WIDTH	CILL LVL.	LINTEL LVL.	REMARKS
1.	D1	1000	-	2100	
2.	D2	900	-	2100	
3.	D3	700	-	2100	
4.	D4	1800	-	2100	DOUBLE SHUTTER
5.	J1	( 600 X 600 )			
6.	W2	600	900	2100	
7.	OP1	1500	-	2750	COLLAPSIBLE SHUTTER



GROUND FLOOR PLAN

LOCATION : SULLABH SHOCHALAYA BUILDING

( COVERED AREA = 59.63 SQ.MT. )

STAIR  
WIDTH = 1200  
TREAD = 300  
RISER = 175

SCALE: 1:100, 1:200

DATE : JAN.2004

A PROJECT FUNDED BY : JICA

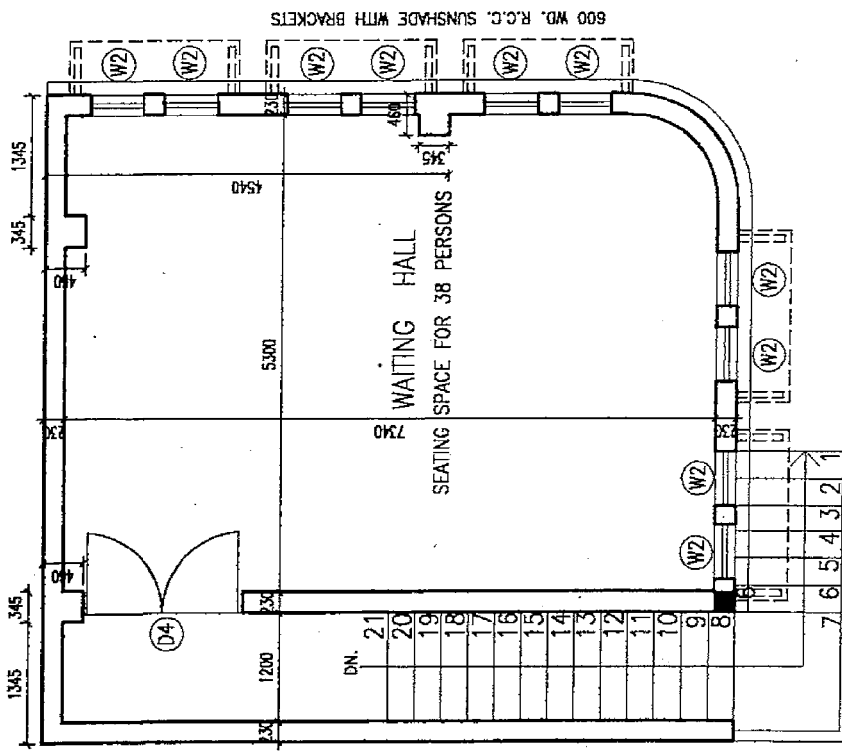
ORG. NO. TW-01

HUDCO DESIGN & DEVELOPMENT WING  
HUDCO BHAWAN, I.H.C.,  
LODH ROAD,  
NEW DELHI-110003.

PROJECT TITLE  
IMPROVEMENT OF MANIKARNIKA GHAT

DRG. TITLE  
TOILETS & WAITING HALL

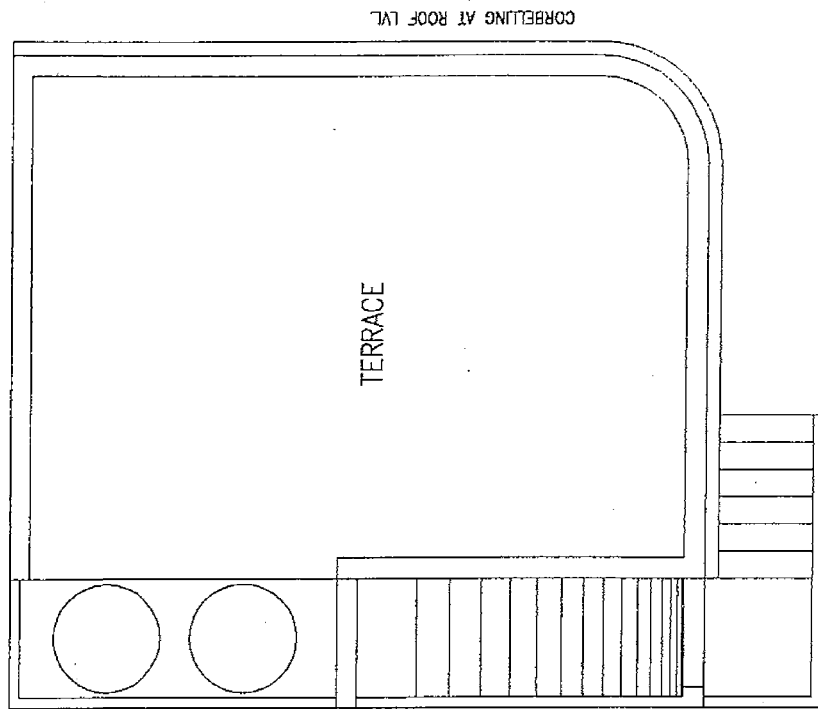
32



**FIRST FLOOR PLAN**

LOCATION : SULABH SHOCHALAYA BUILDING

( COVERED AREA = 59.63 SQ.MT. )



**TERRACE PLAN**

LOCATION : SULABH SHOCHALAYA BUILDING

( COVERED AREA = 59.63 SQ.MT. )

PROJECT TITLE

IMPROVEMENT OF MANIKARNIKA GHAT

DRG. TITLE

TOILETS & WAITING HALL

SCALE : 1/50

DATE : JAN. 2004

A PROJECT FUNDED BY :  
 JAPAN INTERNATIONAL COOPERATION AGENCY

**hudco**  
 DESIGN & DEVELOPMENT WING  
 HUDCO BHAWAN, I.H.C.,  
 LOCHI ROAD,  
 NEW DELHI-110003.

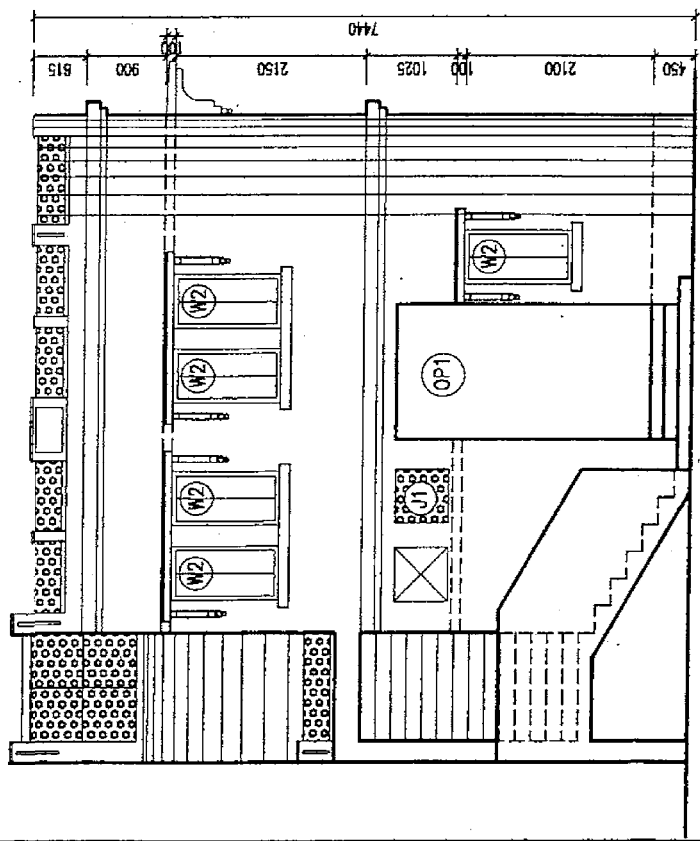
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DRG. NO.

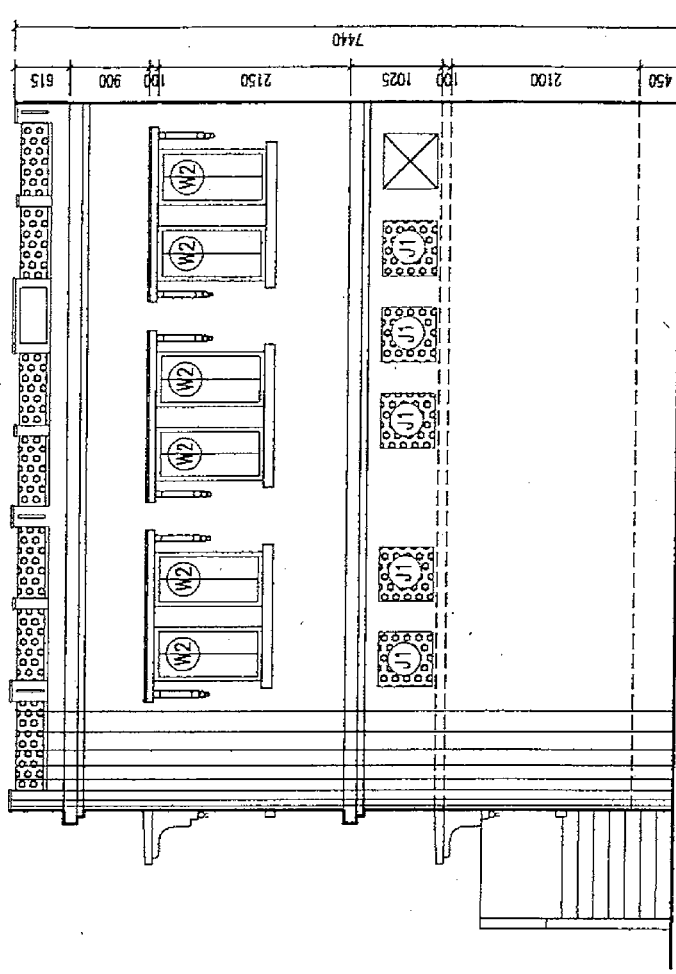
TW-02

33

EXTERIOR FINISH: WATER BASED CEMENT PAINT AS/ APPROVED SHADE



FRONT ELEVATION



SIDE ELEVATION

PROJECT TITLE

IMPROVEMENT OF MANIKARNIKA GHAT

DRG. TITLE

TOILETS & WAITING HALL

SCALE



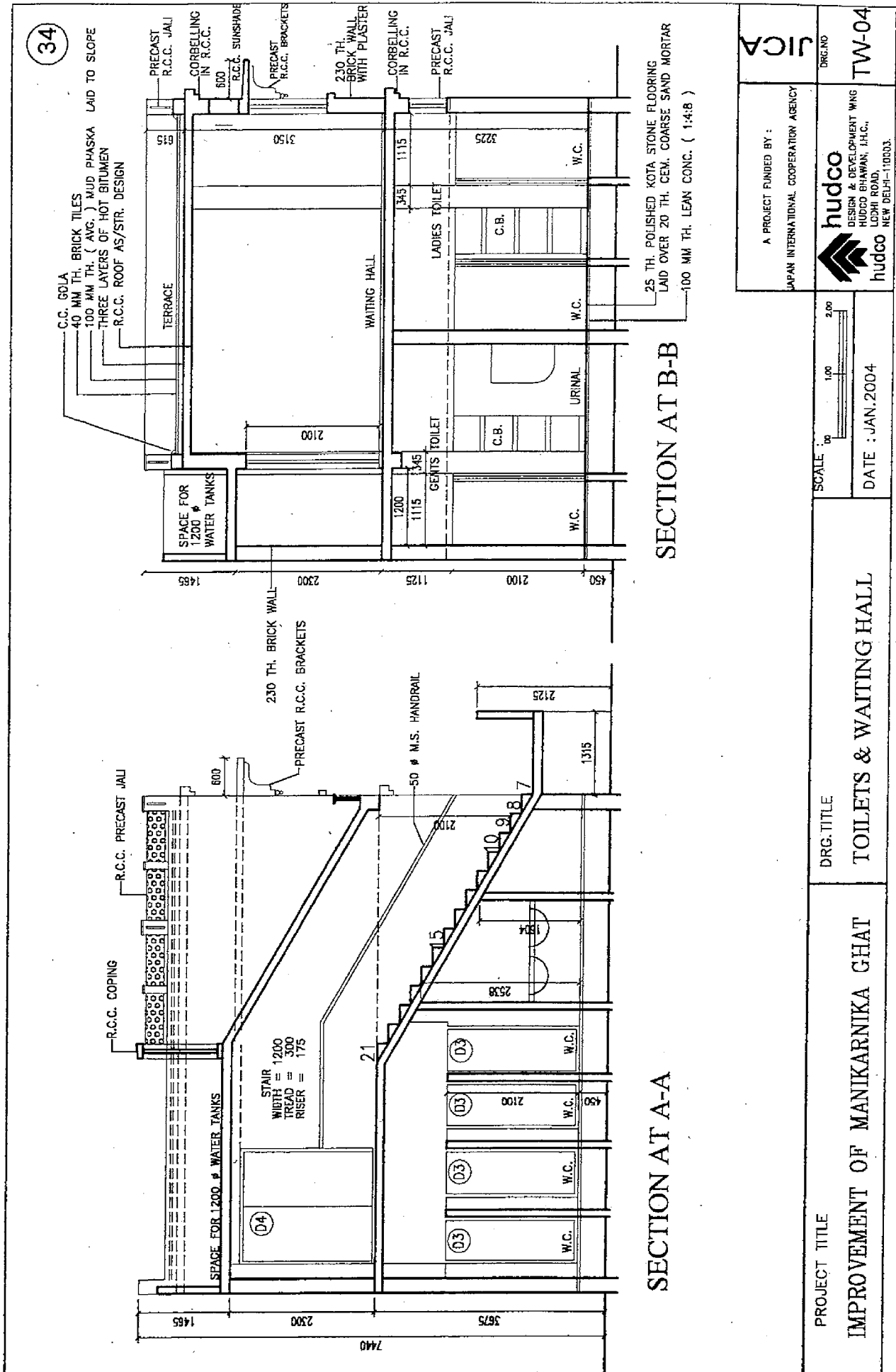
DATE : JAN. 2004

A PROJECT FUNDED BY :  
 JAPAN INTERNATIONAL COOPERATION AGENCY

JICA DRG. NO.

**hudco**  
 DESIGN & DEVELOPMENT WING  
 HUDCO BHAWAN, I.H.C.,  
 LODHI ROAD,  
 HUDCO NEW DELHI-110003.

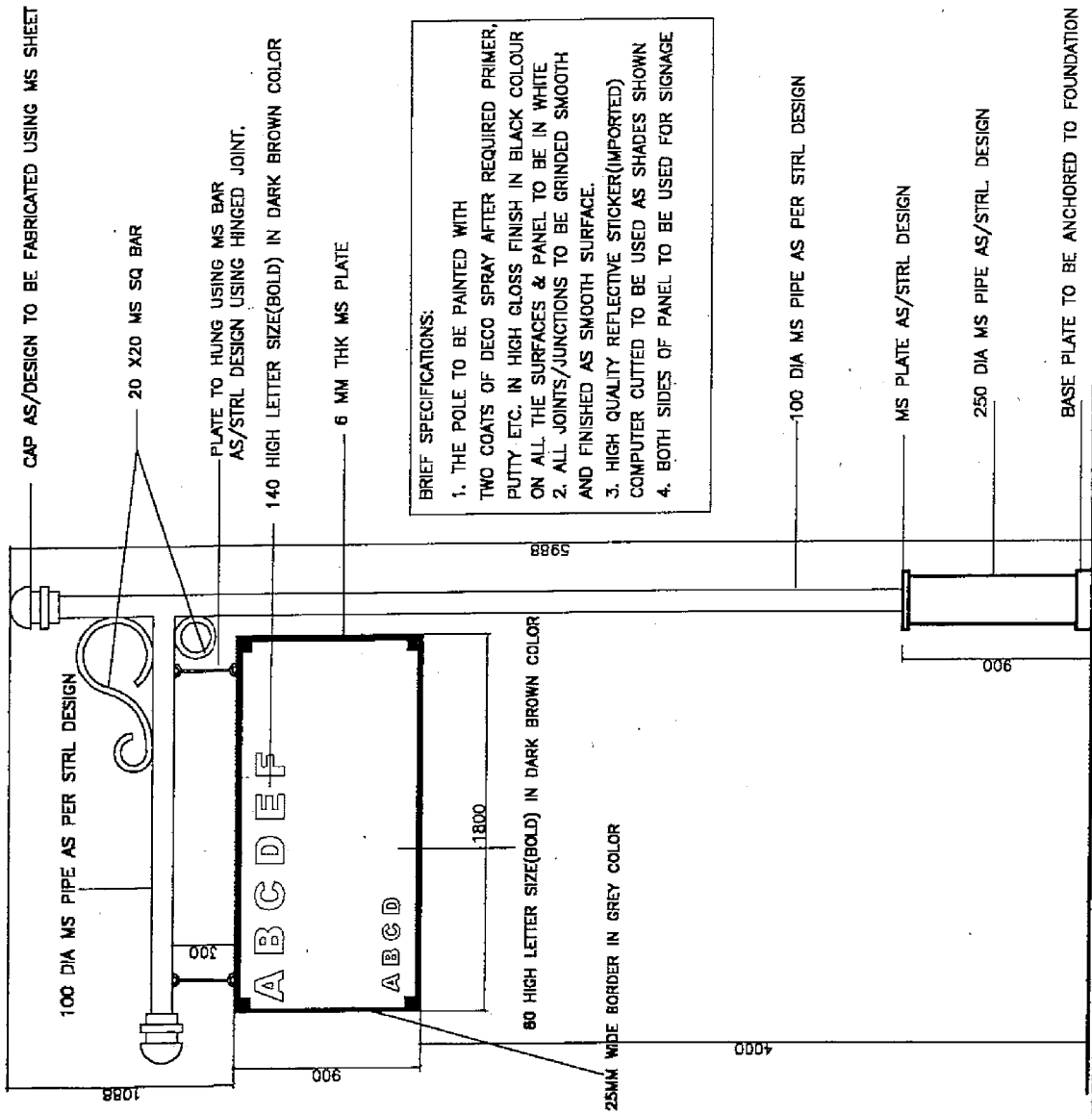
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A PROJECT FUNDED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	DRG. NO.	TW-04
	 <b>HUDCO</b> DESIGN & DEVELOPMENT WING HUDCO BHAWAN, I.H.C., LODHI ROAD, NEW DELHI-110003.	

SCALE	1:100	2:100
DATE	JAN. 2004	


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IMPROVEMENT OF MANIKARNIKA GHAT	TOILETS & WAITING HALL



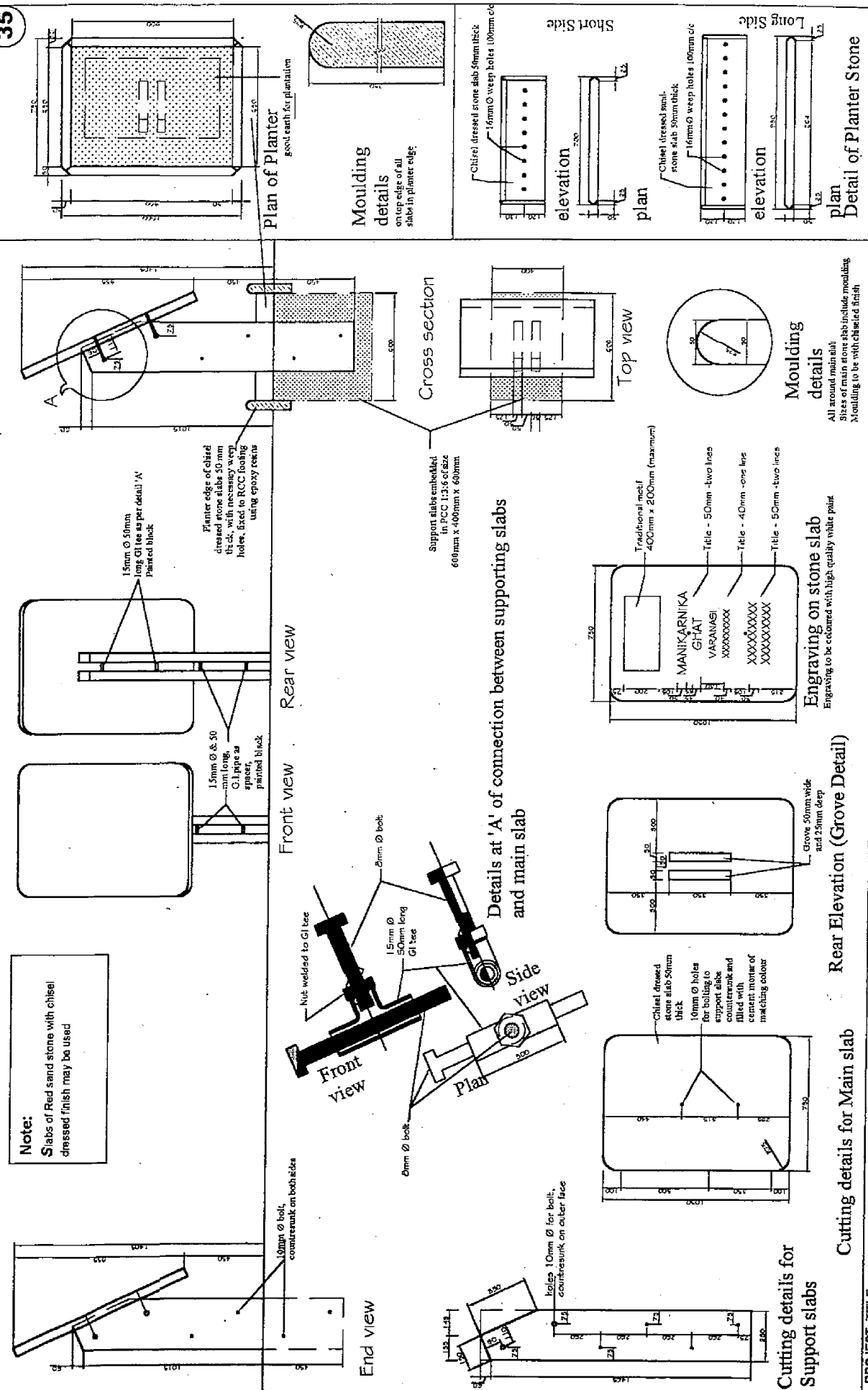
BRIEF SPECIFICATIONS:

1. THE POLE TO BE PAINTED WITH TWO COATS OF DECO SPRAY AFTER REQUIRED PRIMER, PUTTY ETC. IN HIGH GLOSS FINISH IN BLACK COLOUR ON ALL THE SURFACES & PANEL TO BE IN WHITE
2. ALL JOINTS/JUNCTIONS TO BE GRINDED SMOOTH AND FINISHED AS SMOOTH SURFACE.
3. HIGH QUALITY REFLECTIVE STICKER(IMPORTED) COMPUTER CUTTED TO BE USED AS SHADES SHOWN
4. BOTH SIDES OF PANEL TO BE USED FOR SIGNAGE

ELEVATION OF SIGNAGE  
(THE WRITE-UP TO BE CONFIRMED BY THE COMPETENT AUTHORITY)

<b>SINAGE DESIGN FOR</b> <b>MANIKARNIKA GHAT</b>	<b>DRG. NO</b>  DESIGN & DEVELOPMENT WING HUDCO BHAWAN, I.I.C., LODHI ROAD, NEW DELHI-110003.
	<b>DRG. TITLE</b> DISPLAY PANEL/POLE DESIGN <b>LOCATION:</b> AS PER JICA INSTUCTIONS
<b>VARANASI</b>	15.1.04

35



PROJECT TITLE  
**ENVIRONMENTAL IMPROVEMENT OF MANIKARNIKA GHAT, VARANASI**

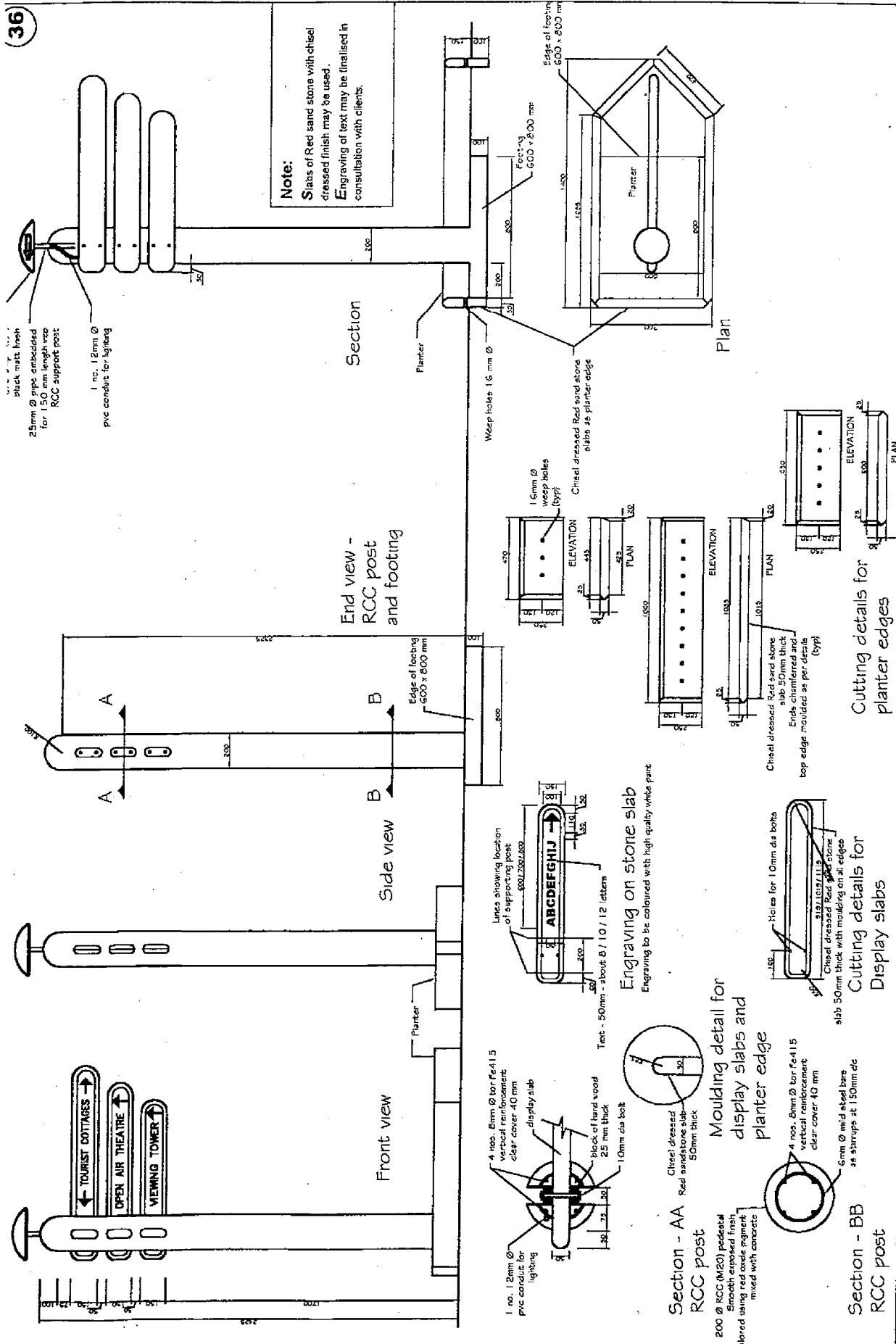
DRG-TITLE  
**SIGNAGE -TYPE 'A' DESCRIPTIVE SIGNAGES**

DRG.NO  
**S-01**

SCALE  
0.1M 0.3M 0.5M 0.7M

DRG.NO  
**hudco**  
DESIGN & DEVELOPMENT WING  
HUDCO BHAWAN, I.P.C.,  
LODH ROAD,  
NEW DELHI-110003.

36



PROJECT TITLE  
**ENVIRONMENTAL IMPROVEMENT OF MANIKARNIKA GHAT, VARANASI**

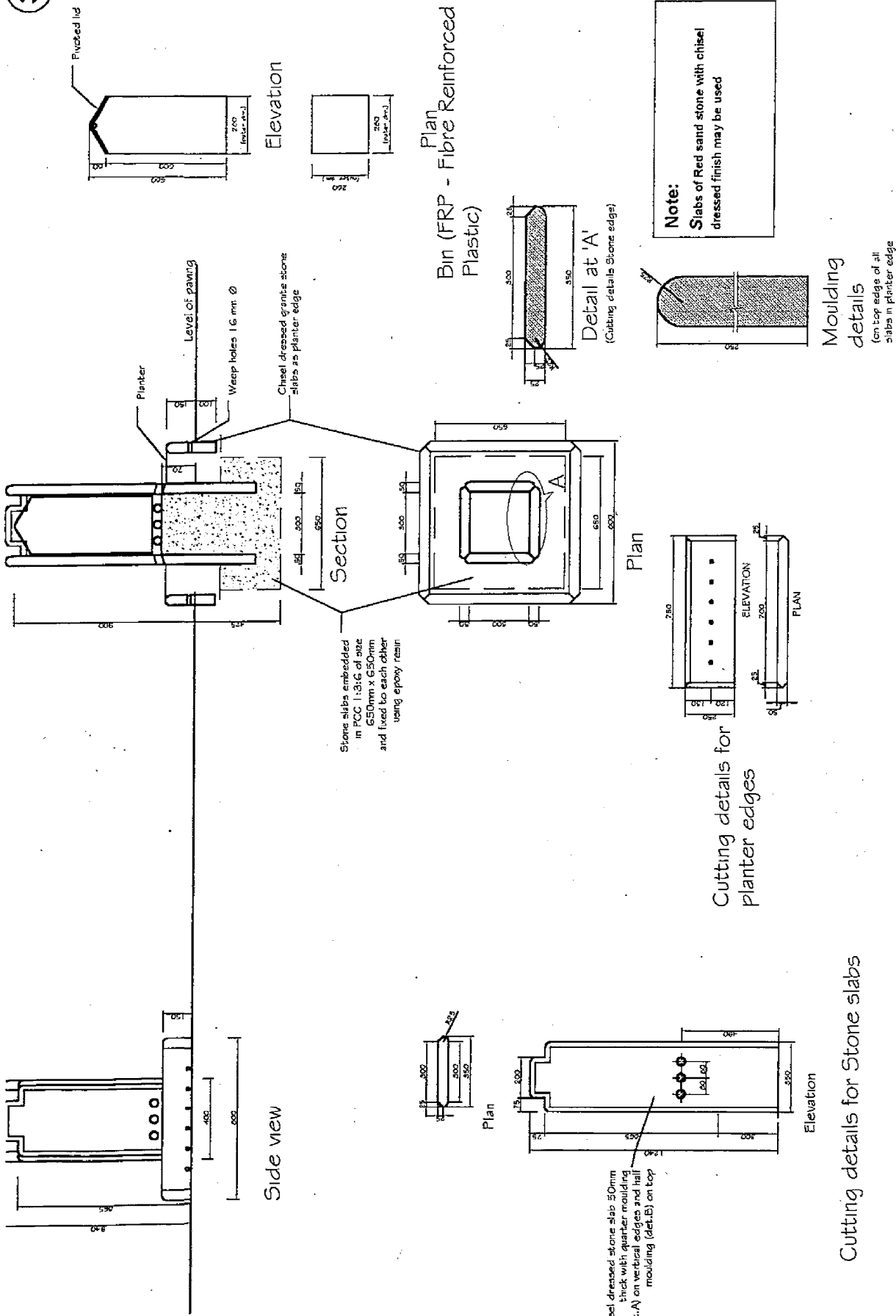
DRG. TITLE  
**SIGNAGE - TYPE 'B' DIRECTIONAL SIGNAGES**

SCALE  
 0.1M 0.5M 0.7M

DRG. NO  
**S-02**

Project Logo  
**HUDCO**  
 DESIGN & DEVELOPMENT WING  
 HUDCO BHAWAN, I.H.C.,  
 LODHI ROAD,  
 NEW DELHI-110003.

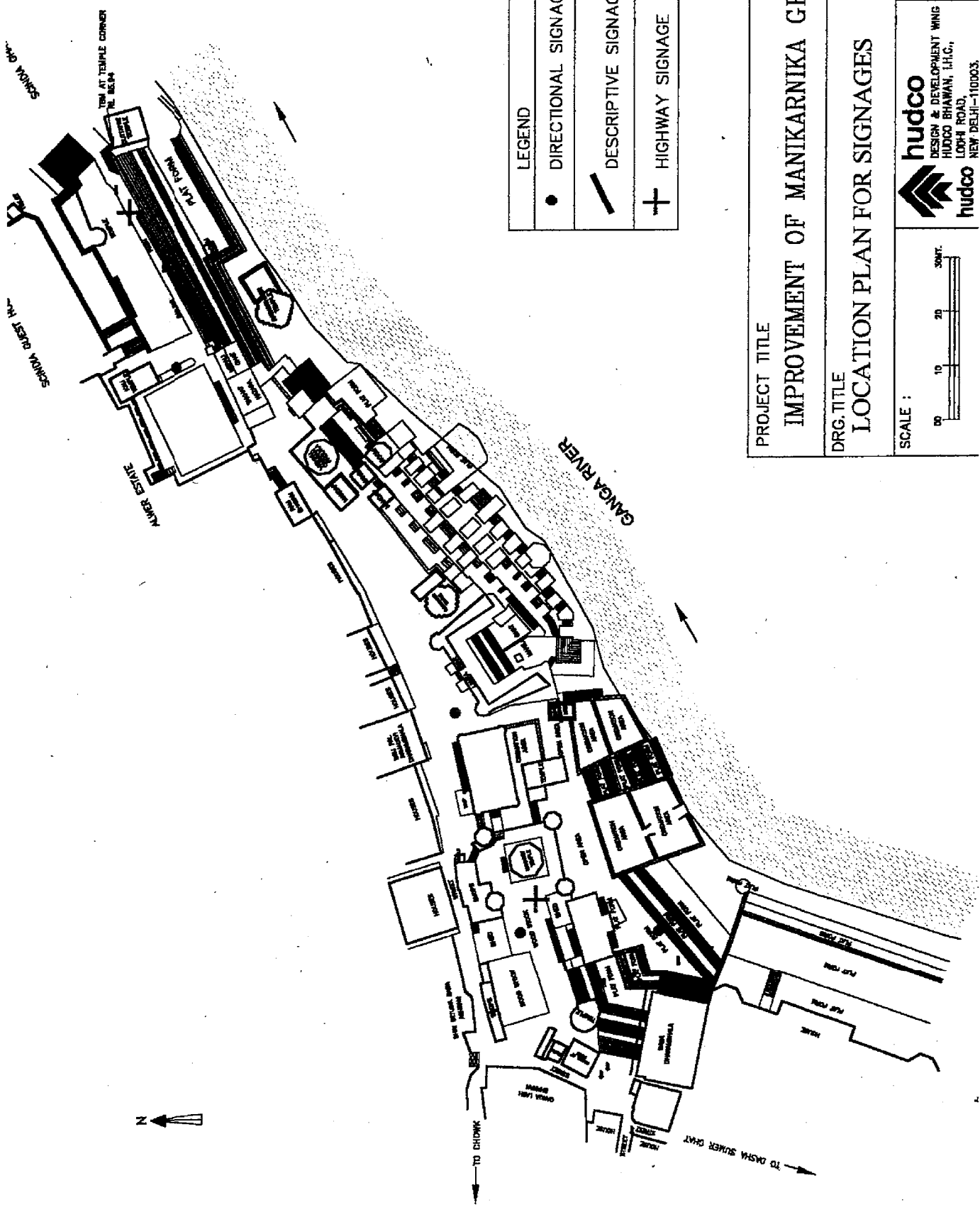
37



<p>PROJECT TITLE  <b>ENVIRONMENTAL IMPROVEMENT OF MANIKARNIKA GHAT, VARANASI</b></p>	<p>SCALE  </p>	<p>DRG. TITLE  <b>DUST BIN</b></p> <p>DRG. NO  <b>S-03</b></p> <p>   <b>HUDCO</b>                  DESIGN &amp; DEVELOPMENT WING                  HUDCO BHAWAN, I.P.C.,                  LODHI ROAD,                  NEW DELHI-110003.             </p>
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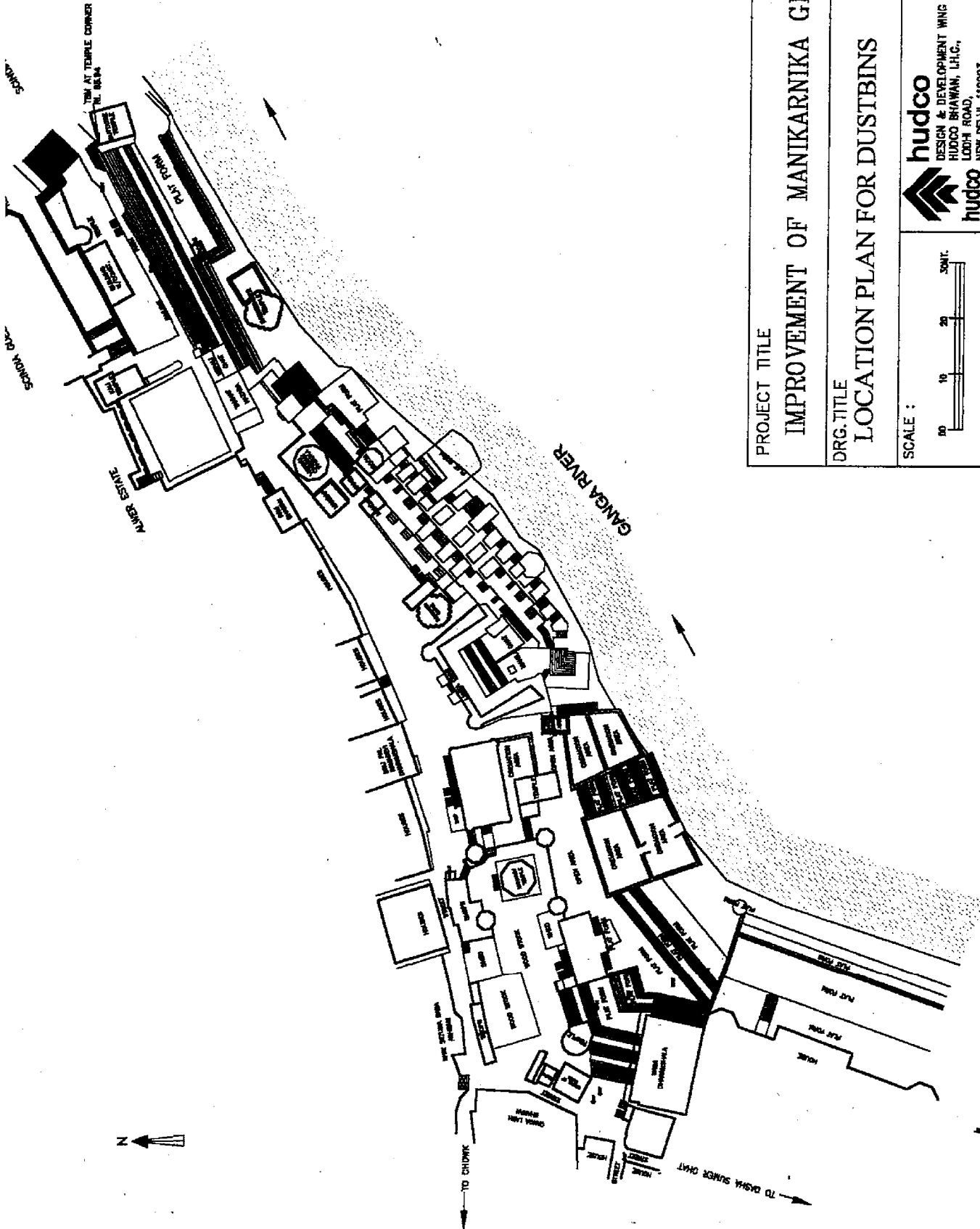


38



PROJECT TITLE <b>IMPROVEMENT OF MANIKARNIKA GHAT</b>	DRG.NO <b>M-SG-02</b>
DRG. TITLE <b>LOCATION PLAN FOR SIGNAGES</b>	DESIGN & DEVELOPMENT WING <b>HUDCO BHAWAN, I.I.C., LOCHI ROAD, NEW DELHI-110003.</b>
SCALE : 00 10 20 30 MET.	<b>hudco</b> DESIGN & DEVELOPMENT WING <b>HUDCO BHAWAN, I.I.C., LOCHI ROAD, NEW DELHI-110003.</b>

39



PROJECT TITLE <b>IMPROVEMENT OF MANIKARNIKA GHAT</b>		DRG. NO. <b>M-SG-01</b>
DRG. TITLE <b>LOCATION PLAN FOR DUSTBINS</b>		DESIGN & DEVELOPMENT WING HUDCO BHAWAN, L.I.C., LODH ROAD, HUDCO NEW DELHI-110003.
SCALE :		00 10 20 30 MET.

## *Appendix D*

## ***APPENDIX D***

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## **OPERATION AND MAINTENANCE PLAN**

### **INTRODUCTION**

This document has been prepared by the Kautilya Society, Varanasi, a social and cultural research organisation, for the pilot project being conducted by JICA in Varanasi for the construction and renovation of facilities at the Manikarnika Ghat in Varanasi, within the purview of the JICA study on water quality management plan for the Ganga River in India. The document is based on a comprehensive study undertaken on the stakeholders of the Manikarnika Ghat area and the dynamics that determine the social, cultural and economic fabric of their life.

Section A briefly explains the background of the study and describes the activities that were conducted, and outputs thereof, before this study was undertaken and that have determined the major elements on which this study has been built. It also briefly describes the results achieved by this study and the added value it has produced for the pilot project.

Section B and C elaborate the methodology of the study and describe the activities conducted during the study to achieve the objectives of the study, the human resources employed to conduct the study and the results achieved thereof.

Section D and E explain the context of the study by examining comprehensively the general social, economic and cultural factors that influence the expectations and behaviours of the stakeholders of the Manikarnika Ghat and by analysing the interest groups and their stakes on the Ghat and in the facilities, thereby developing the base information on which the operations and maintenance plan has been elaborated.

Section F and G are the sections elaborating the primary recommendations of this study. Based on all the previous sections, and especially on the context analysis in Section D and E, these sections elucidate the major guidelines and recommendations of an Operation and Maintenance Plan (O&M plan) and a Public Participation Programme (PP&A) for the facilities being provided by the Japanese government on the Manikarnika Ghat.

## **SECTION A: VALUE ADDED BY THE STUDY**

### **What this study builds on**

Before we explicate the results of our study and examine the ground it covered through the baseline survey, it is important for us to look at the stage at which the JICA pilot project was before our study was conducted, understand the background in which our study began and the previous results on which our study was built.

The Kautilya Society conducted a comprehensive baseline survey in order to understand better the desires and expectations of the people with regard to the construction and renovation of facilities that were proposed by the stakeholders in 3 workshops conducted by the JICA study team for the pilot project on the Manikarnika Ghat; to finalise the facility location and design with the stakeholders and to get an assent from them on it; to prepare the most appropriate operations and maintenance plan for these facilities; and to design a public participation awareness programme for the public. Through the above three workshops, the stakeholders had selected the facilities they felt were most needed on the Manikarnika Ghat and they had also identified the most suitable locations for these facilities. HUDCO (Housing and Urban Development Corporation) - India was subsequently asked to design these facilities and present them to the stakeholders.

Recapitulating the minutes of the above three workshops conducted by JICA, we observe that in the first workshop, JICA explained, to the stakeholders, about the pilot project being conducted by them and discussed with them the main hygiene and sanitation challenges of the Manikarnika Ghat. The local stakeholders included representatives of the local and state administrative bodies (Municipal Corporation, Water Corporation, and Archaeological Survey of India), town councillors, non-government organisations, representatives of the major stakeholder communities living and working on the Ghats. This discussion led to a provisional identification of facilities that could be constructed and/or renovated by the Japanese government and that could contribute to improving the existing hygiene and sanitation conditions and the environment of the Manikarnika Ghat. The facilities suggested by the stakeholders included toilets, dustbins, signages to indicate the facilities, the historicity of the Ghat and to generate awareness, some waiting rooms, provision for restricting wood stacking, improved cremation platforms and permanent shades on the cremation Ghat and on the areas where rituals are performed. The stakeholders were asked to give their suggestions in written so that the JICA study team could start finalising the facilities.

The Second and the Third Workshops were largely attended by the same stakeholders who had participated in the first workshop. Through these workshops, the stakeholders narrowed down their choices on the facilities they wanted constructed or renovated and they also identified their locations. These facilities included:

- a new toilet complex constructed on the existing one;
- the renovation of the Birla Dharamshala, a public building owned by the Municipal Corporation of Varanasi, and provision of lockers in this building;
- the improvement of the lower levels of the funeral platforms and the improvement and extension of the raised platform such that there would be more space during the high flood level and the provision of an improved wood platform
- changing rooms on the Janana Ghat
- the renovation of railings and steps of the Manikarnika kund, a water body of religious importance
- the provision of a shade on the Takht Hazara, an important platform for performing rituals to the ancestors
- the improvement of the Ramalila Maidan, an open space where one of the most important religious theatrical representations of the life of Lord Rama is performed
- the creation of a Heritage Corner and the provision of benches and shades therein

The facilities were not yet finalised when the Kautilya Society was asked to conduct a detailed study on the stakeholders of the Manikarnika Ghat that would include a baseline survey, indispensable for understanding the opinions and perceptions of a larger representation of the stakeholders and for facilitating the receiving of inputs from those stakeholders who had not participated in the earlier three workshops. These inputs were required for finalising the facilities, for recommending an appropriate O&M plan and a public participation and awareness programme that would ensure the implementation of such an O&M plan and for promoting reciprocal confidence between the stakeholders and the pilot project implementing agency.

### **How our study contributes to the pilot project**

Our study has contributed to the pilot project by identifying better, elaborating further and analysing in-depth the needs and resources- financial, infrastructural, human- of the Manikarnika Ghat area such that all recommendations for an O&M plan and a PP&A programme would be need-based and consensus-based and built on the existing capacities of the stakeholders and the dynamics amongst them, thereby increasing the probability of success in not only identifying better but also maintaining the facilities being provided and/or renovated by JICA for reducing the pollution entering the River Ganga and for improving the quality of life of the stakeholders of the Manikarnika Ghat area.

As we mentioned above, the first step of this study was to conduct a baseline survey. Through this survey, we have reached a larger representation of stakeholders, not just service providers who are mostly resident but also visitors, like pilgrims, tourists and mourners, and we have learnt about the expectations and perceptions of those members of the stakeholder groups who had not participated in the earlier workshops. We have, through several meetings and conversations with each of the stakeholders, established a closer rapport with them and built reciprocal confidence in the seriousness and validity of the pilot project. This has helped us in getting authentic information on the stakeholders and in cross checking the same information with others. It has helped us understand the economic and social hierarchies among the stakeholders and identify the interest groups. This has led us to define the existent levels of public awareness and participation in maintaining hygiene and sanitation on the Ghat area. The identification of interest groups among the stakeholders has also facilitated our understanding of common meeting grounds and consensus points on which to build an O&M plan and a PP&A programme. Individual meetings, interviews and focus groups conducted on-site have further given us inside information that had not been possible through off-site mixed stakeholder group workshops. Inputs received from stakeholders on an individual level were more precise than what had been possible in the workshops which only the most literate were able to attend and where only the most eloquent were able to speak.

The baseline survey was primarily conducted on-site and this gave us an excellent opportunity to discover the hygiene and sanitation exigencies of also those stakeholders who had not attended the workshops and to know ground reality that was not divulged by the leaders of the stakeholder groups who did attend the workshops but are not regular visitors to the Ghats. The facilities that were decided in the first three workshops were further discussed with these stakeholders and on the basis of their new inputs, modifications were proposed to the facilities. These modifications were discussed in the final stakeholder workshop that was held on 27<sup>th</sup> of April (and whose minutes are annexed with this document) before construction work began. During the survey, inputs were stimulated from stakeholders on realistic alternatives of Operation and Maintenance (O&M) plans. On the basis of stakeholder inputs, suggestions and perceptions, alternative O&M plans were designed and presented before them and finalised in the final workshop and a PP&A programme was also drafted.

We have noted that the study conducted by us and our various contacts with the stakeholders has built their confidence in the authenticity of the proposals of the Japanese government and in the sincerity of their desire to encourage stakeholder participated policy decisions and implementation. It has, on the other hand, also stimulated stakeholders to give in-depth and valid information and bring forward all the challenging issues and problematics facing the Manikarnika Ghat area and those hampering its



social and economic development and the improvement of its hygiene and sanitation conditions. This has, in turn, helped us to make appropriate consensus-based recommendations for the O&M plan and need-based PP&A programme.

## **SECTION B: ACTIVITIES CONDUCTED IN THE STUDY**

This section elaborates the activities and tasks conducted by the Kautilya Society within the purview of its study undertaken for recommending the O&M plan and the PP&A programme for the pilot study. It describes the objectives of the study, going onwards to enlist the human resources employed, defines successively the target groups of the study and elucidates the four activity lines through which this study has been conducted, the difficulties its researchers and experts have encountered in carrying out the baseline survey and the solutions proposed thereof.

The in-depth baseline survey of the stakeholders of the Manikarnika Ghat area was conducted through questionnaires, meetings, in-depth interviews and focus groups in order to:

- **disseminate information and generate awareness** on the goals and mission of the JICA project among those stakeholders who had not been contacted by the Varanasi Nagar Nigam, on behalf of JICA, for participating in the first three workshops organised by JICA. They have been fully informed about the mission and objectives of the study that JICA is conducting for the Indian government.
- **understand stakeholder perception regarding the facilities**, being provided by JICA for improving the hygiene and sanitation condition of the Manikarnika Ghat, have been collected and thoroughly analysed.
- **understand people's awareness and participation levels** and receive their suggestions for elaborating an Operation & Maintenance plan for the above facilities. The levels of existing stakeholder participation in maintaining and improving the hygiene and sanitation conditions of the Ghat were mapped so that any O&M plan defined for the facilities would be appropriate to the stakeholder awareness and participation levels and would build on these.
- **stimulate and integrate stakeholder inputs into the final choice of facilities** to be provided by JICA, and designed by HUDCO-India and for an O&M plan for these facilities. They were also encouraged to give their recommendations on O&M alternatives they considered feasible.
- **identify eventual solutions to differences in the facilities initially finalised by the stakeholders** and the expectations of other stakeholder groups who had not participated in the first workshops organised by JICA. These new inputs have helped us define better the facilities and provide consensus-based solutions.

### **Resources employed**

The baseline survey and the in-depth analysis of its findings have been conducted by a team of 3 junior researchers, 1 senior researcher, and 2 senior experts. The junior researchers have employed 70 man days to conduct the survey, transcribe it and analyse its findings. These surveyors have spent long hours on the field and have talked to various local persons and tourists, sometimes even failing to get any substantial information from them, before asking these people to fill questionnaires. They have spent a substantial amount of time conversing with people before getting any useful information from them. It has taken these surveyors at least two meetings on an average before their interviewees or responders started opening up and talking to them and giving them information. They have met all the important stakeholder interest groups, their leaders, the public opinion makers, religious leaders, social activists, etc. in the Manikarnika Ghat area and have established a rapport of confidence with these stakeholders, creating thereof reciprocal respect and understanding.

The survey work has been substantiated by 1 senior researcher who has employed 40 man days and 2 senior experts who have employed 20 man days. These seniors have conducted a parallel targeted in-depth survey in order to ensure that information collected by the junior researchers was not in any way biased and that it had substantial support and re-confirmation among the stakeholders contacted. The seniors also conducted in-depth interviews with those people whom the junior researchers considered as important opinion makers and as sensitive to hygiene and sanitation issues. The seniors along with the coordinator have organised the findings, carried out the analysis, done brain storming sessions and have prepared the recommendations of the study.

The senior researcher and 1 coordinator (senior expert), who have employed 40 man days, have conducted some focus groups of the major stakeholder interest groups and have together tried to understand the subtleties of conflicting and consensus grounds of these groups. They have communicated to these stakeholder groups about the mission of JICA and have explained to them about the facilities that have been identified for improving environmental conditions of the Manikarnika Ghat. They have further provided cultural and development reasons for furthering the objectives of the JICA mission and have explained traditional reasons for the choices and design of these facilities.

Altogether, 41 questionnaires have been filled, 9 in-depth interviews and 9 focus groups have been conducted, besides first contact meetings, small on-site workshops and information dissemination activities.

On the basis of the baseline survey, recommendations and alternatives were formulated regarding O&M plan alternatives and a PP&A programme for the Manikarnika Ghat area. These recommendations were discussed with the JICA study team. These recommendations were then placed before the stakeholders in the final workshop held on 27<sup>th</sup> April 2004 and finalised after their confirmation and assent on the best alternative. Results of these discussions have been incorporated into the final O&M plan elaborated in this report.

### **Target Groups**

The target group of this study include:

- stakeholders who have participated in the workshops organised by JICA (the Varanasi Nagar Nigam, Satua Baba ashram, Kashi Tirth Purohit Samiti, Dom Raja, town councillors, Archaeological Survey of India)
- stakeholders who did not participate in the workshops organised by JICA (the wood sellers, shopkeepers, tirth purohits working on the Ghats, Ghatiya priests, boatmen, pilgrims, tourists, guides, mourners, dom community including their helpers, temple trustees, dharamshala owners, guest house owners, Nagar Nigam officers, Sulabh toilet manager)

### **Activity Lines**

This study has been primarily conducted through Four Main Activity Lines:

1. **Context Analysis.** The context analysis has been done on the basis of a baseline survey conducted on peoples' perceptions, public awareness of hygiene and sanitation conditions of the Ghat and the present participation extent in hygiene care of the Manikarnika Ghat. This analysis focuses on two determinant features of the dynamics present on the Ghat:
  - **Social cultural and economic factors influencing stakeholder expectations and behaviours.** The analysis of these factors includes the geographical description of the

Ghat area, its cultural and religious context and importance, the present administrative mechanism and legal provision for hygiene and sanitation on the Ghat and for the economic activities being conducted on the Ghat.

- **Stakeholder interest analysis.** Within the purview of this analysis, we have identified and described the different stakeholder interest groups, their stake in hygiene and sanitation conditions and services provided on the Ghats; analysed social and economic hierarchies, the diverging and/or converging interests among stakeholders not previously considered by JICA. We have mapped the awareness levels of the different stakeholder groups concerning sanitation and hygiene and their actual capacities to work in synergy with other groups in maintaining community assets.

In order that results emerging from the survey be authentic and representative of people's needs and perceptions, the first step of the surveyors was to make their interviewees confident such that their inputs would be fully considered and integrated into any facility plan being decided for the Manikarnika Ghat area and subsequently to establish a close rapport with the local stakeholders. In this process, the Kautilya Society also interviewed and received inputs from all those stakeholders who had not participated in the off-site workshops conducted by the JICA study team before February 2004. The stakeholders covered by the baseline survey included opinion makers, religious and social community leaders, town councillors, social activists, residents, local shopkeepers, etc., who could act as a link between the facility providing and maintaining agency and the general public smoothing thereby the pilot project objective of providing facilities for improving the hygiene and sanitation conditions of the Manikarnika Ghat.

2. **Awareness generation.** The survey work has included awareness generation activities that have been done through:
  - disseminating information and collecting feedbacks on the goals and mission of the JICA project among those stakeholders not yet contacted by JICA
  - through meetings with JICA study team and organising meetings for JICA study with the stakeholders so that JICA understands better the expectations and interests of the various stakeholder groups of the Manikarnika Ghat with regard to their amelioration solution proposed;
  - organization of on-site meetings and workshops for presenting and discussing designs and plans, for identifying eventual differences between solutions proposed by JICA in collaboration with stakeholders in the first three workshops of the pilot study and the expectations of other stakeholders and for promoting reciprocal confidence and commitment for a common purpose;
  - sharing reactions and comments by local people concerning the facility solution proposed by JICA.
  
3. **Recommending an O&M plan.** The work of preparing an O&M plan has included:
  - redefining, in cooperation with project leaders, the facilities proposed so as to better respond to stakeholder expectations and better integrate diverging interests,
  - coordinating the inputs for preparing the final design for facilities to be created,
  - understanding consensus among stakeholders for the final design and identifying facilities common to most stakeholder interest groups
  - analysing, in cooperation with stakeholders, the problems expected in maintaining the facilities created,
  - analysing the interests and capacity of stakeholder groups in solving expected problems in maintaining the facilities created,

- verifying the existence of financial and organisational resources to sustain maintenance of facilities created,
  - designing a consensus based operations and maintenance plan, built on recommendations of the stakeholders
4. **Preparing PP&A programme.** The PP&A programme elaborated has been based on the existing hygiene awareness levels and on the existing extent of public participation in maintaining and managing the existing facilities on the Ghat area. It integrates recommendations of the stakeholders with those of the study team of the Kautilya Society.

### **Difficulties encountered**

The surveyors and experts have encountered various difficulties in their task of establishing a rapport, understanding stakeholder opinions and existing cultural and economic dynamics. These problems are vital in deciding the strategies to be adopted in operating and maintaining the facilities to be provided by JICA and in understanding and assigning importance to a public awareness programme which has to be a part of the Operations and Maintenance Plan for the above facilities.

These problems, in short, include:

- **initial reticence from the stakeholders.** People were not open at the beginning and only with repeated meetings and conversations with the stakeholders, have we been able to receive authentic information and complete information on hygiene issues that the residents and visitors face on the Ghats, on existing problems, economic hierarchies, and on opinion makers' ideas and have we been able to receive substantial inputs determinant for the provision of facilities and their maintenance plan;
- **awareness levels of the public.** We found that the awareness levels of the average person, resident or visitor, with regard to what are good hygiene and sanitation standards are low and so is the extent of public participation and commitment in maintaining existing facilities, their capacity for hygiene care and working in synergy with other groups in maintaining community assets. The culture of participated planning for a common benefit is not adequately developed,
- **existing administrative mechanism.** The existing administrative mechanism that was predominantly top downwards and not bottom upwards, lacks a system of motivation, monitoring, checking and feedback, whereby remuneration of staff is presence-based and not work-based and not result-based as it ought to be for effective functioning,
- **stakeholder interest groups.** The various stakeholder groups do not have the same needs and do not have the same approach and vision of hygiene and sanitation, so it is not easy to bring consensus among them on the standards of hygiene and sanitation and on the standards of maintenance. The interests of some stakeholder groups clash but are not expressed openly since the social and religious hierarchy must be formally respected in society. There exists, furthermore, a hierarchy of command and obedience among the stakeholders and not a relationship wherein responsibility is delegated,
- **local attitude towards responsibility.** The local public has an attitude of delegating everything to the local government and the local government has an attitude of promising to maintain facilities and structures before identifying resources and capacities to maintain. There is potential for developing the culture of participated planning and participated

implementation but it is currently undeveloped. Furthermore, the cultural and economic hierarchies tend to become rigid since they tend to be based on situations of traditional caste and not on the basis of delegation of political and social authority to persons. There is superstition and rigidity connected to professions, such as certain castes will not do social hygiene care and sanitation work, so this work gets delegated to people who are less literate and so often with lower standards of hygiene and sanitation. These people get little exposure to clean environment standards whereby they can learn,

- **lack of political will.** The local elected corpus is often brought to power on the basis of promises they make, that might or might not be realistic and so do not motivate candidates to propose proper local needs-analysis and resource-analysis based programmes. So promises find justifications for not being maintained. The lack of local political will is also because of scarce capacity and lack of literacy among a major portion of population.

### **Solutions envisaged**

Consensus amongst stakeholders is not impossible. It is important that all solutions are built on existing awareness and participation levels and not on “ideal” levels, otherwise solutions will be unsustainable. The study team of the Kautilya Society has tried to overcome many of the conflict points among people by searching for consensus-based minimal solutions that will build on existing awareness and participation levels and will address the minimum common meeting grounds but will be feasible and will be socially sustainable solutions. This has required intense brain storming, opening and managing dialogues on controversial topics with interest groups, making people understand the right policy decisions, helping them find common meeting grounds and notwithstanding the multitude of problems, find feasible recommendations for an O&M plan that are feasible and socially and economically sustainable.

## **SECTION C: METHODOLOGY UTILISED FOR THE STUDY**

Today, it is widely accepted that policies to combat urban degradation and to improve the quality of the life of the people are best effective if originated at the local level and based on local participation. Local communities have a greater stake than anyone else in managing and improving their living environment while ensuring long term health and business environments. It is also accepted that changes cannot be simply legislated. To be effective, they require co-operative action between all parties: State government, Municipalities, community-based groups, and inhabitants. Local communities play a larger role in the diagnosis and evaluation, design and implementation of development alternatives. As mentioned earlier, the study and the analysis done is based on the baseline survey conducted on the stakeholders, their interest groups and the existing social and economic dynamics and on the previous knowledge, of experts who have conducted this survey, of the previous knowledge about the old area of city, its traditions, culture, economics and social dynamics. In this study, stakeholder inputs and participation have been taken along through the very identification of the recommendations and it is proposed that such cooperation continue even in the phase of implementation of these recommendations.

Care has been taken in this study that the public was not lead towards any pre-defined facilities but that these were agreed in cooperation with them. We considered it important to involve the stakeholders in the identification of the facilities that they believed would concretely enhance their interests because only these facilities would then be properly utilised and carefully maintained after the termination of the construction work of the project. Although the main facilities to be constructed had already been designed for the pilot project before this study was conducted, the stakeholders were, however, re-involved in the diagnosis of their hygiene and sanitation problems so as to lead them towards understanding how instrumental these facilities could be for solving their problems and thus to better identify new facilities and /or better understand the relevance and suitability of the proposed facilities. The recommendations of this study have, therefore, been based on continuous contact with the stakeholders through visits, meetings, interviews with them in order to gain their confidence and receive continuous feedbacks on issues to be addressed in this study. The recommendations have been based on joint analysis with stakeholders concerning their exigencies, problems, desires, capacity to resolve problems, such that the O&M plan is stakeholder input-based and consensus-based. The recommendations have also taken into account the characteristics and exigencies of non-resident stakeholders, i.e. those who are only visitors and those who earn their livelihood from the Ghat but do not live on the Ghat.

The data produced by the study has been analysed thoroughly and has helped us understand the broad stakeholder interest groups, their conflicting and converging interests, understand their motivations for proposing different facilities, the conflicts that could arise among them in the construction of these facilities, the differences in their attitudes towards hygiene and sanitation and so the influence this would have on operations and maintenance plans proposed. This has contributed in making our recommendations for an O&M plan better suited to the awareness and participation levels of the stakeholders and the availability of resources with them, both in terms of financial resources and human resource capacity.

The methodology utilised for the baseline survey has been four fold:

1. understanding general public perceptions and opinions through questionnaires
2. understanding the social and economic dynamics, perceptions, awareness and public participation levels of members of the major stakeholder interest groups through in-depth interviews
3. studying common meeting grounds for creating consensus towards an operation and maintenance plan for the facilities through focus groups

4. re-confirming stakeholder views and stands regarding the facilities and ensuring its communication to the JICA team and facility designers through small scale on-site meetings and workshops.

### **Methods and Instruments utilised for activities conducted**

The activities of conducting the baseline survey, collecting feedbacks, in-depth analysis of information collected, mapping of awareness and participation levels and integrating these into the final recommendations were continuous throughout the study. The following methods and instruments have been utilised for conducting the four Main Activity Lines elaborated in the previous section:

- **Participatory observation.** The researchers and experts who have conducted the baseline survey have had a soft approach towards their target groups and have primarily been participatory observers so that their presence would not be considered hostile and such that the confidence among the target groups could slowly be built towards them. These surveyors have observed, for several days, the nature of activities being conducted on the Manikarnika Ghat and the modalities in which they are carried out and have verified and re-verified their observations before making statements and judgements;
- **Interviews.** The surveyors have conducted in-depth interviews with members of the major stakeholder interest groups. Those stakeholders have been interviewed who were considered to be potentially important for participating in the O&M plan and the public participation and awareness programmes in improving hygiene conditions. They have begun by making first contacts with their interviewees and have established a rapport with them before conducting an interview. Additional information received through interviews has been extremely valuable in understanding the hitherto unspoken expectations and desires of the stakeholder interest groups. Interviews have been conducted for long hours and interviewees have been re-contacted in order to get correct and detailed information;
- **Questionnaires.** The surveyors have personally filled in the questionnaires, along with the respondents, due to shortage of time available for distributing and gathering questionnaires and due to problems of illiteracy. Questionnaires have been filled in by those who did not appear to the surveyors to be important opinion makers individually but represented the pinions of a group and by those who seemed to have low elaboration capacities for analysing the issues pertinent to the Ghat hygiene and sanitation conditions;
- **Focus groups.** Surveyors conducted focus group discussions where they felt that a group of stakeholders had similar expectations and requirements. Before focus group discussions were organised, people were first contacted separately and then talked to in a group, made to feel confident that their information would not be used against them but that it would be utilised for improving the conditions of the Ghat where they lived and /or worked;
- **Dissemination of information and collection of feedbacks.** While conducting the above activities of information collection, information was also given to the stakeholders on what the pilot project comprised of and what its mission and objectives were, on what facilities were being provided by JICA and why and what the time frame of their construction would be. Information was also given to respondents on the details of the facility design, problems in its maintenance, etc. and feedbacks were collected on this information. These feedbacks have been incorporated in the stakeholder analysis documents;
- **Shared analysis of needs, problems and expectations, of designed plans and collection of feedbacks.** The survey work and its findings, the difficulties that surveyors encountered in



getting information and in verifying its validity, have been thoroughly analysed and discussed in group meetings of the study team of the Kautilya Society and in various meetings with the JICA study team;

- **Organization of on-site workshops** for presenting and discussing designs and plans and for promoting reciprocal confidence and commitment for a common purpose. Small on-site workshops have been organised between the stakeholders and the Kautilya Society study team and also between them and JICA where the Kautilya Society was more an observer and communicator of JICA questions and messages;
- **Evaluation of results obtained.** Results obtained from the survey, meetings, workshops, in-depth analysis and brain storming have been evaluated for authenticity, validity and suitability and re-collected where authenticity was doubted such that recommendations would be appropriate.

## SECTION D: SOCIAL AND CULTURAL BACKGROUND OF THE STAKEHOLDERS

This section of the report gives a background of the geographical, cultural, social and economic context in which the study has been conducted so it is possible to better understand the stakeholders and their expectations, their awareness levels and their participation extent.

### Geographical description

The Manikarnika Ghat area is divided into 3 major Ghats:

**Jalashayi (Jalasen) Ghat-** that was traditionally utilised for bathing the bodies of the deceased before these were burnt. The only house registered in this palace compound is D-10/35. The rest of the houses built on the palace are illegal and their sewage is constantly flowing on to the main Ghat below the palace making it filthy, slushy and slippery, causing thereby humidity on the palace walls that is potentially dangerous for the stability of the palace and for the residents of the illegal houses built on top of the palace. The locally narrated story goes (so narrates a person called Suresh Tiwari) that this palace, in the past, was called “Umraogiri ki Bauli”. It was occupied by two *harijans* (of the *bhandaar* profession or the woodcutters) who used to cut and shred wood, get the wood to the pyre, etc. Most of the present residents, who have built their houses on the palace and are settled in the area immediately behind this palace, claim to be the descendants of these two *harijans*. Besides these *harijans*, there is one washer man and one *Yadavaa (milkman)*.

**Shmashan Ghat** is the cremation area. In the lane next to and behind the cremation area are the shops of the wood sellers, the Satua Baba Ashram, shopkeepers for refreshments and funeral related materials, a trust that owns a building for people who come to die in Varanasi (this kind of building is called “Kashi-Labh Bhavan” in Hindi). There is extensive illegal stacking of wood around this Ghat right up to the Janana Ghat (sometimes wood also gets stacked on the Janana Ghat) that blocks the passage of the people, especially during the monsoon season, that becomes a shelter for poisonous animals like snakes and disease spreading animals like the rats, that becomes a garbage dump because many of the sweepers clean the lanes and push the filth under the wood and that becomes an open urinating place.

**Manikarnika Charanpaduka Ghat** is the most important Ghat for performing the “*pinda daan*” or the rituals for the ancestors. It is utilised mainly by pilgrims who bathe in the Manikarnika Kund on special religious occasions and who perform rituals for the ancestors. There are days in which up to 10,000 pilgrims come for performing rituals on this Ghat. In the lane behind this Ghat are temples owned by trusts, small shops and a *dharamshala* (pilgrims’ rest house) owned by a private person but open to public use.

### Religious and Cultural context

The whole area of the Manikarnika Ghat is described as Mahashmashan, “the great cremation ground”, in the early puranic literature, going back to 6<sup>th</sup>-7<sup>th</sup> century. Manikarnika Ghat is one among the three most important sacred sites for rituals and various Hindu rites. Of course there are two cremation Ghats; Manikarnika records around eighty per cent of frequency of cremations. The second cremation Ghat of the city is called the Harischandra Ghat. This site is mentioned in the Gupta inscription of 5th century. The stone stairs were made in 1303, and rebuilt in 1730 under the patronage of Bajirao Peshva. In 1791 Ahilyabai Holkar rebuilt the entire Ghat. Again in 1872 repairing and renovations were done. A little over 50,000 corpses are cremated annually in Varanasi of which about 40,000 are cremated at Manikarnika, and the rest at Harishchandra Ghat in the south.

The social and economic life and activities on the Manikarnika Ghat area revolve around the activities of pilgrimage and funerals and it is these two activities that primarily affect the hygiene and sanitation

conditions of the Ghat. The religious sensitivity of the stakeholders has been the primary consideration throughout this study such that recommendations and decisions do not hurt the stakeholders' religious sentiments. Recommendations made regarding the physical space to be assigned to the facilities and their construction designs have taken into consideration the cultural importance of the Ghat, the present distribution of space among the various economic and social activities and the specific architectural characteristics of the Ghat.

The existing levels of awareness among people and public participation regarding hygiene and sanitation, the power dynamics and conflicting interests and/ or consensus among stakeholders, the role of the locally unrepresented stakeholders, the uninterrupted traditional social and professional roles of families, and the main sources of earning of the residents have been the vital elements for the recommendations of this study.

### **Funeral Rites: procedures and steps**

Before describing the stakeholders in details, it is important to describe the procedures and steps of a funeral rite, since religious ceremonies revolving around the funeral form the backbone of economic activities and social dynamics on the Maha Shmashan Ghat and its immediate area. It is these activities and their clients who are the major contributors to waste creation in the Ghat area

Depending on the state and religious sect of the deceased, his/her family follows slightly different procedures, for instance the families from West Bengal, unlike other regions of the country, do not necessarily take fire from the Dom. Instead they light the pyre with the help of their own family priest. The cremation of a dead body requires on average about 2 quintals (200kg to 500kg) of wood. The first step is the negotiations and bargaining with the community (Dom) that gives the sacred fire for the funeral. It is they who arrange the cremation to be performed. While one group of the relatives of the deceased is bargaining, the other attending family members purchase wood and other ritual items necessary for preparing the pyre and rituals.

There is a special funeral platform for the Khattris who accompany and wait with the body of the deceased behind the Brij Pal Das Dharamshala. They have their specific wood sellers from whom their community always buys wood. However, by and large, when a group of people comes for a funeral, they follow these steps:

- Three or four local people usually accompany the dead body and these people know the funeral rite procedures and they know the specific wood sellers from whom their community or village has always bought wood. Otherwise they are approached by agents of one of the wood sellers before they reach the Ghat, i.e. in the approach lanes itself.
- While some family people contact the wood sellers, the others take care of the bathing of the dead body in the Ganga. The pyre in the meanwhile is being organised by the wood sellers and the helpers of the Dom in-charge. The pyre for the funeral can be chosen by the families themselves, besides Khattris or certain VIPs to whom one special platform is allotted.
- Afterwards, the body is laid on the wooden pyre and some of the wood is kept over the bodies at the end, including some sandalwood, ghee and all the other items that are used for the ritual (like materials producing fragrance, etc.)
- The chief mourner, a member from the family, gets his hair shaved by the Ghat barber and then goes for certain ceremonies organised by the Mahapatra Priest. Each wood seller is in contact with Mahapatra priests, so when the client comes to buy wood, the wood seller tells his Mahapatra priest contact to accompany this family.

- The Mahapatra Priest recites mantras or prayers while the chief mourner lights the pyre and performs the necessary ceremonies.
- During the first phase of the Mahapatra ritual, the chief mourner takes the *agni* (fire) from the Dom on duty, according to the “time-based shifts” fixed by a traditional code of arrangement which has the full consensus of the entire Dom community.
- It usually takes up to 4 to 5 hours for a body to get burnt, depending upon the size of the body and weather, and during this period, the Dom assistants help the body to get burnt quickly and in a proper way. Each body requires an average of 300 kilograms of wood to burn completely.
- 5 pieces of wood have to be given by the family people to the burning body at the end. It has been observed that these 5 new pieces of wood are not allowed to get fully burnt. They are taken off from the pyre, and kept aside, by the Dom assistants after the family leaves. These pieces of wood are offered on lower cost to poor people who can’t afford to buy the wood at the prevailing market rates. So poor people do not go to the wood sellers first, but straight to the Doms. The poor people of the cities and villages neighbouring Banaras, are always accompanied by a person who knows the funeral procedures. That person takes the relatives to the Dom on duty. Often villagers accompanying the deceased also get one wood each as part of their contribution to the funeral.
- Once the body is fully burnt, and only one bone of the body (i.e. the bone attached with the navel) remains, the fire is then extinguished with the help of water that is brought in a clay pot by the chief mourner, the one who lit the fire. This bone is then immersed into the river Ganga.
- At the end, the chief mourner, standing with his back to the pyre, breaks the clay pot and throws it over his shoulder into the pyre.
- Sweets and bitter *neem* (margosa tree) leaves are distributed among the relatives who accompany the deceased.
- The main relatives of the deceased then have a holy dip into the River Ganga on the Scindia Ghat or the Panchaganga Ghat, distributing two pairs of clothes to the barber community (the clothes they wore before the ceremonies and the ones they wore during the funeral)
- Meanwhile the Dom assistants sort the ashes for precious metals, i.e. gold, silver etc., and after sorting, they dispose off these ashes by throwing them into the river.

## **Hygiene and sanitation conditions**

### ***Administrative mechanism and legal provisions***

The Municipal Corporation of Varanasi comprises of elected area representatives (sabhasad), one from each of the 91 Wards (or administrative areas) into which the city is divided and of 10 nominated representatives. The legislative body of the Municipal Corporation, headed by the Mayor who is directly elected by the people, has a five-year tenure and is the highest decision making body for the city. The legislative body meets once in two months. The executive body of the Municipal Corporation comprises 12 members selected, from among the legislators, for a term of two years through a lottery system, 6 of whom retire every year from the body. The executive of the Municipal Corporation is the Municipal Commissioner who is appointed by the State Government.

The Corporation administers the city through its eight departments (administrative, electric, sanitation, revenue collection, animal husbandry, horticulture, and property), employing a total of 5000 employees, including engineers (civil, electric), doctors and sanitary inspectors (medical, non-medical and animal husbandry), inspectors, revenue collectors, secretarial staff and sweepers. The major revenue generating sources of the Municipal Corporation are property taxes and rentals, licenses to hawkers and private transport owners (auto rickshaws, cycle rickshaws, etc.), city hoardings and

advertisements, slaughter houses. In order to administer the city, the Municipal Corporation has to collaborate with other departments of the local administration whose jurisdiction covers the entire district or even the entire Division (Varanasi Division comprises of 5 districts) like the Water Authority, Electricity Board, Urban Development Authority, Town Planning department or the entire state like the Pollution Control Board, Public Works Department, Water Corporation, State Police, State Treasury, State Health.

The Chief Health Officer of the Nagar Nigam (currently Mr. Lal) is responsible for the hygiene and sanitation services being provided to the entire city. The Varanasi Municipal Corporation or Nagar Nigam has divided the city into 5 zones for the purposes of managing the services it provides to the city. These are: Bhelupur zone, Dashashvamedh zone, 2 Kotwali zones, Adampura. The Chief Health Officer is assisted by 1 town health officer and 2 additional town health officers for the city. Each zone, comprising of around 10-24 wards, is headed by a Zonal Health Officer who, depending on the size of the zone, is assisted by 2 to 4 sanitary inspectors. Each sanitary inspector is responsible for 3 to 6 wards and he/she is assisted by sanitary supervisors, each of whom is responsible for 1 ward. Furthermore, each zone has 1 Executive Engineer, 1 assistant engineer and 2-3 engineers. The Manikarnika Ghat area comes under the Kotwali zone and hosts 3 cleaning centres (safai chowki-s as they are called), Chowk 1<sup>st</sup>, Kotwali 1<sup>st</sup> and Kotwali 2<sup>nd</sup>. There are twelve sweepers presently working round the clock in the Manikarnika Ghat area and distributed within three eight hourly shifts.

There are 4300 employees on the pay rolls of the Nagar Nigam. 20% of these employees are sweepers, i.e., the Nagar Nigam has approx. 850 sweepers for a population of 1.6 million people. This implies that there is only one sweeper for around 1800 people, i.e. approx.100 sweepers under one cleaning centre and approx. 30 garbage carrying trolleys. Ideally, the sweepers have to throw disinfectants every day and collect garbage every day. Another aspect of Ghat cleaning that Nagar Nigam takes care of is the de-silting process after the monsoons.

The Varanasi Nagar Nigam has legal provisions of penalties for those who perform illegal activities on the Manikarnika Ghat (as for other Ghat areas) and contribute to the degrading conditions of this Ghat area but these are not efficiently implemented and monitored. This leniency would slow the process of hygienic and sanitation improvement of the Ghat area.

### **Hygiene and sanitation status**

The existing hygiene and sanitation conditions of the Manikarnika Ghat are no different from the conditions in the whole old city. Sweepers are irregular and residents do not respect the request of the Varanasi Nagar Nigam to throw garbage only once a day into those trolleys that sweepers carry around the lanes for collecting garbage every morning. Solid waste collection frequency is unable to handle the continuous garbage produced by the large daily floating population of approximately 6000 to 20,000 people (the maximum being on festival days, comprising pilgrims, mourners and other visitors). Animals tied everywhere around the Ghat combined with garbage produced by people who come for pilgrimage and who accompany the deceased (who urinate on the Ghats, throw garbage in the lanes, and immerse non bio-degradable material into the river) and excessive wood stacking, cutting and shredding continuously create dirt in the area. Even if the Nagar Nigam has increased the number of sweepers who clean the Ghats, it does not pay them regularly and so the sweepers are de-motivated and do not work efficiently. The attitude of the average person earning a living off the Ghat is to utilise the Ghat and to keep his own space clean. He/she does not check and stop people from dirtying the Ghat and urinating on it.

The Nagar Nigam, unfortunately, has a paucity of funds and so is unable to enrol more sweepers into its staff and unable to maintain well its hygiene and sanitation infrastructure. The State government has cut its contribution to Municipal corporations in the hope that self sustenance is promoted and that the latter will increase revenue generation from the city. The legislative body of the city is reticent to make tax reforms with the fear of losing their voters. It has not updated the taxes of the city for

generating more revenue, thereby improving its services to the residents. So, hygiene and sanitation conditions do not improve, despite demographic increase and an increasing burden on the hygiene and sanitation infrastructure through the large daily floating population. Existing hygiene and revenue collection laws are also not enforced by the Nagar Nigam inspectors and the local police and this adds to the existing gravity of the hygiene and sanitation situation of the city. There is also no special provision for contribution by national and state governments for important pilgrimage cities such as Varanasi.

## SECTION E: STAKEHOLDERS' INTEREST ANALYSIS

### Stakeholder profiles

The stakeholders of Manikarnika Ghat area, including those with a stake in the hygiene and sanitation services and facilities, can be divided into three different categories:

- Providers
- Users
- Institutions

Among the providers, the main interest groups are the Dom community, the Tirth Purohit-s (or the pilgrimage priests) and the wood sellers. These stakeholder groups are socially and economically strong in the area since most of the important economic and religious activities in the area are conducted by people of their community or economic group. They can potentially wield positive influence on the operations and maintenance of hygiene and sanitation facilities to be created on the Ghat area.

The stakeholders of the Manikarnika Ghat area, their average population, caste and economic activity are as follows:

Stakeholders	Number (of the main actors)	Caste	Economic activity
<b>PROVIDERS- mainly resident</b>			
<b>Dom community:</b> the Dom Raja, family members, senior doms and workers	100	Dom	Give fire for the funeral and manage the funeral platforms, i.e. cleaning the pyre and platform, sorting through the immersing the ashes into the Ganga.
<b>Priests</b>			
Family priest or Purohit	Not known	Brahmins	Live in Varanasi and perform rituals for specific local or outside families or specific communities, already contacted from before
Legal Tirth Purohit or "maharaj" mainly performing rituals on the Takht Hazara, near the Manikarnika kund	approx. 25 on an average and approx. 50 during the days especially auspicious for when the ritual for the ancestors is ancestral ritual season	Brahmins	Priests who are contacted by the pilgrim groups or individual pilgrims on the Ghats or from before through agents (ashrams, guides, gurus) and primarily perform the "pinda daan" (offerings for the ancestors).
Ghatiya or Panda	25	Brahmins	Those who perform simple rituals on the Ghats for individual pilgrims.
Mahapatra	8	Traditionally considered to be defiled Brahmins	Perform rituals only related to the funeral rites and are work at the cremation Ghat, usually one gets in contact through the wood sellers.
<b>Wood sellers</b>	8	3 Thakurs and 4 Yadavaas and 1 Sahu	Primarily sell wood and the Yadavaa wood sellers also keep cattle
<b>Boatmen</b>	40	Mallahs	<ul style="list-style-type: none"> <li>• Those who bring wood on the boats from RajGhat</li> <li>• Those who keep boats on the</li> </ul>

Manikarnika Ghat			
<b>Shopkeepers</b>	100	Brahmins, Thakurs, Baniyas, Yadavaas	The shopkeepers have 3 kinds of economic activities <ul style="list-style-type: none"> <li>• Refreshment-related like tea shops, restaurants, general merchants, etc.</li> <li>• Funeral-related like bitumen, sandalwood, honey, flour, rice, for covering, incense, other ritual articles, retail shop for cloth and bamboo (towards the main road of Chowk)</li> <li>• Pilgrimage-related, vermilion, sacred thread, flowers</li> </ul>
<b>Ashrams and temples</b>	10	Brahmins	
<b>Satua Baba Ashram</b>	Institution with many members	All castes	Performing rituals for their followers, also sheltering devotees
<b>Temple trusts and dharamshalas</b>	Approx. 9 temple trusts		Temples that originally belonged to a family or trust, but with time due to multitude ownership have been taken over de-facto by priests who were nominated by temple owners to do the rituals in the temples and were given space to live in the temple compound.
<b>Other Residents</b>			
<b>Guest houses</b>	5		
<b>USERS- mainly visitors</b>			
<b>Pilgrims</b>	200 people on an average for the Takht Hazara and Manikarnika kund and 10,000 persons daily for the 15 days of the year when rituals are performed for the ancestors and on other specific auspicious days of the year		
<b>People accompanying funerals</b>	3000 to 5000 per day	All castes	
<b>International Tourists</b>	150 a day		
<b>Guides</b>	Approx. 5		Licensed guides who usually come with international groups, Guides contacted by different community pilgrimage groups, Unlicensed people who accompany individual tourists, including those who try to take money from foreigners in the name of widows and other poor people coming to Banaras to die and whose main



			earning source is drug trafficking.
<b>Institutional</b>			
<b>Varanasi Nagar Nigam and its employees</b>	5000 employees (of which 15 are at regular service at Manikarnika Ghat, including officers and sweepers		Administering, maintaining and monitoring the Ghat area and the economic activities on and around the Ghat. This includes sanitation and hygiene, tax collection, license for commercial activities, solid waste management, sewage system and sewage treatment plant maintenance
Town councillors	2		Elected representatives of the people from the Manikarnika ward and Ghat area.
Varanasi Development Authority			Giving approvals for all private property development, construction and modifications, implementing and monitoring Master Plan of the city, elaborating development strategies.
Jal Nigam			Public sector body under the administration of the State Government in Lucknow, responsible for designing sewage systems for the city and construction of sewage system and treatment plants

These Major stakeholder groups are further described herein:

### **I. Dom Community**

Originally belonging to the “untouchable” caste, responsible for giving the fire, from the sacred fire pit, to the chief mourner, the main relative of the deceased (even women in the absence of male relatives, even if this is rare) for lighting the pyre. The entire Dom community has the same surname “Chaudhury”. They have traditional and customary rights on the funeral platform and are one of the major stakeholders of the Maha Shmashan Ghat.

The chief of the Doms is called the “Dom Raja”. The chiefdom is inherited via the ancestral lineage. He lives in the ancestral home of the Dom Rajas and it is situated on the Mir Ghat that lies between the Dashashvamedh Ghat and the Manikarnika Ghat. The Dom community comprises of the Dom Raja and others of the community who have chosen to continue this profession. Those who don’t belong to the direct lineage of the Dom Raja family are junior to him in social hierarchy.

The rights to use the cremation area and/or individual funeral platforms have been assigned traditionally to various families who were probably once upon a time a part of the family of the Dom Raja. These rights circulate within the Dom community since they can be mortgaged for money and sometimes even lost if the money is not returned. So, there can be Doms who have these customary rights assigned to them for many days and there are those who have for a few days assigned to them in a year but they help, in other days, the other rich doms in managing their shifts. In this way, they continue to earn from their profession without having many days of total customary rights. The owner of the rights can give, during the days assigned to him, the management of the platforms to the junior doms who earn some money and pay the owner a percentage of it.

However, there are around 15 to 20 Dom families, who are related to the royal family and who among them have the customary rights on the entire cremation platform for most of the days of the year. The money earned by a Dom during the days that the cremation area is assigned to him, belongs completely to him except for the gold and valuables that are shared among the major families of the Doms. It is the Dom who is in-charge of the specific platform in that hour, who gives fire for bodies burning on it and takes payment for this work. The Dom gives a fixed amount of money to the Dom Raja for each shift that differs according to death rate related high and low seasons (height of summer or winters, epidemics). These senior Doms are assisted by assistants who are young Doms. These young Dom helpers assist the main Doms in organising and completing the funeral and take payment directly from the people.

## **II: Priests**

The priests have customary and traditional rights on the Manikarnika Ghat area next to the river bank and on all the religiously important places on the Ghat like the Manikarnika Kund, the Takht Hazara and the Charanpaduka (the space next to the Takht Hazara covered with a stone umbrella-like covering). The two most important groups of priests are the Tirth Purohit-s and the Ghatiyas.

There are also Mahapatra Brahmins but they are considered as the defiled ones of their caste. Their role has not been found important in the functioning and dynamics of the Ghats. Family priests also perform rituals on the Ghats but they come with the family they are accompanying and might not even be resident. These two groups of priests have not been found as opinion makers or as vital in the functioning of the facilities and services on the Ghat. The major opinion makers are the following:

### **Legal Tirth Purohit or “maharaj”**

These are priests who are contacted by the pilgrim groups or by individual pilgrims on the Ghats or from before through agents (ashrams, guides, gurus) and primarily perform the “*pinda daan*” (offerings for the ancestors). The “*pinda daan*” is a complex ritual for which rice or wheat flour, honey, bananas, ghee and some other materials are mixed together into forms of balls by the pilgrim while the priest is chanting mantras. These balls kept on lotus leaves are thereafter offered to the Ganga. Up to 10,000 pilgrims perform these rituals during the special days that are religiously identified for rituals for ancestors. Approximately 200 pilgrims, however, perform these rituals every day. These priests demand an amount of at least Rs. 251 from each person for performing the ritual of the “*pinda daan*”.

### **Ghatiya or panda**

Ghatiya-s are those Brahmins who perform simple rituals on the Ghats for individual pilgrims. The Ghatiya-s ask from Rs. 5 to Rs. 100/- for every ritual depending on the kind of person who asks for the ritual (rich or poor, local or non-resident). They sit on wooden platforms, usually under cane/bamboo umbrellas (typical of the Ghats of Banaras) right next to the river bank. They also perform the oil-lamp prayer ritual to the Ganga every evening, called “*aarti*”. This prayer is partly funded through personal contributions and through donations given by the people who participate in the “*aarti*”. These rituals are their main source of earning. During peak season for ancestral rituals, even the Ghatiya-s can perform these rituals.

## **III: Wood Sellers**

The wood sellers are one of the major stakeholders of the Maha Shmashan Ghat. They have customary rights on the area where wood is presently stacked on the Ghat and behind the cremation platform area. The wood sellers require commercial licenses for selling wood but only two of them have licenses and have been doing this trade for some generations. Wood is stacked in spaces behind and above the

cremation platforms, especially in the area behind the Birla Dharamshala, between this building and the Baba Dharamshala and all the way until the Janana Ghat from where the Manikarnika Ghat begins. Most of this space has been illegally occupied for stacking wood and obstructs passages which residents and mourners use for reaching the Ghat and this makes the entire area look ugly and creates continuous dirt on the Ghat.

Only two of the bigger and older wood sellers pay regular licenses (and this has been checked at the license records office of the Varanasi Nagar Nigam) and they are the only ones who have and utilise private land for stacking their wood. The other wood sellers either pay an unofficial monthly rent to private local bosses or to the concerned administrative inspectors.

The agents of the wood sellers grab those groups of relatives of the deceased who either don't have a reference person on the Ghat or come without an experienced person who knows the dynamics of the funeral rite procedures. The lower floor of the Birla Dharamshala, Baba Dharamshala and the passage beyond the flood area that is utilised during monsoons, are occupied, in the dry season, by cattle belonging to the Yadava community who are also acquaintances of some wood sellers.

#### **IV: Varanasi Nagar Nigam (the Municipal Corporation)**

The Varanasi Nagar Nigam is the legal owner of all the Ghats even though other stakeholders enjoy traditional and customary rights on it. It provides all the hygiene and sanitation services to the Ghat and is also responsible for ensuring the legality of all activities being conducted on the Ghats.

The Corporation administers the city through its eight departments (administrative, electric, sanitation, revenue collection, animal husbandry, horticulture, property), employing a total of 4500 employees. The Municipal Corporation of Varanasi comprises of elected area representatives (councillors or sabhasad), one from each of the 91 Wards (or administrative areas) into which the city is divided, and of 10 nominated representatives. The legislative body of the Municipal Corporation, headed by the Mayor, who is directly elected by the people, has a five-year tenure and is the highest legislative decision making body for the city. The legislative body meets once in two months. The executive body of the Municipal Corporation comprises 12 members selected, from among the legislators, for a term of two years through a lottery system, 6 of whom retire every year from the body. The executive chief of the Municipal Corporation is the Municipal Commissioner who is appointed by the State Government and belongs to the bureaucracy apparatus of the state government.

There are two town councillors who represent the Manikarnika Ghat area. They are Shri Santosh Sharma and Shri Raj Kumar Yadava.

#### **V: Shopkeepers**

There are three kinds of shopkeepers in the Manikarnika Ghat area:

- pilgrimage-related, i.e., vermilion, sacred thread and flowers. These shopkeepers are in solidarity with the major stakeholders according to caste, political alignment, economic activity, etc. They are an important part of the community dynamics of the Ghat area. Some of them also have two or three economic activities, like being a boatman and selling tea, or being a cattle breeder and also owning a telephone complex and selling other wares;
- funeral-related, i.e., selling bitumen, sandalwood, honey, flour, rice, for covering, incense, other ritual articles, retail shop for cloth and bamboo (towards the main road near Chowk);
- refreshment-related, i.e. tea shops, restaurants, general merchants, etc.

#### **Social and economic dynamics and hierarchies**

##### **Division of geographical space and customary rights**

As mentioned earlier, the Manikarnika Ghat area is divided into 3 Ghats: Jalashayi (Jalasen) Ghat, Shmashan Ghat and the Manikarnika Charanpaduka Ghat. The Varanasi Nagar Nigam is the legal owner of all the Ghats but the traditional as well as the customary rights on these Ghats belongs to caste groups that have an economic and social stronghold on the religious activities being performed on that Ghat.

The Dom community has traditional and customary rights on the Shmashan Ghat and besides the city Municipal Corporation; this community is the sole responsible for the functioning of the cremation platforms. The wood sellers conduct their trade behind the main cremation area and also next to it but they do not have any customary rights on these spaces. The space that most of them occupy for stacking their wood is illegal. Only two of the major wood sellers have legally assigned spaces since they have licenses. Some of the stakeholders who have traditional rights on the Manikarnika Ghat area are said to have informally allotted spaces to the smaller and newer wood sellers and receive monthly payment for these spaces.

The priests have traditional and customary rights on the Manikarnika Ghat, Manikarnika Kund and the Takht Hazara. They perform simple rituals and ceremonies on the riverbank and they perform special rituals for the ancestors on the charanpaduka and the Takht Hazara area. The Tirth Purohit-s are the major stakeholders of the Manikarnika Ghat. The main association of these priests is called the “Tirth Purohit Samiti” and the present president of this association is Mr. Rajiv Nandan Mishra (s/o late Pt. Anjani Nandan Mishra). There is also another association called the Nepali Muhoriya priest association who have customary rights on the space next to the Takht Hazara, and in some of the shaded areas opposite the Manikarnika kund towards the river front. These priests often reside around this Ghat area and are contacted by the pilgrims and pilgrim groups either personally or near the Manikarnika Kund or near the Takht Hazara. When the Takht Hazara area gets crowded, the Brij Pal Das Dharamshala, a pilgrims’ guest house built in the memory of an eminent citizen of the city, is also used for these rituals.

According to a wood seller of the area, the Jalashayi Ghat area was used in the past for stacking wood and it was the erstwhile Dom king who had permitted wood to be stacked there.

### **Religio-Cultural and Economic hierarchies**

The religio-cultural hierarchies among the local stakeholders differ from ritual to ritual. The Dom community is the most important when the funeral pyre is to be lit and without the Mahapatra priest, the funeral rites are not complete. In the same way, during the simple ceremonies on the Ghats and for the ancestor-related rituals, it is the priests who dictate terms.

The major stakeholder groups earn well from their activities on the Ghats. The Tirth Purohit-s and the Doms exercise a strong influence on the smaller stakeholders and also help maintain the Ghats and the facilities available for pilgrims and mourners.

There is economic unity within the Dom community and there is traditional consensus amongst them that is expressed through an organised system of distribution of earning from their professional activities on the Ghat. The Dom who has the shift and is in charge of a particular cremation platform gets all his earning only on those days in a month. The minimum rate that is charged for giving fire to a dead body is Rs. 151.

The Dom community has, in the past when they had a powerful leader, had a social and economic stronghold over the Shmashan Ghat and so also over the wood sellers and the local shop keepers but according to the local people, the present king does not wield the same power. This has made other economically strong groups, pursuing legal and illegal activities, re-emerge as wielders of social power. However, it is presently the wood sellers and the politically well connected priests who have a strong social and economic stronghold on the Manikarnika Ghat area.

There is little economic unity amongst the wood sellers where it concerns the price of wood. This is not only because of their competitiveness in grabbing clients but also because only two of them pay regular commercial licenses to the Varanasi Nagar Nigam and the others do not. Most of the wood sellers also sell other funeral-related articles (like incense, fragrances, sandal wood, etc.). On many occasions, these wood sellers undercut each other and then recover this loss, by selling at higher prices, other funeral-related articles. However, it has been observed, and confirmed by the local people, that the wood sellers unite together when they foresee economic loss due to policy decisions or specific law enforcement. On an average, wood sellers earn Rs. 600 for the wood needed for burning one body. It is estimated by the Dom community, and this information has been counterchecked from the wood sellers and other academic surveys done in this sector or on the Shmashan Ghat, that 150 bodies are burnt every day, and this figure can reach approx. 400 during the peak seasons, i.e., during the one month of peak summer and the one month of peak winter. Considering that there are 8 wood sellers, each of them would earn a gross amount approximately Rs. 10,000 a day.

The wood sellers often work in harmony and in coordination with the Dom community even if the Dom community feels that their share of earning gets depleted when the wood sellers are the ones who catch the client from the approach lanes and give them package deals.

The Tirth Purohit-s earn a minimum sum of Rs 250 per ritual, per individual, that they perform for ancestors. This amount is maximised in the winter season when, during an auspicious month, most of the people perform ancestral rituals for a continuous period of 15 days. It is during this season that the senior priests also come down to the Ghats. During the rest of the year, there are approx. 6 to 10 priests who perform rituals on the Ghats. There is a sub-group of lesser important priests, called the Ghatiyas-s or Panda-s, who perform simple daily rituals on the riverbank. Since the British period, these priests are part of the above association that represents them as one social voice.

These major stakeholder groups, mentioned above, enjoy equal economic status and independent economic hold over their specific area, being politically well connected and economically stronger. In the past, the Dom community had a powerful leader who wielded strong political and economic power and during his lifetime, the economic power hierarchy was tilted in favour of his community. The priest community enjoys higher social and religious status and is at the top of the social hierarchy pyramid. In religious matters, they have the last word. They are also the most socially active and socially and politically well-connected stakeholder group. However, there is an unsaid cleave between the Priest community and the Dom community since the Manikarnika Ghat has traditionally been more important for rituals related to ancestors rather than for cremation even if the whole Ghat today has taken a connotation of being the cremation Ghat.

Apart from these 3 major stakeholders who also comprise the top 3 economic interest groups, there are the smaller stakeholders (guesthouses, shopkeepers, funeral priests and *dharamshala* owners) who conduct economic activities that revolve around funeral rites and rituals and pilgrimage and so their income depends directly on the social and economic roles of the 3 above mentioned major stakeholders. Many of these smaller stakeholders or their relatives have a second source of income from economic activities that fall within the purview of the activities of the 3 major stakeholders.

These smaller stakeholders are higher than the Dom community in the social hierarchy (since they belong to castes higher than the Dom community) but they are lower than the 3 major stakeholders in the economic hierarchy.

Another important stakeholder that doesn't live or practice any profession on the Manikarnika Ghat area but provides services for the Ghat area and checks the legality of all activities in this area, is the Varanasi Nagar Nigam. The Nagar Nigam, as described above and in the subsequent section cleans and maintains the Ghat and the public properties situated on the Ghat and also collects taxes from all the property owners and commercial activities being conducted there.

One more stakeholder who lives and plays an important social and religious role and is an important opinion maker in the Manikarnika Ghat area is the Satua Baba whose ashram is situated behind the Shmashan Ghat and whose activities include spiritual healing, religious activities and running Sanskrit schools. Besides this ashram, there are other individual temple trusts on the Ghat area.

### **Conflicting interest groups**

The Shmashan Ghat is shared by the Dom community and the wood sellers. The livelihoods of both these interest groups depend on the funeral rituals. The same people are also the clients of the local shopkeepers. The economic interests of the Doms conflict with that of the wood sellers when the agents of the latter group grab the clients from the approach lanes before they reach the Ghat area. The Dom community also opposes the excessive stacking of wood because this constricts their working space area.

Within the Dom community, there is no conflict of interests since they have a centralised system of functioning and earning that ensures an equitable distribution of professional rights on the Ghat and is traditionally distributed among the community through generations.

There is solidarity among the wood seller community when a policy decision or law enforcement can damage them all economically. There are, however, underlying conflicts within the wood seller community. There are two reasons for this conflict: i) **the legal status** ii) **different castes**

(i) The legal wood sellers have been in this trade for generations while the illegal ones are new entrants into the trade. The legal traders pay license fees to the Nagar Nigam. One of them belongs to the thakur caste and the other one who belongs to the trader caste (or “teli” as this caste is called) is also an owner of a guest house. The Varanasi Nagar Nigam had only two names from the city registered for licenses and their addresses were in the Kazakpura near the Varanasi city station that comes within the Dashashvamedh zone.

The illegal wood sellers do not have proper licenses but keep hold on public space where they stack wood (usually encroaching for this purpose) by paying one of the powerful stakeholder groups. So, the legal wood sellers lose out economically since they legally pay for larger stacks of wood and they also have to cut down on their profits because of undercutting by the illegal wood sellers who manage to stack large quantities of wood and by keeping lower prices than they would have had to if they were to be restricted to legal spaces, they earn profits of scale.

(ii) The second reason for conflict among the wood sellers is between the thakur caste who would like the Ghat to be kept more clean, to keep the wood stacked only in legally assigned spaces and to help maintain the facilities and those who belong to the Yadava caste (or the milk people, the cattle breeders) who instead dirty the Ghats with their cattle and are involved in other illegal activities on the Ghats.

The Tirth Purohit-s or the pilgrimage priests are one stakeholder group where it concerns their stake on the Manikarnika Ghat which is their professional and often also residential environment and on the religious importance of which depends their livelihood. There are, however, disagreements and conflict of interests within this priest group. The main reason for this conflict is the hegemony of the Kashi Tirth Purohit Samiti which is the representative body of the pilgrimage priests and is controlled by politically and economically powerful families which hold customary rights over the entire Manikarnika Ghat and also enjoy solidarity with the legislators of the town. It is the Kashi Tirth Purohit Samiti that sponsors the work of cleaning the Manikarnika kund and it is the priests who work on the Ghats and perform the ancestral rituals who are part of the voluntary groups that de facto work to clean and maintain the Ghats.

The Ghatiya-s or the priests of the Ghats, who work near the river banks and perform simple rituals, sometimes also perform, especially for individuals, ancestral rituals (on which the pilgrimage priests have command) and give a percentage of their earnings to the pilgrimage priests.

## **SECTION F: OPERATION AND MAINTENANCE PLAN GUIDELINES**

In the earlier sections of this report, we have described the stakeholders and analysed their interests, both the conflicting and the converging interests. We have also described the administrative mechanism through which hygiene and sanitation is maintained on the Ghats and we have given a brief status quo report on the existing hygiene and sanitation conditions of the Manikarnika Ghat area.

Through our baseline survey, we have ensured the participation and the representation of a larger segment of stakeholders and their interest groups, in defining the O&M plan guidelines, than the first three stakeholder workshops held by JICA, such that all O&M recommendations would be based on real perceptions and opinions and would build on existing human and financial resources and potentials of the Ghat area. This larger segment of stakeholders included opinion formers, policy decision makers, traders, priests, pilgrims, residents, etc. who have been the constant reference for information and for the on-site workshops during our entire study period; who could be potential catalysts for public awareness programmes and for eventual public participation plans conceived for the Ghats; and who would even after this pilot project continue to act as a link between the planning agencies (like JICA, governments, local administrations, funding agencies) and implementing agencies (NGOs, constructors, etc.) as well as between the implementing agency and the General Public so as to ensure that there are no obstructions in the way of achieving stakeholder consensus-based policy and plan objectives and implementation.

In this section of the report, we will elaborate O&M plan guidelines for the facilities being constructed and/or being renovated by the Japanese government on the Manikarnika Ghat. These guidelines have been formulated on the basis of an in-depth analysis of stakeholder needs, expectations, capacities, suggestions and commitment-readiness arrived at through a process of observer participation, questionnaires, interviews, focus groups, meetings and workshops that were conducted on the Manikarnika Ghat. Care has been taken throughout the survey to cover all important members of the major interest and power groups so as to establish a one-to-one rapport with each of these members.

We will first elucidate the modifications, proposed by the larger segment of stakeholder interest groups, to the facilities finalized through the first three stakeholder workshops organized by JICA in Varanasi and then go on to present the recommendations of these stakeholders for an O&M plan for the whole Ghat and for each facility and the non-maintenance risks in each facility. We will then describe the alternative appropriate O&M plans recommended on the basis of our baseline survey and the professional contribution of our experts. These plans were presented to the stakeholders at the final workshop held on 27<sup>th</sup> April and were also discussed with them at length on-site. The stakeholders chose to respect and promote one of these alternatives and we will talk about this later on in the section.

The objective of our alternative appropriate O&M plans is long term and effective maintenance and while formulating these, we have kept in consideration the stakeholder recommendations and findings emerging from the baseline survey and have also kept in mind the existing economic and social context of the Manikarnika Ghat. The most effective O&M alternative that we have recommended would, according to our study, require, however, a much more aware and participative population. It is hoped that the opportunity provided by these facilities would be utilised by the Japanese government to implement a public awareness and participation programme such that the stakeholders of the Manikarnika Ghat would finally be able to manage and coordinate the most effective and largely community based maintenance plan that we propose in this report.

It is important to note at the outset that the Varanasi Nagar Nigam, the elected corpus of the city, is one of the most vital stakeholders and even if their opinion is not separately mentioned with regard to each facility, it has been incorporated in the O&M plan that, among the alternatives, has been jointly decided together with the stakeholders in the final workshop conducted regarding the construction and maintenance being provided by the Japanese government.



The activities and tasks of preparing an O&M plan has, therefore, included:

- Redefining, in cooperation with project leaders, the facilities proposed so as to better respond to stakeholder expectations and better integrate diverging interests,
- Incorporating stakeholder inputs for preparing the final design of facilities to be created,
- Analysing, in cooperation with stakeholders, the problems expected in maintaining the facilities created,
- Analysing the interests and capacities of stakeholder groups in solving expected problems in maintaining the facilities created,
- Verifying the existence of financial and organisational resources to sustain maintenance of facilities created,
- Designing a consensus based operations and maintenance plan, built on recommendations of the stakeholders

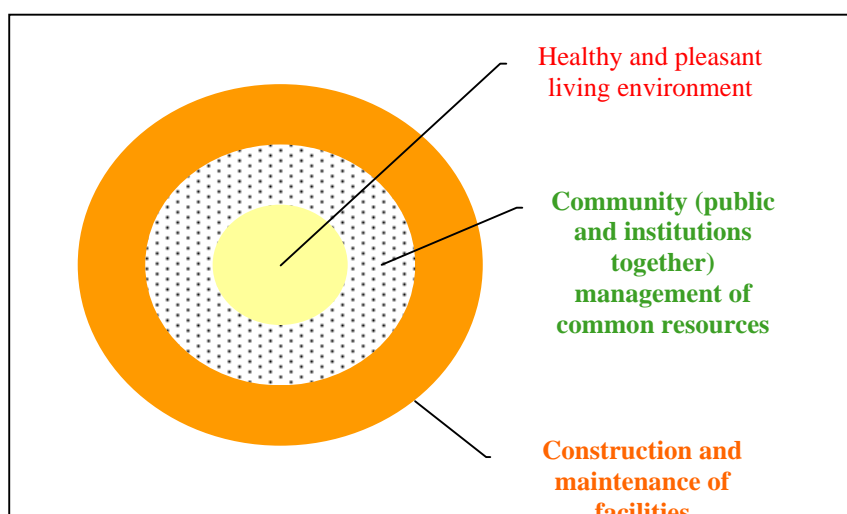
### Diagrams for illustrating baseline survey results

The following are diagrams that illustrate:

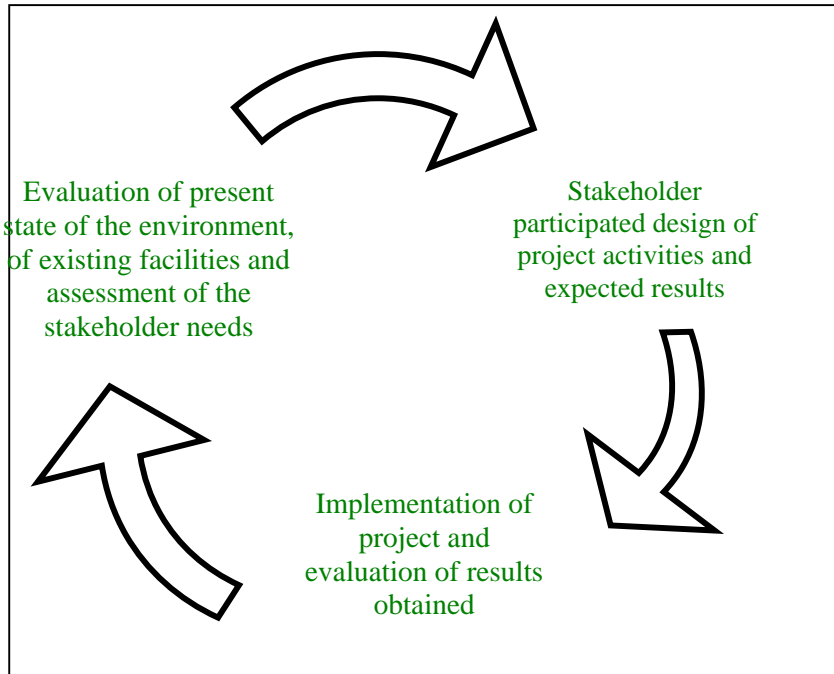
- the basic principles on which the Operations and Maintenance plan was formulated for the facilities being constructed and/or renovated by JICA
- vital survey findings that have been utilised for formulating the above O&M plan

The following is the index of these diagrams:

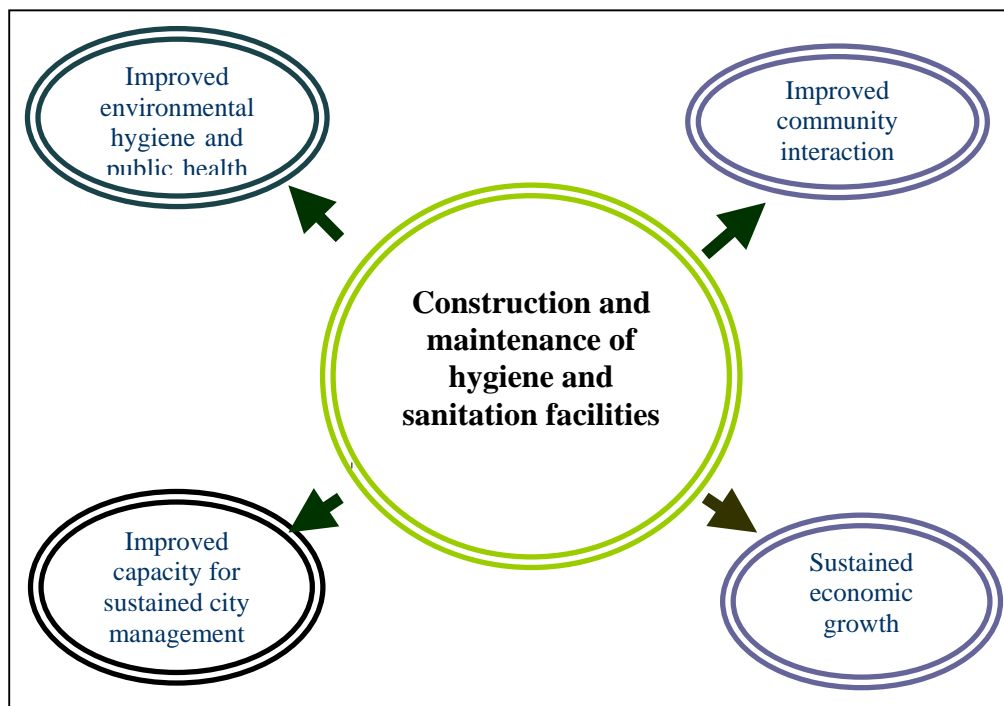
- [Concentrating towards improving life quality of Manikarnika Ghat area stakeholders](#)
- [Participated Project Management Cycle](#)
- [Benefits of construction and maintenance of hygiene and sanitation facilities](#)
- [Stakeholder groups](#)
- [Traditional hierarchy amongst stakeholder groups](#)
- [Topics debated in meetings with stakeholders](#)
- [Stakeholders agreement on facility usage supervision](#)
- [Stakeholders agreement on structural maintenance](#)
- [Issues to be tackled](#)
- [Requisites for efficient maintenance](#)



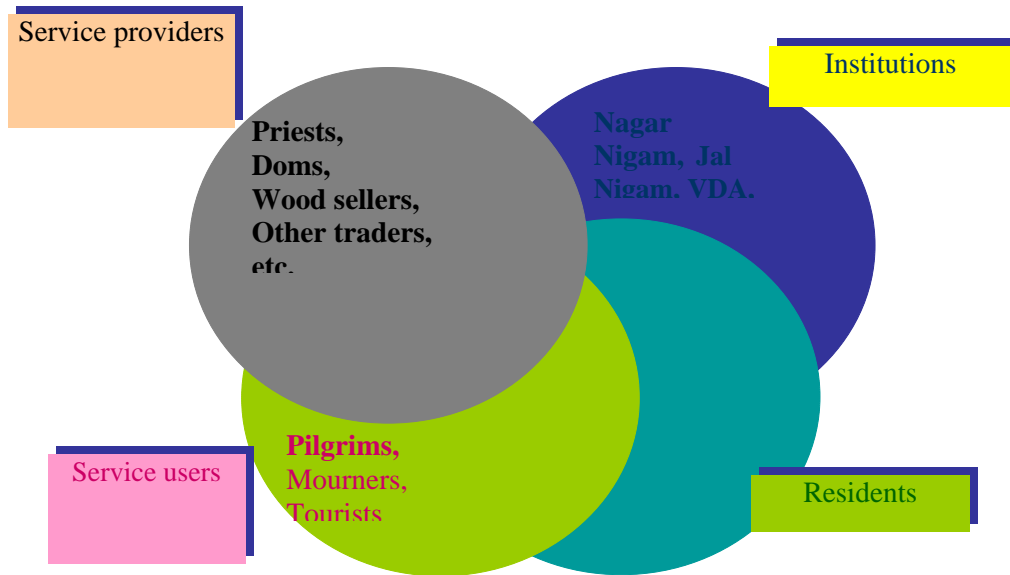
**Concentrating towards improving life quality of the Manikarnika Ghat area stakeholders**



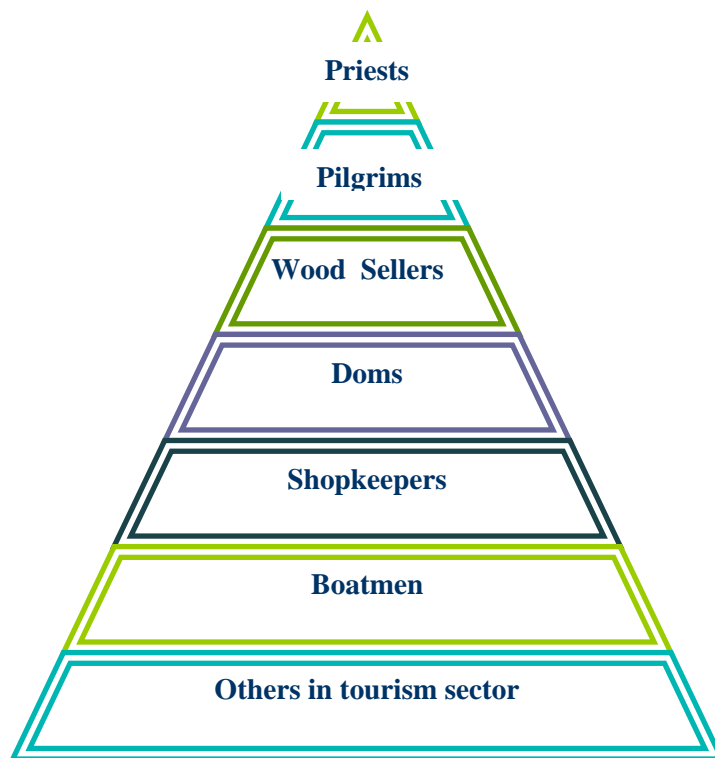
**Participated Project Management Cycle**



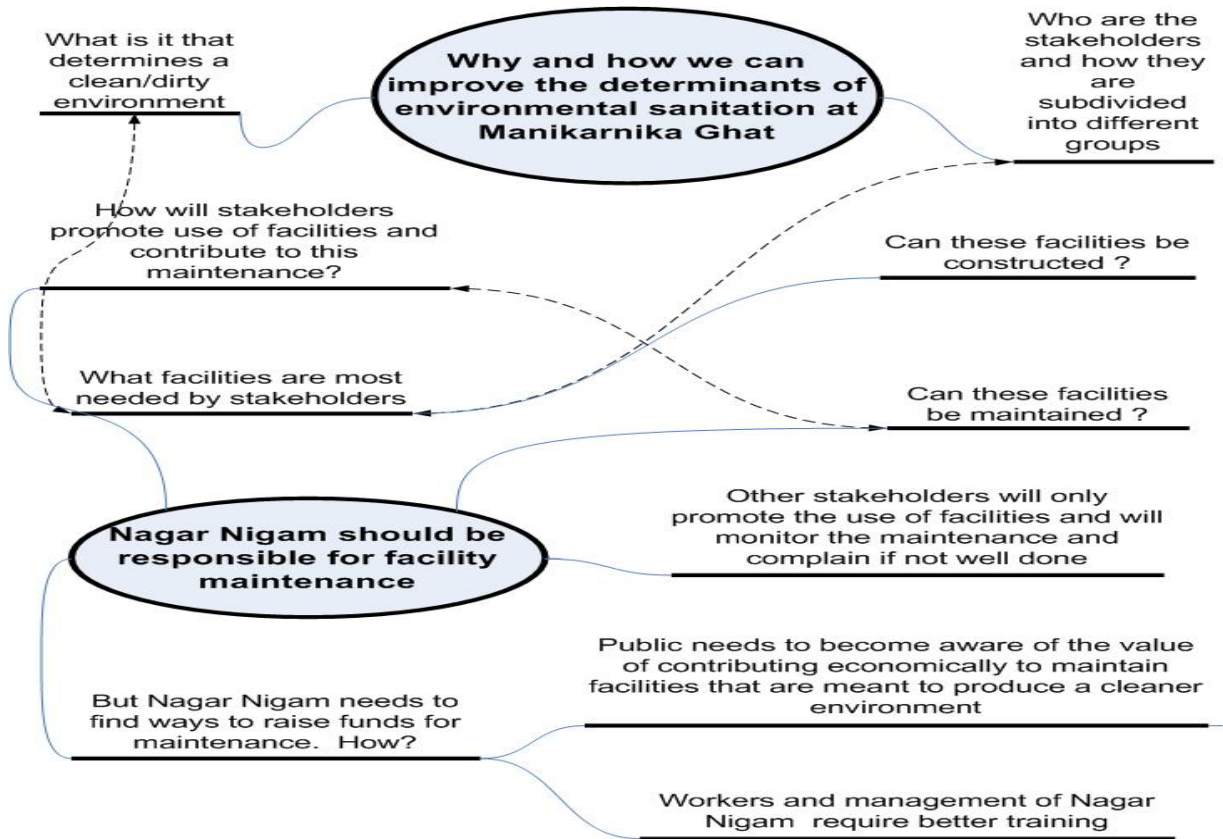
**Benefits of construction and maintenance of hygiene and sanitation facilities**



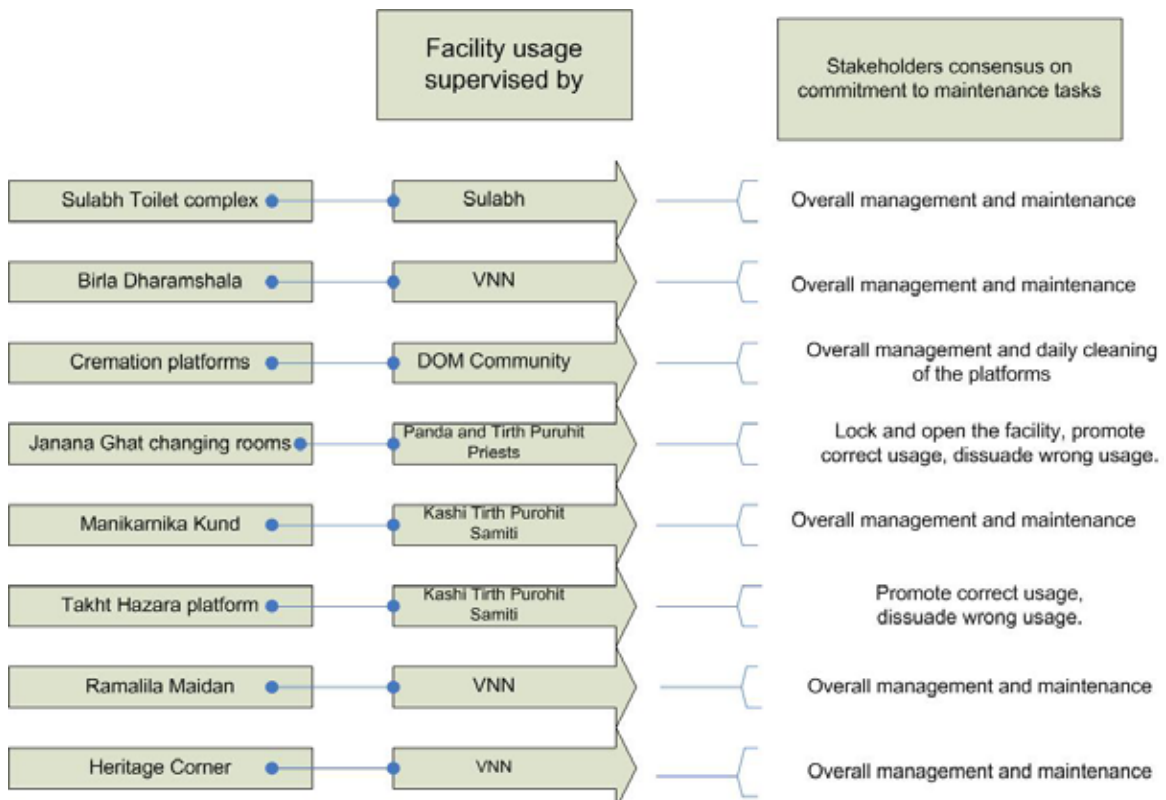
Stakeholders' groups



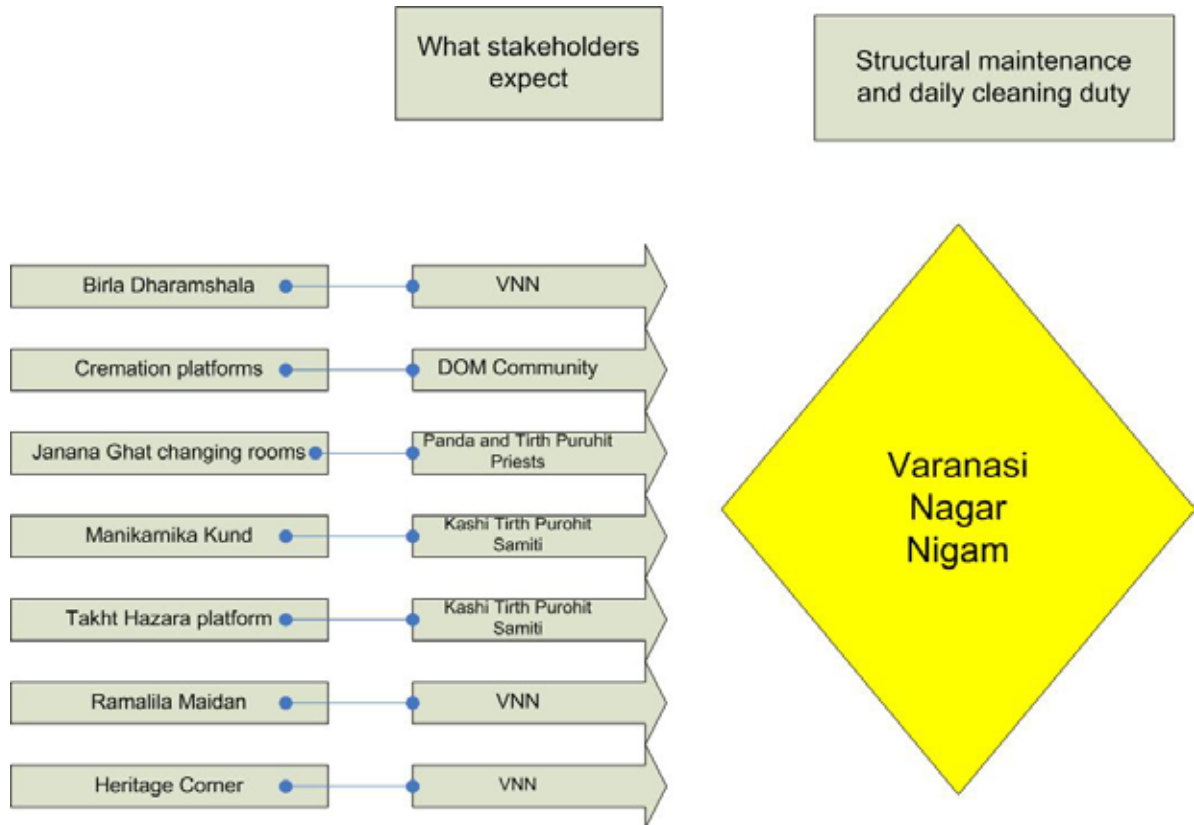
Traditional social hierarchy amongst stakeholder groups



**Topics debated in meetings with stakeholders**



**Stakeholders' first agreement on facility usage supervision**

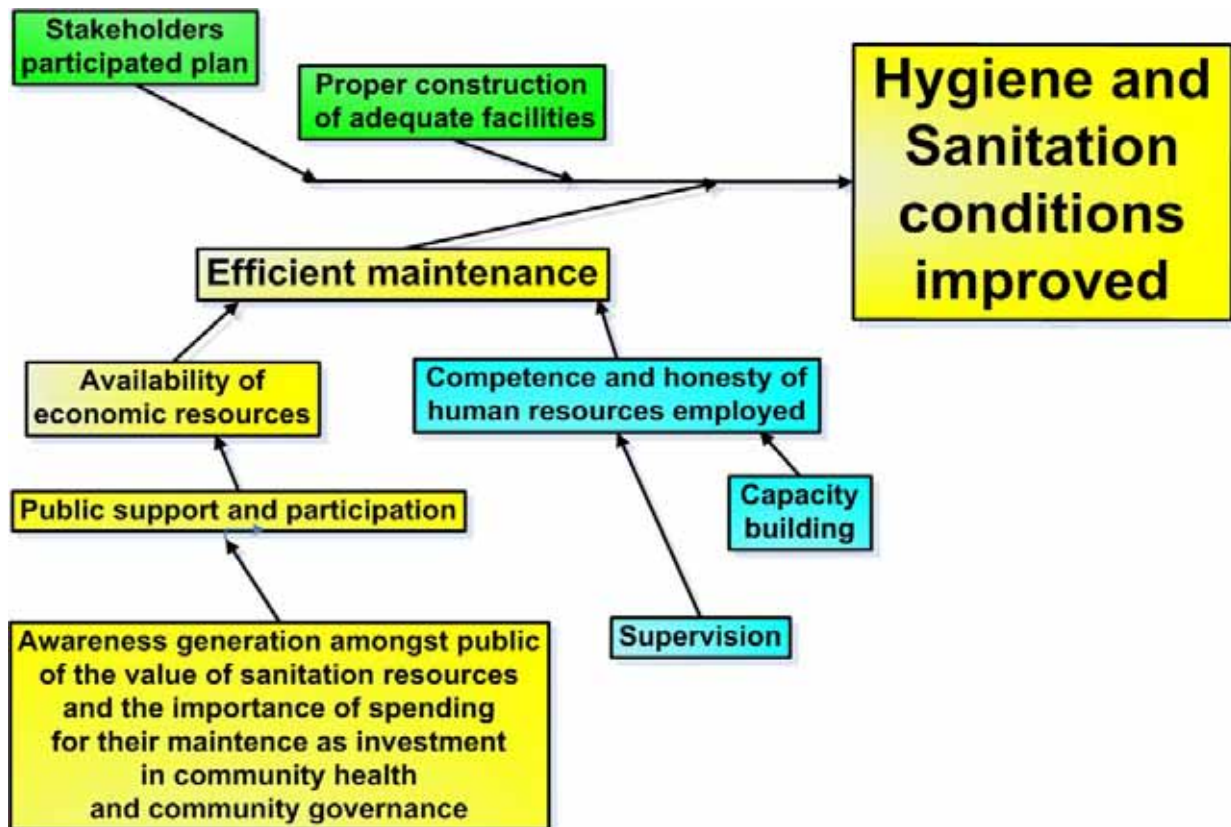


**Stakeholders' first agreement on structural maintenance**

- Availability of economic resources for maintenance
- Training and supervision of human resources employed
- Agreement of public for bearing new taxes and raising money from users to sustain VNN new tasks and efforts



**Issues to be tackled**



### Requisites for efficient maintenance

#### Facility modifications and initial suggestions on O&M given by stakeholders

In this sub-section, we describe the existing condition of each facility and the initial recommendations of the stakeholders, as emerging from the survey, regarding these facilities. We first represent the opinions, perceptions and commitments of the stakeholders and the support that they openly declare for the construction and maintenance of the new facilities to be provided by the Japanese government. On basis of the baseline survey and analysis of these facility-specific stakeholder inputs, we have made our general Operations and Maintenance recommendations and we have proposed three alternative O&M plans for the facilities being provided by the Japanese government.

The stakeholders proposed that the hygiene and sanitation of the entire Manikarnika Ghat area be improved through a stricter and more efficient administrative mechanism and through the provision of facilities and legal frameworks that would help administration and stakeholders alike to maintain high hygiene and sanitation standards. The stakeholders also proposed that dust bins be constructed and hygiene awareness building activities be conducted among residents and especially among the large floating user-population, like pilgrims, mourners, etc., through signages, regular public events and enforcement of law through punishment. The stakeholders also recommended that the Varanasi Nagar Nigam do the main structural maintenance of all the facilities being provided by the Japanese government. They further suggested that they could help in the regular checking and monitoring of these facilities, giving feedbacks on existing problems and on the work of the Nagar Nigam staff and help in promoting the use of these facilities.

Following is a description of each of the facilities being provided by the Japanese government that have been decided in cooperation with the major stakeholders of the Ghat area. This description includes a paragraph on the existing condition of the facility and its surrounding area, recommendations of a larger segment of the stakeholders on improvements required on this facility, their suggestions on new facilities required in their area and the maintenance mechanism that the respective stakeholders recommended (as emerging from the survey and the on-site meetings) for these facilities being provided.

### ***Sulabh Toilet***

The conditions of the existing Sulabh toilet complex leave much to be desired. The toilet complex is currently managed by the Sulabh organization. It is small and crowded. There is no closed overhead water tank. There is only an open tank from where water is taken by the Sulabh employees to clean the toilets and by the clients for utilising the toilets. The toilet cabins are kept clean but they are in dire need of renovation. There are no taps in the cabins and no flush systems. The manager of the toilet lives in unhealthy conditions in a small dingy room within the toilet complex itself where he lives, cooks and eats. His salary is poor but maybe this amount already takes into consideration the client money that gets pilfered and gets into his pockets. The toilet is utilized by the residents, by people who work on the Ghat area and by persons who accompany the deceased. Approximately 250 to 400 people utilize the toilet daily, depending on the high death-rate or visitor season. The pilgrims who come to the Manikarnika Ghat rarely use this toilet.

### **Facility modifications (if any) recommended by the stakeholders.**

Majority of the stakeholders of the Sulabh toilet felt that the toilet required renovation rather than re-construction, as was proposed in the facility design approved through the first three stakeholder workshops organized by the JICA study team. According to the HUDCO (Housing and Urban Development Corporation, India) engineers, it will be more complicated and more expensive to re-construct the toilet complex since buildings have been built adjacent to the toilet and these could be damaged in the event of a demolition and re-construction. The existing foundations of the toilet complex, according to HUDCO, are sufficiently strong to bear the renovation features envisaged within the new facility structure proposed. Stakeholders suggested that more toilet cabins must be constructed and that a bathing cabin be created for the residents (even if currently many of them go to the river for bathing and do not need such a cabin). This is because the use of soaps is prohibited in the River Ganga and it is expected that such a bathing cabin could provide an alternative. The stakeholders, however, did not really understand the need for a waiting room on the toilet but they strongly proposed the necessity for more toilets in the Ghat area, especially urinals.

The stakeholders also recommended that a toilet be constructed mid-way between the Maha Shmashan Ghat and the Scindia Ghat since the pilgrims needed this facility. Discussions have been made between Sulabh, the Nagar Nigam, our study team and the JICA study team and it was decided that maintenance of portable and/or permanent toilets on the Ghat would be difficult since they will be submerged during the monsoon season and also because these could not be created on the Ghat because of its religious importance. It was recommended that urinals that had been built many years back, behind the Brij Pal Das Dharamshala, and that are presently broken down and the space is occupied by the wood sellers for stacking wood, should be reactivated by the Varanasi Nagar Nigam.

### **Facility maintenance agreed to by stakeholders.**

The stakeholders agreed that the maintenance of this toilet complex be given to the Sulabh organisation (a country-wide NGO that works in the field of Low Cost sanitation facilities) that is currently maintaining the toilet complex and is able to financially sustain it. The stakeholders also suggest that urinals be kept free of cost since people will otherwise use the open Ghat area in event of

urinal space use being charged. However, the stakeholders do believe that the use of toilets must be charged.

**The risks of non- maintenance** of the toilet complex are:

- the organisation will be unable to pay the water and electricity bills regularly as is currently happening in the event of on-site supervisor of the toilet complex not reporting all the income to the main office;
- irreversible damages to the structure if the Nagar Nigam is unable to do regular structural maintenance of such a frequently used facility, especially if humidity problems caused by extensive water utilisation in the structure are not contained.

#### ***Birla Dharamshala***

The Birla Dharamshala is the property of the VNN (Varanasi Nagar Nigam). The building is without a gate and is de facto being used as a shelter by the homeless people and as a place where international tourists stand and watch the cremation Ghat. The building is not used by the mourners who accompany the deceased as its original objective might have been. The lower floor of the building has been occupied by cattle breeders. The upper floors are being used by the local unemployed people as a meeting place and as space for conducting some income earning activities from international tourists and from donations given for the widows who stay in this building. The present structural condition of the building is decadent.

**Facility modifications (if any) recommended by the stakeholders.** The stakeholders agreed that the Birla Dharamshala be renovated as decided in the first three stakeholder workshops organized by the JICA study team. They also said that the building could host a waiting room and a shelter that would be helpful for the hot and cold season and especially during the monsoon season. The stakeholders also said that it was important to renovate this waiting room and even if it might not always be utilized by the people who accompany the deceased, it could surely be used by the local residents, shopkeepers and people working on the Ghat as a resting place and by the domestic and international tourists visiting the Ghat area. The stakeholders confirmed that people who accompany the deceased prefer sitting or waiting next to the burning platform where their relative is being cremated and that once the cremation was over, they left for their homes. So, the mourners would really require a shelter near the cremation platforms. They also felt that once renovated, this dharamshala might also start being used by the mourners since it directly overlooks the cremation Ghat. Majority of the stakeholders interviewed by us did not express the need for lockers but since this need emerged from the earlier stakeholder workshops, probably some lockers could be constructed. It has been found out that at the railway station, a locker costs Rs. 10/- per day for the first day and Rs. 15/- from the next day onwards.

**Facility maintenance agreed to by stakeholders.** The stakeholders would like that the Nagar Nigam maintain this facility and especially monitor that illegal activities are not conducted in the building and that any damage to the building is punishable by law. Since the Nagar Nigam has shortage of funds and the neglect of the building until now has been the reason for its present decadent condition, the stakeholders suggest that the Nagar Nigam strictly monitor the use of the building and perhaps sub-contract the management of the building to a local NGO that earns money from donations given by people for using the structure. The stakeholders suggest that a gate be provided so that the structure could not be used for illegal activities. The stakeholders felt that the earning from the lockers, however, would not be a substantial contribution to maintaining the structure.

**The risks of non- maintenance** of the Birla Dharamshala are:

- that the structure reverses back to the same dilapidated condition in which it is right now;
- the waiting rooms will become filthy and people will stop using it, thereby giving way again to illegal occupancy and illegal activities;
- the lockers being provided will get occupied.



### ***Cremation Platforms***

The customary rights on the cremation platforms belong to the Dom community. These platforms presently require minimal maintenance because they are primarily made of silt that is deposited by the river after the monsoons are over and are not cleared off from the cremation area. Whatever minimum maintenance is required is being done by the Dom Community that assigns the platforms to different leaders and members of its community, whose helpers clean the pyre place after the body is cremated and who sort out the ashes and immerse it into the River Ganga. Much of the dirt created on the cremation Ghat and obstruction created for the clear passage of people is due to the burning of bodies but also due to wood stacks apparently placed outside the precincts assigned to the wood sellers. Only two of the wood sellers have proper licenses and a third one has an old license. The others operate without proper licenses. This signifies that the Nagar Nigam loses out on income that could be re-utilised for the maintenance and cleanliness of the Ghat.

**Facility modifications (if any) recommended by the stakeholders.** The Dom community which is the major stakeholder desires that the construction of improved cremation platforms be done and that the construction be done also of an extension of the already raised cremation platform that is essentially used during the monsoon months and is not sufficient to meet the needs of the cremation demands in that season. These facilities were finalized through the first three stakeholder workshops that were organised by JICA. The stakeholders also placed the new requests of a platform for sorting ashes and depositing them before disposal.

**Facility maintenance agreed to by stakeholders.** The stakeholders, majority of whom are the Dom community, have agreed to do the basic structural maintenance of the improved platforms to be constructed and to also take care of the cleaning of these facilities as they are currently doing. The Dom community suggested that the Varanasi Nagar Nigam contribute (by giving an annual contribution and by intervening to make structural repairs whenever required) to the structural maintenance and the fire brick replacement required (every few years) and continue with its daily cleaning duties. The Dom community agreed that they would require basic training and knowledge on the daily maintenance of the new structures and that they be informed by the engineers/ constructors about everything necessary to ensure that the new structures be longer lasting and that maintenance costs be minimised..

**The risks of non- maintenance** of the cremation platform are:

- platforms get re-covered with silt;
- great difficulty in burning bodies, if firebricks and platform pavements are not regularly replaced in time;
- high risks during the flood season if railings get damaged and are not repaired.

### ***Janana Ghat***

The Janana Ghat, built by a queen and traditionally used by women (not so much any longer) is blocked off from the main lane by a stone wall and a gate that however always remains open. There are six changing rooms for women all along the river banks between the Janana Ghat and the Manikarnika Ghat and these are used by the priests for keeping their prayer objects and materials and are given by them, on request and some payment, to women for changing. Since these small changing rooms are closed by a gate, they are saved from becoming urinals as is the destiny of many of the open Ghat areas and open cabins or open sheltered areas on the Ghats. The Ghat is being currently managed by the priests, both the Tirth Purohit-s and Ghatiya-s.

**Facility modifications (if any) recommended by the stakeholders.** The facility request that emerged from the first three stakeholder workshops organized by JICA was that two changing rooms be built for women just on then inside of the wall of the Janana Ghat that comes under the flood level. It emerged from repeated interviews and meetings with the stakeholders (tirth purohit-s and the Ghatiya-s), that three to six changing rooms already exist along the river banks in the area between the Janana Ghat and the Manikarnika Ghat. The stakeholders said that the earlier location for the changing

rooms on the Janana Ghat that were decided in the first workshops would not be utilised by women for most months of the year since they would be too far above the river banks for women to go there with wet clothes. This location is currently used by the Ghatiya priests for performing rituals during the monsoon months when water levels are high. Therefore, the stakeholders suggested that such rooms would obstruct the ritual performance. They proposed that:

- one changing room could still be made on the Janana Ghat,
- one more changing room could be made on the Janana Ghat but mid-way between the river bank and its present stipulated location where it was more needed,
- a third changing room was urgently required for women below the Takht Hazara area mid way on the steps between the river bank and the Takht Hazara.
- if possible, the renovation of an existing changing room for women below the Takht Hazara area.

**Facility maintenance agreed to by stakeholders.** The stakeholders (tirth purohit-s and the Ghatiya-s) together would like that the overall management, structural maintenance of the changing room facilities and their daily cleaning be done by the Varanasi Nagar Nigam. The priests who work daily on the Ghats offered to take the responsibility of supervising the correct usage of these facilities, dissuading visitors and residents on their wrong usage, locking and opening the facility if required, monitoring any structural problems and giving feedbacks to the Nagar Nigam. The stakeholders informed that they could contribute to the daily maintenance by asking some token money from the women who come to bathe in the river Ganga and needed the changing rooms only if they had the key to these rooms. This is how the changing rooms existing along the river bank are being currently maintained.

**The risks of non- maintenance** of the Janana Ghat are:

- damage to structure if de-silting is not regular
- start getting used as urinal if not guarded well
- rooms may always remain locked if structure is not managed by Ghat stakeholders
- irregular white washing and structural maintenance may shorten the life of the structure

#### ***Manikarnika kund***

The Manikarnika kund is a holy well that is fed by a spring and its water enters the river Ganga through a small channel constructed specifically for this purpose. It is currently being managed by the Kashi Tirth Purohit Samiti whose President and some important members have attended the first three workshops organised by JICA. This organisation gets the Manikarnika kund cleaned and dredged twice every year, before Holi (around the second week of February) and before Shivaratri (fifteen days after the festival of Holi) and then there is another organisation whose responsibility is to clean the kund for a festival at the end of April for another religious festival (falling this year on the 22<sup>nd</sup> of April). The customary rights on this space are primarily of the Tirth Purohitis.

**Facility modifications (if any) recommended by the stakeholders.** The stakeholders agreed completely with the facility renovation to be done by the Japanese government. Their additional request was the provision of a shade on the kund. After due consideration, HUDCO has ruled out this modification due to its technical infeasibility, disturbance that can be created by it to the skyline and the overburden it may create on the foundations below.

**Facility maintenance agreed to by stakeholders.** The Kashi Tirth Purohit Samiti has always maintained the Manikarnika kund and has agreed to continue with the responsibility to do the overall management of the kund. They further suggested that they could supervise the correct usage of these facilities, dissuade visitors and residents on their wrong usage, monitor any structural problems and give regular feedbacks to the Nagar Nigam. They will continue managing the structure as before with funds it raises throughout the year. They expect the Varanasi Nagar Nigam to do the major structural maintenance and daily cleaning around the kund and on its steps.

**The risks of non- maintenance** of the Manikarnika kund are:

- unhygienic condition of water in the kund;
- short life of structure due to irregular de-silting;
- closure of springs if regular dredging is not done
- risk due to damaged railing especially during flood season

#### ***Takht Hazara***

The Takht Hazara is a stone platform on which rituals are held for ancestors. It does not require maintenance as of now because it is only a platform. The cleaning work is done by the Nagar Nigam along with their cleaning duties on the Ghats. The customary rights on this space are primarily of the Tirth Purohits. There is a daily pilgrim influx of 200 people on and around this space and on some especially auspicious days, this number goes up to 10,000 pilgrims.

**Facility modifications (if any) recommended by the stakeholders.** The only shade currently being used on the Takht Hazara area is on the Nepali ritual performing area just next to the Takht Hazara. This structure is a temporary structure that is made of bamboo and thatch and is composed of a flat part that is parallel to the ground and a slanting part, joined to the flat one that is at a 45 degree angle to the ground. This shade has always served the pilgrims who during summer do their rites under this shade if other shade areas (there is one main shaded area called the charanpaduka) are occupied. The charanpaduka is constructed just next to the Takht Hazara and is a sheltered space made of stone. As emerging from the first three stakeholder workshops, the stakeholders would like a permanent shade on the Takht Hazara or at least a structure that requires least short term maintenance. The HUDCO engineers have confirmed that this is not possible since there are technical problems with permanent shades on the Ghats: they would overburden the Ghat foundation, they would create obstructions during the flood season, and they would destroy the architectural beauty and skyline of the Ghats. Thereafter, the stakeholders have suggested that the structures to be provided by JICA be mainly permanent and partially temporary, i.e., a permanent roof frame be designed such that part of the roof could remain permanent, even if removable, and that the roof filling be made with thatch and so be temporary.

**Facility maintenance agreed to by stakeholders.** The stakeholders would like that the structures being provided by JICA be as permanent in nature as possible (and permissible by engineers) and that the rest be temporary structures. They further request that temporary iron angles and rods not be used for constructing the shades as these could be stolen, so care must be taken that permanent fixtures are used wherever possible and that the temporary fixtures used be inexpensive. They also requested that the Nagar Nigam take care of maintaining the structures being provided by JICA. They further suggest that the informal groups of the stakeholders who work daily on the Ghats supervise the correct usage of these facilities, dissuade visitors and residents on their wrong usage, monitor any structural problems and give regular feedbacks to the Nagar Nigam. They expect that the Varanasi Nagar Nigam to do the overall management, daily cleaning of the facility and structural maintenance, besides storing the temporary structures in their yards.

**The risks of non- maintenance** of the Takht Hazara are:

- temporary structures are damaged and need to be replaced frequently
- if timely storage of structure is not done before flood season, it can lead to loss of structure
- shades are stolen if not guarded well

#### ***Ramalila Maidan***

The Ramalila Maidan is an open ground that requires maintenance through daily cleaning and monitoring of the condition of the stones laid on the grounds. It is utilized by large numbers of pilgrims during the days auspicious for performing rituals for the ancestors.

**Facility modifications (if any) recommended by stakeholders.** The stakeholders agreed to the renovation and replacement to be done (as decided by the first three workshops organised by JICA) on

the flat Ramalila Maidan area and to make the angle of these stones more sloping such that flood water and silt would not remain deposited and they suggested that the recent construction made by Nagar Nigam on the Ramalila ground, for providing a base for the wooden stage constructed during the Ramalila celebrations, be reduced from a structure comprising six columns to a structure comprising 4 columns since this extension creates obstructions during days when the numbers of pilgrims are high.

**Facility maintenance agreed to by stakeholders.** Stakeholders requested that overall management, structural maintenance and regular cleaning be done by the Nagar Nigam. Stakeholders agreed to supervise the correct usage of these facilities, dissuade visitors and residents on their wrong usage, monitor any structural problems and give regular feedbacks to the Nagar Nigam.

**The risks of non- maintenance** of the Ramalila Maidan are:

- frequent breaking of stone paving
- discomfort to visitors and residents

#### ***Heritage Corner***

The Heritage corner is presently an unfinished structure begun by the Varanasi Nagar Nigam and that needs to be re-done completely because it is being currently used as a urinal place and for open defecation at night.

**Facility modifications (if any) recommended by stakeholders.** The stakeholders would like that a slightly raised platform be made there with permanent shades such that religious assemblies could be held there.

**Facility maintenance agreed to by stakeholders.** The stakeholders expect that the overall management, structural maintenance and daily cleaning duties of the Heritage corner be done by the Nagar Nigam. They agree to promote the correct usage of these facilities, dissuade visitors and residents on their wrong usage, monitor any structural problems and give feedbacks to the Nagar Nigam. They requested that temporary iron angles and rods not be used for constructing the shades as these could be stolen in the night and so care must be taken that permanent fixtures are used wherever possible and that the temporary fixtures used be inexpensive.

**The risks of non- maintenance** of the Heritage Corner are:

- lamps get broken or are stolen
- temporary structures get damaged and need frequent replacements
- if timely storage of structure is not done before flood season, it can lead to loss of structure
- shades are stolen if not guarded well

**Operations and Maintenance cost of the facilities**

Name	Proposed facility	Facility finalised by stakeholders	Features Requiring Maintenance	Major element that require periodic replacement or repair	Human Resources required	Estimated replacement & repair cycle (year)	Estimated cost (Rs.)	Annual (Rs.)	Cost	Remarks
<b>Changing Room at Janana Ghat</b>	Changing rooms (2 Nos)	Changing rooms (2 Nos)	doors, walls, general structure	daily cleaning, white wash on the inside walls, de-silting of structure, cleaning of the outside walls after flood season, general structural maintenance	1 sweeper who cleans daily	Once every year for white wash work after flood season	2000	2,000		regular cleaning and washing by 1 sweeper, annual white wash and de-silting, periodic structural maintenance required to lengthen life of the structure, no periodic structural replacements
<b>Manikarnika Kund</b>	Repair and renovation of railing, steps & placing new light pole and providing bulb	Repair and renovation of railing, steps & placing new light pole and providing bulb	water recycling and cleaning in kund	de-silting the kund once a year and cleaning the kund at least three times a year	1 sweeper who cleans daily, extra HR required during annual cleaning of kund	1 year for kund cleaning, step white wash and painting work	15000	15000		regular cleaning, annual white wash and de-silting, painting, pumping and periodic structural maintenance required to lengthen life of the structure
<b>Heritage Corner</b>	two level sitting arrangement, benches, temporary umbrella shades	two level sitting arrangement, benches, temporary umbrella shades	temporary umbrella shades	electric bulb (6 nos.) white washing and painting the railing	2- 4 people to white wash and paint annually	2 years (10,000 hours) 1 year	2,000/- (each bulb)	4,000		bulbs to be replaced
							3,000	3,000		no periodic structural replacements
						yearly replacement	800/- umbrella	6,400		regular cleaning and washing , annual de-silting, temporary cane umbrellas typical of Varanasi Ghats to be annually replaced, de-silting, storage, replacement and

				1 year life	30	720	replacement and structural maintenance required to lengthen life of the structure	
<b>Roofing on Takht Hazara</b>	general structure, benches, lighting	painting of back wall	mural - repaint required	1 year	to be financed through mural painting competitions		repainting of murals, area to be cleaned	
	temporary shades comprising movable bamboo and thatch roof	thatch shades and roof frame	thatch roof and roof frame	2 yearly replacement	2,000	1,000	regular cleaning and washing by 1 sweeper, annual de-silting, two yearly replacement and storage of temporary shades and repainting of murals	
	benches	benches	bamboo column & horizontal member	5 years	10,000	2,000		
<b>Ramalia Maidan</b>	replacement of stone paving	stone paving	NA		0	0	regular cleaning and washing, annual de-silting	
<b>Renovation and retrofitting of Birla Dharamshala</b>	retrofitting, waiting rooms, lockers	retrofitting, waiting rooms, lockers	locker maintenance, floor, bulbs, gate		5,000	5,000	regular cleaning and washing, annual de-silting of lowest floor	
<b>Cleaning of the Ghat including the above facilities and annual de-silting of submerged facilities</b>							Nagar responsibility	
<b>TOTAL</b>	<b>Annual cost of maintenance</b>						<b>24,120</b>	
<b>Toilet Facilities &amp; Waiting Room</b>	toilet and waiting room	structure and regular washing	Water bill	month	900	74,400	by Sulabh	
		no waiting room, more toilets, two storied structure	Electricity bill	month	300		by Sulabh	
			Repairing cost	month	300		by Sulabh	
				month	1800		By Sulabh	

				Cleaning materials		month	2,000		by Sulabh
					4 Sweepers and toilet cleaners	month	900		
<b>Cremation ground</b>	(Renovation)	(Renovation)	daily cleaning	firebrick platform		3 years	2,000 /platform	25,333	
			periodic replacement of fire brick platforms de-silting of platforms	pavement brick, of Painting railing		10 years	1,00,000/-		Average cost of renovation including reuse of good quality bricks
			daily cleaning			1 year	2000		done by NN
<b>Raised Cremation Platform</b>	(renovation)	(renovation)	daily cleaning	firebrick platform		3 years	2,000 /platform	9,333	
			periodic replacement of fire brick platforms de-silting of platforms	pavement brick, of Painting railing		10 years	20,000		Average cost of renovation including reuse
						1 year	2000		done by Dom Raja
<b>TOTAL</b>									
<b>Annual cost of maintenance 34,667</b>									
<b>Construction of Dustbins</b>	Dust bins			Basket (5 no.) Sweepers (by Nagar Nigam)		3 years	500 per basket free of cost	833	
<b>Directional &amp; Descriptive Signage System</b>	Signage			NA	periodic washing of sign boards				
<b>Supply and utilisation of Pump</b>	pump			pump (repair)	mechanical maintenance	periodic repair	5,000 /year	5,000	
<b>TOTAL Annual cost of maintenance</b>								<b>5,833</b>	
<b>TOTAL Annual cost of maintenance</b>								<b>64,620</b>	
<p><b>note: the costs of managing and maintaining the Manikarnika kund and the Sulabh toilet complex are borne by NGOs</b></p>									

### **O&M plan alternatives recommended by the study team**

In the O&M plan alternatives being recommended by us, we have incorporated our findings on the conflicting and converging interests of the stakeholders and their capacities and on the common meeting ground of converging and conflicting interests. These O&M plan alternatives were presented to the stakeholders in the final workshop conducted with them in April 2004 (minutes of this workshop are enclosed with this report as annexure) and one of these alternatives was approved and supported by them.

From the study, it emerged that the stakeholders felt that an efficient and consistent maintenance plan required that the responsibility for the management and maintenance be with one entity and that distributing the responsibility would only create confusion and no one would finally be accountable and this would hamper the achievement of hygiene and sanitation objectives. The stakeholders also confirm that they would sustain the facilities externally but that the institutionally responsible organization must be Nagar Nigam.

What the Nagar Nigam requires is the recognition and re-qualification of its role. Nagar Nigam would like more feedbacks on hygiene, sanitation and environmental problems on the Ghats and on whether its staff is performing duties efficiently. The stakeholders have, in fact, given their full agreement, notwithstanding their disagreements and different approaches, to helping and cooperating, with the Nagar Nigam and informing it on emerging structural and management problems and on promoting the use of hygiene and sanitation facilities.

Let us first recapitulate the recommendations of the stakeholders:

- that the Varanasi Nagar Nigam continue to structurally maintain the Ghat and take care of its hygiene and sanitation requirements;
- that the Nagar Nigam become stricter in law enforcement for encroachments and polluting actions;
- that the Nagar Nigam do the major and essential structural maintenance of the Ghat and of the new facilities being constructed by the Japanese government;
- that the stakeholders would fully cooperate in monitoring and giving feedbacks to the Nagar Nigam
- that the stakeholders would contribute to improving the hygiene and sanitation conditions of the Ghats and the maintenance of the new facilities by monitoring its management and maintenance and reporting back to the Nagar Nigam;
- that, if required or considered beneficial by the VNN, the stakeholders would be willing to constitute voluntary groups to help VNN monitor and manage the new facilities

**The contradiction that emerged:** On the one hand, the stakeholders would like the Nagar Nigam to take the management responsibility for all the facilities being provided on the Ghats and the VNN agrees to maintain the facilities on the Manikarnika Ghat area and improve its hygiene and sanitation services on the Ghat. On the other hand, the Nagar Nigam is unable to improve its hygiene and sanitation services and to maintain the current facilities (like sewage systems, regular water distribution and systems) on the Ghat due to paucity of funds and so lack of sufficient numbers of staff to provide efficient services (it has already placed 8 more people on the Manikarnika Ghat area since January but they have not received their salaries since they joined work). In fact, a major reason for the shortage of funds that the Nagar Nigam faces is due to the low income generation from the city in terms of property taxes, water taxes, licenses, etc. Another reason for the present status of low hygiene and structural maintenance conditions is that the average person lacks adequate awareness and the community lacks adequate knowledge to how to invest in collective community resources and thereby produce a common benefit, thereby raising their life standards. The community is also little exposed to the potential economic and social benefits of a cleaner and healthier environment. Furthermore, the legislative body of the city has refused to consider the vital issue of tax reforms to increase revenue



generation from the city and to therefore provide better services to its residents and improve their life quality.

### **O&M plan Alternatives**

After having analysed the economic potentials of the Manikarnika Ghat, observed the possibility for growth in local knowledge and capacities of the stakeholders, understood the fears and problems that people have, we reiterate our recommendation that the construction of the new facilities being done by the Japanese government must become the opportunity to conduct such a public awareness programme to raise the awareness and participation levels of people and finally stimulate the community to sustain its common resources, including facility maintenance and hygiene service providing. In order that an O&M plan be successfully implemented, greater participation is required of the stakeholders and this implies that greater public awareness must become a priority for the local administration.

Keeping in consideration the above reasons for the existing hygiene and sanitation awareness and remembering, as has emerged from our analysis, the low participation levels of the public; the low capacity and scarce financial liquidity of the Nagar Nigam, we intend building on the present social and economic dynamics and the functioning of the administrative mechanism of the area. We have, therefore, moved in accordance with stakeholder recommendations and formulated three **O&M plan** alternatives for (i) **Manikarnika Ghat area** and for the (ii) **new facilities** being provided by JICA.

Before we elaborate the three O&M plan alternatives that have emerged from our study and from the specific recommendations of the stakeholders, we would like to present some considerations that must be common to all alternatives:

- **the Nagar Nigam will coordinate** hygiene services for all public spaces and for maintaining all facilities as it is currently doing;
- **there will be transparency in management** and fund disbursement whosoever manages and coordinates the services and facilities
- **the Nagar Nigam will do the major structural changes** that will recur every few years for the existing facilities and for the new facilities to be provided by JICA
- **the staff of the Nagar Nigam must be paid regularly**, especially the sweepers, so that they are motivated to work efficiently and regularly, so that higher hygiene standards are maintained;
- **the stakeholders and /or their voluntary groups will monitor** the hygiene and the use of the facilities and will give regular feedbacks to the Nagar Nigam
- **the quality of the service of Nagar Nigam is monitored** through regular meetings with representatives of the public and through evaluation of the standards and impact of services provided by the Nagar Nigam on hygiene standards.
- **regular awareness generation activities** are conducted , especially through visual signage and public events, activities for motivating VNN staff and residents
- training and capacity building programmes are conducted for of policy makers and civil society
- **the Nagar Nigam staff is motivated** through incentives, rewards and punishments and that this is linked to the standards of hygiene maintained by the staff. For this a competition could be done annually wherein the residents and visitors could be asked which are the 5 most clean lanes or areas of the Manikarnika Ghat area, including the Ghats and the 5 most dirty and filthy lanes and areas. Awards (in the form of bonuses or a lump sum of money) could be given to the cleaning personnel who has been most conscientious and penalties must be levied on those whose area is dirty;
- **the Nagar Nigam becomes stricter in:**
  - a. enforcing law on polluters along the Ghats, i.e. fining those who urinate and defecate openly, those who pollute the river directly (by throwing plastic)

- b. checking regularity of commercial licenses and ensure their annual payment
- **the Nagar Nigam has a feedback receiving system**
  - c. a direct toll line for complaints wherein the staff of the VNN could be assigned to respond zone wise, or
  - d. a call centre could be subcontracted this work and they ought to report the complaints immediately to the staff concerned and then check whether the resident's message was followed up.
- **the fund contribution from the city must be increased**
  - e. revenue generated is increased through tax reforms applicable to the entire city like increase in property taxes, regularization of all licenses, water taxes, sewage taxes, waste disposal taxes, even if minimal to start with so that any service improvement can be funded
  - f. increased funding from the state and/or national governments for specific Ghats because of their cultural and traditional importance for the people of the nation

Before we elaborate the alternative O&M plans, let us also recapitulate the current hygiene management and facility maintenance scenario.

1. It is the Nagar Nigam that currently manages the overall cleaning of the Ghat (with irregular washing, disinfecting, etc.), de-silting after flood season, garbage disposal through daily collections (averaging once a day), provides lighting in the Ghat area. The Nagar Nigam is not doing any structural maintenance on the Ghats. Among the stakeholders who manage hygiene services and maintain existing facilities are the dom community which manages specifically the cleaning and maintenance of the cremation area, the Tirth Purohit Samiti which manages and maintains the Manikarnika Kund and the Sulabh International non government organisation that manages the toilet complex. The stakeholders do not participate directly in the cleaning of the Ghat area.
2. The hygiene and sanitation problems on the Manikarnika Ghat are aggravated due to:
  - Huge daily floating population of approx. 6000 people a day
  - Open defecation and urination
  - Extensive illegal stacking of wood
  - High production of garbage
  - Low awareness levels among visiting population and people using the Ghat
  - Low public participation levels in keeping Ghat area clean and monitoring Nagar Nigam services
  - Irregular cleaning of the Ghat Infrequent disposal of garbage
  - Inefficiency in services provided by Nagar Nigam
  - Cattle and other animals

We believe that we can address these above problems and move towards resolving them in three ways:

1. **By constructing and/or renovating hygiene facilities:**
  - Constructing and/or renovating toilets
  - Restricting wood stacking
  - Constructing waiting and changing rooms to provide shelter
  - Repairing stone paving and Ghat steps
  - Providing dust bins
  - Providing signages
2. **By increasing stakeholder participation**
  - Increased awareness levels of both residents and visitors
  - Increased direct involvement of the stakeholders while deciding and implementing plans for their area

- Increased involvement of stakeholder groups to monitor and manage their community resources
  - Improved consensus-building for maintaining existing facilities
  - Stimulating financial responsibility for maintaining community services and facilities
- 3. By improving the efficiency and efficacy of the administration**
- Capacity building of policy makers and administrators
  - Improved monitoring and evaluation system
  - Incentive and result based human resource management
  - Stakeholder participated impact evaluation of policies and plans
  - Capacity of administration to raise funds

Three O&M plan alternatives have been studied and elaborated for the facilities being provided on the Manikarnika Ghat. These plans were presented to the stakeholders at the final workshop conducted in April 2004. The **O&M Plan 1** alternative was what the stakeholders had suggested before the final workshop and the **O&M Plan 2** is what they finalised along with the Nagar Nigam during the final workshop. **The O&M Plan 3** alternative is what we feel would be successful in the long term and must be achieved through an intense public awareness programme such that public participation increases and permits the success of such a plan.

These alternatives are described here and have been briefly stated in the table enclosed in Annexure 5 along with the O&M costs for each facility.

#### *For the entire Ghat area*

##### **Alternative 1**

**Management.** VNN would maintain the status quo and manage the hygiene and sanitation services, including cleaning and solid waste management, and will be responsible for the major structural maintenance, provide street lights and enforce law against those violating hygiene practices, polluting the river, doing illegal activities, trading without licenses, encroaching without permissions. All the individual facilities would be centrally coordinated within this system

**Monitoring.** VNN would coordinate the hygiene and sanitation care of the Ghat area and would take the help of the local voluntary group or a community based organization (CBO) to monitor the performance of its staff and the eventual structural maintenance that is required. This group would give regular feedbacks and suggestions to the Nagar Nigam on better management during regular meetings to be organised by VNN. The VNN will create a direct help line number that would be dedicated to the Ghat area for receiving feedbacks of stakeholders, like complaints, emergencies, etc. The facility-specific stakeholders could lock and open the facility if required, supervise facility usage by promoting its right use and checking on its wrong use. VNN would ask experts to conduct surveys for getting satisfaction levels of users and evaluating the impact of hygiene care and pollution reduction activities.

**Fund generation and management.** Funds would be raised by the VNN, as is presently done, through taxes on residents and through state government contributions for providing services and for covering the salaries of its officers. The Nagar Nigam could also keep an office on the Ghat that takes token money (through tickets) from visitors and utilises this fund for improving the hygiene and sanitation conditions of the Ghat area.

**Advantages.** The advantages of such an organisational mechanism for O&M are:

- being a public authority, the Nagar Nigam is less likely to misuse funds since it must be accountable to the public and thus to be transparent

- monitoring by a community group will keep the administration efficient
- fund management will become efficient because of close community monitoring
- the legislative house of the Municipal corporation would represent the people's opinions and requests

**Disadvantages.** The disadvantages of such an organisational mechanism for O&M are:

- bureaucratic procedures would slow the process of change
- fund paucity would de-motivate the staff and influence their efficiency negatively
- urgent structural maintenance will require lengthy processes of budget approvals
- a top down approach would not take into consideration stakeholder needs
- changes in administration could shift priority scale of hygiene issues

**Other recommendations.** The VNN must regularise the payment schedules of its staff and motivate the efficient staff through bonuses and reprimand the inefficient staff by penalising them. The Nagar Nigam must also train the cleaning staff in achieving higher hygiene standards and teach them the health impacts of unhygienic practices. A culture of self monitoring must be cultivated among the staff of the VNN through:

- understanding the impact of its activities through regular meetings with the voluntary group of major stakeholders
- voting by residents on the work of VNN organised by VNN
- number of complaints registered
- staff attendance monitored by the local voluntary group
- hygiene and sanitation services evaluated annually by an expert organization to analyze the marked improvements and study the problems and potentials
- Media involvement in promoting good hygiene practices

## **Alternative 2**

**Management.** A community based organisation (CBO) would be formed, comprising of opinion formers of each of the major stakeholder groups. A joint working group of the CBO and the Varanasi Nagar Nigam would be created. The Varanasi Nagar Nigam and this CBO would jointly manage and monitor the hygiene and sanitation services and facility maintenance on the Ghat. This joint group will be responsible for raising funds from the visitors and residents. The CBO would be renewed every two years so as to give all stakeholders a chance to participate in managing their Ghat. The composition of the CBO and its answerability will follow strict legal standards. Whatever be the alternative, the Varanasi Nagar Nigam will continue to be the public body that sets and ensures hygiene standards, guarantees law enforcement, provides street lights, organises daily cleaning services, provides security and enforces law on those violating hygiene practices, polluting the river, doing illegal activities, trading without licenses, encroaching without permissions. The VNN would in this alternative also continue to take care of major structural maintenance.

**Monitoring.** The body responsible for monitoring the entire Ghat would also be the joint working group comprising the CBO and the VNN. VNN would facilitate the formation of such a CBO and work out the detailed by-laws such that this group formally became the local monitoring body and reference group for the VNN. The major stakeholders of specific facility on the Ghat will monitor and give back specific feedbacks, on this facility, to the CBO which would then refer these problems to the joint working group during their regular meetings. An agreement would be worked out between CBO and VNN, for this purpose. The facility-specific stakeholders could lock and open the facility if required, supervise facility usage by promoting its right use and checking on its wrong use. The VNN will create a direct help line number that would be dedicated to the Ghat area for receiving feedbacks of stakeholders, like complaints, emergencies, etc. VNN would ask experts to conduct surveys for getting satisfaction levels of users and evaluating the impact of hygiene care and pollution reduction activities.

**Fund generation.** A corpus fund would be created and money would be raised by taking token money from the users like pilgrims, tourists, visitors, mourners, etc. and by taking small monthly amounts from the service providers and traders. The Dom community and wood sellers, for instance, could decide in solidarity that a nominal raise would be made on what its clients pay, that this raise would finance primarily the maintenance of the cremation Ghat area and platforms and also contribute to the corpus fund specifically created for the Manikarnika Ghat. Official receipts would be issued. This fund would be managed under the observance of the Nagar Nigam so that transparency is maintained. Two offices could be created for receiving this token money, one perhaps in the Birla Dharamshala for the cremation Ghat area and one near the Takht Hazara for the Manikarnika Ghat or in another place decided by the CBO as easily accessible to visitors. The money could be put into sealed boxes that would be opened, counted and countersigned in the presence of two of the CBO members and then deposited by two VNN staff persons of the zone appointed for the purpose. A special bank account could be created for managing this corpus fund created for the Manikarnika Ghat by the VNN. The accountancy could be handled, on behalf of the CBO, by a VNN staff accountant and the disbursement would be made monthly by the VNN for the Ghat area and for specific facility maintenance as and when required. Fund raising could also be done from:

- Sponsorships from industrial houses
- sponsorships from tourism organizations or percentage of the increased tax demands made on them
- ashrams, i.e. all those who survive economically because of the Ghat and will earn more with a clean Ghat

**Fund management.** The fund would be managed jointly by the CBO and the VNN who would together decide annual budgets and priorities and monthly disbursements. This utilisation of this fund would employ a joint signatory system, whereby the CBO representative and VNN representative would jointly disburse funds. Top priority would be given to daily cleaning and regular maintenance work on the Ghats like cleaning, washing, de-silting, lighting, white washing, painting, etc. The money left over after these expenditures are taken care of would be utilised for structural maintenance of the facilities.

**Advantages.** The advantages of such an organisational mechanism for O&M are:

- reciprocal monitoring would improve accountability
- joint policy decisions and plan implementation would be more need-based and resource-based
- complementary management and monitoring roles distributed between the two
- reciprocal facilitation will be more since all improvement is in benefit of the residents
- close monitoring of the performance of the staff that will provide hygiene services
- even if process could tend to be slow, it is sure because it has stakeholder support
- active participation of people since they will feel that their inputs could make and modify decisions

**Disadvantages.** The disadvantages of such an organisational mechanism for O&M are:

- increased number of discussions and few decisions
- conflict of interests among stakeholders as also between CBO and Nagar Nigam
- too much dependency on capacities of administrative heads to solve deadlocks
- mutual criticisms and justifications by making the other scapegoat for inefficiencies

**Other recommendations.** The CBO must make by-laws and an official memorandum of understanding must be made between the CBO and the VNN for dividing clearly the responsibilities and roles for maintaining hygiene standards. There must be quarterly meetings between the CBO, VNN and staff working on the Ghat. An agreement could also be worked out between VNN and the CBO for clearly listing out their respective duties and responsibilities.

**CBOs: their composition, their functioning and by-laws.** Since the concept of CBO is new to the city, first the concept will have to be introduced and its roles and responsibilities would have to be spelt out, then the CBO will have to be constituted. The CBO for the Ghat area would comprise of the opinion formers of each major stakeholder group. A statute and by-laws could be worked out together between the CBO and the VNN with the assistance of legal experts. This statute could incorporate the following fundamental elements:

- objectives
- membership rules and selection procedures
- membership renewal rules
- office bearers and their responsibilities
- meeting frequency and meeting rules
- funding sources and fund management
- fund utilization
- auditing details and how to maintain transparency
- responsibilities with regard to O&M of hygiene and sanitation facilities

### **Alternative 3**

**Management.** The Nagar Nigam would decide to officially subcontract its hygiene and maintenance services to a CBO. The CBO would be totally responsible for the regular structural maintenance and cleaning of the facility. Nagar Nigam would continue to be the public body that sets and ensures hygiene standards, guarantees law enforcement, provides street lights, provides security and enforces law on those violating hygiene practices, polluting the river, doing illegal activities, trading without licenses, encroaching without permissions.. The VNN would in this alternative also monitor the management of the CBO and contribute annually for major structural maintenance. It would, furthermore, facilitate the functioning of the CBO. The VNN would, in fact, maintain its status quo as a coordination body since this is the responsibility of the Nagar Nigam but would take on more the role of a facilitator and monitor rather than a manager. The composition of the CBO and its answerability will follow strict legal standards. The VNN would continue to take care of major structural maintenance, set hygiene standards, provide street lights, manage solid waste and enforce law for those violating hygiene practices, polluting the river, doing illegal activities, trading without licenses, encroaching without permissions.

**Monitoring.** The VNN would monitor the CBO and facilitate its functioning by coordinating regular meetings, enforcing law through stricter measures and coordinating with the other bodies of local administration to ensure that high hygiene and sanitation standards are maintained and that pollution entering the river directly is minimised. The CBO will be responsible for raising funds from visitors and residents. The corpus fund mentioned in Alternative 2 would be created under the observance of community representatives, the Nagar Nigam, the town councillors and the eminent citizens of the area. The management and maintenance of each facility will be done, where considered necessary by both Nagar Nigam and the CBO, in accordance with the major stakeholders of that particular facility who would also monitor and give back feedbacks to the CBO which would either solve the problem or consult the Nagar Nigam during their regular meetings. The facility-specific stakeholders could lock and open the facility if required, supervise facility usage by promoting its right use and checking on its wrong use. The CBO would also give general feedbacks in quarterly meetings organised by the VNN. The VNN will also create a direct help line number that would be dedicated to the Ghat area for receiving feedbacks of stakeholders, like complaints, emergencies, etc. VNN would ask experts to conduct surveys for getting satisfaction levels of users and evaluating the impact of hygiene care and pollution reduction activities.

**Fund generation.** CBO members would raise funds from visitors and residents as in Alternative 2. The CBO will be responsible for the structural maintenance and cleaning of the facility. The VNN will give an annual contribution to the CBO for the maintenance of the Ghat and specific facilities.

**Fund management.** CBO Committee would completely manage funds as in Alternative 3 and be absolutely transparent to the stakeholders.

**Advantages.** The advantages of such an organisational mechanism for O&M are:

- full stakeholder involvement in managing community resources, therefore full responsibility and accountability
- close monitoring of hygiene needs and service standards and maintenance needs and standards
- close monitoring of stakeholder needs and cleaning staff needs
- regular close contact between managers and managed
- better control over staff since they are chosen by the stakeholders

**Disadvantages.** The disadvantages of such an organisational mechanism for O&M are:

- lack of expertise may lead to mistakes
- furthering of the individual interests of stakeholder representatives
- conflict of interests may lead to deadlocks

**Other recommendations.** Care must be taken that the CBO is facilitated and monitored by the VNN so that it gets technical and policy support for decisions.

In addition to the considerations elucidated above, some facilities on the Ghats require specific additional recommendations for management, monitoring and fund raising. For this purpose, within the purview of each alternative, the management of the entire Ghat area and its facilities could be facilitated by a sub managing committee for each facility. These sub-managing committees would comprise of the stakeholders directly responsible for a specific facility.

#### ***Recommendations for single facilities:***

##### **Sulabh Complex**

In all alternatives, the management and maintenance of the Sulabh complex would remain largely autonomous. Some specific recommendations for it are the following:

- family passes or monthly passes for residents at nominal rates
- residents monitor the functionality and report to VNN which in turn informs main Sulabh office
- if gross structural problems happen, then local administration supports with funds
- the Ghat CBO and VNN zonal officer would cooperate to monitor whether the NGO is carrying out its responsibility and give feedbacks in quarterly meetings

##### **Birla Dharamshala**

In all alternatives, the management body of the Birla Dharamshala could be sub contracted to a local NGO:

- the VNN would continue its responsibility to coordinate hygiene and sanitation tasks of keeping the area around the facility clean
- the VNN would give an annual contribution to support the major structural maintenance of this building
- the NGO would charge people who come to sit inside- a fixed amount or a donation and this must maintain the daily structural and hygiene needs

##### **Cremation Ghat**

Since the customary rights on the cremation Ghat belong to the Dom community, they will be the principal actors of all management and monitoring initiatives on the cremation Ghat. The voluntary group or CBO must be formed comprising the Dom community, the Wood sellers and shopkeepers earning from funeral rites who could together maintain the structure

So in all alternatives, the Dom community will

- monitor the Ghat
- have a strong say in policies and plans for their area
- protect the facilities from vandalism

**Janana Ghat, Takht Hazara and Manikarnika kund**

Since the customary rights on the Janana Ghat, Takht Hazara and the Manikarnika Kund belong to the Tirth Purohit-s (including the Nepali priests) and the Ghatiya priests, they will be the principal actors of all management and monitoring initiatives on these Ghats. So in all alternatives, this priest community through the stakeholders, the Kashi Tirth Purohit Samiti and its members will:

- lock and open the facility, supervise facility usage by promoting its right use and checking on wrong use.
- Monitor that the area is not used any more as a urinal
- give feedbacks to VNN zonal officer on performance of their staff.
- have a strong say in policy decisions and plans for their area
- protect the facilities from vandalism
- store temporary structure if necessary and VNN can give an annual contribution for this

**Ramalila Maidan and Heritage Corner**

In addition to the recommendations in each alternative, the priests would be the important actors of managing and maintaining these facilities along with VNN since these facilities have been especially conceived for the general public. The priest group would:

- promote its right use and check on its wrong use.
- give feedbacks to VNN on performance of their staff.
- have a strong say in policy decisions and plans for their area
- protect the facilities from vandalism
- store temporary structure if necessary and VNN can give an annual contribution for this

**Signages, dustbins and pump**

In addition to the recommendations in each alternative, the voluntary group or the CBO created for the Manikarnika Ghat would monitor the correct use of these facilities and protect these facilities from vandalism.



## **SECTION G: PUBLIC PARTICIPATION AND AWARENESS PROGRAMMES**

Lack of maintenance is the “biggest problem” of public facilities in Varanasi.

While it is possible to do constructions merely on the basis of the visionary policies of political and administrative decision makers and with the assistance of expert advice and technical capacities, on the contrary, maintenance cannot be done merely by illuminated top policy makers and decisions. Maintenance requires public support. And public support cannot be obtained in the same way as technical advice. It has a cost. But it is not available for purchase.

Public support requires:

- a.** basic environmental awareness in the general population,
- b.** a culture of efficient community management of public resources in the leaders of the population.

In Varanasi, the culture of both environmental awareness and community management is low. As a result, public support for maintenance activities is also low. Maintenance, which is the most difficult task in Varanasi, is generally delegated to the weakest administrative body in the city: the Varanasi Nagar Nigam, which is the least funded and the least technical amongst all the government institutions operating here. The lack of public support makes it very hard for Nagar Nigam to raise the funds and enforce the regulations that are required for successful maintenance of public services and facilities. Few NGOs do help out, but this effort is generally insufficient to fill the institutional lack of efficacy. The consequence is that development construction and programmes are slowed down, and at times fully jeopardised, by lack of infrastructural maintenance.

The baseline survey findings discussed in the previous sections, our analysis of the reasons for the current status of the maintenance of facilities on the Manikarnika Ghat and our observations on the status of facilities throughout the city clearly reveal that the problem of bad maintenance is not specific to the Manikarnika Ghat but pervades the entire city. If the facilities being provided by JICA on the Manikarnika Ghat are to be maintained and sustainable Operation and Maintenance plans are to be applied to these facilities, the culture of care and maintenance has first to be cultivated among the residents and visitors through awareness generation and capacity building programmes. Construction followed by improper maintenance can create more problems than no construction at all. Failure to develop tends to add fuel to that culture of impotent fatalism that has kept the city of Varanasi away from the main development trends of the Nation. On the contrary, successful development will positively contribute to a culture of shared responsibility for the management and care of public resources and facilities. Besides providing to the community better sanitary and economic conditions, it provides it with a sense of a common purpose and fosters stronger identity and better social ties.

Our study team strongly recommends a big investment for an adequate public participation and awareness campaign. In order to create durable conditions for public support to maintenance activities, it is imperative that public is made aware and that the issue of environmental sanitation becomes one of the priority topics of political life at the municipal level.

In this report, the study group has indicated guidelines for such a programme.

The basic principles of such a programme are:

- All awareness activities should be integrated into a unitary vision regarding the overall maintenance of all environmental sanitation resources of the city; cleanliness along the Ghats should be understood together with the effort to preserve the cleanliness of the whole city through proper waste disposal, proper supply of drinking water and proper collection and treatment of sewage.
- Not only the general public, but also their elected leaders, the administrative decision makers, the opinion makers and the managers of public agencies should become the target of appropriate awareness generation activities; only if environmental sanitation becomes a policy

priority at all levels of Varanasi social life, will maintenance works be financed and supervised.

- The Varanasi community needs to protect itself against those who damage community resources and who break the rules that the Varanasi community has set for the proper usage and sharing of the resources and facilities. There will always be individuals who actively pursue their individual interest even when it is contrary to community interests; unless the Varanasi community is able to defend its interest, there will not be any stable achievement in resource management.
- Ultimately the question of maintenance has to be pinned down to the question of raising adequate funds for maintenance activities; this requires a new system of taxation that has to be made acceptable to the public and that should be based on the principles of “the users pay for utilizing the resource”, “the polluters pay for damaging the resource”, “the law breakers are fined”, etc.

Basic to the whole public awareness and participation campaign should be:

- The notion that the money allocated for maintenance of common resources and the operation of common facilities is money invested in the development of those infrastructures that allow social and economic development of the whole community.
- The notion that such an investment is possible only when technical activities are coordinated with public participation in policy making, policy implementation and policy evaluation.

### **Investing in hygiene and sanitation**

Good hygiene and sanitation is a resource for the local community. It is a resource that produces the social and economic well being of a community. In the same way that good hygiene and sanitation practices necessarily produce good health in a family, they produce good health in a community. If as a family, we firmly believe that investment in cleanliness, good hygiene and sanitation brings positive returns in terms of good health, longevity, better working capacity, etc., then do we not need to invest in social hygiene and sanitation as a community? Even if the environment in our houses is hygienic, low hygiene standards in common places will undermine our efforts to keep ourselves healthy. So, caring for community resources, like the river, Ghats, toilets, open spaces, lanes and roads, parks, etc. and keeping them clean and well maintained creates a sense of community, it brings a community together and reinforces the sense of being a community. Furthermore, the value of a common resource and the sense of community built around the management and caring of these resources creates a social identity and promotes collaboration among local people. The beneficial side impacts of maintenance are much greater than those of construction. Maintenance brings a community together.

Only when the community becomes aware and understands the value of common resources, like social hygiene and sanitation, environment, and the value of investing in them, and when it understands the benefits of paying to maintain these resources, will these resources start being maintained and will invest start being made in their regeneration.

### **Primary objectives of a PP&A programme**

All awareness generation activities must be targeted to increase public participation in achieving good social hygiene and sanitation standards and in contributing to maintaining the common resources and facilities.

Public awareness must have three primary objectives:

- Explain to the community, the value of the resource to be maintained, i.e., the economic and social benefits that the resource can produce if investment is done for its maintenance, for instance the economic benefits of more tourism from clean Ghats
- Make the community aware of the need to manage the utilisation of this resource
- Illustrate the ways in which the community can successfully manage its resources

So, public participation, generated through such awareness, in maintaining a community resource, which could either be a public facility, public service, public space, a natural or a cultural resource, will be expressed in three ways:

- (i) caring for the community resource;
- (ii) respecting the law made for protecting the resource,
- (iii) contributing financially to maintaining the resource.

And the objective of public participation must be to permit people to understand the modalities in which they can be involved in choosing ways, among the possible ways, to manage the common resource.

Resource management must include:

- defining plans
- choosing strategies,
- implementing these plans,
- evaluating these plans,
- updating them and incorporating new inputs into updated plans

In order to construct or maintain or regenerate a resource, service or facility, the foremost requirement of the local governments is funds. The basic issue that needs to be addressed is from where the local administration receives funding? The answer is simple. It receives its funds from the people, from the taxes that people give to the local, state and central governments. Public awareness must, therefore, generate acceptance of the following three basic principles of fund collection done by governments to raise financial resources to maintain the resource and public participation must facilitate the enforcement and respect of these principles:

1. **Users pay.** water users pay water taxes, house owners pay property taxes, traders pay commercial taxes, places where visitors stay must pay surcharges, bathers using changing rooms pay charges, etc.
2. **Polluters pay.** Solid waste producers pay taxes, sewage producers pay charges, pilgrims who throw prayer material into the river pay, hotels pay higher sewage taxes, tourists pay taxes, urinals users pay, burning of bodies is taxed, etc.
3. **Law breakers are fined.** Those who do not pay licenses must be fined, those who throw plastic into the river must be punished, etc.

More funds with the government would imply better facilities, sewage treatment plants that function, a cleaner river, greater availability of electricity, etc. Lower taxes signify lower investment in common resources, facilities and services and this leads to lowering in well-being of the people and this finally leads to greater poverty, thereby creating a vicious cycle.

### **Building Awareness and Increasing Public Participation on the Manikarnika Ghat**

Before making recommendations, we would like to emphasise that, in order to be successful, all hygiene awareness and public participation programmes targeted to the Manikarnika Ghat must be conducted within the larger objective of addressing the public of the entire city. It is also to be noted that in the case of the Manikarnika Ghat, the construction of new facilities and the operation and maintenance of these facilities will provide the best opportunity to create awareness generation around the facilities and public participation for maintenance of these facilities.

The following are our recommendations, for a PP&A programme, that utilise the above principles, are based on our observations on existing public awareness and participation levels in maintaining common resources on the Manikarnika Ghat and are built on our analysis of the hygiene and sanitation issues on the Ghats:

1. **Targeted awareness generation among the public** to gain a larger consensus for the need to maintain high hygiene standards and to generate support for new decisions proposed by policy makers towards this objective
  - a. **Immediate awareness generation** through:
    - i. signage boards, largely visual, to cater to the large number of illiterate people, at the end of lanes which open to the Ghat area where facility location is identified and where usage of facility is encouraged
    - ii. placing signages in front of the facilities calling for correct usage and dissuading wrong usage,
    - iii. signages promoting practice of good hygiene and sanitation,
    - iv. signages indicating actions punishable by law,
    - v. signages against open defecation and garbage dumping on Ghat,
    - vi. visual show events against pollution
    - vii. voluntary pressure groups (comprising aware shop keepers, priests, doms and other stakeholders) who continuously tell residents and visitors not to dirty the Ghat, not to damage it and not to wrongly use the facilities
    - viii. police patrolling to punish law breakers
  - b. **Long term awareness generation** through:
    - i. Schools adopting Ghats
    - ii. Annual events to award those who make efforts to promote good hygiene
    - iii. Annual painting events on the Ghats
    - iv. Annual competitions and awards for clean Ghats and lanes
    - v. Clean weeks in which the administrators and legislators participate actively
    - vi. Create awards for clean Ghats and get these awards sponsored
    - vii. Create Information centres
    - viii. Regular shows of Street corner plays, especially during festivals
2. **Capacity building of policy makers and opinion formers** to enable decision makers to understand the complexity and importance of maintaining common resources and how more maintenance of existing facilities must be the first step before launching new constructions within the overall sanitation plan
  - a. Workshops to illustrate sector specific best practices,
  - b. Demonstrate through cost/benefit analysis, the political importance and economic potentials of improving hygiene and sanitation and maintaining common facilities,
  - c. Explain how tax reforms could create local social and economic development, create new job opportunities and contribute to maintaining hygiene and awareness
  - d. Talks by experts or administrators from exemplary urban contexts
  - e. study trips of administrators and legislators to exemplary urban contexts
  - f. transfer knowledge instruments to illustrate the above issues
3. **Citizen Committees and forums**
  - a. Discussing a hygiene and sanitation policy for their area
  - b. Defining and finalising plans for the area through stakeholder participation
  - c. Establishing voluntary groups and/ or community based organisations for implementing plans and ensuring respect for services, facilities and other common resources
  - d. Signing agreements with administration for respecting provision of good quality service
  - e. Citizen's patrolling squads for checking polluting sources and actions
4. **Law formulation and enforcement**
  - a. Anti-pollution weeks
  - b. Cleaning weeks
  - c. Fines on illegal traders
  - d. Police patrolling to fine polluters and incorrect usage of public space

## **5. Exemplary interventions**

- a. Pilot project of awareness generation
- b. Pilot initiatives of active public action and participation
- c. Pilot activities for fund raising and utilising this fund for maintenance

It is not only the public of Varanasi, but also the decision makers of the development of Varanasi, who need to understand that the financial resources allocated on awareness generation are not social expenses but are social investments.

Awareness generation activities are similar to training activities of the technical experts involved in technical maintenance. But are more important and strategic, because an aware public will always be capable of promoting and sponsoring technical training; not vice-versa.

## **CONCLUSION**

In our concluding note, we would like to emphasize that in order to achieve a long term self sustained maintenance of the hygiene and sanitation facilities being provided by JICA, an extensive programme of public awareness will have to be conducted (according to the principles and guidelines we have elaborated in the above section on the PP&A programme) to communicate the value of public hygiene, health and on the potential economic and social benefits that can be derived from continuous regeneration of the common resource and on the modalities of investing in such a resource. Only through such a public awareness programme will public participation in maintaining a common resource be increased. And only with increased and constructive public participation, will we be able to define a correct and sustainable stakeholder participated operations and maintenance plan that can be implemented with success. However, if such a programme is done exclusively for the Manikarnika Ghat, it might not be effective. What is required is a PP&A programme conducted for the whole old city area which shares similar hygiene and sanitation problems and developmental issues.

As the world proceeds from a development culture based on physical infrastructure to a development culture based on accumulation and sharing of knowledge, we need to realise that investments in public awareness are definitely those that have the highest potential rate of return.

This is true everywhere, but is more true in Varanasi, where the root of underdevelopment is none other than lack of knowledge and awareness.

The passive fatalism and uncooperative acceptance of made-elsewhere policies that has previously characterized Varanasi hygiene and sanitation policy implementation until now can be reversed by the methodology of participated programme design, implementation and evaluation that our study group has illustrated and recommended in this report.