

NODE	PIPE	
	SIZE (mm)	LENGTH (m)
RC_N1-RC_N2	700	300
RC_N2-RC_N3	700	300
RC_N3-RC_N4	800	300
RC_N4-RC_N5	800	300
RC_N5-RC_N6	800	350
RC_N6-RC_N7	800	400
RC_N7-RC_N8	1200	250
RC_N8-RC_N9	1200	300
RC_N9-RC_N10	1400	100
RC_N10-RC_N11	1400	150
RC_N11-RC_N12	1400	400
RC_N12-RC_N13	1400	250
RC_N13-RC_N14	1400	150
RC_N14-RC_N15	1800	350
RC_N15-RC_N16	1800	400
RC_N16-RC_N17	1800	200
RC_N17-RC_N18	1800	400
RC_N18-RC_N19	1800	250
RC_N19-RC_N20	1800	200
RC_N20-RC_N21	2200	350
RC_N21-RC_N22	2200	300
RC_N22-RC_N23	2200	300
RC_N23-RC_N24	2200	250
RC_N24-RC_N25	2200	200
RC_N25-RC_N26	2200	400
RC_N26-RC_N27	2200	200
RC_N27-RC_N28	2200	300
RC_N28-RC_N29	2200	250
RC_N29-RC_N30	2200	350
RC_N30-RC_N31	2200	450
RC_N31-RC_N32	2200	250
RC_N32-RC_N33	2200	400
RC_N33-RC_N34	2200	200
RC_N34-RC_N35	2200	80
RC_N35-RC_N36	2200	98
RC_N36-RC_N37	2200	48
RC_N37-RC_N38	2200	80

NOTES:-

LEGEND:-

- PROPOSED SEWER
- MAIN CATCHMENT BOUNDARY
- SUB CATCHMENT BOUNDARY
- DISTRICT BOUNDARY
- RAILWAY
- WARD BOUNDARY
- WARD NO.
- PUMPING STATION
- FUTURE SERVICE AREA
- RC\_N1
- PROPOSED STP

REFERENCE DRG. NOS:-

- 1. BASE MAP WITH SEWERAGE ZONES KAN-BASE MAP-1
- 2. BASE MAP WITH WARD BOUNDARIES & PROPOSED PRIORITY PROJECTS KAN-BASE MAP-2
- 3. KEY PLAN-1 KAN-KP-1

INST.					
ELCD.					
MECH.					
STRU.					
CIVL.					
REV. NO.	0	1	2	3	4

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED
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CHECKED BY:	JONMED KHAN	APPROVED BY:	V.N.SCHTAKKE
DRAWN:	FRUMAO	SCALE:	1:10000
DESIGNED:	N.D.NAGVEKAR	DATE:	12-01-2006

**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

CONSULTANTS:

- TOKYO ENGINEERING CONSULTANTS CO., LTD.
- CEI ENGINEERING INTERNATIONAL CO., LTD.
- SANGHVI PRAKASHI LIMITED

PROJECT:

THE STUDY ON WATER QUALITY MANAGEMENT PLAN FOR GANGA RIVER IN THE REPUBLIC OF INDIA

FEASIBILITY STUDY FOR KANPUR CITY

SHEET CONTENTS:

CATCHMENT AREA OF PROPOSED SEWER LINE IN CITY CORE AREA IN DISTRICT-I (SHEET 1/2)

DRAWING NO.	SR. NO.
KAN-CA-D1-1	169



NOTES:-

LEGEND:-

- PROPOSED SEWER LINE
- RISING MAIN
- MAIN DATCHMENT BOUNDARY
- SUB CATCHMENT BOUNDARY
- DISTRICT BOUNDARY
- RAILWAY
- PUMPING STATION
- FUTURE SERVICE AREA
- NODE NUMBER
- PROPOSED STP

REFERENCE DRAWINGS :

- 1) BASE MAP WITH SEWERAGE ZONES KAN-BASE MAP-1
- 2) BASE MAP WITH WARD BOUNDARIES AND PROPOSED PRIORITY PROJECTS KAN-BASE MAP-2
- 3) KEY PLAN KAN-KP-1

INST.					
ELEC.					
MECH.					
STRU.					
CIVL.					
REV. NO.	0	1	2	3	4

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED

CHECKED BY:	JONMED KHAN	APPROVED BY:	V.N.SONTAKKE
DRAWN:	H.S.PANWAR	SCALE:	1:10000
DESIGNED:	M.D.NAGVEKAR	DATE:	13/01/2006
SURVEYED:			



PROJECT:  
**THE STUDY ON WATER QUALITY MANAGEMENT PLAN FOR GANGA RIVER IN THE REPUBLIC OF INDIA**  
**FEASIBILITY STUDY FOR KANPUR CITY**

SHEET CONTENTS:  
 CATCHMENT AREA OF PROPOSED SEWER LINE AT JAJMAU IN DISTRICT-I (SHEET 2/2)

DRAWING NO. KAN-CA-D1-2 SR. NO. 170

NODE	PIPE	
	SIZE (mm)	LENGTH (m)
JJM_N23/1 - JJM_N23/2	500	200
JJM_N23/2 - JJM_N23	500	200

NODE	PIPE	
	SIZE (mm)	LENGTH (m)
JJM_N1 - JJM_N2	800	120
JJM_N2 - JJM_N3	800	120
JJM_N3 - JJM_N4	800	80
JJM_N4 - JJM_N5	800	80
JJM_N5 - JJM_N6	800	150
JJM_N6 - JJM_N7	800	120
JJM_N7 - JJM_N8	800	120
JJM_N8 - JJM_N9	900	80
JJM_N9 - JJM_N10	800	80
JJM_N10 - JJM_N11	900	150
JJM_N11 - JJM_N12	800	120
JJM_N12 - JJM_N13	1200	80
JJM_N13 - JJM_N14	1200	45
JJM_N14 - JJM_N15	1200	75
JJM_N15 - JJM_N16	1200	120
JJM_N16 - JJM_N17	1400	120
JJM_N17 - JJM_N18	1400	120
JJM_N18 - JJM_N19	1400	90
JJM_N19 - JJM_N20	1400	80
JJM_N20 - JJM_N21	1400	120
JJM_N21 - JJM_N22	1400	90
JJM_N22 - JJM_N23	1400	120
JJM_N23 - JJM_N24	1400	120
JJM_N24 - JJM_N25	1400	180
JJM_N25 - JJM_N26	1600	150
JJM_N26 - JJM_N27	1800	90
JJM_N27 - JJM_N28	1600	210
JJM_N28 - JJM_N29	1600	120
JJM_N29 - JJM_N30	1600	80
JJM_N30 - JJM_N31	1600	80
JJM_N31 - JJM_N32	1800	210
JJM_N32 - JJM_N33	1600	120
JJM_N33 - JJM_N34	1600	80
JJM_N34 - JJM_N35	1600	180
JJM_N35 - JJM_N36	1600	150
JJM_N36 - JJM_N37	1600	210
JJM_N37 - JJM_N38	1600	150
JJM_N38 - JJM_PS	1600	210

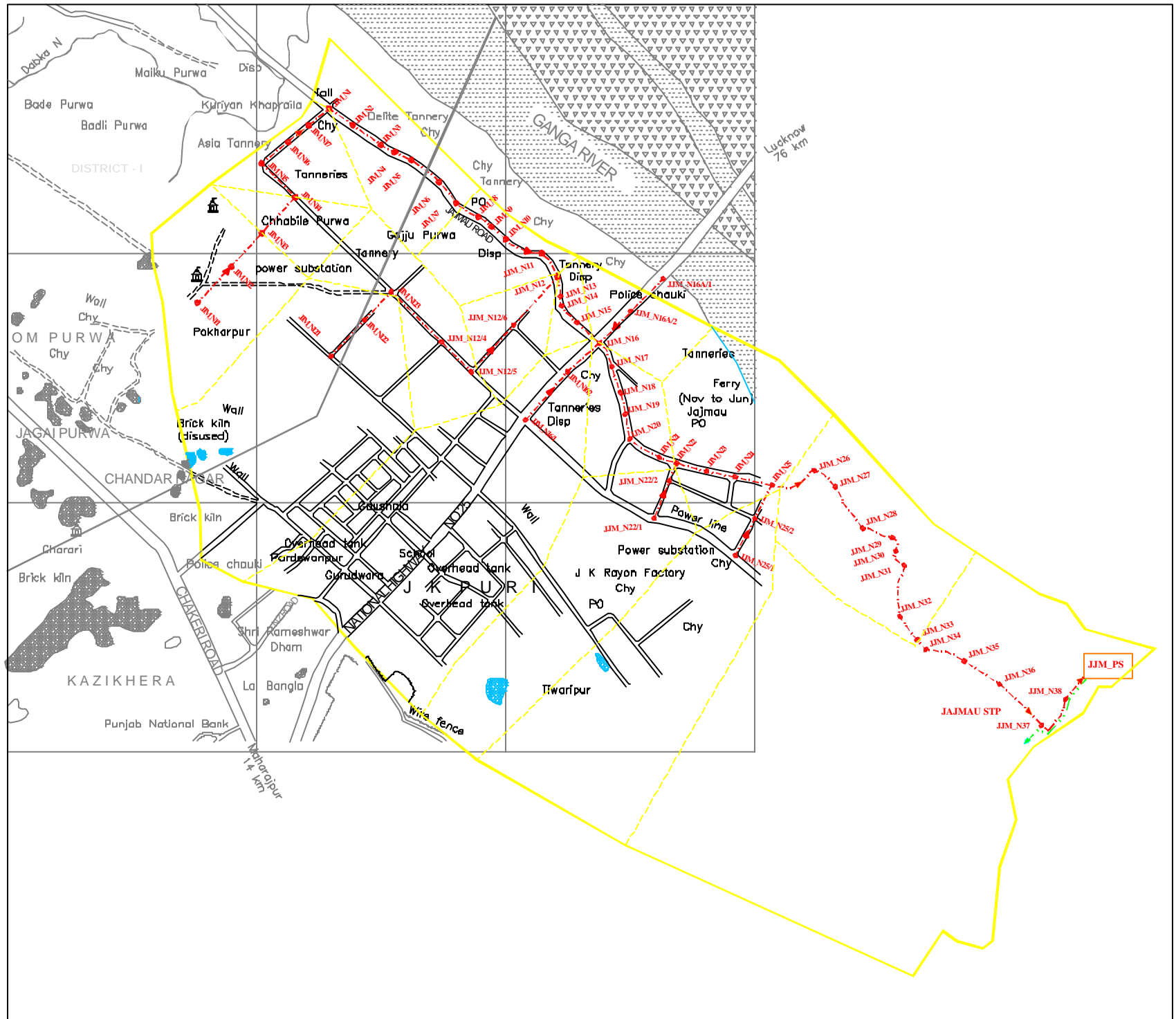
NODE	PIPE	
	SIZE (mm)	LENGTH (m)
JJM_N1/1 - JJM_N1/2	500	200
JJM_N1/2 - JJM_N1/3	300	200
JJM_N1/3 - JJM_N1/4	800	150
JJM_N1/4 - JJM_N1/5	800	200
JJM_N1/5 - JJM_N1/6	800	120
JJM_N1/6 - JJM_N1/7	800	120
JJM_N1/7 - JJM_N1	800	120

NODE	PIPE	
	SIZE (mm)	LENGTH (m)
JJM_N12/1 - JJM_N12/2	500	200
JJM_N12/2 - JJM_N12/3	600	150
JJM_N12/3 - JJM_N12/4	700	275
JJM_N12/4 - JJM_N12/5	700	150
JJM_N12/5 - JJM_N12/6	700	200
JJM_N12/6 - JJM_N12	700	350

NODE	PIPE	
	SIZE (mm)	LENGTH (m)
JJM_N15/1 - JJM_N15/2	500	200
JJM_N15/2 - JJM_N15	500	250

NODE	PIPE	
	SIZE (mm)	LENGTH (m)
JJM_N16A/1 - JJM_N16A/2	500	200
JJM_N16A/2 - JJM_N16	500	200

NODE	PIPE	
	SIZE (mm)	LENGTH (m)
JJM_N22/1 - JJM_N22/2	500	200
JJM_N22/2 - JJM_N22	500	200



12 11 10 9 8 7 6 5 4 3 2 1

H

G

F

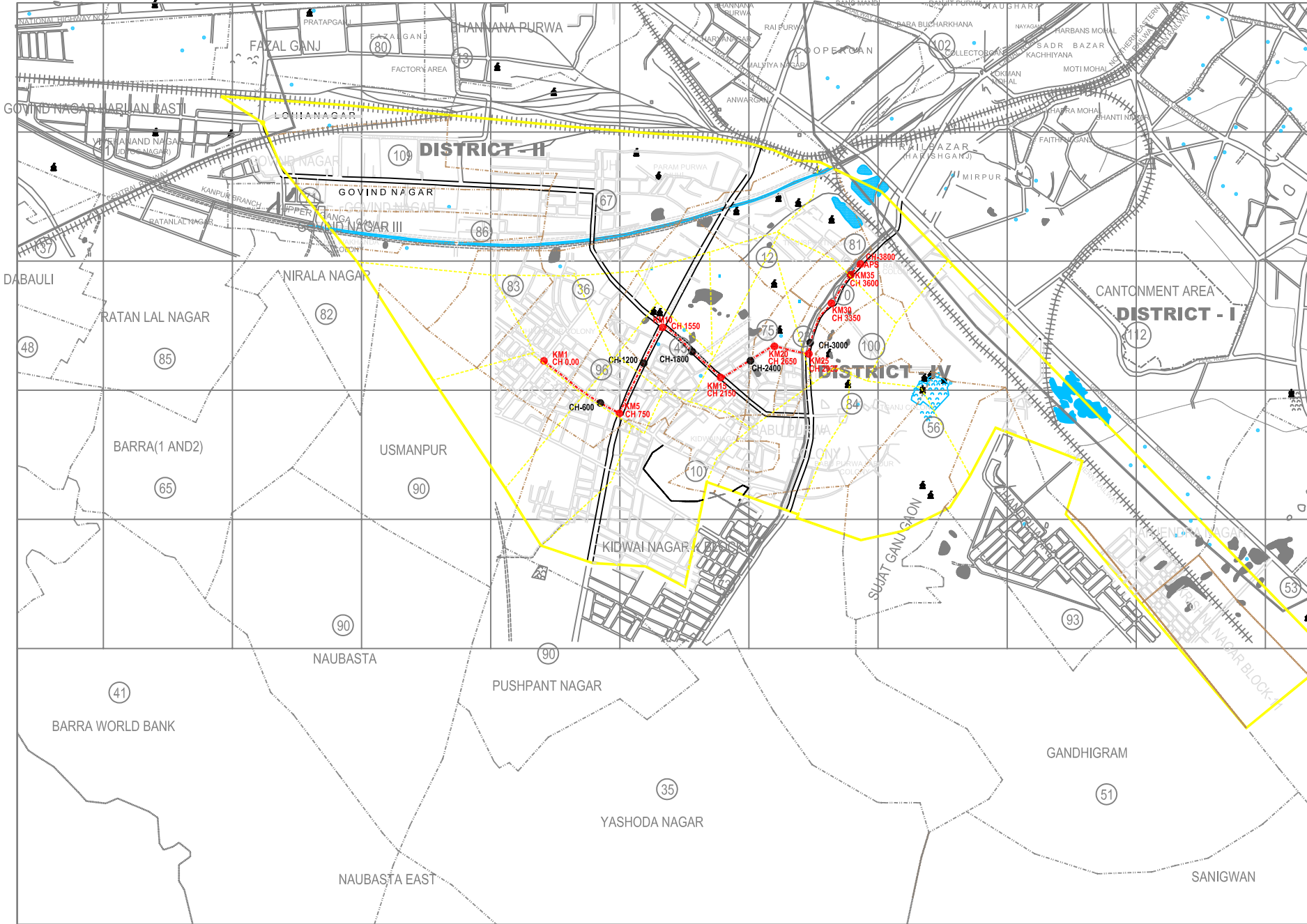
E

D

C

B

A



- LEGEND:-**
- PROPOSED SEWER LINE
  - RISING MAIN
  - MAIN CATCHMENT BOUNDARY
  - SUB CATCHMENT BOUNDARY
  - WARD BOUNDARY
  - DISTRICT BOUNDARY
  - RAILWAY
  - 93 WARD NOS.
  - PS PUMPING STATION
  - FSA131 FUTURE SERVICE AREA
  - KM35 NODE NUMBER
  - PROPOSED STP

**REFERENCE DRG.NOS:-**

- 1.BASE MAP WITH SEWERAGE ZONES KAN-BASE MAP-1
- 2.BASE MAP WITH WARD BOUNDARIES & PROPOSED PRIORITY PROJECTS KAN-BASE MAP-2
- 3.KEY PLAN-1 KAN-BASE MAP-1

NODE	PIPE	
	SIZE (mm)	LENGTH (mm)
KM1 - KM5	700	750
KM5 - KM 10	700	800
KM10 -KM 15	900	600
KM15 - KM 20	1000	500
KM20 - KM25	1100	275
KM25 - KM30	1600	425
KM30 - KM35	1800	250
KM35 - APS	2000	200

INST.					
ELEC.					
MECH.					
STRU.					
CIVIL					
REV NO.	0	1	2	3	4

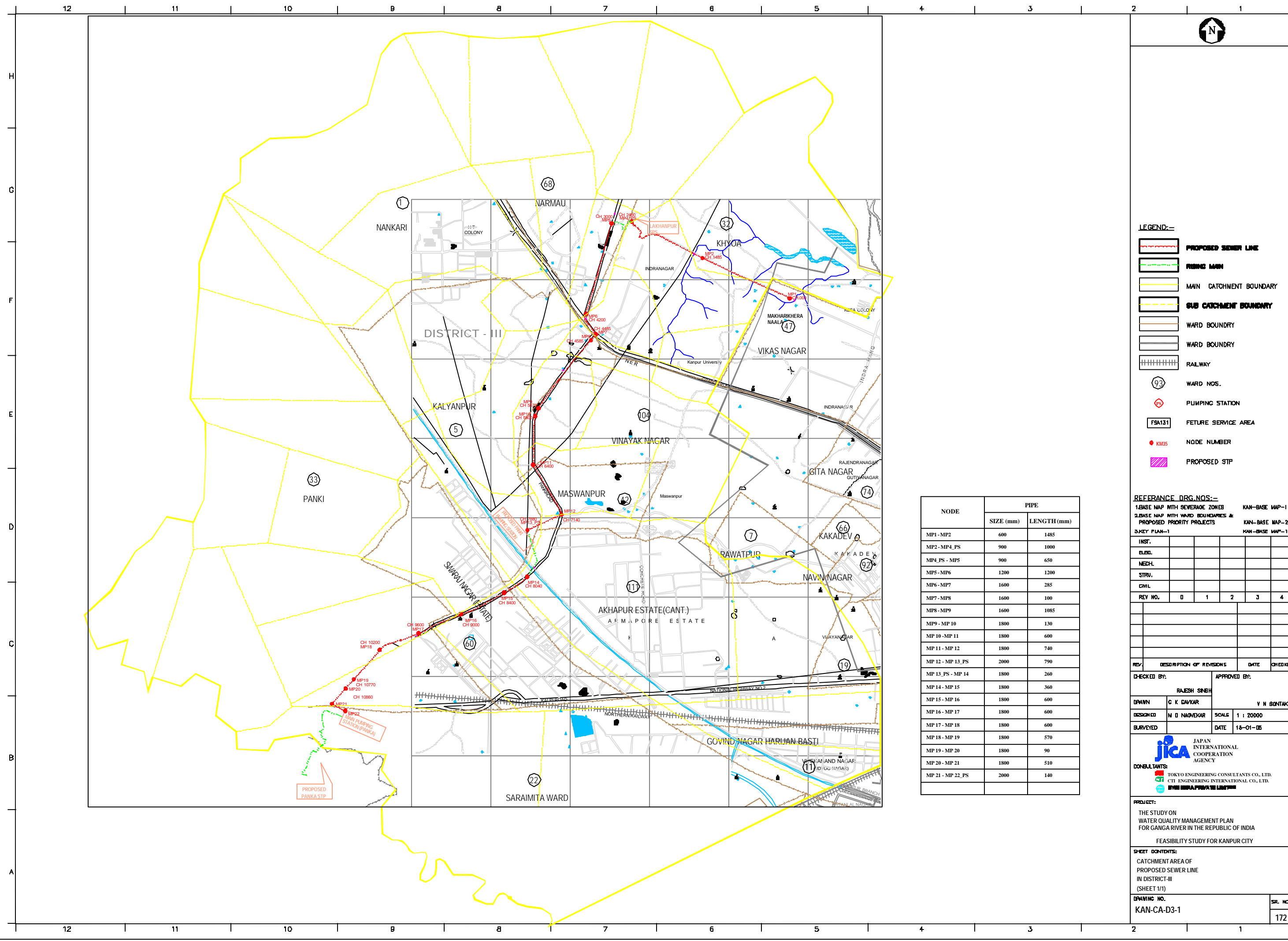
REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED

CHECKED BY: RAJESH SINGH  
 APPROVED BY: V N SONTAKKE  
 DRAWN: G K GAVKAR  
 DESIGNED: M D NAGVEKAR  
 SURVEYED: DATE 15-01-05  
 SCALE 1 : 20000

**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY  
 CONSULTANTS:  
 TOKYO ENGINEERING CONSULTANTS CO., LTD.  
 CTI ENGINEERING INTERNATIONAL CO., LTD.  
 MWH INDIA PRIVATE LIMITED

PROJECT:  
 THE STUDY ON WATER QUALITY MANAGEMENT PLAN FOR GANGA RIVER IN THE REPUBLIC OF INDIA  
 FEASIBILITY STUDY FOR KANPUR CITY

SHEET CONTENTS:  
 CATCHMENT AREA OF PROPOSED SEWER LINE IN DISTRICT-II (SHEET 1/1)  
 DRAWING NO. KAN-CA-D2-1  
 SR. NO. 171



- LEGEND:-**
- PROPOSED SEWER LINE
  - RISING MAIN
  - MAIN CATCHMENT BOUNDARY
  - SUB CATCHMENT BOUNDARY
  - WARD BOUNDARY
  - WARD BOUNDARY
  - RAILWAY
  - WARD NOS.
  - PUMPING STATION
  - FUTURE SERVICE AREA
  - NODE NUMBER
  - PROPOSED STP

- REFERENCE DRG.NOS:-**
- 1.BASE MAP WITH SEWERAGE ZONES KAN-BASE MAP-1
  - 2.BASE MAP WITH WARD BOUNDARIES & PROPOSED PRIORITY PROJECTS KAN-BASE MAP-2
  - 3.SKETCH PLAN-1 KAN-BASE MAP-1

NODE	PIPE	
	SIZE (mm)	LENGTH (mm)
MP1 - MP2	600	1485
MP2 - MP4_PS	900	1000
MP4_PS - MP5	900	650
MP5 - MP6	1200	1200
MP6 - MP7	1600	285
MP7 - MP8	1600	100
MP8 - MP9	1600	1085
MP9 - MP 10	1800	130
MP 10 - MP 11	1800	600
MP 11 - MP 12	1800	740
MP 12 - MP 13_PS	2000	790
MP 13_PS - MP 14	1800	260
MP 14 - MP 15	1800	360
MP 15 - MP 16	1800	600
MP 16 - MP 17	1800	600
MP 17 - MP 18	1800	600
MP 18 - MP 19	1800	570
MP 19 - MP 20	1800	90
MP 20 - MP 21	1800	510
MP 21 - MP 22_PS	2000	140

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED
0			
1			
2			
3			
4			

CHECKED BY: RAJESH SINGH		APPROVED BY: V N BONTANGE	
DRAWN: C K CAKVAR	DESIGNED: N D NADEKAR	SCALE: 1 : 20000	DATE: 18-01-05

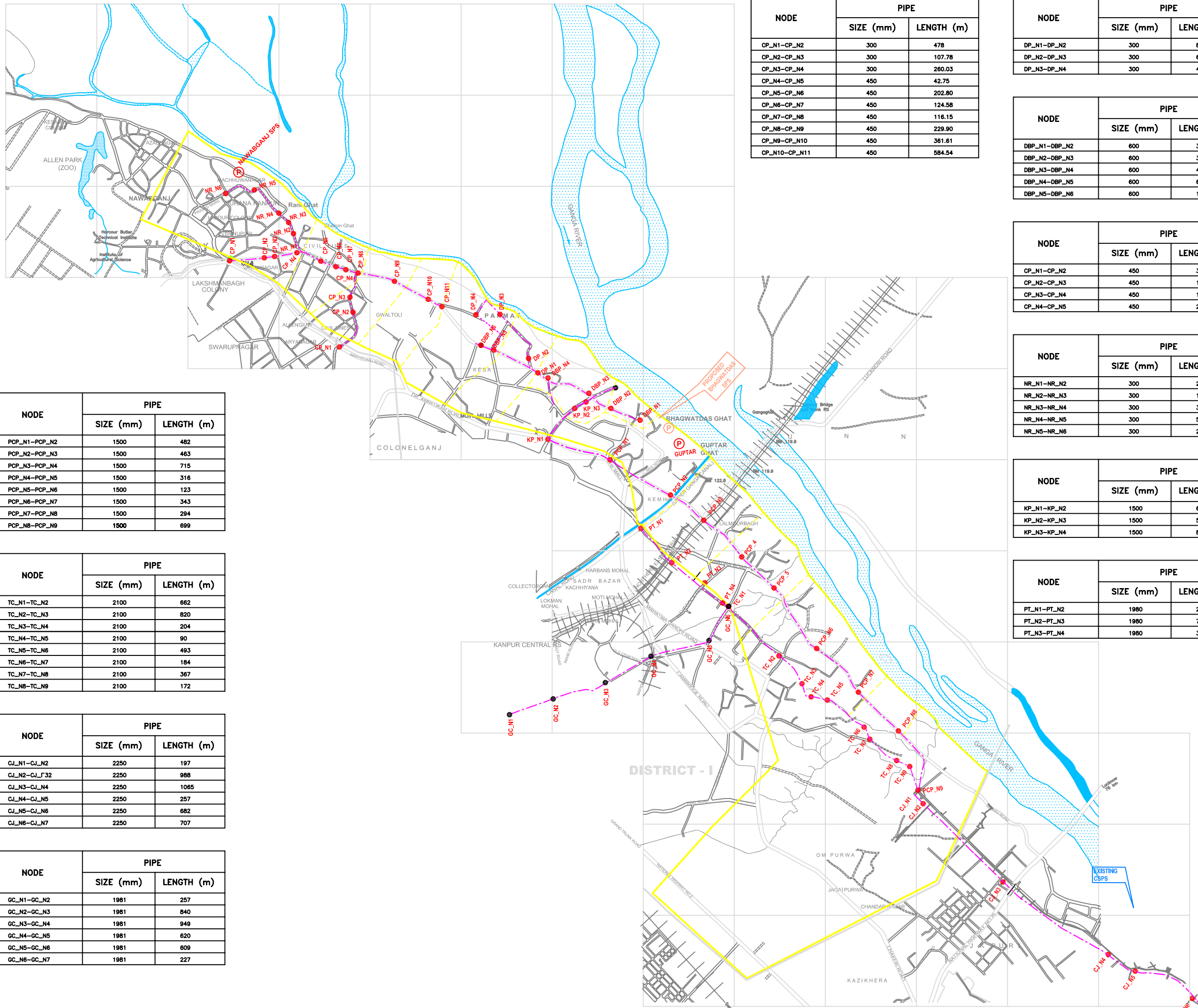
**CONSULTANTS:**

**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

TOKYO ENGINEERING CONSULTANTS CO., LTD.  
 CTE ENGINEERING INTERNATIONAL CO., LTD.  
 CIVIL ENGINEERING CONSULTANTS

**PROJECT:**  
 THE STUDY ON WATER QUALITY MANAGEMENT PLAN FOR GANGA RIVER IN THE REPUBLIC OF INDIA  
 FEASIBILITY STUDY FOR KANPUR CITY

**SHEET CONTENTS:**  
 CATCHMENT AREA OF PROPOSED SEWER LINE IN DISTRICT-III (SHEET 1/1)



NODE	PIPE	
	SIZE (mm)	LENGTH (m)
CP_N1-CP_N2	300	478
CP_N2-CP_N3	300	107.78
CP_N3-CP_N4	300	260.03
CP_N4-CP_N5	450	42.75
CP_N5-CP_N6	450	202.80
CP_N6-CP_N7	450	124.58
CP_N7-CP_N8	450	116.15
CP_N8-CP_N9	450	229.90
CP_N9-CP_N10	450	361.61
CP_N10-CP_N11	450	584.54

NODE	PIPE	
	SIZE (mm)	LENGTH (m)
DP_N1-DP_N2	300	86.17
DP_N2-DP_N3	300	622.57
DP_N3-DP_N4	300	414.71

NODE	PIPE	
	SIZE (mm)	LENGTH (m)
DBP_N1-DBP_N2	600	333.18
DBP_N2-DBP_N3	600	334.36
DBP_N3-DBP_N4	600	489.19
DBP_N4-DBP_N5	600	632.21
DBP_N5-DBP_N6	600	192.89

NODE	PIPE	
	SIZE (mm)	LENGTH (m)
CP_N1-CP_N2	450	303.51
CP_N2-CP_N3	450	153.98
CP_N3-CP_N4	450	125.30
CP_N4-CP_N5	450	229.15

NODE	PIPE	
	SIZE (mm)	LENGTH (m)
NR_N1-NR_N2	300	219.80
NR_N2-NR_N3	300	142.55
NR_N3-NR_N4	300	337.27
NR_N4-NR_N5	300	554.51
NR_N5-NR_N6	300	223.28

NODE	PIPE	
	SIZE (mm)	LENGTH (m)
KP_N1-KP_N2	1500	68
KP_N2-KP_N3	1500	594
KP_N3-KP_N4	1500	87

NODE	PIPE	
	SIZE (mm)	LENGTH (m)
PT_N1-PT_N2	1980	258
PT_N2-PT_N3	1980	778
PT_N3-PT_N4	1980	308

NODE	PIPE	
	SIZE (mm)	LENGTH (m)
PCP_N1-PCP_N2	1500	482
PCP_N2-PCP_N3	1500	463
PCP_N3-PCP_N4	1500	715
PCP_N4-PCP_N5	1500	316
PCP_N5-PCP_N6	1500	123
PCP_N6-PCP_N7	1500	343
PCP_N7-PCP_N8	1500	294
PCP_N8-PCP_N9	1500	699

NODE	PIPE	
	SIZE (mm)	LENGTH (m)
TC_N1-TC_N2	2100	682
TC_N2-TC_N3	2100	820
TC_N3-TC_N4	2100	204
TC_N4-TC_N5	2100	90
TC_N5-TC_N6	2100	493
TC_N6-TC_N7	2100	184
TC_N7-TC_N8	2100	367
TC_N8-TC_N9	2100	172

NODE	PIPE	
	SIZE (mm)	LENGTH (m)
CJ_N1-CJ_N2	2250	197
CJ_N2-CJ_N3	2250	988
CJ_N3-CJ_N4	2250	1065
CJ_N4-CJ_N5	2250	257
CJ_N5-CJ_N6	2250	682
CJ_N6-CJ_N7	2250	707

NODE	PIPE	
	SIZE (mm)	LENGTH (m)
GC_N1-GC_N2	1981	257
GC_N2-GC_N3	1981	840
GC_N3-GC_N4	1981	949
GC_N4-GC_N5	1981	620
GC_N5-GC_N6	1981	609
GC_N6-GC_N7	1981	227

**NOTES:-**

**LEGEND:-**

- EXISTING SEWER
- MAIN CATCHMENT BOUNDARY
- SUB CATCHMENT BOUNDARY
- DISTRICT BOUNDARY
- RAILWAY
- PUMPING STATION
- FUTURE SERVICE AREA
- NODE NUMBER
- PROPOSED STP

**REFERENCE DRAWING :**

- 1) BASE MAP WITH SEWERAGE ZONES KAN-BASE MAP-1
- 2) BASE MAP WITH WARD BOUNDARIES & PROPOSED PRIORITY PROJECTS KAN-BASE MAP-2
- 3) KEY PLAN KAN-KP-1

INST.					
ELEC.					
MECH.					
STRU.					
CIVIL					
REV. NO.	0	1	2	3	4

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED
0			

CHECKED BY:		APPROVED BY:	
JONAEED KHAN		V.N.SONTAKKE	
DESIGNED	M.D.NAGVEKAR	SCALE	1:20000
SURVEYED		DATE	09/01/2005

JAPAN INTERNATIONAL COOPERATION AGENCY

CONSULTANTS:  
 TOKYO ENGINEERING CONSULTANTS CO., LTD.  
 CTI ENGINEERING INTERNATIONAL CO., LTD.  
 MWH INDIA PRIVATE LIMITED

**PROJECT:**  
THE STUDY ON WATER QUALITY MANAGEMENT PLAN FOR GANGA RIVER IN THE REPUBLIC OF INDIA  
FEASIBILITY STUDY FOR KANPUR CITY

**SHEET CONTENTS:**  
CATCHMENT AREA OF EXISTING SEWER LINE IN DISTRICT-I (SHEET 1/1)

DRAWING NO.	KAN-CAM-D1-1	SR. NO.	173
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NODE	PIPE	
	SIZE (mm)	LENGTH (m)
G_N1-G_N2	750	280
G_N2-G_N3	750	744
G_N3-G_N4	750	715
G_N4-G_N6	750	287

NODE	PIPE	
	SIZE (mm)	LENGTH (m)
H_N1-H_N2	450	297
H_N2-H_N3	450	388
H_N3-H_N4	450	90

NODE	PIPE	
	SIZE (mm)	LENGTH (m)
CH_N1-CH_N2	838	318
CH_N2-CH_N3	838	10.04
CH_N3-CH_N4	838	4.13
CH_N4-CH_N5	838	823
CH_N5-CH_N6	838	482
CH_N6-CH_N7	838	335
CH_N7-CH_N8	838	482



NOTES:-

LEGEND:-

- EXIST SEWER
- MAIN CATCHMENT BOUNDARY
- SUB CATCHMENT BOUNDARY
- DISTRICT BOUNDARY
- RAILWAY
- PUMPING STATION
- FUTURE SERVICE AREA
- NODE NUMBER
- PROPOSED STP

REFERENCE DRG. NOS:-

- 1. BASE MAP WITH SEWERAGE ZONES KAN-BASE MAP-1
- 2. BASE MAP WITH WARD BOUNDARIES & PROPOSED PRIORITY PROJECTS KAN-BASE MAP-2
- 3. KEY PLAN-1 KAN-KP-1

INST.					
ELCD.					
MECH.					
STRU.					
CIVL.					
REV. NO.	0	1	2	3	4

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED

CHECKED BY:		APPROVED BY:	
JOHMED KHAN		V.N.SCHTAKKE	
DRAWN	F.P. JUMAO	SCALE	1:20000
DESIGNED	N.D. NAGVEKAR	DATE	13/01/2005

**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

CONSULTANTS:

- TOKYO ENGINEERING CONSULTANTS CO., LTD.
- CTI ENGINEERING INTERNATIONAL CO., LTD.
- SHYAM SERRA PRIVATE LIMITED

PROJECT:

THE STUDY ON WATER QUALITY MANAGEMENT PLAN FOR GANGA RIVER IN THE REPUBLIC OF INDIA

FEASIBILITY STUDY FOR KANPUR CITY

SHEET CONTENTS:

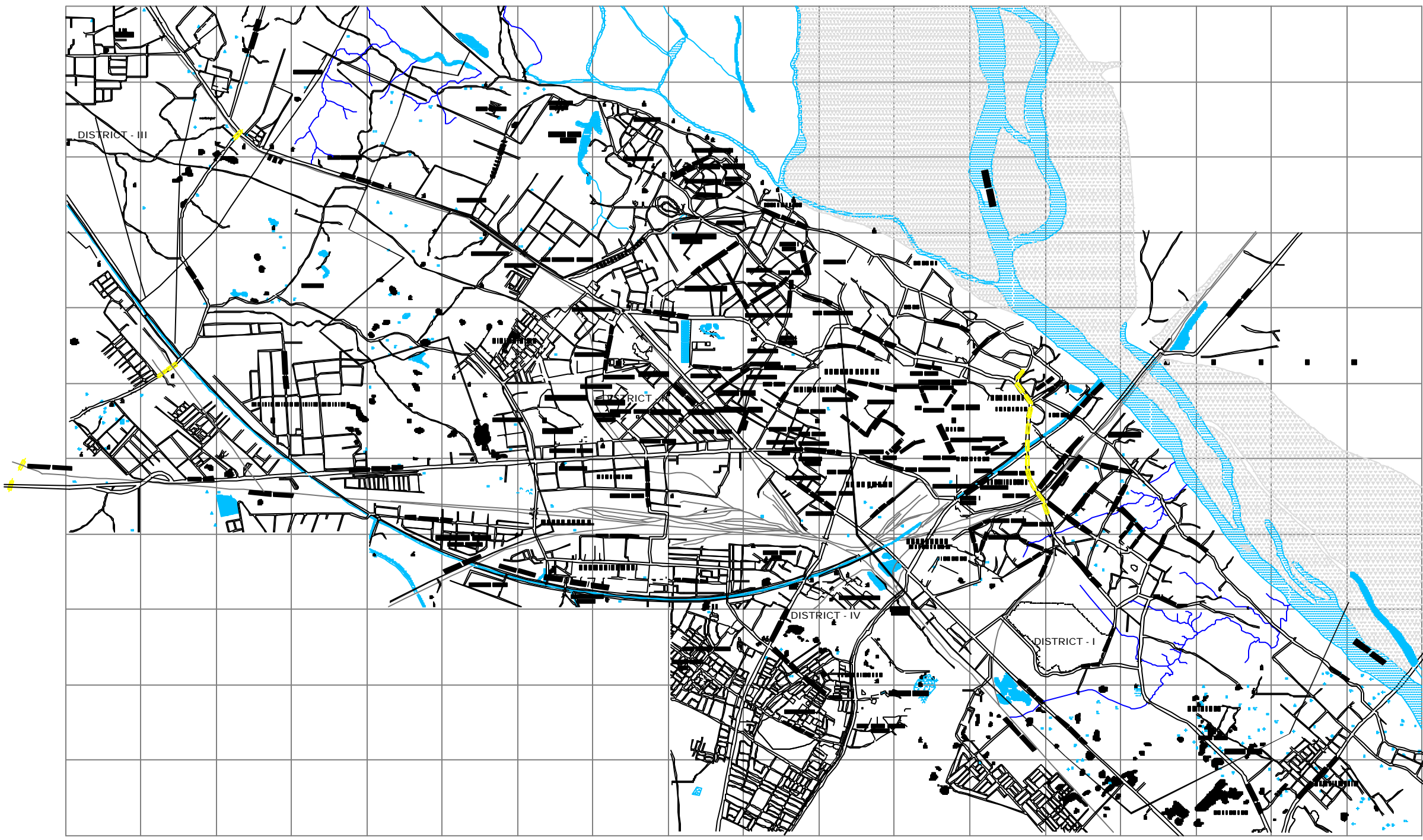
CATCHMENT AREA OF EXISTING SEWER LINE IN DISTRICT-II (SHEET 1/1)

DRAWING NO.	SHT. NO.
KAN-CAM-D2-1	174

Sr	Description	Length (m)	Physical condition	District
1	Near Katarpur Railway Crossing	330	Rail Crossing	District III
2	Near Tambeshwar Temple	50	Rail Crossing	District III
3	Near Tambeshwar Temple about 150mtrs from the first crossing	50	Rail Crossing	District III
4	Railway crossing near Parki Rly station	110	Rail Crossing	District III
5	By Pass Road Fly Over crossing near Parki road	100	Fly Over	District III
6	Near Phoolbaug crossing	2200	Heavy traffic	District I

**LEGEND**

- ROAD (NATIONAL HIGHWAY)
- METAL ROAD, UNMETAL ROAD
- RAILWAY LINE
- MUNICIPAL BOUNDARY
- DISTRICT BOUNDARY
- BUILDING, PLOT, ETC.
- BRIDGE / CULVERT
- TEMPLE, MADRAS, CHURCH
- TREE GARDEN
- PFS
- PERSONNEL
- DRAIN
- TUG WELL, WELL, ETC.
- WATER BODIES
- RIVER
- SMD DUMP
- TRENCHLESS



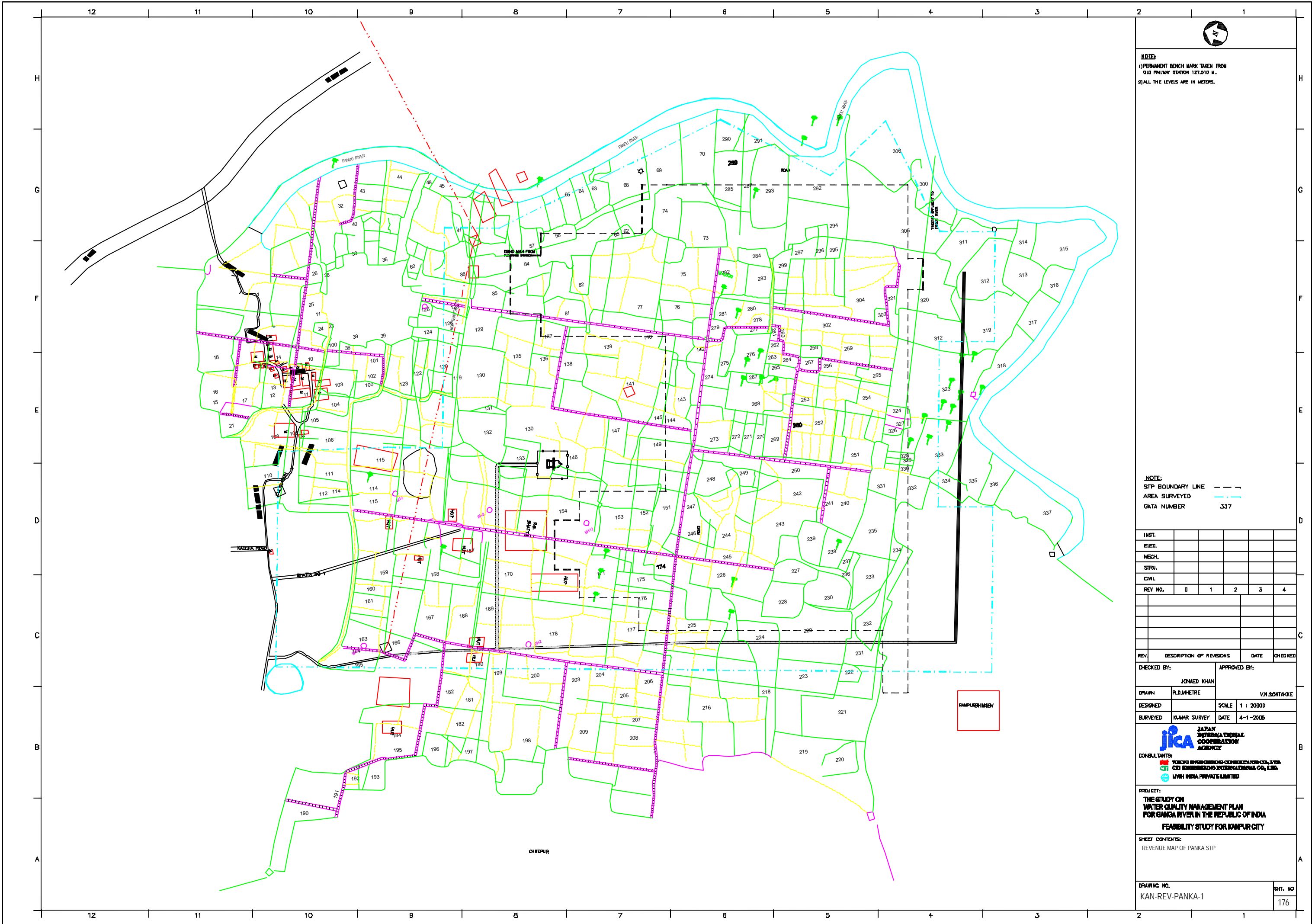
INTL.					
DECE.					
MECH.					
SRVA.					
CVIL.					
REV. NO.	0	1	2	3	4

DESIGNED BY	APPROVED BY
DESIGNED BY	APPROVED BY
DATE	DATE
DATE	DATE



**PROJECT:**  
 THE STUDY ON  
 WATER QUALITY MANAGEMENT PLAN  
 FOR GANGA RIVER IN THE REPUBLIC OF INDIA  
 FEASIBILITY STUDY FOR KANPUR CITY

**SHEET CONTENT:**  
 PLAN SHOWING LOCATIONS OF  
 TRENCHLESS TECHNOLOGY



**NOTE:**  
 1) PERMANENT BENCH MARK TAKEN FROM OLD RAILWAY STATION 127.810 M.  
 2) ALL THE LEVELS ARE IN METERS.

**NOTE:**  
 STP BOUNDARY LINE ---  
 AREA SURVEYED ---  
 DATA NUMBER 337

INST.					
EDUC.					
MECH.					
STRU.					
CIVIL					
REV. NO.	0	1	2	3	4

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED

CHECKED BY:		APPROVED BY:	
JUNAED KHAN		V.N. SONTAKKE	
DRAWN	R.D. MISHRA	SCALE	1 : 20000
DESIGNED	KUMAR SURVEY	DATE	4-1-2005

**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

CONSULTANTS:

- WORLD ENGINEERING CONSULTANTS PVT. LTD.
- CDI ENGINEERING INTERNATIONAL CO., LTD.
- MWH INDIA PRIVATE LIMITED

**PROJECT:**  
 THE STUDY ON WATER QUALITY MANAGEMENT PLAN FOR GANGA RIVER IN THE REPUBLIC OF INDIA  
 FEASIBILITY STUDY FOR KANPUR CITY

**SHEET CONTENTS:**  
 REVENUE MAP OF PANKA STP



NOTES:-

READ THIS DRAWING ALSO WITH DRAWING KAN-STP-PANKA-3 (SHEET 2 OF 2)

INST.					
ELED.					
MEDL.					
STR.					
CIVIL					
REV. NO.	0	1	2	3	4

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED

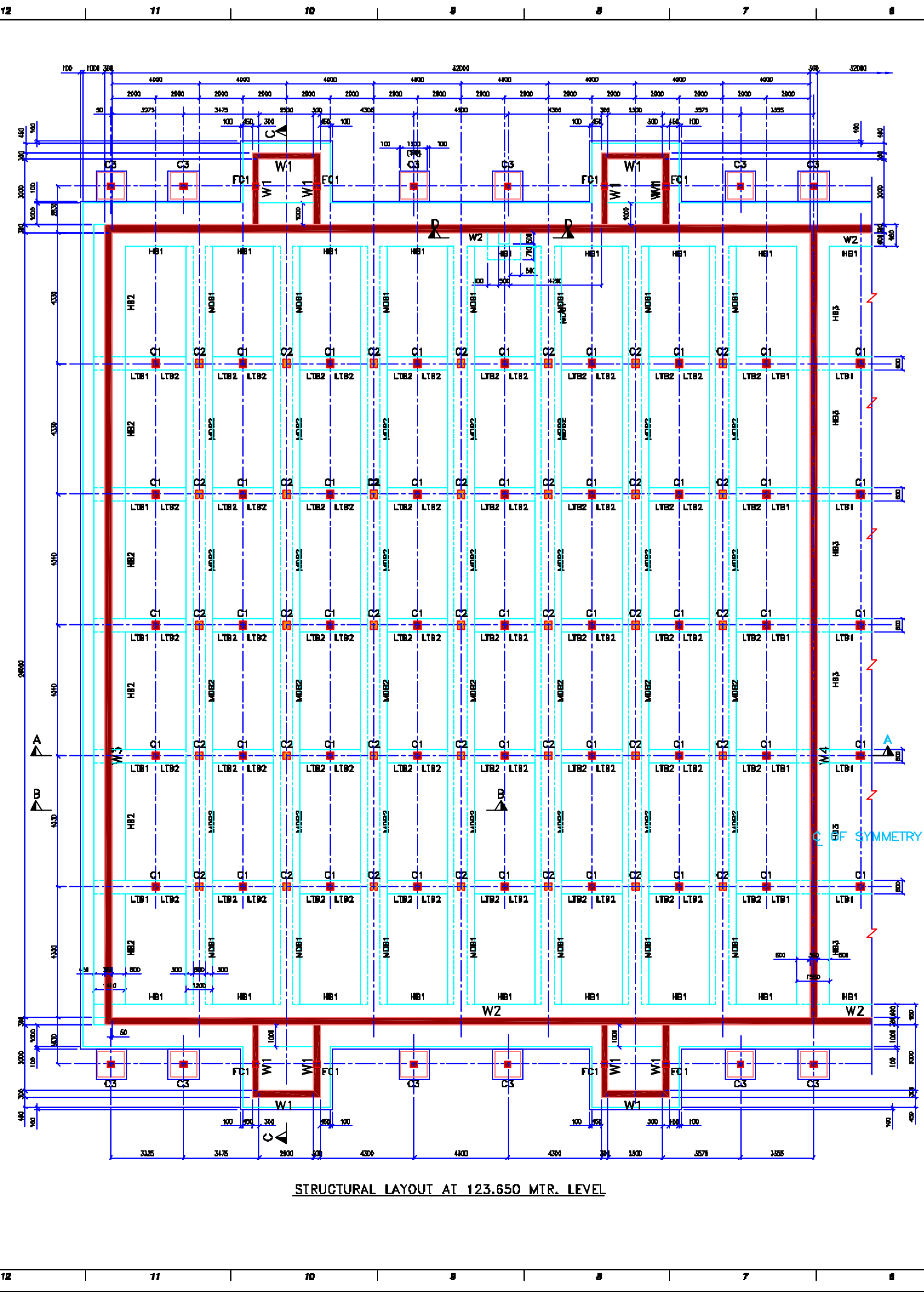
CHECKED BY:		APPROVED BY:	
PARESH		V. N. SONTAKKE	
DRAWN	DEEPAK	SCALE	N.T.S.
DESIGNED	UNNANKAR	DATE	17-01-2005

**JICA**  
 JAPAN INTERNATIONAL COOPERATION AGENCY  
 CONSULTANTS:  
 ■ TSK&S ENGINEERING CONSULTANTS PVT. LTD.  
 ■ CTD ENGINEERING INTERNATIONAL CO., LTD.  
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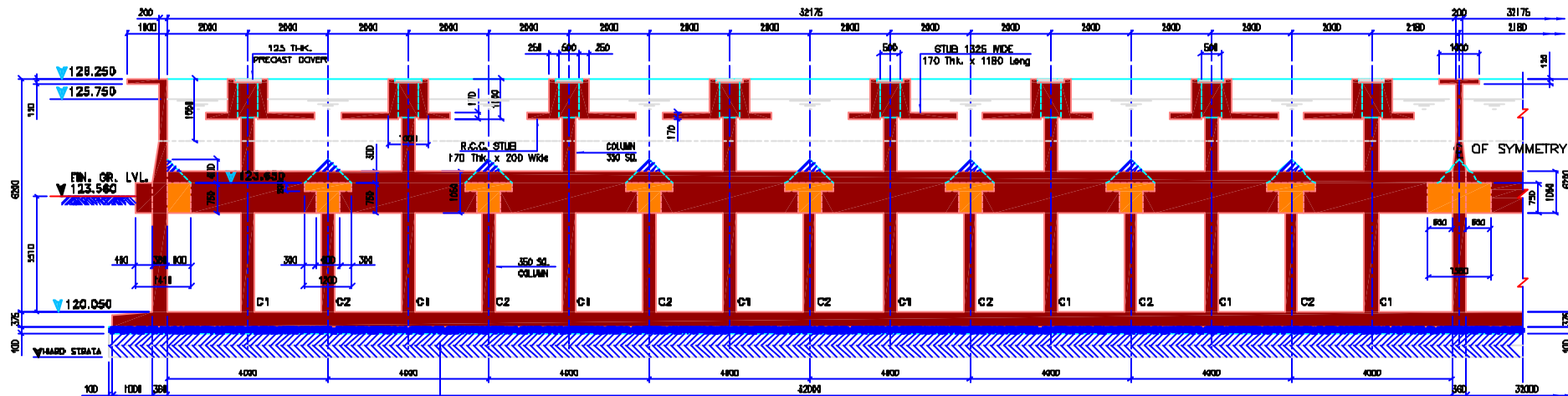
PROJECT:  
 THE STUDY ON WATER QUALITY MANAGEMENT PLAN FOR GANGA RIVER IN THE REPUBLIC OF INDIA  
 FEASIBILITY STUDY FOR LUCKNOW CITY

SHEET CONTENTS:  
 STRUCTURAL DETAILS OF UASB REACTOR OF PANKA STP (SHEET 1B)

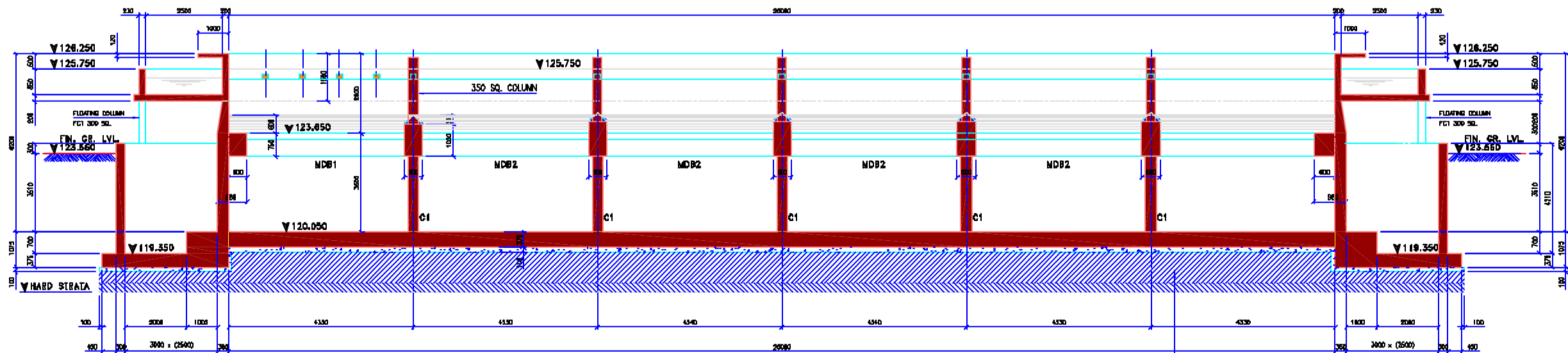
DRAWING NO. **KAN-STP-PANKA-4** SR. NO. **177**



STRUCTURAL LAYOUT AT 123.650 MTR. LEVEL



SECTION A-A



SECTION C-C

- NOTES:-**
- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS.
  - GRADE OF CONCRETE M25 WITH MINIMUM CEMENT CONTENT = 410 Kg/cum.
  - GRADE OF P.C.C. M10.
  - NET S.B.C. OF SOIL ASSIGNED AT 20 T/SQ. M. AT 3 MTR. BELOW FIN. CR. LVL.
  - Ø DENOTES HIGH YIELD STRENGTH DEFORMED BARS CONFORMING TO IS:1786 (Pb 415).
  - REINFORCEMENT, IF REQUIRED, SHALL BE MARGINALLY SHIFTED OR BENT TO CLEAR OPENING ETC. BUT IN NO CASE SHALL BE CUT WITHOUT PRIOR APPROVAL OF ENGINEER.
  - CLEAR COVER TO MAIN REINF. SHALL BE AS FOLLOWS
    - 1) SLAB : 20mm
    - 2) BEAM : 40mm
    - 3) COLUMN AND PRECAST : 40mm
    - 4) LIQUID RETAINING STRUCTURE : 40mm
    - 5) FOOTING : 50mm
  - REINFORCEMENT SHALL BE SPLICED AS SHOWN IN THE DRAWING. REINFORCEMENT WHERE SPLICES SHALL HAVE A LAP OF 50 TIMES DIAMETER OF SMALLER BAR.
  - BEFORE STARTING FRESH CONCRETE, CLEAN THE CONSTRUCTION JOINT THOROUGHLY AND PUT CEMENT SLURRY AT THE JOINTS AND RICH CONCRETE IN THE STARTING LAYER.
  - PROVIDE 530 WIDE x 8mm THK. PVC WATER BARS AT CONSTRUCTION JOINT AS PER IS:5370.
  - HYDRO TEST FOR THE STRUCTURE SHALL BE CARRIED OUT AS INDICATED IN IS:3370 (PART-I) CLAUSE NO. 10.
  - BACKFILL SHALL BE DONE IN UNIFORM LAYERS ALL AROUND THE STRUCTURES.
  - AVERAGE SOFT OR LOOSE STRATUM MET WITH UNDER FOUNDATION, BASE SLAB ETC. SHALL BE EXCAVATED AND MADE GOOD WITH LEAN CONCRETE OF GRADE M10 WITH PRIOR APPROVAL OF THE ENGINEER.
  - ALL EMBEDMENTS/INSERTS SHALL BE PLACED TO CORRECT LINE AND LEVELS AS SHOWN IN THE C.A. DRAWING AND SHALL BE MAINTAINED IN POSITION DURING CONCRETING. EMBEDMENTS/INSERTS FOR ALL IMPORTANT STRUCTURES SHALL BE POSITIONED BY TEMPLATES AS DIRECTED AS DIRECTED BY ENGINEER IN-CHARGE.
  - ALL WATER RETAINING STRUCTURES SHALL BE CONSTRUCTED IN SULPHATE RESISTANT CEMENT.
  - GROUND WATER TABLE CONSIDERED AT 120.000 MTR. LVL. FOR DESIGN PURPOSE.
  - READ THIS DRAWING ALONG WITH DRAWING KAN-STP-PANKA-4 (SHEET 1 OF 2)

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SURVEYED		DATE	17-01-2005

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SHEET CONTENTS:  
 STRUCTURAL DETAILS OF UASB REACTOR OF PANKA STP  
 (SHEET 10)