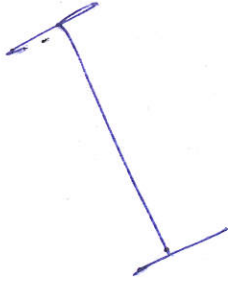


NCC SWSM PROJECTS – UP – GORAKHPUR

Project Name: Survey, Design, Preparation of DPR, Construction, Commissioning and O&M for 10 years of Various Rural Water Supply Project in the State of Uttar Pradesh – Gorakhpur District

Client : UP – JAL NIGAM
 Consultant : Medhaj Techno Concept Pvt. Ltd.
 Contractor : NCC Limited

Request For Inspection

RFI No:	SWSM/UP – GORAKHPUR (S)/ 0071 TW	Date / Time	25 Sep 2021.	
Description:	Lowering of pipe with assembly in bore hole at Bishunpur Raja.			
Location:	Block :- Gola. Gram Panchayat - Bishunpur Raja.			
Preceding RFI No.	SWSM/UP – GORAKHPUR (S)/			
Commencement:	Sanjay Kumar Singh.	Position:	DPM	
Submitted By:	26 Sep 2021	Date	Time	
Signature:	<i>SK</i>	Proceed	yes	Hold -
Concessionaire:	Shri Sharan Gauda			
Please visit the site for approval of all materials as executed in above work. Comments: found OK				
				
APPROVED				

SK
 Signature
 Contractor Representative

Sharan
 Signature
 Consultant Representative

[Signature]
 Signature
 Client Representative



NCC LTD.


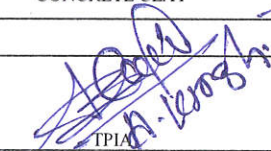

SOIL SAMPLE COLLECTION REPORT

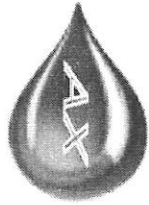
SWSM PROJECT - GORAKHPUR ,UP



1	Name of the Block-	GOLA
2	Name of the Gram Panchayat-	BISHUNPUR-RAJA
3	Name of the Borewell Village-	
4	Name of the Revenue Village-	
5	Drilling Dia of Bore Hole For Housing Pipe (Dia- 200 mm/300 mm)- For Plain/Slotted 150 mm dia-	300
		150
6	Drilling Depth(For Housing Pipe- For Plain/Slotted Pipe-	36.29
		78.27/24
7	Total Drilling Depth (m)-	160M
8	Electrical Logging Test Depth	155M

Sl no.	Date of Sample Collection	Type of Soil Sample	Depth of Sample Collection (m)	Remarks
1	19-09-2021	CLAY	0 - 3	
2	19-09-2021	CLAY	3 - 6	
3	19-09-2021	CLAY	6 - 9	
4	19-09-2021	CLAY	09 - 12	
5	19-09-2021	CLAY	12 - 15	
6	19-09-2021	CONCRETE CLAY	15 - 18	
7	19-09-2021	CONCRETE CLAY	18 - 21	
8	19-09-2021	CONCRETE CLAY	21 - 24	
9	19-09-2021	MEDIUM SAND	24 - 27	
10	19-09-2021	MEDIUM SAND	27 - 30	
11	19-09-2021	MEDIUM SAND	30 - 33	
12	20-09-2021	MEDIUM SAND	33 - 36	
13	20-09-2021	MEDIUM SAND	36 - 39	
14	20-09-2021	SANDY CLAY	39 - 42	
15	20-09-2021	SANDY CLAY	42 - 45	
16	20-09-2021	SANDY CLAY	45 - 48	
17	20-09-2021	SANDY CLAY	48 - 51	
18	20-09-2021	MEDIUM SAND	51 - 54	
19	20-09-2021	MEDIUM SAND	54 - 57	
20	20-09-2021	MEDIUM SAND	57 - 60	
21	20-09-2021	MEDIUM SAND	60 - 63	
22	20-09-2021	CONCRETE CLAY	63 - 66	
23	21-09-2021	CONCRETE CLAY	66 - 69	
24	21-09-2021	CONCRETE CLAY	69 - 72	
25	21-09-2021	CONCRETE CLAY	72 - 75	
26	21-09-2021	MEDIUM SAND	75 - 78	
27	21-09-2021	MEDIUM SAND	78 - 81	
28	21-09-2021	MEDIUM SAND	81 - 84	
29	21-09-2021	MEDIUM SAND	84 - 87	
30	22-09-2021	CLAY	87 - 90	
31	22-09-2021	CLAY	90 - 93	
32	22-09-2021	CLAY	93 - 96	
33	22-09-2021	CLAY	96 - 99	
34	22-09-2021	MEDIUM SAND	099 - 102	

35	22-09-2021	MEDIUM SAND	102 - 105	
36	22-09-2021	MEDIUM SAND	105 - 108	
37	23-09-2021	MEDIUM SAND	108 - 111	
38	23-09-2021	SANDY CLAY	111 - 114	
39	23-09-2021	SANDY CLAY	114 - 117	
40	23-09-2021	MEDIUM SAND	117 - 120	
41	23-09-2021	MEDIUM SAND	120 - 123	
42	23-09-2021	MEDIUM SAND	123 - 126	
43	24-09-2021	MEDIUM SAND	126 - 129	
44	24-09-2021	MEDIUM SAND	129 - 132	
45	24-09-2021	MEDIUM SAND	132 - 135	
46	24-09-2021	MEDIUM SAND	135 - 138	
47	24-09-2021	MEDIUM SAND	138 - 141	
48	24-09-2021	CONCRETE CLAY	141 - 144	
49	24-09-2021	CONCRETE CLAY	144 - 147	
50	24-09-2021	CONCRETE CLAY	147 - 150	
51	24-09-2021	CONCRETE CLAY	150 - 153	
52	25-09-2021	CONCRETE CLAY	153 - 156	
53	25-09-2021	CONCRETE CLAY	156 - 160	
  				
			CLIENT	



Aqua Xplore

(Groundwater Assessment & Allied Services)

243/5, New Colony Jiyamau, Hazratganj, Lucknow – 226001

Mob. 9918202546 / 9889323322, Email-aquaxploreko@gmail.com

Advisor- Dr. R. A. Yadav, ex- Manager (Groundwater), U. P. Jal Nigam

Ref 925 - B / AX - 2021

Date 25.09.2021

Geophysical Borehole Logging Report

Name of the site : Bishunpur Raja , Block- Gola

District : Gorakhpur

Date : 25.09.2021

Depth logged : 155.0 mbgl

Depth drilled : 160.0 mbgl

Logged by : Aqua Xplore

Presence : Representative of M/S NCC Limited, Gorakhpur - South

Based on the interpretation of geophysical logs, following information may be deciphered, particularly with respect to salinity of the formation water;

Sl.No.	Depth range(mbgl)	Thickness(m)	Remarks
1	25.0--40.0	15.0	Good all
2	50.0--63.0	13.0	
3	74.0--87.0	13.0	
4	100.0--111.0	11.0	
5	117.0--142.0	25.0	

Note.

for Aqua Xplore

CC;

1. Executive Engineer, C.D. (E/M), U.P. Jal Nigam, Gorakhpur.
2. M/S NCC Limited, Gorakhpur –South, SWSM.

BORE WELL DEVELOPMENT CHART (EM)

SWSM/DWSM

NCC LTD.- GORAKHPUR (UP)

NAME OF THE DISTRICT-	GORAKHPUR	TYPE OF RIG M/C-	RC
NAME OF THE BLOCK-	COLA	SIZE OF BORE-	600
NAME OF THE GRAM PANCHAYAT-	BISUNPUR RAJA	STATIC WATER LEVEL-	12 m.
NAME OF THE VILLAGE-		J.E Incharge	A.E Incharge

DEPTH B.G.L IN METER	BORING CHART	STRATA	EXECUTED ASSEMBLY	ASSEMBLY DETAILS
0M		CLAY	0.50	300 mm Dia Housing Pipe A.G.L. = 0.50 m
16.0		CONCRETE CLAY	35.79	300 mm Dia Housing Pipe m to 36.29 m
25.0		MEDIUM SAND	35.99	300/150 mm Dia Reducer 35.79 m to 35.99 m
40.0		SANDY CLAY	78.16	mm Dia BLIND pipe 35.99 m to 78.16 m
50.0		MEDIUM SAND	84.7	mm Dia SLOTTED pipe 78.16 m to 84.7 m
63.0		CONCRETE CLAY	102.21	mm Dia BLIND pipe 84.7 m to 102.21 m
74.0		MEDIUM SAND	120.25	mm Dia SLOTTED pipe 102.21 m to 120.25 m
87.0		CLAY	132.24	mm Dia BLIND pipe 120.25 m to 132.24 m
100.00		MEDIUM SAND	132.26	mm Dia SLOTTED pipe 132.24 m to 132.26 m
111.0		SANDY CLAY	138.26	mm Dia pipe m to m
117.0		MEDIUM SAND	138.26	mm Dia pipe m to m
142.0		CONCRETE CLAY	138.26	mm Dia pipe m to m
155.0		MEDIUM SAND	138.26	mm Dia pipe m to m
160.0		MEDIUM SAND	138.26	mm Dia pipe m to m

Total Assembly = 138.26 m + A.G.L (m) = 0.50 m = 138.76

ABSTRACT

1. Drilling Started- 19/09/2021
2. Drilling Completed/Lowering- 27/09/2021
3. Drilling Depth (m)- 160 MTR
4. Assembly Lowered (m)- 138.76 MTR
5. Housing Pipe (m)- 36.29 MTR
6. Plain Pipe (m)- 78.27 MTR
7. Slotted Pipe (m)- 24.0 MTR
8. Reducer (m)- 0.20 MTR

LOGGING REPORT

- 1- 25 - 40 - 15.0 MTR
- 2- 50 - 63 - 13.0 MTR
- 3- 74 - 87 - 13.0 MTR
- 4- 100 - 111 - 11.0 MTR
- 5- 117 - 142 - 25.0 MTR

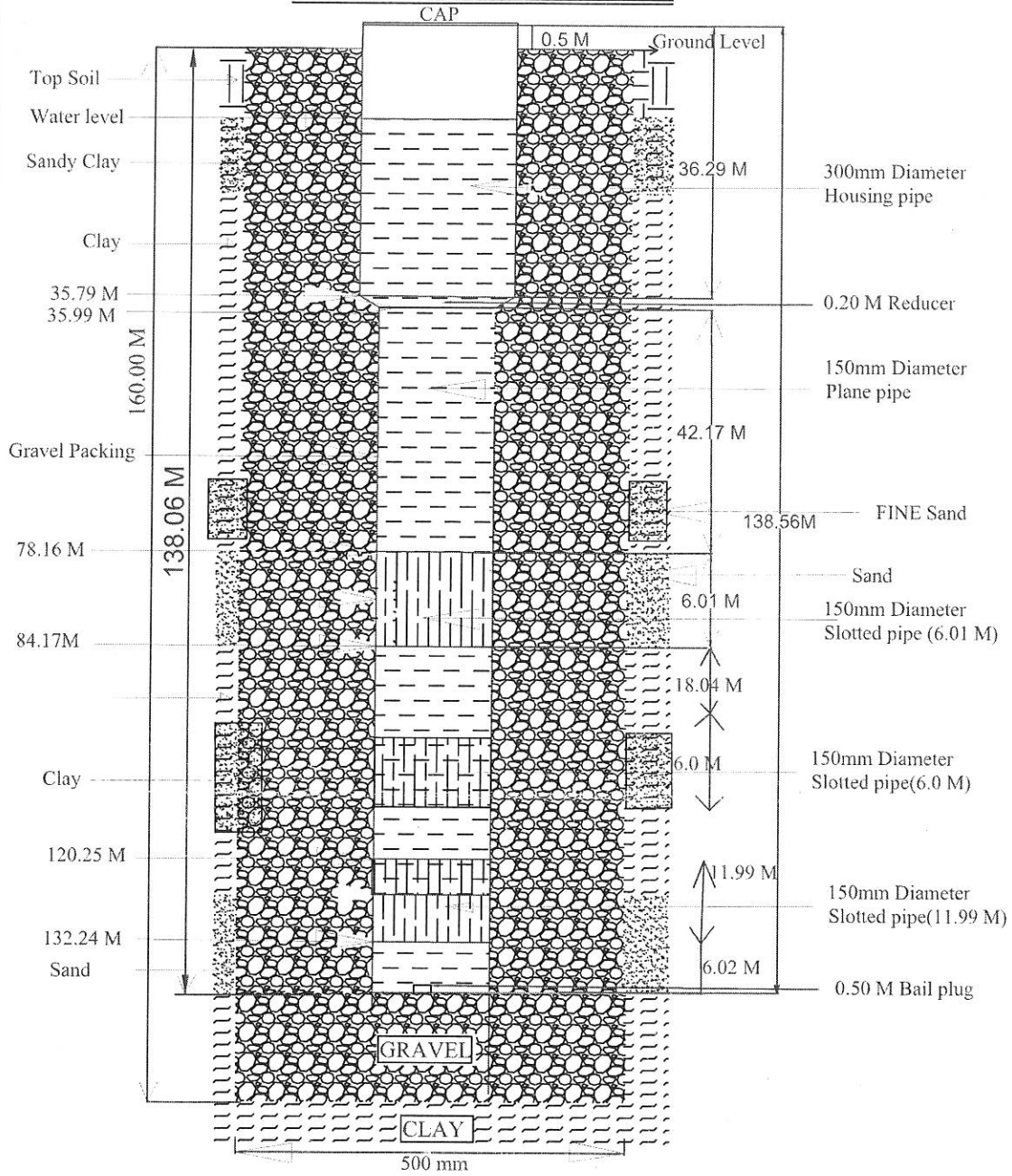
SOUND TEST- **FOUND OK**

VERTICALITY TEST-

NCC LTD	P.M.C. & P.L.A.	J.E.
273002		



TUBE WELL ASSEMBLY



(Signature By)
NCC LTD.

(Signature Of)
TPI
(Jal Nigam)

(Signature Of)
JE/AE
(Jal Nigam)

(Signature Of)
(EE)
(Jal Nigam)

Depth of Tube well :- 160

Lowering of Tube well assembly :- 138.56M

Plane/Housig pipe :- 36.29 M

Plane pipe :- 78.27 M

Slotted pipe :- 24 M

Required Dicharge :- LPM

Project Name

Implementation of Rural Water Supply Projects in the Gorakhpur District of Gorakhpur Division Uttar pradesh under Jeevan mission

Name of Block :- GOLA

Name of Village :- **BISHUNPUR-RAJA**

Name of Client

Executive Director , SWSM Lucknow

State Water & sanitation Mission , 6 Rana Pratap Marg

Lucknow - 2260001 . Uttar Pradesh .

jName of Contractor

NCC Limited

Ansal API. Sector - C2/183. Sushant Gold City, Near SJ,

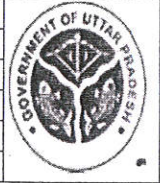
International School, Shaheed Park, Lucknow - 226030

Drawing Name

TUBE WELL ASSEMBLY



NCC LTD.
STATE WATER AND SANITATION MISSION
CLIENT: JJM / SWSM / DWSM
CONSULTANT: Medhaj Techno Concepts Private Ltd.
SIEVE ANALYSIS OF PEA GRAVELS (1.6 mm to 4.8 mm)
(As per IS : 460)



Date of Testing : 21/09/2021
Test report no : NCC/GKP-S/Oc/11

SL NO.	DESCRIPTION	OBSERVATIONS
1	Source of material :	Nainital, Uttarakhand
2	Location :	Block Name- CiOLA
		G.P Name- BISUMPUR RAJA
3	Date of sampling :	20/09/2021
4	Lab. Test no :	11
5	Sample no. :	01
6	Total wt. of sample (gm) :	1000 gm.

SIEVE ANALYSIS

IS Sieve Size	Wt. retained (gm)	Cumulative wt. Retained (gm)	Cumulative % wt. Retained	% passing	Specific limit
6.3 mm	00	00	00	100	OK
4.75 mm	233	233	23.3	76.7	OK
2.36 mm	649	882	88.2	11.80	OK
1.18 mm	113	995	99.5	0.5	OK
Pan	05				

 NCC LTD.  PMA  CLIENT



NCC LTD.

STATE WATER AND SANITATION MISSION

CLIENT: JJM / SWSM / DWSM



CONSULTANT: Medhaj Techno Concepts Private Ltd.

SPECIFIC GRAVITY OF PEA GRAVELS- 1.6 mm to 4.8 mm

As per IS : 2386 (Part-3)

Date of Testing- 21/09/2021

Test report no - NCC/CKP-S/SC/11

SL NO.	DESCRIPTION	OBSERVATIONS
1	Source of material :	Nainital, Uttarakhand.
2	Location :	NAME OF THE BLOCK - GOLA
		NAME OF THE GRAM PANCHAYAT - BISUNPUR RAJA
3	Date of sampling :	20/9/2021
4	Lab. Test no :	11
5	Sample no :	01

SPECIFIC GRAVITY TEST AT ROOM TEMPERATURE

6	Weight of the Jar, W1 (gm)=	252
7	Weight of Jar + Gravel, W2 (gm)=	445
8	Weight of Jar + Gravel + Water, W3 (gm)=	846
9	Weight of the Jar + Water, W4 (gm)=	724
10	Specific Gravity =	$\frac{W2 - W1}{(W2 - W1) - (W3 - W4)} = \frac{193}{193 - 122} = 2.7$

Note : The Specific Gravity should not be less than 2.5

[Signature]
AB, AC

NCC LTD.

[Signature]
A. Purohit

PMC

[Signature]
CLIENT



TECHPRO ENGINEERS PVT. LTD.

(Laboratory Division)

Lab Add. 131, Ram Ganga Housing Society, Naramau, Kanpur- 209217,

Tel.: 0512-2525759, 09793209918, Web site: www.techproindia.com

e-mail: tepplab@gmail.com, info@techproindia.com,

Doc No.: TEQR-36C, Issue No.: 02, Issue Date: 18/08/20, Rev. No. : 01, Rev. Date: 10/12/2020

TEPL/MT/2020-21/117

Dated: 11.10.2021

TEST REPORT

Name of Customer	:	Jal Nigam, Gorakhpur
Project	:	SWSM-JJM Project (Har Ghar Jal Mission) at Gorakhpur.
Reference No.	:	SWSM-UP/GKP/QC/TPE/001
Sample supplied to Lab by	:	Customer representative
Name of Contractor/ Agency	:	NCC Ltd.
Sample Particulars	:	Pea-Gravel

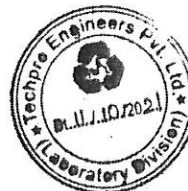
Sample Receipt Date	:	08-10-2021	Job No.	:	MT117/1
Condition of sample	:	Satisfactory	SRF No.	:	2021/55
Type of Sample	:	Pea-Gravel	ULR No.	:	NA
Source of sample	:	Lalkuan (Uttarakhand)	Period of Testing	:	08/10/2021 to 11/10/2021

Terms & Conditions:

1.	Results relate only to the test sample provided by customer.
2.	This report is under copyright of Techpro Engineers Pvt. Ltd. (Laboratory Division) and is not to be reproduced, copied, handed over third party or used for any purpose other than for which it has been loaned.
3.	The tested samples are retained for three months after issue of test report (if not collected by customer).
4.	The unique identification of sample is as Job No. / Chainage No. /BH. No./Sl. No. But only Sl. No is mentioned in results.

Checked By:

(Technical Manager)



Approved By:

Arvind Kumar Garg
(Quality Manager)



TECHPRO ENGINEERS PVT. LTD.

(Laboratory Division)

Lab Add. 131, Ram Ganga Housing Society, Naramau, Kanpur- 209217,

Tel.: 0512-2525759, 09793209918, Web site: www.techproindia.com

e-mail: teplab@gmail.com, info@techproindia.com,

Doc No.: TEQR-36C, Issue No.: 02, Issue Date: 18/08/20, Rev. No. : 01, Rev. Date: 10/12/2020

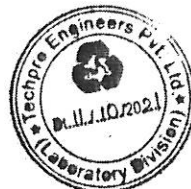
I. PHYSICAL TEST RESULT

Sample Unique ID: MT117/1

Sl. No.	Particular of Test	Test-1 Passing %	Test-2 Passing %	Avg. Passing %	Test Method	Remark	
1.0	Sieve Analysis (% by weight)	6.3 mm	100	100	100	IS 2386 (Part-1)-1963, RA-2016	-
		4.75 mm	49.928	52.412	51.17		
		3.35 mm	18.992	23.930	21.461		
		2.00 mm	13.116	17.926	15.521		
		1.18 mm	6.412	8.016	7.214		
		0.600 mm	2.562	3.410	2.986		
		0.300 mm	0.164	0.818	0.491		
		0.150 mm	0.134	0.354	0.244		
		0.075 mm	0.092	0.254	0.173		
2.0	Elongation Index (% by weight)	0.0	0.0	0.0	IS 2386 (Part-1)-1963, RA-2016	Partical Size >6.3	
3.0	Hardness Test (Number)	7.40	8.66	8.00	IS 13630 (Part-13)-2006	-	
4.0	Specific Gravity	2.66	2.66	2.66	IS 2386 (Part-3)-1963, RA-2016	-	

Checked By:

(Technical Manager)



Approved By:

Arvind Kumar Garg
(Quality Manager)



TECHPRO ENGINEERS PVT. LTD.

(Laboratory Division)

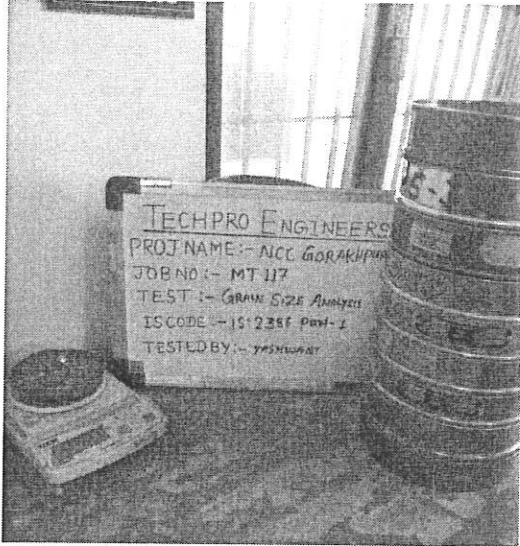
Lab Add. 131, Ram Ganga Housing Society, Naramau, Kanpur- 209217,

Tel.: 0512-2525759, 09793209918, Web site: www.techproindia.com

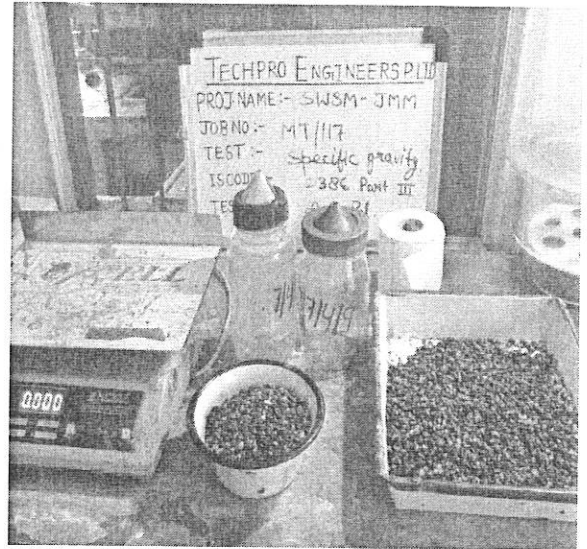
e-mail: tepplab@gmail.com, info@techproindia.com,

Doc No.: TEQR-36C, Issue No.: 02, Issue Date: 18/08/20, Rev. No. : 01, Rev. Date: 10/12/2020

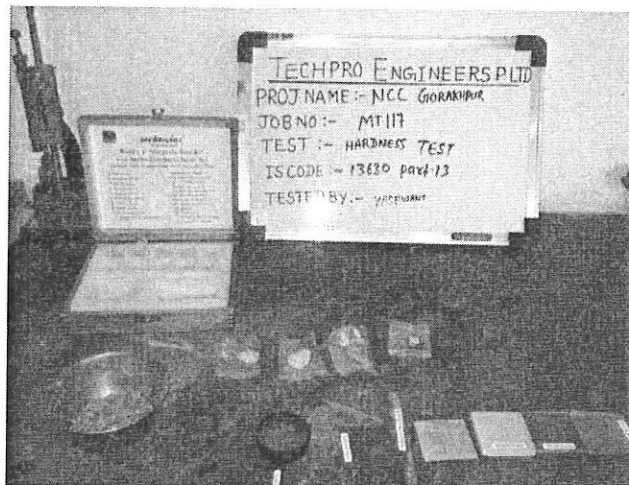
PHOTOGRAPHS



SIEVE ANALYSIS



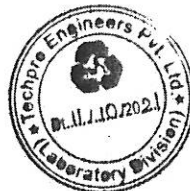
SPECIFIC GRAVITY



HARDNESS TEST

Checked By:

(Technical Manager)



Approved By:

Arvind Kumar Garg
(Quality Manager)

END OF REPORT

CIN :U28111DL2006PTC148810

ISO 9001:2015

DADU PIPES (P) LIMITED

Manufacturers & Exporters of MS ERW Black Pipes, Steel Tubular Poles & Hollow Sections



Corporate Office : C-101, Dadu Dayal House, RDC, Raj Nagar, Ghaziabad-201002 (U.P.) India.

Email : info@dadupipes.com, Website : www.dadupipes.com

Regd. Office : B-231, Okhla Industrial Area, Phase-1, New Delhi-110020

Contractor Name: NCC Limited

Client Name: State Water and Sanitation Mission

Project Name: Gorakhpur South Project

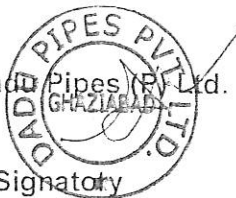
PO No.: NCC/ROK/SWSMUP-G(S)/PO/23 Dt.: 19.08.2021

TECHNICAL DATASHEET OF STEEL TUBES USED FOR WATER WELLS

S.No.	Parameter	Unit	Requirement	Vender data
1.	Name of Manufacturer			M/S Dadu Pipes Ltd.
2.	Ref IS No.		IS:4270-2001	IS:4270-2001
3.	Type		ERW/HFIW	ERW/HFIW
4.	Ends (Plain/Bevel/Screwed)		Plain	Plain
5.	Size	mm	300mm, 200mm, 150mm	300mm, 200mm, 150mm
6.	Specified Thickness	mm	7.1mm	7.1mm
7.	Tolerance on thickness	%	As per BIS	As per BIS
8.	Tolerance on OD	mm	± 1% of OD	± 1% of OD
9.	Length of Pipe	Mtr	As per order	As per order
10.	Tolerance on Mass	%	± 10%	± 10%
11.	Tensile strength	MPa	410 MPa (Min.)	410 MPa (Min.)
12.	Yield Strength	MPa	235 MPa (Min.)	235 MPa (Min.)
13.	Elongation percent	%	15% (Min.)	15% (Min.)
14.	Flattening Test	%	On weld = 66% remaining On material = 33% remaining	On weld = 66% remaining On material = 33% remaining
15.	Embossing details	--	Embossing on every metre of Manufacturer Name/logo, IS:4270, Grade & ISI Logo with CM/L No. and Size, Thickness, Grade & Batch No. stenciling on each pipe	Embossing on every metre of Manufacturer Name/logo, IS:4270, Grade & ISI Logo with CM/L No. and Size, Thickness, Grade & Batch No. stenciling on each pipe
16.	Bituminous Coating	°C	At 0°C & 65°C	At 0°C & 65°C
17.	Bead Height	%	60% Max. of specified thickness	60% Max. of specified thickness
18.	Straightness	mm	Max. 1 in 600 of any length	Max. 1 in 600 of any length
19.	Make of Steel		Tata/SAIL/Reputed make	SAIL TC to be submitted
20.	Chemical composition certificate	%	As per IS 10748, Grade-3	Raw material certificate & manufacturer test certificate to be provided
21.	Leak Proof Test	MPa	7 MPA for at least 5 sec.	7 MPA for at least 5 sec.

For Dadu Pipes (P) Ltd.

Auth. Signatory

Recommended for approval with condition that
negative tolerance in thickness is not allowedA.E. 3
C.D. (E/M) UPJN
Gorakhpurअधीक्षण अभियन्ता
23वाँ मण्डल (वि०
उ० प्र० जल निगम)
अयोध्या

DADU PIPES PVT. LTD.

A-72, Industrial Area, Sikandrabad, Bulandshahar (U.P.)

QUALITY PLAN FOR ERW M.S. ERW PIPES (DADU MAKE)
 SIZE :- 100 MM NB TO 300 MM NB CONFORMING AS PER IS:4270-2001.

Contractor Name:- NCC Limited.

Client Name:- UP Jal Nigam

Project Name:- State Water & Sanitation Mission Gorakhpur

DOCUMENT NO. DPPL/OP/01

REV. 0

NO. OF PAGES 2

PAGE NO. 1/2

Sr. NO.	COMPONENT/ OPERATION	CHARACTERISTICS	CLASS	TYPE OF CHECK	EXTENT OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORDS	Scope of Inspection		REMARKS	
									DPPL	TPI (If Any)		
1	2	3	4	5	6	7	8	9	10	11	12	
1	RAW MATERIALS H.R CIOL SKELP	1 CHEMICAL COMPOSITION	MAJOR	CHEMICAL ANALYSES	VERIFICATION OF SUPPLIER T.C	IS:10748 & IS:4270	AS PER IS:4270	SUPPLIER T.C & DPPL TEST REPORT	SUPPLIER/ DPPL QC	R		
		2 PHYSICAL PROPERTIES	MAJOR	MECHANICAL	DPPL QC REPORT		DO	DO		DPPL QC	R	
		3 DIMENSIONS THICK. & WIDTH.	MAJOR	DIMENSIONAL		100%	DO	DO	DPPL TEST REPORT	DO	R	
		4 VISUAL	MINOR	VISUAL		100%	DO	DO	DO	DO	R	
2	IN PROCESS INSPECTION	1 DIMENSIONS	CRITICAL	DIMENSIONAL	ONE HOUR PRODUCTION	AS PER IS:4270	DO	DPPL TEST REPORT	DPPL QC	R		
		DIAMETER										
		THICKNESS	--DO--									
		LENGTH	MINOR									
		WEIGHT	--DO--									
		STRAIGHTNESS	--DO--									
		SURFACE & END FINISH	--DO--									
		PLAIN, BEVEL/SCREWE AND SOCKET	--DO--									
		PHYSICAL PROPERTIES	--DO--									
		FLATTENING/BEND	CRITICAL	MECH. TEST	TWO SAMPLE PER SHIFT		DO	DO	DO	DO	R	
		TENSILE STRENGTH	--DO--									
		3 PRESSURE/LEAK TEST	MAJOR	HYDRAULIC TEST	100%		DO	DO	DO	DPPL TEST REPORT	DO	R
4 WORKMANSHIP & PROTECTIVE COATING	MAJOR	VISUAL	RANDOM		AS PER IS:4270	AS PER IS:4270	REPORT		DO	R		

A.E. E.E.

S. NO.	COMPONENT/ OPERATION	CHARACTERISTICS	CLASS	TYPE OF CHECK	EXTENT OF CHECK	PAGE NO.		FORMAT OF RECORDS	TESTING METHOD		REMARKS
						REFERENCE DOCUMENT	ACCEPTANCE NORMS		IS	ISI (I.A.S.)	
1	2	3	4	5	6	7	8	9	10	11	12
3	FINAL INSPECTION	1 DIMENSIONAL	MAJOR	MEASUREMENT & VISUAL	IS:4275	— DO —	— DO —	— DO —	— DO —	W	
		2 TENSILE & BEND / FLATTENING	CRITICAL	MECHANICAL TEST	As Per IS:4275	— DO —	— DO —	— DO —	— DO —	W	
		3 LEAK TEST	MAJOR	HYDRAULIC TEST	5%	AS PER IS:4275	AS PER IS:4275	— DO —	— DO —	W	
		4 IDENTIFICATION & MARKING	MAJOR	VISUAL		— DO —	— DO —	— DO —	— DO —	R	
		5 WORKMANSHIP	MAJOR	VISUAL		— DO —	— DO —	— DO —	— DO —	W	

NOTE: WE GIVE OUR MANUFACTUR TEST CERTIFICATE.

R = REVIEW OF DOCUMENT

W = WITNESS

V = VERIFICATION

PREPARED BY—

Deep Narayan Singh
QUALITY CONTROL ENGINEER
DADU PIPES (P) LIMITED

APPROVED BY—

MANUFACTURER (Q.A.)
DADU PIPES (P) LIMITED

Recommended

A.E.
C.D. (E/M) UPJN
Gorakhpur

E.E.

अधीक्षण अधिकारी
23वाँ मण्डल (वि०/११)
उ० प्र० जल निगम
अयोध्या

TUV INDIA PRIVATE LIMITED

INSPECTION RELEASE NOTE / CERTIFICATE

IRN -8116448356-NCC/ROK/SWSMUP-G(S)/PO/23- Sr. No 1.- Rev. 00



TUV India Control Or SAP Number:	8116448356	Date:	01-09-2021
Project Name & Location	SWSM-Gorakhpur-South Project Gorakhpur (U.P)	TUV India Branch Name:	Noida
TUV India Client Name:	M/S. DADU PIPES PVT LTD	End User Name:	NCC LIMITED
Contractor Name & Location	NCC LIMITED		
Vendor Name & Location:	M/s. Dadu Pipes (P) Ltd. A-72, Ind. Area, Sikandrabad Bulandshahar (U.P)	P.O. Number: (Client PO on Vendor)	NCC/ROK/SWSMUP-G(S)/PO/23 DT:-19.08.2021
Sub Vendor Name & Location: (If applicable)	Not Applicable	P.O. Number: (If applicable - Vendor PO on Sub Vendor)	Not Applicable

Item Description:

PO Item No.	Item Code Item Description	UOM	P.O. Quantity	Offered Quantity	Accepted Quantity	Cumulative accepted Quantity
1	300 MM Dia MS ERW Plain pipe 6 Mtr Length, WT:7.1 MM Thick as per IS:4270 Plain end	Mtrs	462	474	462	462
2	200 MM Dia MS ERW Plain pipe 6 Mtr Length, WT:7.1 MM Thick as per IS:4270 Plain end	Mtrs	36	48	36	36
3	150 MM Dia MS ERW Plain pipe 6 Mtr Length, WT:7.1 MM Thick as per IS:4270 Plain end	Mtrs	180	192	180	180
4	MS ERW PLAIN END SLOTTED PIPE 150 MM Dia, Wt:7.10 mm conforming to IS:4270(Slotting as per IS:8110 & Zig Zag slots of length 75 mm x width 1.20 mm. & 780 Slot (+/- 10%) per Mtr	Mtrs	162	162	162	162

Reference Documents:

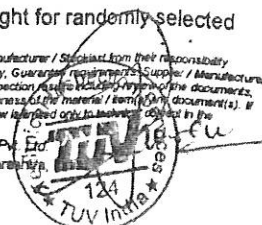
Sr. No.	Document Name	Client Document Number	Vendor Document Number	Approval Status
1)	PR / MR / ARM	Not Applicable	Not Applicable	Not Applicable
2)	QAP / ITP / QCP	DPPL/443/QP/01 Rev 0	Not Applicable	Approved by client
3)	Drawing(s)	Not Applicable	Not Applicable	Not Applicable
4)	Datasheet(s)	Not Applicable	Not Applicable	Not Applicable
5)	Procedure(s)	Not Applicable	Not Applicable	Not Applicable
6)	Others (Specify)	IS 4270, IS 8110, IS 4711	Not Applicable	Approved

Stages Witnessed:(For PO sr.no 4- Scope as per QAP sr. no 3.1, 3.4,3.5 only & All for rest)

- 1) Total offered quantity verified.
- 2) QAP Sr.No 3.5 Visual inspection done for surface defects, workmanship and protective coating for all items- found satisfactory.
- 3) QAP Sr.No 3.1 Final dimension inspection done Thickness, Outer Diameter, Length & weight for randomly selected

Disclaimer: The inspection by TUV India Pvt. Ltd., review of Test Certificates / Reports and issue of Inspection Release Note / Certificate does not relieve Client / Supplier / Manufacturer / Specialist from their responsibility towards the Client / End User to supply the genuine material / Item(s) and document(s) in full compliance with applicable Order, Specification, Technical, Quality, Quantity, Warranty, Guarantee requirements. Supplier / Manufacturer / Specialist is wholly legally responsible for genuineness of the material / Item(s) supplied and document(s) submitted. TUV India's responsibility is only limited to correctness of inspection and issue of the documents, within its agreed scope against written requirements and neither TUV India nor any of its group companies, associates or employees are in any way legally responsible for genuineness of the material / Item(s) and document(s). If the calibration certificate(s) for the measuring instrument(s) / equipment(s) used during inspection do not have traceability to NABL / Other certifying bodies, then the scope of review is limited only to the extent stated in the calibration certificate.

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Estimate for Bisanpur Raja Gram Panchayat

Water Supply Scheme

Under - SWSM

Block- Gola District- Gorakhpur

BOQ Item No.	Description	Unit	Qty	Rate	Amount
	Survey, Design & Preparation of DPR				
1.01	All the works including Hydrological survey, topographical survey, Design charges including preparation and approval of DPR	LS	1.00	342650.00	342650
2.00	Drilling of Borehole for Tubewell construction by DC/RC/DTH Rig Machine including transportaion, erection, dismantling of Rig and associated T&P complete in all respect including required all material labour etc.				
	RIG Transportation for Tube Well Construction				
2.01	Transportation, Installation Dismantling of Rig machine and logging of bore hole	Job	1.00	159478.88	159479
	Tube Well Construction- Drilling of Borehole				
2.03	DC/RC Drilling up to 100Mtr.				
2.04	400 MMØ	Mtr.		1638.27	
2.05	450 MMØ	Mtr.		1834.20	
2.06	500 MMØ	Mtr.	100.00	2013.00	201300
2.07	600 MMØ	Mtr.		2422.00	
2.08	DC/RC Drilling from 101 Mtr. To 200 Mtr.Deep				
2.09	450 MMØ	Mtr.		1960.88	
2.10	500 MMØ	Mtr.	67.00	2144.00	143648
2.11	600 MMØ	Mtr.		2510.25	
2.12	DC/RC Drilling from 201 Mtr. To 300 Mtr.Deep				
2.13	450 MMØ	Mtr.		2831.63	
2.14	500 MMØ	Mtr.		3014.75	
2.15	600 MMØ	Mtr.		3381.00	
2.16	DC/RC Drilling from 301 Mtr. To 400 Mtr.Deep & above				
2.17	450 MMØ	Mtr.		3319.35	
2.18	500 MMØ	Mtr.		3502.48	
2.19	600 MMØ	Mtr.		3868.72	
2.20	DTH Drilling upto 200.0 Mtr.Deep				
2.21	200/165 MMØ (in over burden/Hard Rock)	Mtr.		1250.00	
2.22	Development / Flushing of tubewell	Hr.		2900.00	
	Tubewell Assembly (Supply + Fittings & Specials)				
3.01	MSERW plain pipe,As per IS 4270				
3.02	100 MMØ	Mtr.		927.50	
3.03	150 MMØ	Mtr.	96.00	1900.00	182400
3.04	200 MMØ	Mtr.	36.00	2550.00	91800
3.05	300 MMØ	Mtr.		3800.00	
3.06	MSERW Pipe slotted pipe as per IS 8110				
3.07	100 MMØ	Mtr.		1366.85	
3.08	150 MMØ	Mtr.	18.00	2800.00	50400
3.09	200 MMØ	Mtr.		3833.80	
3.10	300 MMØ	Mtr.		5188.59	
3.11	MS fittings such as clamp, bail plug, reducer, well cap, girder & support structure	LS	1.00	32295.00	32295
3.12	MS fittings such as ring & centre guide	RM	150.00	471.68	70752
	Tubewell Assembly Lowering Works				
	Lowering of above assembly with welding of parts complete in all respect with all required material, T&P, labour, etc.				
4.01	Lowering up to 100 Mtr. Deep				
4.02	100 MMØ MSERW Plane/Slotted Pipe	Mtr.		129.45	
4.03	150 MMØ MSERW Plane/Slotted Pipe	Mtr.	64.00	281.00	17984
4.04	200 MMØ MSERW Plane/Slotted Pipe	Mtr.	36.00	376.50	13554
4.05	300 MMØ MSERW Plain/Slotted Pipe	Mtr.		472.00	
4.06	Lowering from 101 Mtr. To 200 Mtr. Deep				
4.07	150 MMØ MSERW Plane/Slotted Pipe	Mtr.	50.00	376.00	18800

BOQ Item No.	Description	Unit	Qty	Rate	Amount
4.08	200 MMØ MSERW Plane/Slotted Pipe	Mtr.		499.19	
4.09	300 MMØ MSERW Plane/Slotted Pipe	Mtr.		745.58	
4.10	Lowering from 201 Mtr. To 300 Mtr. Deep				
4.11	150 MMØ MSERW Plane/Slotted Pipe	Mtr.		385.19	
4.12	200 MMØ MSERW Plane/Slotted Pipe	Mtr.		459.00	
4.13	300 MMØ MSERW Plane/Slotted Pipe	Mtr.		606.62	
4.14	Lowering from 301 Mtr. To 400 Mtr. Deep & above				
4.15	150 MMØ MSERW Plane/Slotted Pipe	Mtr.		426.53	
4.16	200 MMØ MSERW Plane/Slotted Pipe	Mtr.		499.00	
4.17	300 MMØ MSERW Plane/Slotted Pipe	Mtr.		643.94	
	Supply and Packing of Gravel Works				
5.00	Supply and unconsolidated packing of gravel with suitable size	Cum	44.00	7500.00	330000
	Development of Tube well				
6.01	Transportation, Installation Dismantling of 150 PSI Compressor	Job		42120.00	
6.02	Charges for Development by 150 PSI Compressor per hour	Hr.		2544.52	
6.03	Transportation, Installation Dismantling of 250/400/600 PSI Compressor	Job	1.00	42120.00	42120
6.04	Charges for Development by 250 PSI Compressor per hour	Hr.	60.00	3027.00	181620
6.05	Charges for Development by 400 PSI Compressor per hour	Hr.		3154.10	
6.06	Charges for Development by 600 PSI Compressor per hour	Hr.		4062.20	
6.07	Transportation, Installation Dismantling of 0.5 Cusec OP Unit and Yield test, water test	Job		22321.28	
6.08	Charges for Development of TW by 0.5 Cusec OP Unit	Hr.		785.42	
6.09	Transportation, Installation Dismantling of 1 Cusec to 3 Cusec OP Unit and Yield test, water test	Job	1.00	67225.00	67225
6.10	Charges for Development of TW by 1 cusec OP Unit	Hr.	100.00	959.00	95900
6.11	Charges for Development of TW by 3 cusec OP Unit	Hr.		1196.00	
6.12	Transportation, Installation Dismantling of 2 Cusec OP Unit and Yield test, water test	Job		89317.00	
6.13	Charges for Development of TW by 2 cusec OP Unit	Hr.		1119.00	
7.00	Pumping Plant:- SITC of Pumping plant including pumps with motors starter, pannel, cable, complete in all respect with all required material T&P labour etc.				
7.01	1 HP	Nos		32518.98	
7.02	2 HP	Nos		35843.14	
7.03	3 HP	Nos		46249.21	
7.04	5 HP	Nos		65037.95	
7.05	7.5HP	Nos		228500	
7.06	10 HP	Nos		230200	
7.07	12.5 HP	Nos	1.00	238800	238800
7.08	15 HP	Nos		252100	
7.09	17.5 HP	Nos		276504.56	
7.10	20 HP	Nos		295500	
7.11	25 HP	Nos		334043.48	
7.12	30 HP	Nos		366163.04	
7.13	35 HP	Nos		393723.7	
7.14	40 HP	Nos		426547.83	
7.15	Variation in HP due to change of site locations increased/decreased in per HP of the proposed pumping plants.	Rate/HP		30467	
8.00	Pressure Transmitter	Nos	1.00	43120	43120
A.I - 13	Electrically operated Sluice Valve:-				
A.I - 13.01	Electrically operated Sluice Valve PN 1.0 dia 80 mm	Nos	2.00	125000	250000
A.I - 13.02	Electrically operated Sluice Valve PN 1.0 dia 125 mm	Nos		125000	
9.00	Electrically operated Sluice Valve PN 1.0 dia 100 mm	Nos		125000	
9.01	Electrically operated Sluice Valve PN 1.0 dia 150 mm	Nos		125000	
9.02	Electrically operated Sluice Valve PN 1.0 dia 200 mm	Nos	1.00	150000	150000
A.I - 14	Check Valve:-				
A.I - 14.01	Check Valve PN 1.0 DPCV dia 80 mm	Nos	1.00	27519.8	27520
9.03	Check Valve PN 1.0 DPCV dia 100 mm	Nos		27519.8	
9.04	Check Valve PN 1.0 DPCV dia 150 mm	Nos		51145.45	
9.05	Check Valve PN 1.0 DPCV dia 200 mm	Nos		73485.9	

BOQ Item No.	Description	Unit	Qty	Rate	Amount
A.I - 15	Dismantling Joint :-				
A.I - 15.02	Dismantling Joint PN 1.0 dia 80 mm	Nos	1.00	3923.92	3924
A.I - 15.01	Dismantling Joint PN 1.0 dia 125 mm	Nos	1.00	5605.6	5606
9.06	Dismantling Joint PN 1.0 dia 100 mm	Nos	2.00	3923.92	7848
9.07	Dismantling Joint PN 1.0 dia 150 mm	Nos	1.00	5605.6	5606
9.08	Dismantling Joint PN 1.0 dia 200 mm	Nos	1.00	7367.36	7367
9.09	SITC of Chain Pulley Blocks				
9.10	1 Tonne	Nos	1.00	46305	46305
9.11	2 Tonne	Nos		58432.5	
10.00	Turbidity & Chlorine analyzer	Nos	1.00	273000	273000
11.00	Hydrostatic Level Sensor:- Providing and installation hydrostatic level sensor at all tubewell pumping system including all accessories etc. complete in all respect as per instructions of Engineer -in -charge.	Nos	1.00	126000	126000
12.00	Staballizer				
12.01	2 KVA	Nos		12777.78	
12.02	5 KVA	Nos		25555.56	
12.03	7.5 KVA	Nos		44722.22	
12.04	10 KVA	Nos		127777.78	
12.05	15 KVA	Nos		166111.11	
12.06	20 KVA	Nos		191666.67	
12.07	25 KVA	Nos		204444.44	
12.08	30 KVA	Nos		230000	
12.09	40 KVA	Nos		281111.11	
12.10	50 KVA	Nos		319444.44	
12.11	60 KVA	Nos		345000	
13.00	Column Pipe:- SITC of Column pipe of MS pipe for connecting submersible pumps				
13.01	32 mm Dia size - MS pipe	Mtr.		500	
13.02	40 mm dia size - MS pipe	Mtr.		666.67	
13.03	50 mm dia size - MS pipe	Mtr.		921	
13.04	65 mm Dia size - MS pipe	Mtr.		1066.67	
13.05	80 mm Dia size - MS pipe	Mtr.	30.00	1400	42000
13.06	100 mm Dia size - MS pipe	Mtr.		1567	
13.07	150 mm Dia size - MS pipe	Mtr.		2167	
14.00	Chlorinating System:- Supply , Installation of chlorinating system with dosing pump 0-6 LPH capacity with 100 Litres(1w+1s) tanks, valves ,pipes with required accessories (Automatic dosing system for chemical injection)	JOB	1.00	112000	112000
15.00	Fluoride Removal Plant:- Supplying, installation, testing, commissioning of Fluoride removal plant for required capacity including transportation and labour charges as complete. (vendor have to select the technology based on capacity (Electrolytic-de fluoridation plant or media based system). Rates for 400 KLD/ 500 LPM	LS		8062500	
16.00	Iron Removal Plant:- Supplying, installation, testing, commissioning of Iron removal plant which includes vessel, media, piping valves etc. for required capacity including transportation and labour charges as complete. Rates for 400 KLD/ 500 LPM	LS		6062500	
17.00	Arsenic Removal Plant:- Supplying, installation, testing, commissioning of Arsenic removal plant which include vessel, media, piping valves etc. for required capacity including transportation and labour charges as complete. Rates for 400 KLD/ 500 LPM	LS		9000000	

BOQ Item No.	Description	Unit	Qty	Rate	Amount
18.00	TDS and Hardness Removal Plant:- Supplying, installation, testing, commissioning of reverse osmosis plant which includes pump, micron cartridge filter, high pressure pump ,reverse osmosis membrane, cleaning system and required piping and valves etc. complete for required capacity including transportation and labour charges as complete. Rates for 400 KLD/ 500 LPM	LS		13125000	
19.00	Tube Well Electrification:- Internal electrification of tube well	LS	1.00	20000	20000
20.00	Solar Power Plant:- SITC of Solar power plant (for complete plant) including solar pannel, Structure, invertor etc. complete in all respect with required material, T&P labour	KW	19.00	86800	1649200
21.00	Boundary Wall:- Construction of 1.3 m high and 115mm thick boundary wall with 230 mmx230 mm thick pillar made in Brick masonry in 1 cement and 4 sand mortar, the spacing between two pillar should not be more than 3.0 m c/c and the depth of foundation should not be less than 0.60m, at the site of water works as per departmental type design and drawing, and, as per specifications given in the bid document including supply of all materials, labour T&P etc.for proper completion of work as per instructions of Engineer -in - charge. (Drawing No.D-1)	Rmt	125.20	6400	801280
22.00	MS Gate:- Supply and fixing of 3.6 m x 1.20 m MS gate including fabrication and supply of steel and construction of boundary wall pillars of size 1.35mx0.23mx0.23m with ornamental brick work 115mm th. around RCC, as per departmental type design and drawing (Drawing No. D-1) and as per specifications laid down in the bid document, including supply of all material, labour,T&P etc.required for proper completion of work as per instructions of Engineer-in-charge.	No.	1.00	52000	52000
23.00	MS Wicket Gate :- Supply and fixing of 1.2m wide MS wicket gate including fabrication and supply of steel and construction of boundary wall pillars etc. as per specifications laid down in the bid document, including supply of all material, labour,T&P etc.required for proper completion of work as per instructions of Engineer-in- charge.	No.	1.00	19000	19000
24.00	Interlocking Pavement:- Construction of Interlocking pavement for approach to water works, as per departmental type design and drawing and as per specifications laid down in the bid document, including supply of all materials , labour, T&P etc.required for proper completion of work as per instructions of Engineer -in -charge.	Sqm.	227.40	1070.5	243432
25.00	Granular Sub Base:- Construction of granular sub base by providing coarse grade materials, spreading in uniform layers including watering and compaction complete.	Cum	45.48	2800	127344
26.00	Construction of WBM:- Construction of WBM by providing grade materials, spreading in uniform layers including watering and compaction complete.	Cum	56.85	3029	172199

BOQ Item No.	Description	Unit	Qty	Rate	Amount
27.00	Earth Filling:- Earth filling work for proper leveling of water work site, in accordance with the contour map and Grid map of existing site enclosed (Drawing no.D-1), including leveling, dressing, excavation and filling of earth where necessary and also including all labour, materials, T&P etc.required for proper completion of works and also including carriage of earth from within a distance of about 8 km. from the site of works as per instructions of Engineer -in - charge.	Cum		890	
28.00	Semicircular Drain:- Provision for inside semicircular drain 200mm dia including supply of all materials, labour and T & P etc. complete.	Rmt	130.00	1607.14	208928
29.00	Pump House (3.6x3.0x3.0):- Provide all materials, labour, T&P etc. complete and construct Pump house size (3.6x3.0x3.0)m Chlorinating room size (2.5x1.8x3.0)m as per departmental type design and drawing (drawing no-D-2) and as per the specifications for civil work given in the bid document, including supply of all material, labour and T&P etc complete as per instructions of Engineer -in - charge.	Job		597000	
30.00	Pump House (2.5x3.0x3.0):- Provide all materials, labour, T&P etc. complete and construct Pump house size (2.5x3.0x3.0)m Chlorinating room size (1.5x1.3x3.0)m as per departmental type design and drawing (drawing no-D-2) and as per the specifications for civil work given in the bid document, including supply of all material, labour and T&P etc complete as per instructions of Engineer -in - charge.	Job	1.00	404000	404000
31.00	Bye-pass Chamber:- Provide all materials, labour, T&P etc. complete and constructed Bye-pass chamber for pump house (1000 (L) x 1000 (W) x 1150 (H) mm) drawing (drawing no.D-3) and as per the specifications for civil work given in the bid document, including supply of all material, labour and T&P etc complete as per instructions of Engineer -in - charge.	No.	1.00	14600	14600
32.00	OHT:- Supply of all materials labour T&P etc. for complete construction of R.C.C. Over Head Tank of following capacity and staging above ground level with main components, including cost of soil testing and assuming bearing capacity of soil as 8 MT, with supply of design and drawings.All the water retaining components of OHT shall be casted in M-30 concrete and minimum grade of concrete of foundation and staging should be M-25 with approved cement, coarse sand and stone grit as per I.S. 11682 and I.S.456 Seismic effects and wind load should be taken into consideration as per I.S. 1893 for earthquake resistance and I.S. 875 part-III for wind load on structure and including 1M wide RCC staircase, 1 m wide R.C.C. M30 balcony, M.S. ladder made of 50x50x6 mm angle section and 20mm plain M.S. bars with hand rails of 20mm medium class G.I. pipes, One aluminum ladder inside the tank from top dome to bottom dome, R.C.C. railing with 20mm dia medium class G.I.pipe (in 3 rows) on both sides of stair case, supported on 50x50x6mm M.S. angle section, spaced at intervals not more than 1.5m, Proper ventilator at top dome in circular shape of 1.2 m dia, Water level indicator fabricated with sensor connecting to automation, Lightening conductor as per I.S.S.2309 or its latest amendments of latest electricity rules, consisting of proper elevation				
32.01	50 KL 10 M Staging	Job		1712500.00	
32.02	50 KL 12 M Staging	Job		1788750.00	
32.03	75 KL 10 M Staging	Job		2150000.00	
32.04	75 KL 12 M Staging	Job		2242500.00	

BOQ Item No.	Description	Unit	Qty	Rate	Amount
32.05	100 KL 12 M Staging	Job		2886250.00	
32.06	100 KL 16 M Staging	Job		3073750.00	
32.07	150 KL 12 M Staging	Job		3241250.00	
32.08	150 KL 16 M Staging	Job		3457500.00	
32.09	175 KIL 12 M Staging	Job		3441250.00	
32.10	175 KL 16 M Staging	Job		3732500.00	
32.11	200 KL 12 M Staging	Job	1.00	3843750.00	3843750
32.12	200 KL 16 M Staging	Job		4040000.00	
32.13	200 KL 18 M Staging	Job		4105000.00	
32.14	225 KL 12 M Staging	Job		4170000.00	
32.15	250 KL 12 M Staging	Job		4537500.00	
32.16	300 KL 12 M Staging	Job		4877500.00	
32.17	300 KL 16 M Staging	Job		5508750.00	
32.18	350 KL 14 M Staging	Job		6093750.00	
32.19	400 KL 14 M Staging	Job		6830000.00	
32.20	400 KL 16 M Staging	Job		7021250.00	
32.21	500 KL 14 M Staging	Job		7457500.00	
32.22	25 KI 10 M Staging	Job		1296250.00	
32.23	25 KI 12 M Staging	Job		1363750.00	
32.24	For 2 m Staging (5% additional per Meter)	Rm	1.00	192187.50	192188
33.00	Excavation:- Excavation of earth in ordinary soil (loam, clay or sand) for pipe line and rising main trenches including lift upto 1.50 m and lead upto 50 m and refilling watering, ramming of the excavated earth into the trench and also disposal of surplus earth upto 50m from the center of the trenches including supply of all material labour, T&P etc complete as per instructions of Engineer -in -charge.				
34.00	Ordinary Soil	Cum	5590.59	214.61	1199797
35.00	Mixed Soil with Kankar	Cum	5590.59	249.27	1393567
36.00	Soft Rock	Cum		943.82	
37.00	Hard Rock	Cum		1319.18	
Additional	Disposal of Surplus Earth top 300 mm ht.	Cum			
38.00	Sand Bedding:- Sand Bedding in trenches in layers not exceeding 10 cm. in depth, consolidating each deposited layer by ramming and watering complete as per instructions of Engineer.	Cum	9.10	1656.00	15063
39.00	Retaining Wall:- Construction of Retaining Wall for Protection Survey, Investigation, Soil Testing, Planning, construction, commissioning etc. as per design and drawing provided by the contractor all in accordance with the relevent latest I.S. Codes and approved by the Engineer as per conditions of the bid documents. The design and drawings provided by the contractor should be betted by any IIT Institute or Government Engineering College approved by the Engineer, on contractor's cost. For construction of R.C.C. retaining wall including excavation of earth in hard rock/soft rock/ Kanker /morrum /bajri etc. for foundation, Plain Cement Concrete 1:4:8 (one cement four fine aggregates and eight coarse aggregates) and supply of steel as per drawing including bending ,binding with all type of binding materials including wastage of steel Reinforced Cement Concrete (M20) 1:1½:3(one cement one and half fine aggregates and three coarse aggregates) including cost of all arrangement of shuttering ,scaffolding and water with supply of all materials, labors T&P etc. required for proper completion of works as per the directions of the Engineer (Provisional)	Cum		16400.00	

BOQ Item No.	Description	Unit	Qty	Rate	Amount
40.00	Ductile Iron Pipes:- Supply of following sizes (D.I.) pipes for rising main/distribution system conforming to latest/relevant I.S. 8329/2000 Specifications-with all jointing materials such as specials conforming to latest /relevant I.S. specifications, suitable for D.I pipes, as per IS-1239 /2000 and IS 8329/2000 or their latest amendment including F.O.R. destination and all taxes and insurance etc. with loading, unloading and Carting up to site of work, also including specials for these pipes and lowering them into the trenches and laying true to alignment and gradient and jointing etc. complete (including testing of pipe lines and cutting of pipes for making up the length but excluding the cost of trenches).all complete as per instructions of Engineer -in -charge.				
	Ductile Iron Pipe (K-9)				
40.01	300 mm dia Ductile Iron K-9	m		3877.6	
40.02	250 mm dia Ductile Iron K-9	m		3103.5	
40.03	200 mm dia Ductile Iron K-9	m		2332.32	
40.04	150 mm dia Ductile Iron K-9	m		1728.48	
40.05	125 mm dia Ductile Iron K-9	m		1411.41	
40.06	100 mm dia Ductile Iron K-9	m	35.00	1191.41	41699
40.07	80 mm dia Ductile Iron K-9	m		905.41	
	Ductile Iron Pipe (K-7)				
40.08	300 mm dia Ductile Iron K-7	m		3151.6	
40.09	250 mm dia Ductile Iron K-7	m		2564.5	
40.10	200 mm dia Ductile Iron K-7	m		1848.32	
40.11	150 mm dia Ductile Iron K-7	m		1497.48	
40.12	125 mm dia Ductile Iron K-7	m		1301.41	
40.13	100 mm dia Ductile Iron K-7	m		1007.11	
40.14	80 mm dia Ductile Iron K-7	m		909.49	
41	HDPE Pipes PN6, PE 100:- Supply of following sizes pipes for distribution system conforming to latest/ relevant I.S. 4984/1995 Specifications with all jointing materials and specials conforming to latest /relevant I.S. specifications including F.O.R. destination and all taxes and insurance etc. with loading, unloading and Carting up to site of work, also including specials for these pipes and lowering them into the trenches and laying true to alignment and gradient and jointing etc. complete (including testing of pipe lines and cutting of pipes for making up the length but excluding the cost of trenches) all complete as per instructions of Engineer -in -charge.				
41.01	90 mm dia HDPE Pipe PN6, PE 100	m	190.00	229.5	43605
41.02	75 mm dia HDPE Pipe PN6, PE 100	m	217.00	169.2	36716
41.03	63 mm dia HDPE Pipe PN6, PE 100	m	15036.00	125.8	1891529
42.00	Valves:- Supply and carting up to site of work of the following dia DI butterfly /sluice valves, class I, working pressure 10 Kg/cm2 conforming to IS: 780/1969 or its latest amendments, including valve fittings & Dismantling Joints as per requirement F.O.R. destination, and lowering them into the already prepared trenches, fixing in position and jointing them with pipelines and testing etc. complete and also including supply of jointing materials etc. complete .including all taxes and insurance, as per instructions of Engineer -in -charge.				
	Isolating Sluice Valve				
42.01	Sluice valve - 300 mm dia	Nos		64042.00	
42.02	Sluice valve - 250 mm dia	Nos		48109.00	
42.03	Sluice valve - 200 mm dia	Nos		27304.00	
42.04	Sluice valve - 150 mm dia	Nos	1.00	17626.00	17626
42.05	Sluice valve - 125 mm dia	Nos	1.00	14505.00	14505
42.06	Sluice valve - 100 mm dia	Nos	2.00	14455.00	28910

BOQ Item No.	Description	Unit	Qty	Rate	Amount
42.07	Sluice valve - 80 mm dia	Nos	2.00	12401.00	24802
42.07.1	Sluice valve - 65 mm dia	Nos.	11.00	10650.00	117150
42.07.2	Sluice valve - 50 mm dia	Nos.		9700.00	
A.1 - 16	Scour Valve				
A.1 - 16.01	Scour valve - 65 mm dia	Nos		10160.84	
42.08	Scour valve - 80 mm dia	Nos	11.00	10160.84	111769
42.09	Scour valve - 100 mm dia	Nos		12535.28	
42.10	Scour valve - 150 mm dia	Nos		17625.57	
42.11	Scour valve - 200 mm dia	Nos		27304.03	
42.12	Scour valve - 250 mm dia	Nos		48109.48	
42.13	Pressure Relief Valve				
42.14	PRV 80 mm dia	Nos		54219.00	
42.15	PRV 100 mm dia	Nos		80025.00	
42.16	PRV 150 mm dia	Nos		124575.00	
42.17	Single / Double ball type Air Valve:- Supply and installation, testing etc. of single/double ball type air valve conforming to latest/relevant I.S. specifications including all taxes and insurance, carting up to site of work and lowering them into the trenches, fixing in position and jointing them with pipelines and testing etc. complete (including supply of jointing materials and Valve fittings etc complete) as per instructions of Engineer.				
42.18	20 mm	Nos	11.00	10229.21	112521
42.19	50 mm	Nos	1.00	23170.33	23170
42.20	80 mm	Nos		23170.33	
42.21	150 mm	Nos		41024.88	
42.22	Fire Hydrant:- Supply of under ground sluice valve type fire hydrant consisting of 80 mm dia sluice valve, 80mm dia tail pieces, 80mm dia duck foot bend and 80 mm dia standard makes iron coupling with cap and etc. complete conforming to latest/relevant I.S.specifications including all taxes and insurance up to site of work and lowering them into the trenches, fixing in position and jointing them with pipelines and testing etc. complete (including supply of jointing materials and Valve fittings etc. complete as per instructions of Engineer -in - charge.	Nos	2.00	24500.00	49000
43.00	Valve Chambers:- Construction of following type chambers as per department type design and drawing including Heavy duty M.S. Manhole Cover and all materials, labour, T&P etc complete for proper completion of work as per instructions of Engineer -in -charge.				
43.01-43.02	Sluice Valve Chamber (Masonry Type):- Dia upto 200 mm - 1000 (L) x 1200 (W) x 1300 (H) mm	No.	15.00	25800.00	387000
43.03	Sluice Valve Chamber (Surface Box Type):- Dia upto 200 mm - 1000 (L) x 1200 (W) x 1300 (H) mm	No.		5000.00	
43.04	Fire Hydrant chamber (800 (L) X 1250 (W) X 1000 (H) mm)	No.	2.00	18500.00	37000
43.05	Air Valve Chamber				
43.06	350 (L) x 350 (W) x 500 (H) mm	No.	12.00	9000.00	108000
43.07	Scour Valve Chamber				
43.08	dia upto 200 mm - 1000 (L) x 1200 (W) x 1300 (H) mm	No.	11.00	29670.00	326370
43.09	PRV Valve Chamber - 1000 (L) x 1200 (W) x 1300 (H) mm	No.		28380.00	
44.00	Design and construct Thrust Block:- Design and construct Thrust Block made in R.C.C. with cement, coarse sand & 20 mm gauge stone ballast in proportion of 1:1.5:3, for pipe line, including supply of MS reinforcement wrought to equired shape as necessary ,its bending, fixing & binding the same with 0.50 mm thick binding wire in position & necessary centering & shuttering including curing and supply of all materials, labour, T & P etc. required for proper completion of the work and as per specifications for RCC work as per instructions of Engineer -in -charge.				

BOQ Item No.	Description	Unit	Qty	Rate	Amount
44.01	Reinforced Cement Concrete:- Design and construct Thrust Block made in Reinforced Cement concrete (1:1.5:3), with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement, as per technical requirements.	Cum	0.64	13656.33	8685
44.02	Shuttering:- Providing shuttering for Thrust block using approved stout props and thick hard wood planks of approved thickness with required bracing for concrete works curved or straight including fitting fixing and striking out after completion of works.	Sqm	7.20	420.00	3024
44.03	Reinforcement of Thrust Block:- Providing reinforcement of Thrust block for reinforced concrete work including distribution bars, stirrups, binders etc. initial straightening and removal of loose rust (if necessary), cutting to requisite length, hooking and bending to correct shape, placing in proper position and binding with wire at every inter-section, complete as per drawing and direction.	MT	0.04	109838.98	4107
45.00	Staff Quarter / Office Room:- Provide all materials labour, T&P etc. and construct single room staff quarter / office room at water works site identified by the Engineer-in-charge as per department type design and drawing and specifications of civil works laid down in the bid document, including all material labour, T&P etc complete for proper completion of work as per instructions of Engineer -in -charge. (Drawing No.D-7)	No	1.00	970600	970600
46.00	Recharge Mechanism:- Water recharge Mechanism within the water works campus	Sqm	16.00	52500.00	840000
47.00	Backfilling of Earth:- Backfilling of abandoned tube well with available Earth	Cum		107.00	
48.00	Assesst replacement Items				
48.01	Pumping Plant:- SITC of Pumping plant including pumps with motors, starter, pannel, cable, complete in all respect with all required material T&P labour etc.				
48.02	1 HP	Nos		32518.98	
48.03	2 HP	Nos		35843.14	
48.04	3 HP	Nos		46249.21	
48.05	5 HP	Nos		65037.95	
48.06	7.5HP	Nos		228500.00	
48.07	10 HP	Nos		230200.00	
48.08	12.5 HP	Nos		238800.00	
48.09	15 HP	Nos		252100.00	
48.10	17.5 HP	Nos		276504.56	
48.11	20 HP	Nos		295500.00	
48.12	25 HP	Nos		334043.48	
48.13	30 HP (discharge 1000 LPM Head 62 m)	Nos		366163.04	
48.14	35 HP	Nos		393723.70	
48.15	40 HP	Nos		426547.83	
48.16	Turbidity & Chlorine analyzer	Nos		273000.00	
48.17	Hydrostatic Level Sensor:- Providing and installation hydrostatic level sensor at all tubewell pumping system including all accessories etc. complete in all respect as per instructions of Engineer -in -charge.	Nos		126000.00	
48.18	3Mtr. Long Column Pipe				
48.19	32 mm Dia size - MS pipe	Nos		1500.00	
48.20	40 mm dia size - MS pipe	Nos		2000.01	
48.21	50 mm dia size - MS pipe	Nos		2763.00	
48.22	65 mm Dia size - MS pipe	Nos		3200.01	
48.23	80 mm Dia size - MS pipe	Nos		4200.00	
48.24	100 mm Dia size - MS pipe	Nos		4701.00	
48.25	150 mm Dia size - MS pipe	Nos		6501.00	

BOQ Item No.	Description	Unit	Qty	Rate	Amount
49.00	Tubewell Automation System:- Installation of suitable capacity simple T.W. automation system to control operation of the pumping plant with respect to high/low water level in OHT iwith RTU panel , 7" HMI screen , surge device including enrgy meter inside the pump house with arrangement for communication of data with GSM and GPRS system to show required parameters including all accessories etc. complete in all respect as per instructions of Engineer -in -charge.	Job	1.00	375000	375000
50.00	Dismantling of Roads:- Dismantling of Following type of surfaces including sorting out and stacking of serviceable materials and disposal of unserviceable materials upto a distance of 50m as per instructions of Engineer -in -charge.				
50.01	B.O.E. Surface	Sqm	1246.00	100.00	124600
50.02	Bituminous Surface	Sqm	6127.00	200.00	1225400
50.03	Interlocking Road	Sqm	52.00	155.00	8060
50.04	C.C. Road	Sqm	613.00	329.96	202265
51.00	Restoration of Roads:- Reinstatement of the following type of road surface with old and new materials including supply of all materials, labour, T&P etc. required for proper completion of the work as per instructions of Engineer -in -charge.				
51.01	B.O.E. Surface (50% of existing bricks to be reused)	Sqm	623.00	350	218050
51.02	Bituminous surface	Sqm	6127.00	1534.82	9403842
51.03	Interlocking Road	Sqm	52.00	1070.5	55666
51.04	C.C. Road	Sqm	613.00	1560.71	956715
52.00	Nala/Culvert Crossing:- Provision for following types of Culvert crossing -along the alignment of pipe line complete as per instructions of Engineer -in -charge. (casing of pipe is done by concreting)				
52.01	Nala/Culvert Crossing (width -3.5 m) upto Dia 300 mm	Nos	2.00	19000	38000
52.02-52.03	Trenchless Crossings:- Survey site Investigation Planning , design Drawings as per State Road manual and vetting / checked from State Road Divisional Office and taking NOC for trenchless crossing of National highway road and Railway track(crossing length 15m to 25m), Road for of required dia Rising main pipe with casing pipe as required for proper completion of work required size of MS casing pipe as per drawing and as per (IS:3589 & made from confining to IS:2062) with 750 Micron PU coating internally and 250 micron anti corrosive bituminous paint externally by trenchless technology method at an average depth 3.60 mtr from normal ground level up to top of casing pipe including excavation & filling of Pit, Dewatering arrangement, Supporting system for soil, also including supply and fixing of 2 no Sluice valve ISI Mark, construction of sluice valve chamber etc. all complete work including supply & fixing specials in carrier pipe over main pipe, as per specification given in the bid documents including supply of all materials, labour T&P etc. for proper completion of work as per instruction of Engineer.				
52.04	Railway Line crossing (Upto Dia 350 mm)	Nos		60000	
52.05	National Highway road crossing (Upto Dia 350 mm)	Nos		40000	
52.06	State Highway road crossing (Upto Dia 350 mm)	Nos		27000	

BOQ Item No.	Description	Unit	Qty	Rate	Amount
52.07	Road Crossing:- Excavation in foundation of trench of proper size in soil mixed with moorum, Shingle, Kankar, soft rock, hard rock, including refilling, dressing and ramming earth or sand or bajri, ballast, including providing, supply, carting, lowering, laying and jointing of casing pipe of RCC NP-3 with appropriate size, with rubber ring joint, sand filling in gap inside RCC pipe, insertion of distribution pipe into the encasing pipe including supply of T&P, including concrete of 150 mm thick in with 40mm gauge brick ballast local sand and cement in proportion of 8:4:1, provision for barricading, labour for traffic diversion etc. Complete for proper completion of work as per instruction of Engineer.				
52.08	50 mm dia. Pipe	Nos		1400	
52.09	100 mm dia. Pipe	Nos		1700	
52.10	150 mm dia. Pipe	Nos		2000	
52.11	200 mm dia. Pipe	Nos		2400	
52.12	250 mm dia. Pipe	Nos		3600	
52.13	300 mm dia. Pipe	Nos		3900	
52.14	350 mm dia. Pipe	Nos		4386	
52.15	400 mm dia. Pipe	Nos		4700	
52.16	450 mm dia. Pipe	Nos		5200	
52.17	500 mm dia. Pipe	Nos		6200	
52.18	600 mm dia. Pipe	Nos		7600	
53.00	Functional House Tap Connection:- Making house connection should be done atleast 2 m inside the boundary wall with provision of tap from distribution line to outer wall of house, with supply of 1 m G.I. pipe (15 mm) (above ground) & average 5 mtr. MDPE Pipe (20 mm) (below ground) including specials, saddle, Tap,etc. of suitable size, T&P etc. including excavation, laying and jointing for proper completion of work as per instructions of Engineer as per Dwg 12 (excluding road restoration)	Nos.	404.00	3500	1414000
54.00	Stand Post:- Construction of single tap pillar type stand post as per type design	Nos.	15.00	10000	150000
55.00	Operation and Maintenance:- Operation and Maintenance for 10 years of water supply schemes after completion including staff required for operation and maintenance, chemicals, all materails, specials T & P for operation and maintenance excluding electricity charges. (2% of Capex cost for first year of O&M) Note:- 6% Inflation Factor considered for arriving the O&M Cost from Second Year onwards.	Rs			
55.01	Cost of DPR Preperation @ 1% of CAPEX Cost of DPR	%			
56.00	Electromagnetic flow meters				
56.01	150mm	Nos.		150000	
56.02	200mm	Nos.		190000	
56.03	250mm	Nos.		225000	
56.04	300mm	Nos.		260000	
56.05	350mm	Nos.		330000	
56.06	400mm	Nos.		420000	
56.07	450mm	Nos.		500000	
56.08	500mm	Nos.		550000	
A.I-56.09	100mm	Nos.		100000.00	
A.I-56.10	80mm	Nos.	1.00	80000.00	80000
57.00	Soft Starter :-				
57.01	soft starter with RS485 port -400V,7.5KW Rating	Nos		60000	
57.02	soft starter with RS485 port -400V,15KW Rating	Nos		70000	
57.03	soft starter with RS485 port -400V,22KW Rating	Nos		85000	
57.04	soft starter with RS485 port -400V,30KW Rating	Nos		100000	

BOQ Item No.	Description	Unit	Qty	Rate	Amount
57.05	soft starter with RS485 port -400V,45KW Rating	Nos		125000	
57.06	soft starter with RS485 port -400V,55KW Rating	Nos		140000	
57.07	soft starter with RS485 port -400V,75KW Rating	Nos		150000	
57.08	soft starter with RS485 port -400V,90KW Rating	Nos		175000	
57.09	soft starter with RS485 port -400V,110KW Rating	Nos		225000	
57.10	soft starter with RS485 port -400V,132KW Rating	Nos		250000	
57.11	soft starter with RS485 port -400V,220KW Rating	Nos		275000	
57.12	soft starter with RS485 port -400V,250KW Rating	Nos		325000	
57.13	soft starter with RS485 port -400V,312KW Rating	Nos		375000	
57.14	soft starter with RS485 port -400V,450KW Rating	Nos		550000	
58.00	Auto Phase Reversal Unit:-				
58.01	100 Amp rating	Nos		45000	
58.02	125 Amp rating	Nos		50000	
58.03	160 Amp rating	Nos		70000	
58.04	200 Amp rating	Nos		120000	
58.05	250 Amp rating	Nos		135000	
58.06	315 Amp rating	Nos		140000	
58.07	400 Amp rating	Nos		150000	
58.08	500 Amp rating	Nos		190000	
58.09	630 Amp rating	Nos		225000	
59.00	Radar type Level transmitter	Nos	1.00	120000	120000
60.00	Control Panel:- control panel for all power equipments with IP 54 protection	Nos	1.00	120000	120000
61.00	Cabling for Tube Well:- complete cabling for tubewell including all power and control cables of all equipments at pumphouse and OHT	Nos	1.00	60000	60000
62.00	Master Control PLC:- Master control plc with CPU, SCADA software including GSM / GPRS modem, necessary firewall, ethernet switch, CCTV system	Nos		2665000	
63.00	Installation testing and commissioning	Nos	1.00	60000	60000
Additional Items					
A.I - 1	110 mm dia HDPE Pipe PN6, PE 100	m	127.00	326.71	41492
A.I - 2	125 mm dia HDPE Pipe PN6, PE 100	m	48.00	414.95	19918
A.I - 3	140 mm dia HDPE Pipe PN6, PE 100	m	11.00	513.86	5652
A.I - 4	160 mm dia HDPE Pipe PN6, PE 100	m	81.00	663.92	53778
A.I - 5	180 mm dia HDPE Pipe PN6, PE 100	m	39.00	829.93	32367
A.I - 6	200 mm dia HDPE Pipe PN6, PE 100	m		1016.89	
A.I - 7	Supply Installation of Display board of Size 2M X 1 M for Providing details of proposal of water supply scheme	LS	1.00	25000	25000
A.I - 8	Provision for arboriculture for development of water works	LS	1.00	50000	50000
A.I - 9	Battery Backup with Accessories for 2 Kw Load	Nos		92800	
A.I - 10	40 Watts Solar Street Lights inbuilt with all accessories	Nos	4.00	30000	120000
A.I - 11	SITC of DG for Electricity support				
A.I - 11 - 1	7.5 KVA	Nos		240000	
A.I - 11 - 2	10 KVA	Nos		260000	
A.I - 11 - 3	15 KVA	Nos		306000	
A.I - 11 - 4	20 KVA	Nos	1.00	370000	370000
A.I - 11 - 5	25 KVA	Nos		389000	
A.I - 11 - 6	30 KVA	Nos		405000	
A.I - 11 - 7	40 KVA	Nos		483000	
A.I - 11 - 8	45 KVA	Nos		495000	
A.I - 11 - 9	50 KVA	Nos		555000	
A.I - 11 - 10	62.5 KVA	Nos		569000	
A.I - 12	Electromagnetic flow meters				
A.I - 12 - 1	100mm Electromagnetic flow meters	Nos.		100000	
A.I - 12 - 2	80mm Electromagnetic flow meters	Nos.		80000	



Salient Feature

Name of the State : Uttar Pradesh
Name of the District : Gorakhpur
Name of the Block : Gola
Name of the Programme : Jal Jeevan Mission
Name of the Gram Panchayat : Bisunpur Raja
No. of Village/Habitations : 3/9

Table 1: List of village and Habitation

S. No	District Name	Sub District Name	Block Name	Gram Panchayat Name	2011 Census Code	Revenue Village Name	Habitations Name
1	GORAKHPUR	Gola	Gola	BISUNPUR RAJA	187682	BISUNPUR RAJA	Bisunpur Raja
2					187686	BIJAI URF MIRPUR	Bijai Urf Mirpur
3					187687	RAGHUNATHPUR	Raghunathpur

Table 2: Gram Panchayat Population Summary

S. NO	DESCRIPTION	GROWTH FACTOR WRT Y-2011	POPULATION	SC/ST	HOUSE HOLDS
1.	As per Census 2011	1	2520	362	327
2.	Initial Stage 2022	1.23	3110	447	404
3.	Middle Stage 2037	1.64	4140	595	538
4.	Ultimate Stage 2052	2.19	5510	792	716

Rate of Water Supply : 64.70 LPCD (Added 15 % losses over 55 LPCD)
Nature of Sources : Ground Water
Source of Development : Tube Well
Daily Water Demand Summary :



a) Initial Year 2022	:	201 KLD
b) Intermediate Year 2037	:	268 KLD
c) Ultimate Year 2052	:	357 KLD
Number of Tube Wells	:	1
Nature of Treatments	:	Chlorinator through HDPE Tank (100L) and Dosing metering pump (0-6LPH)
Average Dosing Capacity	:	0.50 PPM
Pumping plant for Tube Well		
a) No. and Type of Plant	:	1
b) Anticipated Discharge	:	700LPM
c) Total Working Head	:	42 m
d) Motor (HP)	:	12.5 HP
Service Storage		
a) Quantity	:	1
b) Capacity	:	200 KL
c) Staging	:	13 m

Pipeline Summary

Table 3: Rising Mains

Pipeline Type	From	To	Material	Class	Diameter (mm)	Length (m)
Rising Mains	TW - 1	OHT-1	DI	K-9	100	35
Total Length of Rising Main (m)						35

Table 4: Distribution Network Summary

Pipeline Type	Material	Class	Diameter(mm)	Length (m)
Distribution Mains	HDPE	PN-6 PE100	63	11,952
Distribution Mains	HDPE	PN-6 PE100	75	1,907
Distribution Mains	HDPE	PN-6 PE100	90	291
Distribution Mains	HDPE	PN-6 PE100	110	636
Distribution Mains	HDPE	PN-6 PE100	125	588
Distribution Mains	HDPE	PN-6 PE100	140	147
Distribution Mains	HDPE	PN-6 PE100	160	0
Distribution Mains	HDPE	PN-6 PE100	180	228
Distribution Mains	HDPE	PN-6 PE100	200	0
Total Length (m)				15,749

Estimate for Bisanpur Raja Gram Panchayat

Water Supply Scheme

Under - SWSM

Block- Gola District- Gorakhpur

Form "J" - Comprehensive Scheme

Sr. No.	Description of Work	Amount (Rs. in Lacs)	%	Amount (Rs. in Lacs)	Govt. of U.P. Share	Govt. of India Share
1	2	3	4	5	6	7
1	Cost of Work	342.65		342.65	335.78	
2	0.14% Discount as per Contract on Cost of work	342.65	-0.14%	0.48		
	Net Cost of Work	335.78		342.17	335.31	
3	Add Contingency 2%	342.17	2.00%	6.84	6.71	
	Sub Total (A)		342.02	349.01	174.51	174.51
4	Add GST 12 %-B	349.01	12.00%	41.04	41.88	20.94
5	Add 12.5% Centage-C	349.01	12.50%	42.75	43.63	43.63
	Grand Total (A+B+C)		425.81	434.52	239.07	195.45
6	1st O&M Cost (as per DEP)	342.17	2%	6.84	3.42	3.42

TOTAL POPULATION A (ULTIMATE YEAR 2052)	5510
Per Capita Cost (NET COST+CONTIGENCY+GST)	7094

PREPARED BY

CHECKED BY

M/S WCC Ltd.

J.E(T) Assistant Engineer

अधिकासी अभियन्ता
महानगर उद्योग जल निगम
Member Secretary DWSM

Executive Engineer,

U.P Jal Nigam, 10th Div. Gorakhpur

Forwarded As Recommended
by DWSM For SLSSC

(तकनीकी प्रकोष्ठ)

राज्य पेयजल एवं स्वच्छता मिशन

(इं० डी०के० सिंह)

अधीक्षण अभियन्ता
राज्य पेयजल एवं स्वच्छता मिशन

(इं० जी०पी० शुक्ला)

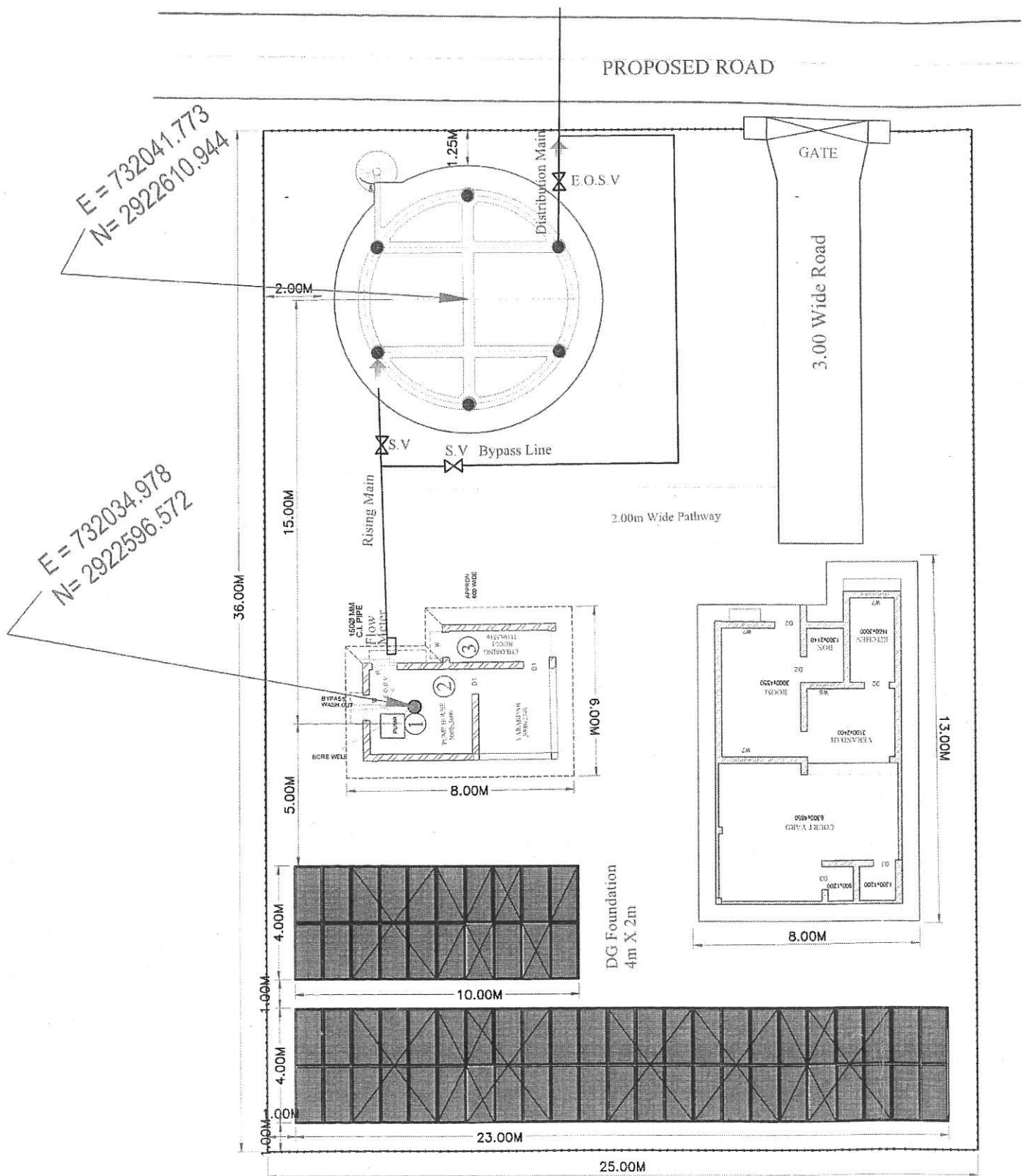
युनिट कोआर्डिनेटर
राज्य पेयजल एवं स्वच्छता मिशन

Break up of Cost

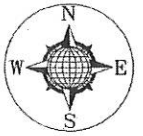
SL. No.	Sub Head	Total Cost of work	Building	R.C.C. Reservoir	Pipe Line	Machinery	Misc.
1	2	3.0	4.0	5.0	6.0	7.0	8.0
A. Civil works :							
1	Pump house & Chlorinating room	4,04,000	4,04,000				
2	Rising Main	71,161			71,161		
3	R.C.C. Over head tank (___ KL/___ m staging)	43,87,085		43,87,085			
4	Distribution System	1,98,23,002		1,98,23,002			
5	Approach Road	16,81,966	16,81,966				
6	Boundary Wall and approach road	8,72,280	8,72,280				
7	Staff Quarter	9,70,600	9,70,600				
8	Surveying and designing	3,35,843					3,42,650
	(Total A)	27,85,52,743	39,28,846	2,42,10,087	71,161	-	3,42,650
B. E&M works:							
1	Cost of Tubewell construction	16,99,277				16,99,277	
2	Cost of pumping plant and Chlorinating Plant	12,38,745				12,38,745	
3	Solar plant	16,49,200				16,49,200	
4	Electrification of pump house, SCADA	11,25,000				11,25,000	
	Total (B)	57,12,222	-	-	-	57,12,222	-
	G. Total (A+B)	3,42,64,965	39,28,846	2,42,10,087	71,161	57,12,222	3,42,650

3,35,78,164.65

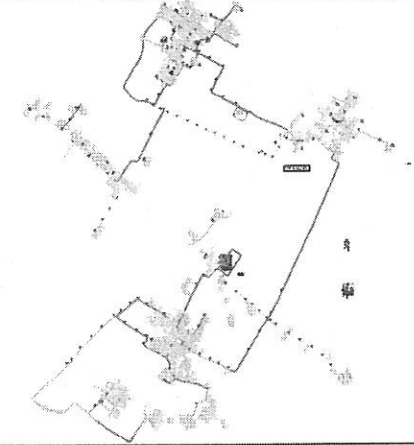
WATER WORKS TYPICAL LAYOUT PLAN



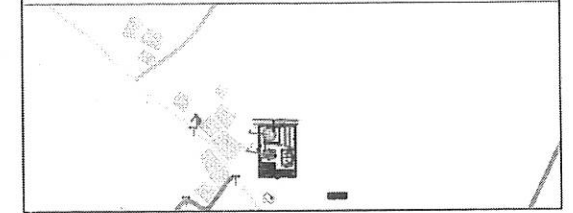
Note :-
All dimensions are in meters



KEY MAP OF GRAM PANCHAYAT :



KEY MAP OF OHT LOCATION :



Sl. No.	Description	UNIT SIZING	
		Nos.	SIZE (M)
1	Ground Water Bore well	01	-
2	Pump House	01	3.00m (L) x 3.60m (W) x 3.00m (Ht)
3	Chlorine Room	01	3.51m (L) x 1.11m x 3.00m (Ht)
4	Modular Overhead Tank With RCC Staging	01	200 KL @ 13m (Staging Height)
5	Staff Quarters	01	13m (L) x 8m (W)
	Solar Panels (18K W)	07	4m (L) x 33m (W)

NOTE. OHT Layout & Borehole point may be changed on actual ground condition

PROJECT: SURVEY, DESING, PREPARTION OF DPR, CONSTRUCTION AND COMMISSIONING AND O & M FOR 10 YEARS OF VARIOUS RURAL WATER SUPPLY PROJECT IN THE STATE OF UTTAR PRADESH AS PER REQUEST FOR PROPOSAL FOR DIVISION- GORKHPUR

CLIENT: GOVERNMENT OF UTTAR PRADESH STATE WATER & SANITATION MISSION

CONTRACTOR: **NCC** NCC LIMITED

TITLE: OHT LAYOUT PLAN FOR GP BISHONPUR
BLOCK: GOLA
DISTRICT: GORAKHPUR

SCALE : SHEET: A3 REVISION: 0
RELEASED FOR PRELIMINARY TENDER INFORMATION APPROVAL CONSTRUCTION



Signature by NCC LTD.

[Signature]
Signature by
JE (Civil and E&M)
(Jal Nigam)

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AE (Civil and E&M)
(Jal Nigam)

[Signature]
Verified by
Executive Engineer (Civil)
(Jal Nigam)

Relocated to local area
[Signature]
Verified by
Executive Engineer (E&M)
(Jal Nigam)

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Approved by
Superintendent Engineer
(Jal Nigam)