

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SPECIAL BENCH**

IN THE MATTER OF

ORIGINAL APPLICATION NO. 09/2017

SURESH BANARASILAL JAIPURIA

APPLICANT

VERSUS

M/S SMS PARYAVARAN LTD. & ORS.

RESPONDENT(S)

WITH

ORIGINAL APPLICATION NO. 05/2018

GOPAL RADHESHYAM CHOUDHARY

APPLICANT

VERSUS

M/S SMS PARYAVARAN LTD. & ORS.

RESPONDENT(S)

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Bharat K. Sharma
Regional Director
CPCB, Regional Directorate, Pune

Date: December 20, 2022

Place: Pune

REPORT IN COMPLIANCE WITH ORDER OF HON'BLE NGT, SPECIAL BENCH, NEW DELHI, DATED 23.08.2022 IN THE MATTER OF ORIGINAL APPLICATION NO. 09/2017 (WZ) (SURESH BANARASILAL JAIPURIA VS. SMS PARYAVARAN LTD & ORS) ALONG WITH ORIGINAL APPLICATION NO. 05/2018 (WZ) (GOPAL RADHESHYAM CHOUDHARY VS. M/S. SMS PARYAVARAN LTD. & ORS) RELATED TO IMPROPER SEWAGE MANAGEMENT IN SHEGAON, DIST-BULDHANA, MAHARASHTRA

REPORT PREPARED BY



**CENTRAL POLLUTION CONTROL BOARD,
REGIONAL DIRECTORATE,
PUNE**

**FOR SUBMISSION TO
HON'BLE NATIONAL GREEN TRIBUNAL,
SPECIAL BENCH, NEW DELHI**

NOVEMBER 2022

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**REPORT IN COMPLIANCE WITH ORDER OF HON'BLE NGT, SPECIAL BENCH,
NEW DELHI, DATED 23.08.2022 IN THE MATTER OF ORIGINAL APPLICATION
NO. 09/2017 (WZ) (SURESH BANARASILAL JAIPURIA VS. M/S SMS
PARYAVARAN LTD & ORS) ALONG WITH ORIGINAL APPLICATION NO. 05/2018
(WZ) (GOPAL RADHESHYAM CHOUDHARY VS. M/S. SMS PARYAVARAN LTD. &
ORS) RELATED TO IMPROPER SEWAGE MANAGEMENT IN SHEGAON, DIST-
BULDHANA, MAHARASHTRA**

1.0 BACKGROUND

Original Application No. 09/2017 (WZ) (Suresh Banarasilal Jaipuria vs. M/s SMS Paryavaran Ltd &Ors) and Original Application No. 05/2018 (WZ) (Gopal Radheshyam Choudhary Vs. M/s. SMS Paryavaran Ltd. & Ors) were filed regarding water pollution on account of discharge of untreated sewage in open land and in Unad Nalla at Shegaon, District-Buldhana, Maharashtra, resulting in water pollution and damage to the environment, particularly the ground water which has become unfit for consumption. There was also discharge of dangerous gases from the sewage pipes/manholes. The matters were regarding Undergorund Drainage Scheme (UGDS) Phase-I including sewerage network and STP for which Water Supply and Sewerage Board (Maharashtra Jeevan Pradhikaran (MJP)) awarded tender for setting up the sewerage system at estimated cost of more than Rs. 27 Crores, on account of use of sub-standard material and poor execution, there is no effective treatment and management of sewage.

Considering the above, the Hon'ble Tribunal issued notice on 01.02.2017 to the respondents including, the MJP, Municipal Council, State PCB and State of Maharashtra, who have filed their respective replies. MJP levied penalty on the contractor in view of the inquiry report dated 14.02.2017, submitted by Superintendent Engineer, Public & Works Department, Akola. The sewerage line work has since been completed. State Pollution Control Board as per its report dated 26.09.2016 found the working of STP satisfactory.

Vide order dated 27.02.2019, the Hon'ble Tribunal found that STP was partially operational and thus water pollution was taking place. Accordingly, State PCB was directed to take remedial action and give a report. Vide order dated 24.09.2019, the Hon'ble Tribunal considered the report showing deficiencies in the work. Hon'ble Tribunal noted that allegation of pollution was established but there was conflicting stands of the MJP, the Municipal Council and State PCB which required coordination at higher level in the administration. Accordingly, the Hon'ble Tribunal directed the Chief Secretary to ensure remedial action. The State Government was directed to deposit performance guarantee of Rs. 01 Crore to the satisfaction of CPCB to remedy the situation. State PCB was directed to assess the environmental damage caused on account of failure to lay and maintain sewer line properly resulting in pollution. The Chief Secretary was directed to file report within two months.

The matter was further considered on 15.06.2020 in the light of report of the State PCB that compensation liable to be paid was Rs. 13.88 Crores by the MJP. The Hon'ble Tribunal also considered report of the Chief Secretary dated 12.12.2019 to the effect that College of Engineering, Pune, was appointed as third party to conduct audit of the underground drainage system and performance guarantee was furnished to the CPCB. The Hon'ble Tribunal accordingly directed the Chief Secretary, Maharashtra to take further follow-up action and file a progress report.

Subsequently, Hon'ble NGT passed an order dated 23.08.2022 and directed CPCB to verify the compliance status as on 30.10.2022 and give an independent factual report in the matter based on the deficiencies observed. The copy of the aforesaid order is attached as **Annexure-I**. The deficiencies observed are elaborated in para 14 of the aforesaid order of Hon'ble NGT which are reproduced below-

14. "In the present case, there appears to be total lack of interdepartmental co-ordination. No reliable data of quantity of sewage generation and treatment in the designed 7.0 MLD STP is available. Untreated effluent is being discharged into Unad Nala. There does not appear to be connectivity of households to STP. Septage management is also not shown. Contours of sewers do not appear to have been explored to ensure that sewage flow is properly conveyed to STP with required gradient."

2.0 VISIT AND MONITORING

In compliance with the direction of the Hon'ble NGT, CPCB team comprising of Shri Pratik Bharne, Scientist 'E' and Shri Nikhilesh Gandhre, Jr Research Fellow, visited Shegaon on 30.10.2022 and 31.10.2022 to verify the compliance status as on 30.10.2022.

CPCB team accompanied by officials of Maharashtra Pollution Control Board (MPCB), Maharashtra Jivan Pradhikaran (MJP) and Shegaon Municipal Council (SMC).

Maharashtra Pollution Control Board (MPCB)

- Dr A. R. Supate, PSO, MPCB, Mumbai
- Shri Rajendra Rajput, Regional Officer, MPCB, Amravati
- Shri Manish Holkar, Sub-Regional Officer, MPCB, Akola
- Shri Nandkumar Patil, Field officer, MPCB, Akola
- Smt Priyashree Deshmukh, Field officer, RO, MPCB, Amravati

Maharashtra Jivan Pradhikaran (MJP)

- Shri Santosh S Gavhankar, Superintending Engineer, MJP Circle Akola
- Shri Krushna Balasaheb Avhad, Executive Engineer, MJP Division, Buldhana
- Shri Anil N. Nagpure, Subdivisional Engineer, MJP Subdivision Khamgaon
- Shri Gopal Tathe, Executive Engineer Inc Incharge, Mechanical, MJP Circle Akola
- Shri Suhas Patange, Subdivisional Engineer, Mechanical, MJP Division Buldhana
- Shri Sudhakar Raibole, Junior Engineer, MJP Subdivision Khamgaon

Shegaon Municipal Council (SMC)

- Dr Jayashri Katkar-Borade, Chief Officer
- Shri Sanjay Mokusare, Water Supply & Drainage Engineer

2.1 MONITORING OF STPs AND NATURAL DRAIN- UNAD NALLAH

The team carried out sampling of Inlet and Outlet of STPs (7 MLD & 2 MLD) on 30.10.2022 (afternoon during lean flow hrs) and 31.10.2022 (morning during peak flow hrs).

Three samples at natural drains were also collected on 30.10.2022 i.e. two samples at Unad Nalla (Upstream side- Point Zero near Bhakt Niwas and downstream- Unad Nalla- after discharge of STP (7 MLD), flowing out of Shegaon and one sample at local seasonal Nallah before meeting to Unad Nalla near Bhaipura, Shegaon.

The details of sampling locations are given in below **Table-01** and the shown in **Image**.

TABLE-01 DETAILS OF SAMPLING LOCATIONS

Location No.	Latitude & Longitude	Location Description(s)
1	20°47'39.1"N 76°42'15.6"E	STP (7 MLD) (Inlet & Outlet)
2	20°48'24.8"N 76°40'21.9"E	STP (2 MLD) (Inlet & Outlet)
3	20°47'02.5"N 76°41'40.8"E	Unad Nalla Point Zero near Bhakt Niwas
4	20°47'18.6"N 76°42'15.7"E	Local Seasonal nalla before meeting to Unad Nalla near Bhaipura, Shegaon
5	20°47'39.1"N 76°42'15.6"E	Unad Nalla- after discharge of STP (7 MLD), flowing out of Shegaon

The samples were analyzed at the Regional Laboratory, MPCB, Pune. The photographs taken during the visits are provided at **Annexure-II**.

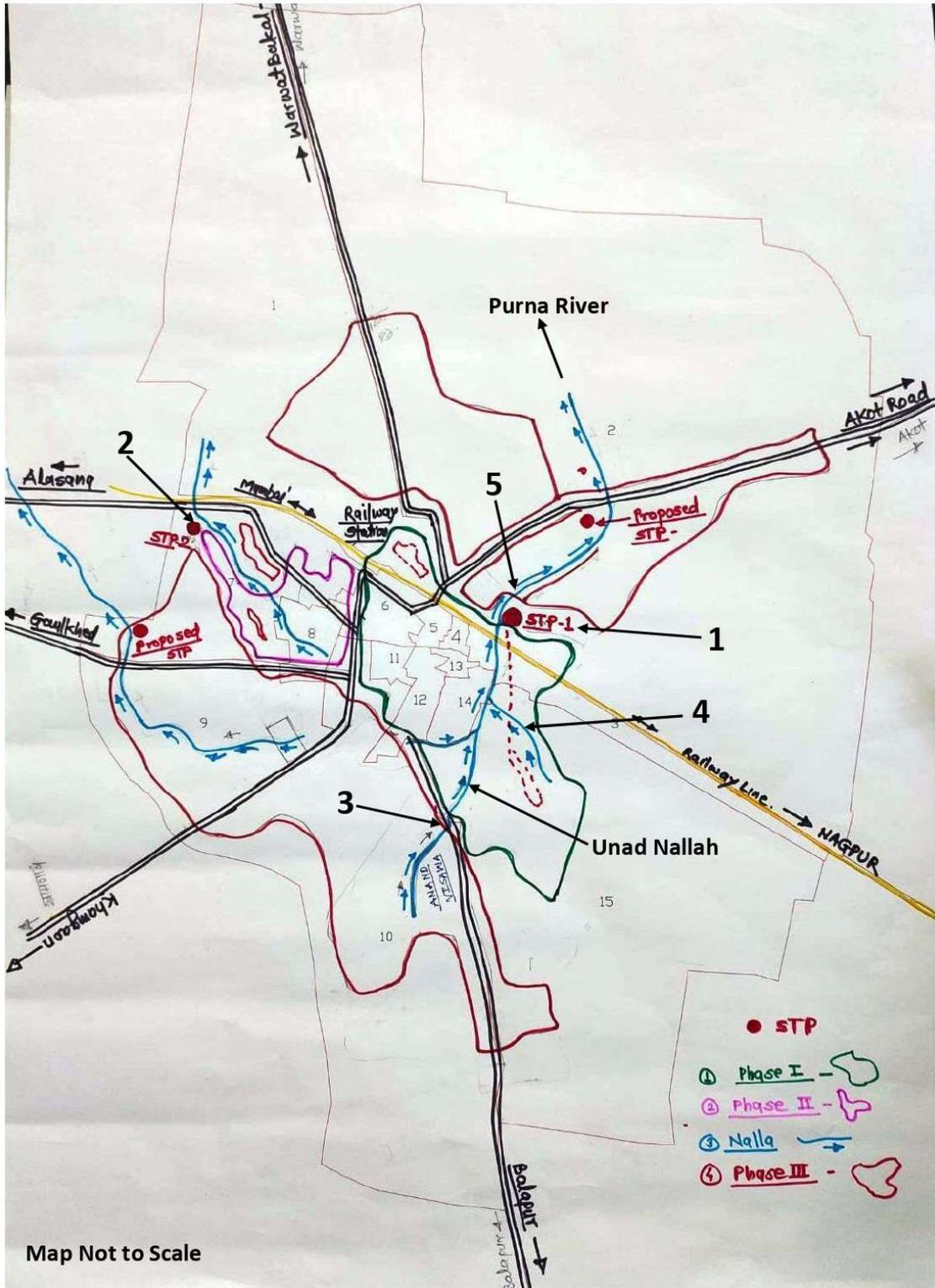


IMAGE – SHOWING AREA OF SHEGOAN, DIFFERENT PHASES UNDERGROUND DRAINAGE SCHEME, STPs, UNAD NALLAH AND SAMPLING LOCATIONS

3.0 ABOUT SHEGAON

Shegaon town has a 'B' class Municipal Council and is situated 41 km from Akola and Mumbai-Howrah railway route, and spread over area 839.70 hectare. The Shegaon Municipal Council has population of 59,672 as per Census India 2011. The population projected for the year 2042 is 1,15,697.

Shegaon has become a pilgrimage centre due to the influence of Shri Sant Gajanan Maharaj. Shri Sant Gajanan Maharaj Temple is managed by Shri Gajanan Maharaj Sansthan along with arrangement for accommodating thousands of devotees coming from different parts of the country called Bhakta Niwas (A complex for accommodation). There are such four accommodation complexes.

The Shegaon town is spread over fairly level land, sloping from both east and west directions. Major natural drain locally called *Unadnallah*, flows through the heart of old gaathan travers in the south-north direction and exist at north-east direction and further meets with Mas river which further meets with Purna River.

4.0 PRESENT WATER SUPPLY & SEWAGE GENERATION, COLLECTION AND TREATMENT

4.1 WATER SUPPLY:

The main source of water supply to Shegaon is Wari Dam built on Wari river which is about 65 km away from Shegaon. The other sources are from private open/handpumps and bore wells. As per information provided by SMC (**Annexure-III**), the total water supply/use is about 9.465 MLD, as detailed in the following **Table-02**

TABLE-02 DETAILS OF WATER SUPPLY

Particular(s)	Water Supply (in MLD)
From Vari Dam Water Supply Project by Shegaon Municipal Council	
- Shegaon Town (different wards)	7.0
-Shri Gajanan Maharaj Sansthan (Temple premises & 4- Bhakta Niwas).	1.75
From Other Sources	
-Water Supply Project of Shri Gajanan Maharaj Sansthan (Mas Dam/Nagzari River)	0.5
- Private Bore wells/ Hand pumps	0.215
Total Water Supply	9.465

4.2 SEWAGE GENERATION, COLLECTION AND TREATMENT:

The present sewage generation is about 7.57 MLD, out of which 4.2-4.5 MLD sewage is being collected and treated at 7 MLD STP through UGDS Phase-I and another 0.9-1.0 MLD sewage is collected and treated at 2 MLD STP through UGDS Phase-I. Details of water supply, treated and Untreated Sewage are given in **Table-03**.

TABLE-03 DETAILS OF TREATED & UNTREATED SEWAGE

Particular(s)		Quantum (in MLD)	Percentage
Total Water Supply/Use		9.46	
Sewage Generation (80% of Total Water Supply)		7.57	
Treatment of Sewage	STP-1(Capacity-7 MLD)	4.2-4.5 (Av 4.35)	70% of the sewage generation
	STP-2(Capacity-2 MLD)	0.9-1.1 (Av 1.0)	
	Total	5.1-5.6 (Av 5.35)	
Untreated Sewage		2.22	30% of the sewage generation

4.2.1 SEWAGE COLLECTION & TREATMENT

The sewage (being channelized to the two STPs) is collected through Under Ground Drainage Scheme (UGDS) for which Shegaon town was earlier divided into three drainage districts (DD1, DD2 & DD3) for old limit of Shegaon Municipal Council (5 Sqkm) wherein now DD4 is included for addition of nearby villages, area (80 Sqkm). The drainage districts were created based on the study of topographical features and other prominent features like railway line and *Unad Nallah* flowing across the town. The map showing different phase areas and STPs is provided as **Image**, above.

The phase wise details of underground drainage scheme including numbers of wards, area covered, STPs, Sewerage network, total connected properties, numbers of manholes, property chambers etc.,as provided by Chief Officer, Shegaon Municipal Council (SMC), are given in **Table-04** below.

TABLE 04: PHASE WISE WORK DESCRIPTION OF SCHEME

Sr.No.	Particular	UGDS Phase-I@ (Completed)	UGDS Phase-II # (Completed except house connectivity)	UGDS Phase-III (Proposed)\$
1	Technical Sanction	1)First Technical Sanction Rs.2353.86 Lakh, Dt.15.07.2011 Rs.903.98 Lakh, Dt.15.07.2011 Total Rs.3257.84 2)Revised Technical Sanction Rs.3937.26 Lakh, Dt. 31.01.2017	Rs.2422.36 Lakh, Dt.04.09.2018	Rs.10568.58 Lakh Dt.10.11.2022
2	Administrative Sanction	1) Administrative Sanction Rs.2292.27 lakh, dt.19.01.2011 Rs.850.11 lakh dt 21.03.2011 2)Revised Administrative Sanction Rs.3937.26 lakh, dt.17.05.2017	Rs.2422.36 Lakh, Dt.06.09.2018	Submitted for AA by CO SMC on Dt.11.11.2022
3	Tender Cost	Rs.2750.08 Lakh	Rs.1702.20 Lakh	-
4	Accepted Tender Cost	Rs.3320.72 Lakh (20.75% Above)	Rs.1719.06 Lakh(0.99%Above)	-
5	Work Order Date	14.11.2011 (2 Years + 3 Years O & M)	02.03.2019 (2 Year + 3 Years O & M)	-
6	Target Date	13.11.2013	02.03.2021	
7	Work Completion	20.06.2020 (with repairs/rectifications)	January 2022 and under O & M further up to 2025 by MJP	
8	Name of Contractor	M/s SMS Paryavaran, New Delhi	M/s Krishna Const, Ahmadabad	-
9	No of Wards Covered	DD1 & DD2 Full Ward No-1 to 8, 11 to 17, 19 to 25, Partial Ward No -8,9,10,18	DD3 Full Ward No-0 Partial Ward No -9,10,18	Partial DD2 Partial DD3 DD4 New Ward NO -26, 27, 28, 29, 30; Now Ward system converted into Prabhag but SMC & total 15 Nos of Prabhags created.

Sr. No.	Particular		UGDS Phase-I [@]	UGDS Phase-II [#]	UGDS Phase-III (Proposed) [§]
10	Population Covered	Urban+ Floating	2012-42612 2027-53138 2042-62731	2019-11313 2034-14203 2049-18371	2025-74266+35702 2040-92624+38553 2055-114617+41866
		Rural (Extended Limit Area)	NIL	NIL	2025-15667 2040-21267 2055-27116
10	Design Year Capacity	STP (15 Years)	2027- 7 MLD	2034- 2 MLD	2040- 12 MLD (7+5)
		Collection System	2042- 8.6 MLD	2049- 2.51 MLD	2055- 19.83 MLD
11	Total Properties Covered(Present)	Urban	7083Nos	3148 Nos./2000 Nos completed	1783 Nos
		Rural	NIL	NIL	2417 Nos
12	Sewerage Collected Presently	4.2 - 4.5 MLD		0.9 - 1.1 MLD	-
13	Total Length of Collection System	50075.86m		21931m	75169 m
14	Total No of Manhole	2195 Nos		940 Nos	2974 Nos
15	Total No of Property Chamber	5115 Nos		3510 Nos	200 Nos.

Note-

@ Completed, (present applications filed in Hon'ble wrt ugds phase-I)

completed except completion of House connections

§ Technical sanctioned by MJP & SMC, submitted for administrative approval under Maharashtra Suvarna Jayanti Nagrothan Maha-Adbhiyan and Swachh Bharat mission 2.0 to Principal Secretary, UDD, Mumbai and Commissioner & Director, Directorate of Municipal Administration, Director Swachh Maharashtra Mission, Mumbai

5.0 OBSERVATIONS & FINDINGS

5.1 OBSERVATIONS ON UGDS PHASE-I , PHASE-II & PHASE-III SCHEMES

(PRESENT ORIGINAL APPLICATIONS FILED IN HON'BLE NGT W.R.T. UGDS PHASE-I)

- I. Petitioners- Shri Anandilal Bhutad and Shri Suresh Jaypuri filed a Writ Petition No. 5856 of 2007 in Hon'ble High Court of Bombay (Nagpur Bench) against the Shegaon Municipal Council regarding health related issues caused because of the floating population of the city.
- II. Government of Maharashtra approved the development plan for Shegaon with name of "*Shegaon Tirthkshetra Vikas Aarakhada*" on 08.03.2010 for construction of Underground Sewerage Scheme (UGDS) - Phase-1 for Shegaon through Executive Agency- Maharashtra Jeevan Pradhikaran (MJP), Water Supply and Sanitation Department, Govt of Maharashtra. The tender of aforesaid project was awarded by MJP to M/s. SMS Paryavaran Ltd. New Delhi who further gave work to local sub-contractors.

Phase-I scheme (for DD1 & DD2) included construction of sewerage collection system/drainage network and a STP of 7 MLD. The work order was given in the year 2011. The time limit for completion of the project was 24 months i.e. 13.11.2013. The work was completed and brought in operation on 12.06.2015 as per MJP. Further, the operation & maintenance was carried out by the MJP from 12.06.2015 to 16.01.2022. Including repairs/rectifications of the scheme in October-November 2019 and May-June 2020.
- III. In the year 2017, Shri Suresh Jaipura and Shri Gopal Chaudhari filed Original Application No. 09 of 2017 (WZ) and Original Application No. 05 of 2018 (WZ) in Hon'ble NGT Pune Bench seeking direction to the respondent for underground drainage system for Shegaon under *Shegaon Tirthkshetra Vikas Aarakhada* and raised issues of leakages, overflow, STP and discharge of untreated sewage in the Unad Nallah.
- IV. Hon'ble NGT vide order dated 24.09.2019 directed the Chief Secretary, Gov. of Maharashtra, to supervise the work and ensure that the entire work is completed

within a period of six months against which the State Govt. to furnish performance guarantee of Rs. 1 Crore to satisfaction of CPCB within two weeks.

- V. Based on the directions of the Hon'ble NGT a meeting was conducted by the Chief Secretary, Gov. of Maharashtra on 09.10.2019 with agenda for completion of underground sewerage system at Shegaon.
- VI. Further the Chief Secretary, GoM, filed its report before the Hon'ble NGT on 17.12.2019 stating -

"a. Considering the disagreement between Maharashtra Jeevan Pradhikaran (MJP) and Municipal Council, Shegaon, regarding taking over Sewerage Project Phase-I, the MJP has been directed to complete the work in consultation with Shegaon Municipal Corporation, within six months in view of the directions of this Hon'ble Tribunal.

b. The Shegaon Municipal Corporation is directed to follow-up for permission for laying pipelines, with National Highway Authority of India.

c. The Urban Development Department is directed to appoint independent agency for third party audit within one month. After third party audit, the MJP shall hand over the scheme by carrying out all the performance tests and after necessary compliances to the Shegaon Municipal Council."

- VII. Accordingly, Commissioner and Director, Directorate of Municipal Administration, Mumbai, appointed Department of Civil Engineering, Govt. College of Engineering, Pune (CoEP), to provide detailed third party technical audit report on project named 'Underground Sewerage System in Shegaon city under Shegaon Tirthkshetra Development Plan, Tal-Shegaon, Dist-Buldhana'.

The 1st third party technical audit inspection report of the scheme was carried out based on the visual inspection with all relevant documents of the existing construction scheme on dated 16.11.2019 & 17.11.2019. The technical audit was conducted for works completed between 16.11.2011 to 17.11.2019. The 1st third party technical audit inspection report including all observations was submitted to the Commissioner and Director, Directorate of Municipal Administration, Mumbai vide letter dated 26.12.2019.

2ndthird party technical audit inspections were carried out during the period 08.10.2020 to 09.10.2020 based on visual observations, test reports (flow, materials, etc), drawings/plans, various reports including work completions reports by MJP, etc. The 2nd Third Party Technical Audit Inspection Report (Final Report) was submitted on 22.02.2021.

Copy of Final Report of Third Party Technical Auditor Report including observations for overall scheme works (UGDS- Phase-I) i.e. Underground Sewerage Collection System), STP 7 MLD and maintenance of the scheme, Recommendations and Conclusions of CoEP is provided at **Annexure-IV**. Excerpt of major observations, recommendations and conclusion from the aforesaid report are provided in following paragraphs.

A. Excerpt of major observations for overall scheme works by Third Party Technical Auditor are summarized as below-

- i. The Work Order was issued to the contractor in year 2011 and the year of completion for execution works was 2013. It is observed that the construction of scheme works is prolonged by 5 years.
- ii. M/s Fortress Infra. Advisory Services, Mumbai (Project Management Consultant-PMC) had not mentioned the hydraulic levels of sewer pipeline and flow directions towards the STP in approved network plan of the scheme which was signed by Executive Engineer, MJP, Div-Buldhana
- iii. The earlier network plans with hydraulic levels of sewer pipeline, L-section of sewer pipeline at various locations were not approved or not signed by any concerned authorities.
- iv. The Shegaon Municipal Council, Shegaon (SMC) has received the complaints repeatedly regarding the choke-up in manholes and undulations in sewer pipeline at various locations.
- v. It is observed that, the contractor (M/s. SMS Paryavaran Ltd., New Delhi) had distributed the execution works of sewer pipeline (Sewerage network of the

scheme) to various sub-contractors. But the contractor had not given the approved hydraulic network plan with all hydraulic levels to those sub-contractors. The sewer pipelines were laid by sub-contractors without valid invert levels. Therefore, the undulations in the laid sewer pipelines are formed and the problems of choke-up in manholes were started at various locations such as Lakhpati Galli area, Tadpura area, Lendi Talav, Yash Convent, Ramdev Baba nagar, Garib Navaz Masjid, Peth Mohalla, Bhoipura, Mahadev Mandir, Jogdi Fael, Toweri Krushi Kendra, Trimurti Chowk, Sarkari Fael, Khetan Medical, Maheshwari Bhavan area, Modi Nagar etc. Hence, MJP issued the new 8 Work Orders to rectify all the repair works in above mentioned locations in the scheme and these works were 100% completed as per completion report issued by Officials of MJP.

- vi. During visual inspection at the time of 2nd site visit by CoEP, Pune, the sewer flow at Lakhpati Galli area, Sarkari Fael and Jogdi Fael were found satisfactory towards the STP, but the sewage was stuck in the Manholes at Ramdev Baba Nagar area due to lack of cleaning works.
- vii. The rectification works in remaining 6 Work Orders such as construction of collection chamber in Unad Nallah, cleaning of sewer pipelines & manholes at various locations and supply of MBBR media at STP etc. were satisfactorily completed.
- viii. The flow test of sewer pipeline at various locations, on different dates, such as Tadpura area, Lendi Talav, Yash Convent, Ramdev Baba nagar, Garib Navaz Masjid, Peth Mohalla, Bhoipura, Mahadev Mandir, Lakhpati Galli, Jogdi Fael, Toweri Krushi Kendra, Trimurti Chowk, Sarkari Fael, Khetan Medical, Maheshwari Bhavan area & Modi Nagar area etc conducted in the presence of concerned MJP Engineers & Chief Officer, Shegaon Municipal Council, Shegaon. The MJP Engineers & Chief Officer, Shegaon Municipal Council, Shegaon were accepted that the sewer is satisfactorily flowing towards the STP as per flow test report.
- ix. It is observed that the specifications of manholes in approved drawing are not followed as per the IS4111:1986 (Part-I, Clause 4, Construction of manholes)

- x. There is the possibility of choke-up in manholes chambers due to improper benching. Perhaps, the sewer is not flowing in aligned direction from inlet to outlet of the manhole chamber.
- xi. The STP was in working condition during 1st site and 2nd Site visit. The testing of inlet and outlet sample of sewage was found satisfactory as per testing reports of the Maharashtra Engineering Research Institute (MERI- Hydrology project) and as per tests conducted in the laboratory of STP. The test of inlet and outlet samples has found satisfactory as per permissible limits described in CPHEEO Manual.

B. RECOMMENDATIONS FOR OVERALL SCHEME WORKS BY THIRD PARTY TECHNICAL AUDITOR i.e. CoEP Pune

The following recommendations are made to continue the scheme for Shegaon City:

- i. *The execution of all repairs and rectification works are completed as per completion report issued by MJP. The flow of sewer at various locations has found satisfactory as per flow test reports signed by the SMC & MIP officers during combined inspection. Also, the flow of sewer at various locations is found satisfactory as per visual inspection by GCOE, Pune. Hence, it is recommended to continue the further maintenance of “Underground Sewerage System in Shegaon city under Shegaon Tirthkshetra Development Plan, Tal-Shegaon, Dist-Buldhana” by any Concerned Authority.*
- ii. *As discussed in observations, the specifications of manholes in approved drawing are not followed as per the IS 4111:1986. So, the manhole chambers in overall sewerage network of scheme would be require regular cleaning works. However, the cleaning & maintenance works of manhole chambers of overall sewerage network should be regularly carried out to avoid any choke-up in the manhole chambers & sewer pipelines.*
- iii. *As per CPHEEO Manual, the maintenance of the whole scheme should be well planned. The ‘Sewerage system shall be divided into different areas and each area shall be maintained by individual maintenance teams. The maintenance works shall be carried out at regular intervals or as per requirements.*

- iv. *The maintenance team should check the manhole condition such as deposition of silt, flow, damaged walls or rungs, manhole covers and clogged vertical pipes etc.*
- v. *The maintenance team should check the sewer line between two successive manholes, to check the flow conditions, remove the deposited silt, check for any harmful and extraneous matter entering into sewer line.*
- vi. *The record of daily work done by team and also a record of work done on the sewer lines should be maintained so that chronic trouble spots may be investigated and remedial action taken.*

C. THE CONCLUSIONS FROM THE AFORESAID REPORT ARE REPRODUCED HERE-

The 1st third party technical audit inspection report on “Underground Sewerage System in Shegaon city under Shegaon Tirthkshetra Development Plan, Tal-Shegaon, Dist-Buldhana” was carried out based on the visual inspection with all relevant documents of the existing construction scheme at the time of site visit on dated 16/11/2019 & 17/11/2019. The technical audit was conducted for works completed between 16/11/2011 to 17/11/2019.

The 1st third party technical audit inspection report including all observations was issued to the Commissioner and Director, Directorate of Municipal Administration, Mumbai vide letter No/GCOEP/CIVIL/NAH/CONS/2019/1168; dated 26/12/2019. Based on this report, the progress of scheme works was about 89.55% for Rs. 33,57,50,055.74/- as per approved 56th R. A. Bill; dated 31/03/2018.

The 2nd (Final) third party technical audit inspection report on “Underground Sewerage System in Shegaon city” is carried out based on the visual inspection with all relevant documents of overall execution works in the scheme such as underground sewerage collection system, construction of STP 7 MLD capacity & maintenance of the scheme for 3 years after completion of all execution works and various repairs & rectification works as per new Work Orders at the time of site visit on dated 08/10/2020 & 09/10/2020. The 2nd (Final) third party technical audit inspection report is issued to the Commissioner and Director, Directorate of Municipal Administration, Mumbai vide letter No/GCOEP/CIVIL/NAH/CONS/2021/1199; dated 22/02/2021.

The overall scheme works with all repairs & rectifications as per new 8 Work Orders of "Underground Sewerage System in Shegaon city under Shegaon Tirthkshetra Development Plan, Tal- Shegaon, Dist-Buldhana" are 100% completed on 28/06/2020 as per the completion report issued by Executive Engineer, MJP, Div-Buldhana (Attached in Annex-IX, Page No. 154).

The construction of 'Underground Sewerage System in Shegaon City' was completed in the year 2018 before the commencement of 1st site visit by GCOE, Pune dated 17/11/2019. The hydraulic levels of sewer pipelines in approved network plans were demanded at the time of both site visits by third-party technical auditor (GCOE, Pune). But it was not provided by the M/s. Fortress Infra. Advisory Services, Mumbai (Planning Agency), M/s. SMS Paryavaran Ltd., New Delhi (Contractor), MJP (Executing Agency) and Shegaon Municipal Council, Shegaon until the 2nd site visit. Therefore, third-party technical auditor was unable to verify the invert levels of laid sewer pipelines with respect to designed invert levels. However, the third-party technical auditor has cross checked the executed RLs (Ground Level & Invert Level) of sewer pipeline randomly by using Auto level instrument. The on-site levels of sewer pipeline are found same as per the levels in the L-section plans which were only available at the time of site visit and not approved by any concerned authorities for execution.

The cross sections of executed manhole chambers are not followed a IS 4111:1986 (Code of Practice for Ancillary Structures in Sewerage System; Part 1: Manholes). So, there is the possibility of choke-up in manhole chambers due to improper benching. Perhaps, the sewer is not flowing in aligned direction from inlet to outlet of the manhole chamber. Hence, it is necessary to carried out the regular cleaning works of manhole chambers in overall sewerage network of scheme to get proper flow of sewer towards the STP.

The RCC design & drawings of STP 7 MLD capacity was approved by VNIT, Nagpur for further construction. The STP is effectively working at the time of both site visits and the inlet & outlet samples of sewage are tested regularly in the laboratory of Maharashtra Engineering Research Institute, Nashik (MERI) and STP Site's laboratory which are found satisfactory as per prescribed limits in CPHEEO Manual.

Based on the observations (Sr. No. 12, Page No. 29), the maintenance works of overall scheme such as cleaning of sewer pipelines & manhole chambers and operations of STP required more attention to avoid any discrepancy in the future Hence, it is recommended to continue the further maintenance works of “Underground Sewerage System in Shegaon City” by any concerned authority and follow the recommendations (Sr. No. 13, Page No. 35) to achieve the maximum designed efficiency of the scheme.

- VIII. Complaints were made to the MJP by local residents and Shegaon Municipal Council (SMC) about improper laying of sewer lines, undulations of sewer lines at various places, overflow of manholes, choke-up in manholes at various places. These issues of sewerage network, STPs communicated to MJP by SMC, also raised in to the present Original Applications. Based on the above communications/complaints, rectification works were carried out as per **Table-05** by MJP.

The overall scheme (Rs. 33.57 Cr) with repairs and rectification works (Rs. 1.33 Cr) are 100 % completed on 28.06.2020 as per completion certificate issued by EE, MJP, Buldhana.

TABLE-05: DETAILS OF REPAIRS AND RECTIFICATION WORK

Sr.No	DETAILS OF REPAIRS AND RECTIFICATION WORK
1	Construction of Collection for sewage which dispose directly into Unad Nallah
2	Balance Work of laying sewer pipeline & construction of Manholes in Lakhpati Galli & Property Chambers at various places
3	Providing MBBR Media for 7 MLD STP capacity
4	Repair works of Shegaon Underground Sewerage Scheme Phase-I.
5	Cleaning and Repairs of sewer Pipelines & Manholes in Unad Nallah in Shegaon city
6	Cleaning of Sewage sump at STP
7	Cleaning of Manholes and Sewer pipelines in various areas
8	Cleaning of Manholes and Sewer pipelines in Bhoipura, Bhimnagar, Gujrati Housing society and other areas

- IX. Hon'ble NGT has passed an order dtd. 15.06.2020 wherein, it is mentioned that the progress of the project will be regularly monitored at the level of Chief Secretary with co-ordination between state authorities and to ensure compliance of the directions. There is also monthly review by Amicus Curie and Divisional Commissioner, Amravati as per the order of Hon'ble High court of Bombay, Nagpur bench in the Writ Petition No. 5856/2007.
- X. SMC was not ready to take scheme for the operation & maintenances from MJP, and accordingly made resolutions in General Body meeting of Council and communications made to MJP due to various issues of improper laying of sewer lines, undulations of sewer lines at various places, overflow of manholes, choke-up in manholes at various places. The above issues were rectified subsequently by MJP as elaborated in Third Party Technical Audit Report (CoEP).
- XI. Member Secretary, MJP carried out inspection of UGDS Phase-I Scheme at Shegoan on 21.07.2021. Principal Secretary, Urban Development Department (UDD), GoM conducted a meeting on 08.10.2021. It was directed in the meeting to start the operation of aforesaid scheme and depute official for one month from MJP to SMC Sheagon for giving training to officials of SMC for the operation and maintenance, and also, it was further directed to hand over of the scheme to SMC for further operation and maintenance. The electricity was restored by the Maharashtra State Electricity Board and the scheme was brought into operation on 18.11.2021. STP (7 MLD) was operated jointly from 18.11.2021 to 15.01.2022. It is informed that electricity of 7 MLD STP was disconnected many times (15.12.2018 to 31.12.2018, 15.11.2020 to 31.12.2020, 10.02.2021 to 28.02.2021 and 23.09.2021 to 17.11.2021) for non-payments of electricity bills due to lack of funds due to which the operation of the scheme was discontinued.
- Divisional Commissioner, Amravati, after reviewing the aforesaid scheme vide meeting dated 24.12.2021 directed MJP to handover the scheme to SMC within a period of one month for further operation and maintenance.

- XII. In compliance with the decision taken in the meeting taken by Principal Secretary, UDD and reviewed by Divisional Commissioner, **further the scheme was handed over to SMC on 17.01.2022 with certain terms and conditions from the side of SMC.** The plant is currently operated by SMC through private contractor.
- XIII There are still 1204 household properties and slum area which are not connected to sewer lines covered in phase-I though they are in for DD-I & DD-2 area. It is informed that these were not included in DPR of Phase-1. The properties (5037) such as temples, masjids, Public Halls, empty plots, shops etc are not covered in Phase-I scheme as it is informed that they are not having toilets and there is no sewage generation. The untreated sewage (overflow of septic tanks) from these properties are finding its way in Unad Nallah through small storm water drains. These connections to house hold properties are proposed to cover in UGDS Phase-III.
- XV As per information provided UGDS PHASE-II is completed except house property connection to sewerage network. 1100 connections are yet to be completed out of 3100 in DD-3 area by SMC. The details are given in **Table-04.**
- XV Chief Secretary, GoM convened meeting on 04.10.2022 and 14.10.2022 with concerned secretaries and officials of departments (Urban Development, Environment, MPCB, MJP, SMC) and deliberated on issues related to sewage management in Shegaon and progress made in the matter so far. It was directed to SMC to expedite the work related to connection of house properties in Phase-II, demand fund form UDD for the same, appoint MJP as project management consultant for phase-III, etc.
- Accordingly, SMC has demanded fund Rs. 2 Cr for the same from Urban Development Department, GOM, Mumbai vide letter dated 21.10.2022. Also, SMC has appointed MJP as Project Management Consultant (PMC) for phase-III vide letter dated 17.10.2022. Further, it is understood that DPR has been prepared by MJP for PHASE-III for the work of sewerage network for newly added area/villages in the SMC area and remaining area (not included in earlier DPR for phase-I (DD2) and phase-II (DD3)) and STPs (7 MLD 7 5 MLD) with total estimated cost Rs. 105.68 Crore for 100 % work for sewerage network and treatment of sewage of Shegoan. The Technical Sanction

for the project has been taken from Chief Engineer, MJP, Amravati on 10.11.2022 and Administrative Approval is taken from SMC on 11.11.2022. Project proposal submitted to Principal Secretary, UDD, Mumbai vide letters dated 11.11.2022 and Commissioner & Director, Directorate of Municipal Administration, Director Swachh Maharashtra Mission, Mumbai for administrative approval under Maharashtra Suvarna Jayanti Nagarothan Maha-Adbhiyan and Swachh Bharat mission 2.0 vide letters dated 14.11.2022. It is informed that expected time for the completion of the work is 2 yrs i.e. up to December 2024 with five years of operation and maintenance i.e. up to Dec 2029. The copies of the aforesaid letters regarding sanction/approvals are collectively provided in **Annexure-V**.

- XVI Hon'ble NGT vide order dated 24.09.2019 directed the Chief Secretary, Govt of Maharashtra to supervise the work and ensure that the entire work is completed within a period of six months against which the State Govt. to furnish performance guarantee of Rs. 1 Crore to satisfaction of CPCB within two weeks. In compliance to aforesaid order, State Govt has given undertaking to deposit an amount of Rs. 1 crore with CPCB, in place of Performance Guarantee vide letter dated 04.12.2019 to the Chairman, CPCB Delhi. The copy of the aforesaid letter dated 04.12.2019 provided at **Annexure-VI**.

It is mentioned in the letter that State Government undertakes to complete the balance works of Shegoan Underground Drainage Project (Phase-I) and adhere to the timelines laid down by the Hon'ble NGT in its order dated 24.09.2019. Further, it was mentioned that, in the event that the balance works were not completed within the said timelines, the state Government undertakes to deposit an amount of Rs. 1 crore with the Central Pollution Control Board (CPCB). There was further no communication, and till date CPCB has not received Rs. 1 Crore as Performance Guarantee to CPCB.

Further vide order dated 23.08.2022, para 10, Hon'ble NGT observed that the damage to environment is still continuing and therefore directed CPCB to forfeit the performance Guarantee as deposited by State Government. CPCB has recently issued letter dated 21.11.2022 to the Principal Secretary, UDD, GoM directing to deposit Rs.

1 Crore to CPCB account immediately. The copy of aforesaid letter is attached as **Annexure-VII**.

5.2 OBSERVATIONS BASED ON SITE VISIT AND MONITORING OF STPs AND NATURAL DARINS INCLUDING UNAD NALLAH-

I. STP (7.0 MLD) UGDS Phase- I Scheme

- **STP (7.0 MLD)** has been constructed in UGDS Phase- I at S/No.752/1, Charmori, Shegoan and is commissioned in June, 2015. UGDS Phase- I including STP was handed over to SMC by MJP on 22.01.2022 and presently operated by SMC through private contractor.
- MPCB has issued Consent to Operate (CTO) vide Consent No. RO-AMRAVATI/CONSENT/1901001356 dated 18.01.2019. The CTO was valid up to 30.11.2021. Application for renewal of the consent has not yet been made by SMC. The copy of the aforesaid expired consent is given as **Annexure-VIII**.
- STP (7.0 MLD) broadly comprises of Inlet Chambers with Screening, Grit Chamber, Moving Media Bio-Reactor (MBBR- 1 and 2), Secondary Clari-settler, Chlorination with Bleaching powder (25%) solution, Sludge tank, Sludge thickener and Centrifuge. Treated sewage is discharged into nearby Unad Nallah.
- Though, the STP was operational, secondary treatment i.e. in MBBR was not found to be operated properly as there was no bio-mass attached on the media, and no MLSS was visually seen in the mixed liquor. Sludge generation was not found and Centrifuge was also found to be not in operation since long. The arrangement of Chlorination through chlorine gas was discontinued, and instead solution of Bleaching Powder (25 %) is used in the launder of Clari-settler just before outlet of STP. It was informed that chlorine gas is not used due to nearby temple/accommodation premises as safety concern. There is no flow meter for measuring flow incoming to STP, instead pump capacities and working hours are utilized for calculating incoming raw sewage flow to STP. On-line Continuous Effluent Monitoring System (OCEMS) is

not provided at the outlet of STP. There was not even proper approach bridge over Unad Nallah to this STP.

- The sampling carried out during lean hrs on 30.11.2022 and peak hrs on 31.11.2022 at Inlet and Outlet of both the STPs. The analysis results are given in **Table-06** below. The analysis results show that the concentration of TSS, BOD, COD and Ammonium Nitrogen are not meeting with the standards prescribed by MPCB vide CTO in the STP (07 MLD) whereas the concentration of fecal Coliform is within the standard, during both the sampling.

TABLE-06 ANALYSIS RESULTS OF SAMPLES COLLECTED FORM STPS

Parameters	Discharge Standards prescribed by MPCB	STP (7 MLD)				STP (2 MLD)			
		Lean Flow (Afternoon) 30.10.2022		Peak Flow (before noon) 31.10.2022		Lean Flow (Afternoon) 30.10.2022		Peak Flow (before noon) 31.10.2022	
		I/L	O/L	I/L	O/L	I/L	O/L	I/L	O/L
pH	6.5-9.0	7.4	7.9	7.5	7.9	7.3	7.6	7.2	7.8
TSS	20	38	60	30	56	12	54	50	80
TDS	NS	1178	1292	1274	1324	1114	1098	1034	1092
BOD	10	68	38	42	32	15.5	18	12.5	11.5
COD	50	158.8	101.6	112	79.2	42	44	33.2	31.2
Ammonical Nitrogen (NH ₃ -N)	NS	14.45	13.65	14.15	8.52	8.8	3.16	4.78	3.68
PO ₄ -P	2	0.66	0.69	0.81	1.06	0.42	0.33	0.26	0.32
Ammonium Nitrate (NH ₄ ⁺ -N)	5	18.61	17.58	18.23	10.97	11.33	4.07	6.16	4.74
Fecal Coliform (FC) MPN	<100	-	12	-	10	-	8	-	6

Note- Concentration is expressed in mg/l except pH & FC. NS- Not Specified

II. STP (2.0 MLD) UGDS Phase- II Scheme

- STP (2 MLD) is constructed at 401, near new Smashanbhumi, Alasana Road, Shegaon under UGDS Phase-II and commissioned in the January 2022 where present inflow of sewage is about 0.9 to 1.1 MLD.
- STP was found operational during the visit which is operated by the MJP through private contractor M/s Krishna Construction, Ahmedabad.
- STP was operational without obtaining Consent to Operate from MPCB. MJP has applied for Consent to Operate vide application dated 20.09.2022 to MPCB and the same is under process at MPCB.
- STP comprises of Wet Well, Bar Screen, Grit Chamber, MBBR Tank, Secondary Clarifier, Chlorine Contact Tank, and Centrifuge. The treated sewage is discharged to nearby small natural drain.
- Though, STP was operational, secondary treatment i.e. in MBBR was not found to be operated properly as there was no bio-mass attached on the media, and no MLSS was seen in the mixed liquor. Sludge generation was not found and Centrifuge was also found to be not in operation since long. Solution of Bleaching powder (25 %) is used for the chlorination in the Chlorine contact tank. There is flow meter installed for measuring incoming flow. On-line Continuous Effluent Monitoring System (OCEMS) is not provided at the outlet of STP.
- The sampling carried out during lean hrs on 30.11.2022 and peak hrs on 31.11.2022 at Inlet and Outlet of STP. The analysis results are given in **Table-06**, above.
As observed from the inlet and Outlet values of BOD and COD, there is no reduction of the same in the STP indicating no proper treatment at STP which were also observed visually by the team.
- As observed during the visit, weak strength sewage was coming to STPs, and it is also confirmed by analysis results. This is because overflow of septic tanks of houses are connected to STP through sewerage network and sewage is already bi-digested in septic tanks.

III. MONITORING OF NATURAL DRAIN/UNAD NALLAH-

- The team collected samples from Unad Nallah at two locations i.e. two samples at Unad Nalla (Upstream side- Point Zero near Bhakt Niwas and downstream- Unad Nalla- after discharge of STP (7 MLD), flowing out of Shegaon. One sample at local seasonal Nallah before meeting to Unad Nallah near Bhaipura, Shegaon. The analysis results are given in **Table-07**, below.
- The analysis results reveal the concentration of BOD and COD is in the range 16- 58 mg/l and COD 36 – 143 mg/l. The maximum concentrations of the pollutants are observed in the Unad Nallah (downstream) after discharge from STP (7 MLD) after mixing of untreated sewage of Nallah and treated sewage from STP. The sewage flowing in the Unad Nallah was grayish in color.
- The untreated sewage, which is not being collected through UGDS Phase-I due to left over house connectivity, and from area which are not yet having drainage network and having natural slopes towards Unad Nallah, flows in Unad Nallah. The sewage flowing in Unad Nallah is trapped through three traps provided along the stretch and put in nearby manholes for taking sewage to STP, still substantial quantity of sewage is flowing in Unad Nallah.

TABLE-07 ANALYSIS RESULTS OF SAMPLES COLLECTED FROM NATURAL DRAINS

Parameters	Unad Nalla Point Zero near Bhakt Niwas	Unad Nalla- after discharge of STP (7 MLD), flowing out of Shegaon	Local Seasonal Nalla before meeting to Unad Nalla
pH	7.4	7.5	7.5
SS	54	92	32
TDS	1012	1342	1290
BOD	34	58	16
COD	76	143.2	36
Ammonical Nitrogen(NH ₃ -N)	7.02	8.98	1.18
PO ₄ -P	0.27	0.77	0.26
Ammonium Nitrogen (NH ₄ +N)	9.04	11.57	1.52
FC	12	15	8

- Shegaon Municipal Council(SMC) has requested the Trust of Sh. Gajanan Maharaj Temple vide letter dated 16.03.2022 to carry out beautification, tree plantation, and sewage management of Unad Nalla with reference to various NGT orders, Solid Waste Management Rules 2016, Maji Vasundhara Abhiyan, etc.

IV. SEPTAGE MANGAMENT

It was informed by SMC that most of the household properties have septic tank. There are 9,083 household properties having septic tanks and overflow of these septic tanks are connected to drainage network and STPs (07 MLD and 02 MLD).

There are other 4,200 septic tanks which are currently not connected to drainage network and the same are proposed to be connected with drainage network and STPs under the aforesaid Phase-III scheme. SMC has published schedules of de-sludging activity of septic tanks in local newspaper (**Annexure-IX**) for areas not connected to drainage network considering de-sludging of each such septic tanks every 3 years. In order to cover such septic tanks every 3 years, SMC requires de-sludging of 5 septic tanks per day. However, SMC has only one vacuum emptier (3,000 L) which empties only 2-3 septic tanks in a day and procurement of an additional emptier has been sanctioned. The septage from septic tanks is transported and unloaded in manholes (near STPs) of drainage system for further treatment at STPs. It was informed by SMC that septic tanks in areas connected with drainage system and STPs are emptied as per demand from the household properties.

The septage from septic tanks is unloaded in manholes of UGDS which are near to STPs. The photographs of emptier and jet cleaners are provided in **Annexure-II**.

6.0 CONCLUSIONS:

6.1 SEWAGE GENERATION, COLLECTION & TREATMENT

- I. The present sewage generation is about 7.57 MLD, out of which 4.2-4.5 MLD sewage is being collected and treated at 7 MLD STP through UGDS Phase-I Scheme having Drainage Districts- DD1 and DD2. The UGDS - Phase-I scheme included construction of sewage collection system and a STP (7 MLD) and execution by Maharashtra Jeevan

Pradhikaran (MJP) for the old areas of Shegaon for population 42,612 (2012) with projected population of 53,138 (2027). The scheme started in the year 2011 and completed in the year 2015. Further, MJP carried out the operation and maintenance of the project for the next three years i.e. 30.06.2018 which continued up to 16.01.2022 after which it has been handed over to Shegaon Municipal Council (SMC). Issues w.r.t. improper laying of sewer lines, undulations of sewer lines at various places, overflow of manholes, choke-up in manholes at various places, etc., which emerged in-between, and their management are given at para 7.4, below.

However, there are still 1,204 household properties and slum areas in the said Drainage Districts- DD1 & DD2 of UGDS - Phase-I scheme not connected to STP (07 MLD). It was informed to the CPCB team by SMC that such household properties and slum areas were not covered under the said UGDS - Phase-I scheme. The same is proposed to be covered under UGDS - Phase-III scheme.

STP (7 MLD) was found operational but without valid CTO from MPCB. The operation and maintenance was not found proper w.r.t. treatment in MBBR, sludge generation, without flow meter and On-line Continuous Effluent Monitoring System (OCEMS). Further, STP is found not complied with the stipulated treated sewage discharge standards as prescribed under the expired CTO for TSS, BOD, COD, and Ammonium Nitrogen in both the sampling carried out by CPCB team. The same were found to be TSS: 60- 56 mg/l, BOD: 38 -32 mg/l, COD: 101.6 -79.2 mg/l and NH4-N: 17.58- 10.97 mg/l against prescribed standard of TSS: 20 mg/l, BOD: 10 mg/l, COD: 50 mg/l and NH4-N: 05 mg/l, respectively. [Please refer para 5.2 (I), above].

- II. Another 0.9-1.0 MLD sewage is collected and treated at 2 MLD STP which has been set up under UGDS Phase-II (DD3) scheme designed for population 11,313 (2019) with projected population of 18,371 (2049). The scheme started in the year 2019 and completed in January 2022. Presently, Operation & maintenance is with MJP which is up to 2025. Out of 3,148 household properties, 1,148 household connections are yet

to be completed under the Phase-II (DD-3) scheme area by SMC though drainage network has been completed.

STP (2 MLD) was found operational without obtaining CTO from MPCB though applied for the same on 20.09.2022. The operation & maintenance was not found in order w.r.t. treatment in MBBR and sludge generation. There was no On-line Continuous Effluent Monitoring System (OCEMS) provided at the outlet of STP. TSS, BOD and COD in the treated sewage were found to be 54-80 mg/l, 18-11.5 mg/l and 44-31.2 mg/l in both sampling carried out by CPCB team [Please refer para 5.2 (II) , above. MPCB has prescribed treated sewage discharge standard of TSS: 20 mg/l, BOD: 10 mg/l and COD: 50 mg/l, in case of the 07 MLD STP.

- III. The remaining sewage of about 2.2 MLD (as out of 7.57 MLD sewage generation in SMC, 4.2-4.5 MLD is treated in 07 MLD and 0.9-1.0 MLD sewage is treated in 02 MLD STP) remains untreated which flows into Unad Nallah (about 1.5 MLD) and other storm water drains depending on natural slope.

There is a proposal under the UGDS Phase-III scheme for which DPR has been prepared by MJP. The scheme covers sewerage network in the remaining area (not included in earlier DPR under Phase-I, phase-II) as well as the newly added areas/villages in the SMC area with two new STPs (7 MLD and 5 MLD) with total estimated cost of Rs. 105.68 Crore for the entire work of sewerage network and treatment of sewage of Shegoan. The project proposal is submitted to Principal Secretary, UDD, Mumbai vide letters dated 11.11.2022 for administrative approval under Maharashtra Suvarna Jayanti Nagorothan Maha-Adbhiyan and Swachh Bharat mission 2.0. It is informed that expected time for the completion of the work is 2 yrs i.e. up to December 2024 with five years of operation and maintenance i.e. up to Dec 2029.

- IV. Thus, at present, out of 7.57 MLD sewage generation in Shegoan Municipal Council including newly added area/villages, about 57 % sewage is collected & sent to 7 MLD STP for treatment in Phase-I; 13 % sewage is collected & sent to 2 MLD STP in Phase-II, and; the remaining 30 % sewage is proposed to be covered in the Phase-III scheme.
- V. The Hon'ble NGT vide order dated 24.09.2019 had directed the State Government of Maharashtra to furnish a Performance Guarantee of Rs. 1 Crore to the satisfaction of CPCB. The State Government of Maharashtra has given undertaking to deposit an amount of Rs. 1 Crore with CPCB in place of the performance guarantee. Further, vide order dated 23.08.2022, the Hon'ble NGT has directed CPCB to forfeit the performance guarantee as deposited by State Government. CPCB has not received Rs. 1 Crore as on dated 21.11.2022.

6.2 UNTREATED SEWAGE IN UNAD NALLAH

As given at para 7.1(III) above, sewage of about 2.2 MLD finding its way into Unad Nallah and other storm water drains depending on natural slope, and the same is proposed to be covered in the aforesaid UGDS Phase-III scheme. It was informed during discussion that about 1.2- 1.5 MLD sewage flows into Unad Nallah.

The analysis results of samples collected at two locations of Unad Nallah (up-stream & downstream of 07 MLD STP) reveal the concentration of BOD and COD is in the range 16- 58 mg/l and COD 36 – 143 mg/l and observed to be grayish in colour. Low range of BOD and COD reveal that sewage is of weak strength. It was also informed during discussion with SMC and MJP that most of the household properties have septic tanks and thus bio-digested effluent as overflow from septic tanks may be the reason of weak strength in terms of BOD and COD.

6.3 SEPTAGE MANAGEMENT

It was informed by SMC that most of the household properties have septic tank. There are 9,083 household properties having septic tanks and overflow of these septic tanks are connected to drainage network and STPs (07 MLD and 02 MLD).

There are other 4,200 septic tanks which are currently not connected to drainage network and the same are proposed to be connected with drainage network and STPs under the aforesaid Phase-III scheme. SMC has published schedules of de-sludging activity of septic tanks in local newspaper for areas not connected to drainage network considering de-sludging of each such septic tanks every 3 years. In order to cover such septic tanks every 3 years, SMC requires de-sludging of 5 septic tanks per day. However, SMC has only one vacuum emptier (3,000 L) which empties only 2-3 septic tanks in a day and procurement of an additional emptier has been sanctioned. The septage from septic tanks is transported and unloaded in manholes (near STPs) of drainage system for further treatment at STPs. It was informed by SMC that septic tanks in areas connected with drainage system and STPs are emptied as per demand from the household properties.

6.4 ABOUT CONTOURS OF SEWERS AND SEWAGE FLOW TO STP WITH REQUIRED GRADIENT

- I. There were complaints from citizens to SMC/MJP regarding improper laying of sewer lines, undulations of sewer lines at various places, overflow of manholes and choke-up in manholes etc at various places in Phase-I scheme. The issues have also been dealt in present Original Applications under reference.
- II. Third Party Technical Auditor (i.e. CoEP, Pune) engaged by UDD, Govt. of Maharashtra, based on visual observations and drawings/plans, observed that in the network plans there was no proper hydraulic levels of sewer pipeline and L-section of sewer pipeline were not approved or not signed by any concerned authorities. The contractor (M/s. SMS Paryavaran Ltd., New Delhi) had distributed the execution

works of sewer pipeline to various sub-contractors who were not given the approved hydraulic network plan with all hydraulic levels and sewer pipelines were laid by sub-contractors without valid invert levels. Therefore, the undulations in the laid sewer pipelines formed and the problems of manhole choking resulted at various locations. MJP carried out the repair and rectification works during October-November 2019 and May-July 2020 at various locations in the scheme and completed. The flow test of sewer pipeline at various locations, on different dates, conducted by officials of MJP and Shegaon Municipal Council and it was commonly observed that sewage is satisfactorily flowing towards the STP. The repair and rectification works were also verified by the Third Party Technical Auditor (CoEP, Pune) through visual observations/based on the documents/completion reports/test results/level checking.

During its visit during Oct 30-31, 2022, CPCB team also randomly visited some of the areas (Lakhapati Galli, Jogdi Fael, near Yashwant Convent) where level rectification works were carried out and there was no overflow from the sewer lines and manholes.

- III. The Third Party Technical Auditor (i.e. CoEP, Pune) had observed that the specifications of manholes in approved drawing are not followed as per the IS4111:1986 (Part-I, Clause-4, Construction of manholes) and, therefore, recommended that manhole chambers in overall sewerage network of scheme would require well planned and regular/as per requirement cleaning works to avoid any choke-up in the manhole chambers and sewer pipelines. Jet Cleaner for the same were found available with SMC and it was informed that the cleaning works are done as per requirement, however, schedule of such cleaning works was not planned.

7.0 RECOMMENDATIONS-

- I. SMC shall immediately take necessary action ensuring proper operation and maintenance of 7 MLD STP to meet the treated sewage standards prescribed in CTO by MPCB.
- II. MJP shall immediately take necessary action ensuring proper operation and maintenance of 2 MLD STP. MPCB may take decisions expeditiously on applications for grant of CTO made by SMC. Upon grant of CTO by MPCB, MJP shall ensure that operation of STP meets the prescribed standards stipulated in CTO.
- III. For 2.2 MLD Sewage flowing into Unad Nallah and other storm drains, the proposal under UGDS Phase-III scheme submitted by SMC be expeditiously approved by UDD, Gov. of Maharashtra and the project may be implemented without any delay.
- IV. The sanctioned additional vacuum emptier may be procured immediately by SMC for de-sludging of minimum number of septic tanks per day.
- V. SMC may prepare schedule of well-planned and regular cleaning works of manhole chambers/sewer lines and ensure implementation of the same.
- VI. In compliance with Hon'ble NGT order dated 23.08.2022, the State Government of Maharashtra shall immediately deposit Rs. 1 crore with CPCB.
- VII. Further, MPCB may assess environmental compensation and recover the same w.r.t the following-
 - a) not meeting the prescribed discharge standards w.r.t 7 MLD STP.
 - b) establishing 2 MLD STP without CTE and operating the same without CTO issued by MPCB.
 - c) discharging 2.2 MLD sewage into Unad Nallah and other storm water drains.



(Pratik Bharne)

Scientist E, CPCB, RD, Pune

Item Nos. 01 to 02

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL
SPECIAL BENCH**

(By Video Conferencing)

Original Application No. 09/2017(WZ)

Suresh Banarasilal Jaipuria

Applicant

Versus

SMS Paryavaran Ltd & Ors.

Respondent(s)

WITH

Original Application No. 05/2018(WZ)

Gopal Radheshyam Choudhary

Applicant

Versus

M/s. SMS Paryavaran Ltd. & Ors.

Respondent(s)

Date of hearing: 23.08.2022

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER
HON'BLE MR. JUSTICE DINESH KUMAR SINGH, JUDICIAL MEMBER
HON'BLE PROF. A. SENTHIL VEL, EXPERT MEMBER
HON'BLE DR. VIJAY KULKARNI, EXPERT MEMBER**

Respondent(s): Mr. R.B Mahabal, Advocate for R-2, 3 and 4
Mr. D.M Kale, Kale for R-5
Mr. Vilas A. Jadhav, Advocate for R-6

ORDER

1. Grievance in these applications is against water pollution on account of discharge of untreated sewage in open land and in *Unad Nalla* at Shegaon, District Budhlana, Maharashtra, resulting in water pollution

and damage to the environment, particularly the ground water which has become unfit for consumption. There is also discharge of dangerous gases from the sewage pipes/manholes. There is a *Samadhi* of Shri Gajanan Maharaj at Shegaon which is a holy place where lakhs of people visit. Though respondent Nos. 2 to 4, the officers of the Water Supply and Sewerage Board (Maharashtra Jeevan Pradhikaran (MJP) awarded tender for setting up the sewerage system at estimated cost of more than Rs. 27 Crores, on account of use of sub-standard material and poor execution, there is no effective treatment and management of sewage. W.P No. 5856/2007 has been filed at Bombay High Court at Nagpur about the malpractices of the said Authorities. The applicant pointed out the malpractices before the Upa Lokayukta and other Authorities but no remedial action has been taken.

2. Considering the above, the Tribunal issued notice on 01.02.2017 to the respondents including, the MJP, Municipal Council, State PCB and State of Maharashtra, who have filed their respective replies. Stand of respondents 2 to 4, MJP, is that DPR was not properly prepared on account of which defects remained in underground system during execution of work, leakage test was not conducted. MJP levied penalty on the contractor in view of the inquiry report dated 14.02.2017, submitted by Superintendent Engineer, Public & Works Department, Akola. The sewerage line work has since been completed. State Pollution Control Board as per its report dated 26.09.2016 found the working of STP satisfactory. The underground sewerage system is functioning since June 2015 and its proper functioning can be verified by a third party. It is the Municipal Council which has to complete the connectivity work.

3. Stand of the State PCB is that at the time of visit to the site on 30.01.2017, the STP was not found operational and no requisite consent had been taken by the municipal Council. STP is to be transferred to the Municipal Council by MJP. In further affidavit of the State PCB filed on 30.11.2017, it is stated that inspection was carried out on orders of this Tribunal and STP was found operational but some quantity of sewage was flowing through the *Unad Nalla* without treatment. House-keeping of the STP was average. The Municipal Council has not sought consent. MJP has been asked to stop discharge of untreated sewage into the drain by forming a temporary *bundh*. Prosecution notice has been given to the Municipal Council and notice has also been issued why proceedings be not initiated under Section 268-278 of IPC and 133-143 of CrPC for unscientific disposal of waste. Sample from the inlet and outlet of STP has been taken and as per analysis report, the sample was within prescribed limit.

4. Vide order dated 27.02.2019, this Tribunal found that STP was partially operational and thus water pollution was taking place. Accordingly, State PCB was directed to take remedial action and give a report. Vide order dated 24.09.2019, the Tribunal considered the report showing deficiencies as follows:-

“

S.No.	Directions	Comments
1.	As to whether there is any seepage in the pipeline and the STP.	There are seepages from the underground sewerage pipelines observed where not connectivity of pipeline provided for carrying raw sewage in the Lakhpati Galli area. There are issues noted in respect of available gradient/slope towards STP in the Lakhpati galli area. It is told that the Railway authorities are not giving permission to lay down the pipeline in their area. Therefore no proper elevation is maintained. The residents has blocked the manholes by filling the soil. However, no signs of seepages from the STP units observed
2.	The team shall also examine the functional efficiency of the STP by conducting an appropriate test.	The STP comprises of units such as, receiving chamber, screen chamber (mechanical and manual), raw water sump, inlet fine screen chamber (mechanical and manual) distribution box, grit chamber, MBBR reactors1 and 2. Secondary clarisettler,

		<i>chlorine tank, treated effluent and sludge tank, sludge thickener. During the visit it is observed that the MLSS in the MBBR-1&2 are not up to the mark. The feeding to the MBBR is not carried out. The chlorination for disinfection was improper. Though the STP was found in operation, the sewage effluent was only passing from one unit to another without any proper treatment. No functional efficacy of the units observed. It was told that approximately 50% of the sewage effluent is allowed to enter into the STP and rest is by passed to the nallah/ gutter due to maintenance work to sewerage network.</i>
3.	<i>The team shall conduct test to ascertain as to whether there is any contamination of soil and ground water, water bodies, wells etc. in the vicinity of the sewerage network and the STP.</i>	<i>The officer from Maharashtra Jeeva Pradhikaran expressed their inability to perform the leakage test during the visit, as the underground sewerage pipeline is having flow of sewage effluent and it is in running condition, and gas leakage may cause fatality. They have further stated that, since the STP is also in operation the leakage test could not be conducted under such circumstances. However during the visit the committee members observed that, the trunkmen located at Shivneri Chowk is overflowing and the sewage is discharging into the nearby roadside open drain, may be due to ongoing road repair network.</i> ”

5. From the above, the Tribunal noted that allegation of pollution was established but there was conflicting stands of the MJP, the Municipal Council and State PCB which required coordination at higher level in the administration. Accordingly, the Tribunal directed the Chief Secretary to ensure remedial action. The State Government was directed to deposit performance guarantee of Rs. 1 Crore to the satisfaction of CPCB to remedy the situation. State PCB was directed to assess the environmental damage caused on account of failure to lay and maintain sewer line properly resulting in pollution. The Chief Secretary was directed to file report within two months.

6. The matter was further considered on 15.06.2020 in the light of report of the State PCB that compensation liable to be paid was Rs. 13.88 Crores by the MJP. The Tribunal also considered report of the Chief Secretary dated 12.12.2019 to the effect that College of Engineering, Pune was appointed as third party to conduct audit of the underground drainage

system and performance guarantee was furnished to the CPCB. The Tribunal accordingly directed the Chief Secretary, Maharashtra to take further follow-up action and file a progress report.

7. We have accordingly taken up the matter today for further consideration in continuation of order dated 15.6.2020. We find that no report has been filed on behalf of the Chief Secretary, Maharashtra. There is also no report by the State PCB or the Municipal Council. However, a rejoinder affidavit dated 25.10.2021 has been filed by the MJP to the effect that they have not yet paid compensation assessed by the State PCB as the State PCB failed to disclose the basis of the calculation. It is not having much skilled staff and efficient workers to work on STP which is the reason for not running the STP efficiently. Samples have been collected on 12.07.2021 from the bore-wells and sent for testing the water quality which has been found to be good.

8. Learned counsel for the State PCB and Municipal Council however submit that STP is not functional and untreated sewage is being discharged in open drain. They have contested the stand of the MJP including that water quality is good or that non payment of compensation was justified. Basis of calculation of compensation has been duly filed and noted in the earlier order of this Tribunal. Order of State PCB has become final in absence of any challenge thereto but non payment is without any legal basis.

9. We have considered the matter. None appeared for the applicant. Learned counsel for the MJP submitted that it is the responsibility of the Municipal Council to remedy the situation. Stand of the Municipal Council is that the underground sewage work being not proper, it is unable to remedy the situation. The State PCB has submitted that pollution is

continuing for which the Municipal Council as well as the MJP are accountable. Third party audit report has not been submitted.

10. In the light of the stand of the State PCB, we are unable to accept the stand of the MJP that the system is working properly and no pollution is being caused. We also do not find any justification of MJP having not deposited the compensation assessed by the State PCB which has not been challenged by the MJP in any appropriate proceedings. The State of Maharashtra has failed to remedy the situation inspite of repeated orders requiring proper coordination at higher level. Damage to environment and public health is thus continuing. Performance guarantee furnished to CPCB will thus stand forfeited and MJP is directed to deposit compensation with liberty to State PCB to take coercive and remedial measures as statutory regulator. The assessed compensation may be utilized for restoration measures.

11. Further, in view of unsatisfactory state of affairs, situation needs to be remedied by involvement of higher Authorities in the State. Consistent with earlier directions, the Chief Secretary may take follow-up action in coordination with other concerned officers including, the Additional Chief Secretary, Municipal Administration/Local Bodies. Under public Trust doctrine, the State is under obligation to protect the environment and must provide necessary funds for restoration measures in case the funds available with the Municipal Council are not adequate. This direction is necessary to comply with the judgement of Hon'ble Supreme Court in *Paryavaran Surakasha v. UOI (2017) 5 SCC 326* requiring the Local Bodies and State Administration to ensure that no untreated sewage is discharged failing which the concerned Secretary to Government is to be held accountable.

12. This Tribunal has dealt with the issue of preventing discharge of untreated sewage in several orders. Particular reference may be made to orders dated 11.02.2022 and 18.05.2022 in respect of Nasik in Maharashtra in OA No. 544/2019, *Dr. Kiran Ramdas Kamble & Anr. v. State of Maharashtra*. Relevant observations from the said orders are:-

Order dated 11.2.2022:

“1to4.....xxx.....xxx.....xxx

5. It is seen that generation of sewage is in the range of 4.5 – 5.0 MLD while arrangement for treatment is only for 1 MLD sewage. **Remaining untreated sewage is being discharged into the river which is not fit even for bathing purpose as per primary water quality criteria but may be drunk by human and other living beings to the detriment of their health and in violation of environmental laws and judgment of the Hon’ble Supreme Court in Paryavaran Suraksha case¹ followed by directions of this Tribunal referred to above. We place on record our strong disapproval to the inhuman conduct of the State of Maharashtra and its concerned officer for such situation and proposing action by August, 2023 inspite of repeated orders of this Tribunal in the last more than two years. We have not found any reason why such action could not have been taken earlier in view of Supreme Court orders of 2017 and why erring officers are not being prosecuted as directed by the Hon’ble Supreme Court. Disciplinary action appears to be an eye wash and wholly inadequate and not against senior officers who are real culprits for the situation.** Regretfully, the authorities do not appear to have taken the trouble even to read the order. The report filed is incomplete. Information on cleaning of drains used for dumping sewage and garbage has not been given. Details of quantity of sewage generated from adjoining areas and the progress on underground sewerage needs to be ascertained so as to ensure remedial action. Comprehensive plan for Trimbakeshwar has to be in place, as directed earlier. No response has been given on these significant aspects.

6. Confronted with such failures, **the Principal Secretary, UD, who is present by video conferencing has assured the Tribunal that immediate interim arrangements will be made to prevent untreated sewage being discharged into the river, pending permanent solution by way of setting up necessary STPs and directions earlier issued will now be complied with.**

7. The Tribunal holds that direct discharge of sewage containing both organic and inorganic pollutant into the river Godavari is highly detrimental to the ecology and environment. The polluted water may

¹ (2017) 5 SCC 326

also have serious negative impact on ecologically sensitive Madhmeshwar Birds Sanctuary in the area which is a Ramsar Site created from the backwater of dam on Godavari in Nashik District.

8. Let the Chief Secretary, Maharashtra ensure satisfactory action in the light of abovesaid observations, including meaningful coercive action against erring officers which may include prosecution, apart from disciplinary action as per directions of the Hon'ble Supreme Court, quoted earlier. Compliance affidavit of status as on 30.04.2022 be filed before this Tribunal by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF. The District Magistrate, Nasik may, in coordination with concerned stakeholders, prepare and execute action plan for utilization of Rs. 1.0 crore deposited by the State Government for improving the environment consistent with the District Environment Plan. The Chief Secretary, Maharashtra may remain present in person on the next date by video conferencing."

13. After the above order, the situation was remedied as noted in subsequent order dated 18.05.2022 as follows:-

“

6. We have interacted with the Chief Secretary, Maharashtra present before the Tribunal by VC. From the affidavit filed, quoted above, it is seen that the STP is now working and steps have been taken for augmentation of its capacity, interim compensation has been deposited, ecotechnology has been adopted as interim measure and ozonization technology has been finalized as permanent measure for treatment of effluents for which work order has been issued. Action has been taken against some of the erring officers. Gap in generation of effluents and treatment capacity is proposed to be bridged by installing pre-fabricated STP and taking temporary measures. It is also stated that no untreated sewage will henceforth be discharged into the Godavari."

14. In the present case, there appears to be total lack of inter-departmental co-ordination. No reliable data of quantity of sewage generation and treatment in the designed 7.0 MLD STP is available. Untreated effluent is being discharged into *Unad Nala*. There does not appear to be connectivity of households to STP. Septage management is also not shown. Contours of sewers do not appear to have been explored to ensure that sewage flow is properly conveyed to STP with required gradient.

15. Let further remedial measures be taken and supervised by the Chief Secretary, Maharashtra. Additional Chief Secretary, UD/Local Bodies may remain present before this Tribunal by video conferencing with the action taken report with all factual details on the next date.

16. We also direct the CPCB to verify the compliance status as on 30.10.2022 and give an independent factual report in the matter based on the deficiencies observed.

List for further consideration on 05.12.2022.

A copy of this order be forwarded to the Chief Secretary, Maharashtra, State PCB and CPCB by e-mail for compliance.

Adarsh Kumar Goel, CP

Sudhir Agarwal, JM

Dinesh Kumar Singh, JM

Prof. A. Senthil Vel, EM

Dr. Vijay Kulkarni, EM

August 23, 2022
Org. Application No. 09/2017(WZ)
With Original Application No. 05/2018(WZ)
AB

ANNEXURE-II

PHOTOGRAPHS TAKEN DURING SITE VISIT DATED 30.10.2022 & 31.10.2022



Photograph 1: Outlet of STP Phase I (7 MLD) & Unad Nallah



Photograph 2: Improper Approach for STP Phase I (7 MLD) & Unad Nalla flowing out of She



Photograph 3: STP Phase I (7 MLD)-Screen Chamber



Photograph 4: STP Phase I (7 MLD)-MBBR Tank & Clarisettler Tank



Photograph 5: STP Phase II (2 MLD)- MBBR Tank & Secondary Clarifier



Photograph 6: STP Phase II (2 MLD)- Chlorine Contact Tank



Photograph 7 & 8: STP Phase II (2 MLD)-Centrifuge



Photograph 9 & 10: Vacuum Emptier and Jet Cleaner



Photograph 11: Unad Nallah up-stream near Bhakti Niwas



Photograph 12: Unad Nalla further flowing towards STP

**SHEGAON MUNICIPAL COUNCIL
UGDS(I+II+III)- STATEMENT**

Sr. No	Particular	UGDS Phase-I	UGDS Phase-II	UGDS Phase-III
1	Technical Sanction	1) First Technical Sanction Rs.2353.86 Lakh, Dt. 15.07.2011 Rs.903.98 Lakh, Dt. 15.07.2011 Total Rs.3257.84 2) Revised Technical Sanction Rs. 3937.26 Lakh, Dt. 31.01.2017	Rs. 2422.36 Lakh, Dt. 04.09.2018	Rs.10568.58 Lakh Dt.10.11.2022
2	Administrative Sanction	1)Administrative Sanction Rs.2292.27 Lakh, dt.19.01.2011 Rs. 850.11 Lakh Dt.21.03.2011 2) Revised Administrative Sanction Rs. 3937.26 Lakh, Dt. 17.05.2017	Rs.2422.36 Lakh, Dt.06.09.2018	Submitted for AA by CO SMC on Dt.11.11.2022
3	Tender Cost	Rs. 2750.08 Lakh	Rs. 1702.20 Lakh	
4	Accepted Tender Cost	Rs.3320.72 Lakh(20.75% above)	Rs.1719.06 Lakh(0.99 % above)	
5	Work Order Date	14.11.2011(3 Years + 3 Years O & M)	02.03.2019(2 Years + 3 Years O & M)	
6	Name of Contractor	M/s SMS Paryavar, New Delhi	M/s Krishna Const, Ahamadabad	
7	Population Covered	Urban + Floating	2012-42612 2027-53138 2042-62731	2019-11313 2034-14203 2049-18371
		Rural(Extended limit area)	Nil	Nil
8	Design Year Capacity	STP(15 Years)	2027-7 MLD	2034- 2 MLD
		Collection Sytem(30 Years)	2042-8.6 MLD	2049- 2.51 MLD
9	Total Properties Covered(Present)	Urban	7083 Nos/7083 nos completed	3148 Nos/2000 Nos completed
		Rural	Nil	Nil
10	Sewerage Collected Presently	4.2-4.5 MLD	0.9-1.1 MLD	2055- 19.83 MLD
11	Total Length of Collection System	L-50127.46 m/50075.86 m completed	L- 22954 m/ 21931m Completed	2055- 19.83 MLD
12	Total No of Manhole	2188 No.s/2195 No.s completed	895 No.s/940 Nos Completed	1783 Nos
13	Total No of Property Chamber	8414 Nos/5115 Nos Completed	3600 Nos/3510 Nos Completed	2417 Nos
14	No of Wards Covered	DD1 & DD2 Full Ward No- 1 to 8, 11 to 17, 19 to 25, Partial Ward No- 8, 9, 10, 18	DD3 Full Ward No -0 Partial Ward No-9, 10, 18	Partial DD2 Partial DD3 DD4 New Ward No-26, 27, 28 29, 30; Now ward system converted into Prabag by SMC & total 15 Nos of prabag created

Note: The figures mentioned in proposed phase 3 work columns are as per DPR it may be slightly changed after scrutiny of DPR by CPDM

(Signature)
Chief Officer
Municipal Council Shegaon

नगर परिषद कार्यालय, शेगांव
शेगांव शहरातील दररोज विविध स्रोतातून होणारा पाणी पुरवठा व निर्माण होणारे सांडपाणी तक्ता.

अ. क.	न. प. चा वर्ग	लोकसंख्या (२०११)	लोकसंख्या (२०२२)	दरडोई होणारा पाणी पुरवठा (एम.एल.डी मध्ये)				एकुण पाणी वापर	दरडोई शहरातील निर्माण होणारे एकुण सांडपाणी 80 % Of Water Supply	एकुण सांडपाण्यापैकी संध्यस्थितीत प्रक्रीया होणारे सांडपाणी		विना प्रक्रीया आजरोजी तयार होणारे सांडपाणी	
				न.प.द्वारे		इतर				STP-1	STP-2		
				वरी धरण येथील पाणी पुरवठा योजने द्वारे	हातपंप -१६५ विद्युत पंप -११	खाजगी विहीरी व विद्युत पंपाने होणारा पाणी पुरवठा	श्री.ग.म. सं.मंदीर ला न.प. कडुन होणारा पाणी पुरवठा			श्री.ग.म.सं मंदीर स्वतःची योजना व स्वतःचा स्रोत	जानेवारी २०२२ पासुन नगर परिषद द्वारे चालविण्यात येत आहे.		फेब्रुवारी २०२२ पासुन महाराष्ट्र जिवन प्राधिकरण यांचे मार्फत सुरू आहे.
१	ब	५८०९५	७००००	७.०	०.११५	०.१	१.७५	०.५	९.४६५	७.५७	४.५	१.०	२.०७
		कुटूंब संख्या - १२९८३	कुटूंब संख्या - १६०३७	एम.एल.डी.	एम.एल.डी	एम.एल.डी	एम.एल.डी	एम.एल.डी	एम.एल.डी	एम.एल.डी	एम.एल.डी	एम.एल.डी	एम.एल.डी
											७०८३ जोडण्या पूर्ण झाल्या आहेत. (62 % coverage)	२००० जोडण्या पूर्ण झाल्या आहेत ११०० जोडण्या पूर्ण करणे बाकी आहे. (19 % coverage)	गोंप ३५०० जोडण्या (हददवाडीने समाविष्ट परिसर) (19 % coverage नाही.)

Rakar
(डॉ. जयश्री काटकर- बोराडे)
मुख्याधिकारी,
नगर परिषद शेगांव

2nd (Final) Third Party Technical Audit Inspection Report

on

Underground Sewerage Scheme for Shegaon City, (Phase-I, DD1 & DD2)

under Shegaon Tirthkshetra Development Plan
Tal-Shegaon, Dist-Buldhana

For
Commissioner and Director,
Directorate of Municipal Administration,
Worli, Mumbai-400 030

Report Prepared by

Dr. Namdeo A. Hedao

Associate Professor
Department of Civil Engineering
Govt. College of Engineering, Pune - 05



Govt. College of Engineering
(An Autonomous Institute of Govt. of Maharashtra)
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February 2021



COLLEGE OF ENGINEERING PUNE DEPARTMENT OF CIVIL ENGINEERING

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Dr. Namdeo A. Hedao
(Associate Professor)

TESTING AND CONSULTANCY SERVICES

No/GCOEP/CIVIL/NAH/CONS/2021/1199

Date: 22/02/2021

To,
The Commissioner and Director,
Directorate of Municipal Administration,
Worli, Mumbai-400 030

Subject:- 2nd (Final) Third Party Technical Audit Inspection Report on Underground Sewerage System in Shegaon City under Shegaon Tirthkshetra Development Plan, Tal-Shegaon, Dist-Buldhana

Ref: - 1) Your Letter No; Nagarothan/TPTI/PN-463/2019/Ka7/3237; Dated 22/10/2019,
2) Letter from CO, SMC No; SMC/AAVI/703/2020; Dated 05/02/2020,
3) Letter from CE, MJP Circle, Akola No; MJPCA/TASHA-2/1082/2020; Dated 23/06/2020,
4) Letter of COE, Pune No; GCOEP/CIVIL/NAH/CONS/2020/656; Dated 07/10/2020.

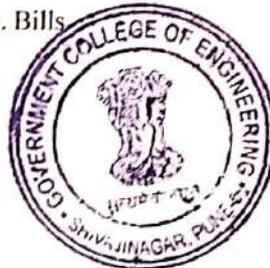
Dear Sir,

With references to above mentioned subject, please find enclosed herewith 2nd (Final) Third Party Technical Audit Inspection report conducted by Department of Civil Engineering, Govt. College of Engineering, Pune on *Underground Sewerage System in Shegaon City under Shegaon Tirthkshetra Development Plan, Tal-Shegaon, Dist-Buldhana*, for your information and further necessary action.

Thanking You,

Attached Documents-

- 1) 2nd (Final) Third Party Inspection Report
- 2) Approved Old & New Hydraulic Network plans
- 3) Approved Drawings of Collection Chambers & Manholes
- 4) Testing Reports of all Materials & Sewer Samples at STP
- 5) Combined Inspection Reports for Flow Test of Sewers
- 6) Completion Reports of Scheme works
- 7) All New Work Orders with R.A. Bills



N. Hedao
22/02/21
Dr. Namdeo A. Hedao

(M.Tech. & Ph.D Structures)

Associate Professor

Department of Civil Engineering
Govt. College of Engineering, Pune -05.

Copy to: Kindly for your information

- ✓ 1) Executive Engineer, Maharashtra Jeevan Pradhikaran, Div-Buldhana,
- 2) Chief Officer, Shegaon Municipal Council, Shegaon.

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***2nd (Final) Report of Third Party Technical Audit Inspection on
Underground Sewerage System in Shegaon city
under Shegaon Tirthkshetra Development Plan, Tal-Shegaon, Dist-Buldhana***

A. General Information of Project

1. Introduction

The Commissioner and Director, Directorate of Municipal Administration, Mumbai has requested Department of Civil Engineering, Govt. College of Engineering, Pune to provide detailed third party technical audit inspection report on project named 'Underground Sewerage System in Shegaon city under Shegaon Tirthkshetra Development Plan, Tal-Shegaon, Dist-Buldhana'. Under this project, the sub works are the Underground sewerage collection system, Construction of STP 7 MLD capacity & Maintenance of the scheme for 3 years after all execution works completed etc. and various repairs and rectification works as per new Work Orders. As per Govt. GR and norms, the third party technical audit inspection report of all civil works of underground sewerage system projects shall be done through Govt. Engineering Colleges. Therefore, the matter has been referred to our institute by the Commissioner and Director, Directorate of Municipal Administration, Mumbai vide letter No; Nagarothan/TPTI/PN-463/2019/Ka7/3237; Dated 22/10/2019. Chief Engineer, Maharashtra Jeevan Pradhikaran Circle, Akola vide letter No; MJPCA/TASHA-2/1082/2020; Dated 23/06/2020 and Chief Officer, Municipal Council, Shegaon vide letter No; SMC/AAVI/703/2020; Dated 05/02/2020.

The 1st third party technical audit inspection report of the scheme was carried out based on the visual inspection with all relevant documents of the existing construction scheme at the time of site visit on dated 16/11/2019 & 17/11/2019. The technical audit was conducted for works completed between 16/11/2011 to 17/11/2019. The 1st third party technical audit inspection report including all observations was issued to the Commissioner and Director, Directorate of Municipal Administration, Mumbai vide letter No/GCOEP/CIVIL/NAH/CONS/2019/1168; dated 26/12/2019. Based on this report, the progress of scheme works was about 89.55% for Rs. 33,57,50,055.74/- as per approved 56th R. A. Bill; dated-31/03/2018.

The laying of sewer pipelines, construction of STP and maintenance of the scheme for 3 years as per revised tender document and specifications and approved network plan for Shegaon city Phase-I for DD1 & DD2 (Total wards are 25) was completed by MJP on Dated 31/03/2018. But the complaints were received to the MJP from local residents and Municipal Council about improper laying of sewer lines, undulations of sewer lines at various places, choke-up in manholes at various places. Hence, the new 8 Work Orders (See Table 2 & 12) for various repair works of scheme was issued by the Executive Engineer, MJP, Div-Buldhana to rectify all complaints about the scheme.

2. Appointment of Project Management Consultants (Planning Agency)

M/s. Fortress Infra. Advisory Services, Mumbai (representative, Mr. Ishwar Khune, Contact No.+91 9921599727) was appointed as a Project Management Consultant (Planning) for the works of "Underground Sewerage System in Shegaon city under Shegaon Tirthkshetra Development Plan, Tal-Shegaon, Dist-Buldhana" vide agreement between Divisional Commissioner of Amravati Division and Fortress Infra. Advisory Services, Mumbai, Dated 05/04/2010. The scopes of civil work for project management consultant in aforesaid phases are briefly enumerated.

A. DPR Preparation & Bid Process Management

- i. Project based requisite survey including plane table, leveling etc.
- ii. Detailed socio economic, infrastructure, technical assessment.
- iii. Preparation of preliminary designs, detailed designs & drawings, estimates etc.
- iv. Preparation of detailed project report.
- v. Preparation of technical specifications, bill of quantities & conditions of contract.
- vi. Preparation of techno-commercial evaluation reports & assistance in selection of contractor.
- vii. Assistance in preparation of project agreement & work orders.

B. Project Management Services

- i. Work supervision.
- ii. Quality checking of construction works to be carried out by contractors.
- iii. Organize various meetings with contractor and respective agencies.
- iv. Organize drawing clarifications to contractors, approval to the designs and drawings & bar bending schedules etc. prepared by the contractors.
- v. Monitor the quality of work executed by the contractor as per tender documents & specifications and approved network plans.
- vi. Checking and correcting, as required, of running account bills submitted by the contractors and certifying the same for payment by the client.
- vii. Monitor the corrected cost and expenses visé the budget provisions, high valued items and quantities.
- viii. Preparation and submission of status or progress reports.
- ix. On completion of checking and certification of final bills of all suppliers/contractors, shall submit a final project report for future references.
- x. The project management consultant has not continued for repairs and rectification work of the scheme.

3. Appointment of Govt. Contractor

M/s. SMS Paryavaran Ltd., New Delhi (representative, Mr. Darshan Purohit, Contact No.+91 9970011435) was appointed as a contractor for the Underground Sewerage System in Shegaon

city under Shegaon Tirthkshetra Development Plan, Tal-Shegaon, Dist-Buldhana vide work order letter No/AB/TC/2424/2011, Dated-14/11/2011 by Executive Engineer, MJP, Div-Buldhana.

4. Appointment of Govt. Contractors for Repairs and Rectification works of the scheme

The various contractors have been appointed for repairs & rectification works in the existing underground sewerage scheme of Shegaon city. The all work orders have been issued by Executive Engineer, MJP, Div-Buldhana for repairs & rectification works which are shown in Table 2.

5. Scope of work (GCOE, Pune)

Details of work to be done by auditor will be mentioned here. Technical audit inspection report will consist of following works:

- i. Carrying out site visits to construction site as per tender document and specifications.
- ii. Conducting consultations with contracting agencies, officers of concerned MJP and Shegaon Municipal Council, Shegaon.
- iii. Scrutiny of procedures used for approval of designs & drawings of hydraulic and RCC works of the scheme.
- iv. Verification/Review of all R.A. Bills as per tender documents & specifications.
- v. Verification/Review of completed work.
- vi. Analysis of documents including designs, drawings, key plan, network plan, material testing reports and previous third-party inspection reports etc.
- vii. Conclusion based on documents available and site visits.
- viii. Carrying out and hand over the report of third party technical audit inspection to concerned authority of the scheme.

6. Details of Site Visits

The 1st site visit to underground sewerage system at Shegaon city was conducted on 16th and 17th November 2019 to inspect the construction quality and progress of works of the scheme. Following persons were present during the 1st site visit as shown in Figure 1.

- i. Dr. N. A. Hedao, Associate Professor, Government College of Engineering, Pune.
- ii. Mr. Vijay B. Jagtare, Chief Engineer, MJP, Div-Amravati.
- iii. Mr. V.B Solanke , Executive Engineer, MJP, Div-Buldhana.
- iv. Dr. Prashant Shelke, Chief Officer, Shegaon Municipal Council.
- v. Mrs. Vidya V. Kanade, Assistant Engineer-I, MJP, Div-Amravati.
- vi. Mr. Atul Kate, Assistant Engineer-II (Civil), MJP, Div-Amravati.
- vii. Ms. Nilam Shinde, Assistant Engineer-II (Mech), MJP, Div-Amravati.
- viii. Mr. S.D. Ingale, Section Engineer, MJP, Div-Amravati.
- ix. Mr. S.M. Raibore, Civil Engineer Assistant MJP, Div-Amravati.
- x. Mr. Sanjay Mokusare, City Engineer, Shegaon Municipal Council.

- xi. Mr. Atul Mahurkar, representative of M/S SMS Paryavaran Ltd., New Delhi.
- xii. Mr. Nitin Ingale, representative of M/S Fortress Infra. Advisory Services, Mumbai.
- xiii. Mr. Pravin Kshirsagar, representative of M/S Fortress Infra. Advisory Services, Mumbai.

The 2nd (Final) site visit to underground sewerage system at Shegaon city is conducted on 8th and 9th October 2020 to inspect the construction quality and progress of repairs and rectification works. Following persons were present during 2nd site visit as shown in Figure 46.

- i. Dr. N. A. Hedao, Associate Professor, Government College of Engineering, Pune.
- ii. Mr. V. B. Solanke, Superintending Engineer, MJP, Div-Buldhana.
- iii. Mr. S. D. Bhise, Executive Engineer, MJP, Div-Buldhana.
- iv. Dr. Prashant Shelke, Chief Officer, Shegaon Municipal Council.
- v. Mr. Atul Kate, Assistant Engineer-II (Civil), MJP, Div-Amravati.
- vi. Mr. Sanjay Mokusare, City Engineer, Shegaon Municipal Council.
- vii. Ms. Nilam Shinde, Assistant Engineer-II (Mech), MJP, Div-Amravati.
- viii. Mr. S. D. Ingale, Section Engineer, MJP, Div-Amravati.
- ix. Mr. S. M. Raibole, Civil Engineer Assistant MJP, Div-Amravati.
- x. Shri. Suresh G. Gadekar, Buldhana, Contractor of repair works (Work order dated 07/11/2019).
- xi. Shri. Manoj D. Shimpi, Akola, Contractor of cleaning works (Work order dated 04/05/2019).

7. Introduction to Shegaon City

7.1 Overview

Shegaon is one of the fastest growing medium municipal town in Buldhana District of Maharashtra State. The town is a Tehsil head quarter of buldhana district. It is connected by Central Railway on Mumbai-Kolkatta mainline. Shegaon has acquired fame as a pilgrimage center as Shri Sant Gajanan Maharaj lived in this town. The town is very famous for the Samadhi of Shri Gajanan Maharaj. Shri Gajanan Maharaj Sansthan is the biggest temple trust in the Vidarbha region.

The Samadhi temple is visited by millions of devotees from all over India. The Gajanan Maharaj Sansthan temple trust runs the day-to-day affairs of the temple is headed by managing trustee. Trust runs many services in the spiritual, religious, medical and educational fields.

7.2 Location of Work Site

Shegaon is located around 41 km northwest of Akola at 20° 45' N latitude and 76° 40' E longitude at a height of 274m above MSL (See Fig A). Shegaon town is railway station on Mumbai-Kolkatta broad gauge railway line.

The Shegaon town is spread over fairly level land, sloping from both east and west direction up to the Unad nalla, which flows through the heart of old gaathan in the south-north direction. The

general slope of the town is towards northeast. The nalla originates from government tank, which is about 1km away to the south gaathan.



Fig A: Location of Shegaon City

The Shegaon town is spread over fairly level land, sloping from both east and west direction up to the Unad nalla, which flows through the heart of old gaathan in the south-north direction. The general slope of the town is towards northeast. The nalla originates from government tank, which is about 1km away to the south gaathan. This is the biggest nalla flowing through the town. A small portion of the town west of Shegaon-Khamgaon road flows towards the northwest side of the town. The sewage generated through this portion of the town will be pumped to a manhole on the east side of Shegaon-Khamgaon road and will be carried by gravity to the proposed STP. The town is located at an average elevation of 270m above mean sea level. The minimum and maximum contour levels of town are 260m and 279m as per enclosed contour map.

Shegaon town has a 'B' class Municipal Council and is situated 41 km from Akola, the area covered by Shegaon Municipal Council is 839.70 hectare. The population of Shegaon town is 52423 as per 2001 census and the population projected for the year 2042 is 115697 souls. In addition to the population of Shegaon, the trunk main and STP are also sized for the population of Chincholi, SBI colony and Rokadia colony with total area of 200.59 hectares. The present population of these towns is 7250 souls and the population projected for the year 2042 is 13453 souls. The rate of water

supply is 135 lpcd. Total designed population of this scheme is 129150 souls. The sewage contribution considered is 108 lpcd.

7.3 Need of the project

There is no underground sewerage scheme in Shegaon town. At present there are open gutters or surface drains to convey the effluent and sewage up to the disposal point. All domestic wastewater generated in the basin is discharged through a network of lined open channels in to Unad nalla. This causes Unad nalla to carry water throughout the year. This untreated wastewater, flowing through Unad nalla is pumped by nearby farmers and is used for irrigation.

This open surface drain has got many disadvantages like it is very easy for foreign matter to have entry in open drains which hampers the flow and creates stagnation of the sewage. It creates odor nuisance. Thus, it is creating a nuisance by polluting the water bodies, posing serious health hazards and endangering the environment. Also, to sustain the high rate of growth in the town, the infrastructure in general has to keep up in pace with it. The sewerage system is an essential component of the infrastructure that needs to develop on priority and requires no emphasis.

7.4 Details of Proposed Underground Sewerage Scheme

The entire of Shegaon town is divided into three drainage districts (DD1, DD2 & DD3) based on the study of topographical features and other prominent features like railway line and Unad nalla flowing across the town. The proposed project will be completed in phases. Phase 1 of the project includes collection system for DD1 and partial DD2, Pumping station and STP for DD1, DD2 and DD3. Phase 2 of the project will include collection system for the DD3 and remainder of DD2, and pumping station DD3. The details of further break up of phases are shown in Table 1 below.

Table 1: Phase wise work description of scheme

Phase	Part	Work Description
I	1	DPR of Collection system for DD1 and Partial DD2
	2	DPR of 7 MLD Sewage Treatment Plant for DD1 & DD2
II	1	DPR of Collections System for DD3 and Remaining DD2

The scheme of Shegaon city has included 'Underground sewerage collection system, Construction of STP 7 MLD capacity and Maintenance of the scheme for 3 years after all execution works completed etc.

The laying of sewer pipelines, construction of STP and maintenance of the scheme for 3 years as per revised tender document and specifications and approved network plan for Shegaon city Phase-I for DD1 & DD2 (Total wards are 25) was completed by MJP on Dated 31/03/2018. But the complaints were received to the MJP from local residents and Municipal Council about improper laying of sewer lines, undulations of sewer lines at various places, choke-ups in manholes

at various places. Hence, the 8 new work orders (See Table 2) for repair works of scheme was issued by the Executive Engineer, MJP, Div-Buldhana to rectify all complaints about the scheme. Technical sanction letters of all 8 work orders are date wise listed in background of the scheme (Sr. No. 8, Table No. 3).

Table 2: Details of New Work Orders for Repairs and Rectification Works

Sr. No.	Details of work	Cost of Tender (Rs.)	Appointed Contractor	Work order details	Time Period
1	Construction of Collection chambers for sewage which dispose directly into Unad Nallah.	1,97,940/-	Shri. Manoj D. Shimpi, Akola	No/LEKHA/Tender/3006/2019; Dated-20/09/2019	1 Month
2	Balance work of laying sewer pipeline & construction of Manholes in Lakhpati Galli & Property chambers at various places.	72,64,054/-	M/s Sainath Infraland Pvt. Ltd., Amravati	No/Tender/3194/2019; Dated-31/10/2019	4 Months
3	Providing MBBR Media for STP 7 MLD capacity	6,30,000/-	Shri. Kalpesh Goti, Gujrat	No/TC/3203/2019; Dated-01/11/2019	1 Week
4	Repair works of Shegaon Underground Sewerage Scheme Phase-I.	19,30,038/-	Shri. Suresh G. Gadekar, Buldhana	No/Tender/3244/2019; Dated-07/11/2019	1 Month
5	Cleaning and Repairs of sewer Pipelines & Manholes in Unad Nallah in Shegaon city	2,84,438/-	Shri. Manoj D. Shimpi, Akola	No/LEKHA/Tender/1057/2020; Dated-04/05/2020	1 Month
6	Cleaning of Sewage sump at STP	2,93,227/-	Shri. Manoj D. Shimpi, Akola	No/LEKHA/Tender/1058/2020; Dated-04/05/2020	1 Month
7	Cleaning of Manholes and Sewer pipelines in various areas	2,91,534/-	Shri. Manoj D. Shimpi, Akola	No/LEKHA/Tender/1059/2020; Dated-04/05/2020	1 Month
8	Cleaning of Manholes and Sewer pipelines in Bhoipura, Bhimnagar, Gujrati Housing society and other areas	2,94,600/-	Shri. Manoj D. Shimpi, Akola	No/LEKHA/Tender/1060/2020; Dated-04/05/2020	1 Month
	Total Amount (Rs.)	1,11,85,831/-	-	-	

8. Background of the scheme

The detailed background of the scheme is described in Table 3 below.

Table 3: Background of the scheme

Date & Year	Description
05/04/2010	Agreement for Project Management Consultation between Divisional Commissioner of Amravati Division and Fortress Infra. Advisory Services, Mumbai as Dated 05/04/2010.
October 2010	Preparation of DPR for Sewerage Collection System for DD1 and DD2 by Fortress Infra. Advisory Services, Mumbai
19/01/2011	Administrative approval of the scheme by Commissioner, Departmental Commissioner Office, Div-Amravati, vide letter No/STD/AA/789/2011, Dated-19/01/2011 of Rs. 2292.27 Lac for Laying of sewer line for sewerage disposal.
February 2011	Preparation of DPR for Sewerage Treatment Plant 7 MLD by Fortress Infra. Advisory Services, Mumbai
21/03/2011	Administrative approval of the scheme Commissioner, Departmental Commissioner Office, Div-Amravati, vide letter No/STD/AA/898/2011, Dated-21/03/2011 of Rs. 850.11 Lac for Construction of STP
15/06/2011	Technical Sanction of the scheme by Chief Engineer, MJP, Div-Nagpur vide letter No/MJP/TASHA-1/PN-720/1863/11, Dated-15/06/2011 for Rs. 23,53,85,600/- for Laying of sewer line for sewerage disposal.
15/06/2011	Technical Sanction of the scheme Chief Engineer, MJP, Div-Nagpur vide letter No/MJP/TASHA-1/PN-720/1864/11, Dated-15/06/2011 for Rs. 9,03,98,400/- for Construction of STP.
18/07/2011	Tender Published
14/11/2011	M/S SMS Paryavaran Ltd was appointed as a contractor by Maharashtra Jeevan Pradhikaran, Buldhana vide letter No/AB/TC/2424/2011; Dated 14/11/2011.
31/01/2012	1 st R.A. Bill is verified and approved by MJP for Rs. 16,44,920/-
29/03/2012	2 nd R.A. Bill is verified and approved by MJP for Rs. 80,58,577/-
29/03/2012	3 rd R.A. Bill is verified and approved by MJP for Rs. 56,18,503/-
02/07/2012	4 th R.A. Bill is verified and approved by MJP for Rs. 33,58,390/-
04/07/2012	5 th R.A. Bill is verified and approved by MJP for Rs. 25,15,842/-
31/07/2012	6 th R.A. Bill is verified and approved by MJP for Rs. 88,41,960/-
04/08/2012	7 th R.A. Bill is verified and approved by MJP for Rs. 28,35,895/-
30/08/2012	8 th R.A. Bill is verified and approved by MJP for Rs. 60,59,362/-
12/10/2012	9 th R.A. Bill is verified and approved by MJP for Rs. 82,61,140/-
03/11/2012	10 th R.A. Bill is verified and approved by MJP for Rs. 82,30,746/-
17/12/2012	11 th R.A. Bill is verified and approved by MJP for Rs. 50,19,771/-
28/01/2013	12 th R.A. Bill is verified and approved by MJP for Rs. 87,17,672/-
04/03/2013	13 th R.A. Bill is verified and approved by MJP for Rs. 33,07,494/-
14/04/2013	14 th R.A. Bill is verified and approved by MJP for Rs. 65,87,941/-

18/05/2013	15 th	R.A. Bill is verified and approved by MJP for Rs. 27,65,967/-
15/07/2013	16 th	R.A. Bill is verified and approved by MJP for Rs. 31,56,829/-
27/08/2013	17 th	R.A. Bill is verified and approved by MJP for Rs. 32,20,479/-
07/10/2013	18 th	R.A. Bill is verified and approved by MJP for Rs. 61,33,755/-
21/10/2013	19 th	R.A. Bill is verified and approved by MJP for Rs. 17,17,554/-
29/10/2013	20 th	R.A. Bill is verified and approved by MJP for Rs. 42,00,000/-
23/12/2013	21 th	R.A. Bill is verified and approved by MJP for Rs. 58,44,695/-
24/01/2014	22 th	R.A. Bill is verified and approved by MJP for Rs. 26,65,520/-
10/02/2014	23 th	R.A. Bill is verified and approved by MJP for Rs. 1,01,52,476/-
05/03/2014	24 th	R.A. Bill is verified and approved by MJP for Rs. 34,97,302/-
28/03/2014	25 th	R.A. Bill is verified and approved by MJP for Rs. 47,20,386/-
15/04/2014	26 th	R.A. Bill is verified and approved by MJP for Rs. 58,50,000/-
30/06/2014	27 th	R.A. Bill is verified and approved by MJP for Rs. 78,86,856/-
03/07/2014	28 th	R.A. Bill is verified and approved by MJP for Rs. 22,50,000/-
08/04/2014	29 th	R.A. Bill is verified and approved by MJP for Rs. 10,40,290/-
16/08/2014	30 th	R.A. Bill is verified and approved by MJP for Rs. 69,39,112/-
18/10/2014	31 th	R.A. Bill is verified and approved by MJP for Rs. 10,32,002/-
06/11/2014	32 th	R.A. Bill is verified and approved by MJP for Rs. 48,87,121/-
02/12/2014	33 th	R.A. Bill is verified and approved by MJP for Rs. 33,84,009/-
31/12/2014	34 th	R.A. Bill is verified and approved by MJP for Rs. 70,99,221/-
10/01/2015	35 th	R.A. Bill is verified and approved by MJP for Rs. 49,96,011/-
30/01/2015	36 th	R.A. Bill is verified and approved by MJP for Rs. 85,17,689/-
26/02/2015	37 th	R.A. Bill is verified and approved by MJP for Rs. 62,55,377/-
20/03/2015	38 th	R.A. Bill is verified and approved by MJP for Rs. 50,08,721/-
20/04/2015	39 th	R.A. Bill is verified and approved by MJP for Rs. 51,52,351/-
13/05/2015	40 th	R.A. Bill is verified and approved by MJP for Rs. 1,00,05,236/-
29/06/2015	41 th	R.A. Bill is verified and approved by MJP for Rs. 1,06,31,689/-
31/08/2015	42 th	R.A. Bill is verified and approved by MJP for Rs. 61,11,664/-
30/09/2015	43 th	R.A. Bill is verified and approved by MJP for Rs. 42,00,000/-
27/10/2015	44 th	R.A. Bill is verified and approved by MJP for Rs. 43,63,394/-
30/11/2015	45 th	R.A. Bill is verified and approved by MJP for Rs. 85,45,739/-
28/12/2015	46 th	R.A. Bill is verified and approved by MJP for Rs. 1,06,16,401/-
10/02/2016	47 th	R.A. Bill is verified and approved by MJP for Rs. 75,00,000/-
29/02/2016	48 th	R.A. Bill is verified and approved by MJP for Rs. 77,44,845/-
31/03/2016	49 th	R.A. Bill is verified and approved by MJP for Rs. 54,66,953/-
11/05/2016	50 th	R.A. Bill is verified and approved by MJP for Rs. 1,30,94,823/-

30/01/2017	Revised Technical Sanction of the scheme Chief Engineer, MJP, Div-Amravati vide letter No/CE/MJP/AM/RECHISHA/ TA/137/2017, Dated-30/01/2017 for Rs. 3937.26 Lac for Laying of sewer line for sewerage disposal and construction of STP.
17/05/2017	Revised administrative approval of the scheme Commissioner, Departmental Commissioner Office, Div-Amravati, vide letter No/DCA/STD/ RAA/106/2017, Dated-17/05/2017 of Rs. 2820.97 Lac for Laying of sewer line for sewerage disposal and Rs. 1116.29 Lac for Construction of STP. Total Rs. 3937.26 Lac
05/02/2018	51 th to 55 th R.A. Bill is verified and approved by MJP for Rs. 4,67,61,469/-
31/03/2018	56 th R.A. Bill is verified and approved by MJP for Rs. 85,92,651/-
30/06/2018	Extension date of time period for maintenance and repair works of the scheme
16/03/2019	Visit conducted by the members of Maharashtra Pollution Control Board, regional office Amravati.
23/08/2019	Technical Sanction by Executive Engineer, MJP, Div-Buldhana vide letter No/TASHA/2729/2019, Dated-23/08/2019 for Rs. 19,30,038/- for Repair works of Shegaon Underground Sewerage Scheme Phase-I.
28/08/2019	Technical Sanction by Executive Engineer, MJP, Div-Buldhana vide letter No/TASHA/2795/2019, Dated-28/08/2019 for Rs. 1,97,940/- for Construction of collection chambers for sewage which dispose directly into Unad Nallah.
05/09/2019	Technical Sanction by Chief Engineer, MJP, Div-Akola vide letter No/MJPA/TASHA-2/2643/2019, Dated-05/09/2019 for Rs. 72,63,990/- for Balance work of laying sewer pipeline & construction of Manholes in Lakhpati Galli & Property chambers at various places.
20/09/2019	Shri. Manoj D. Shimpi, Akola was appointed as a contractor for construction of collection chamber for sewage which dispose directly into Unad Nallah.
05/10/2019	Complaints received to MJP from Chief Officer, Shegaon Municipal Council about Chock up in manholes, gaps in connection of pipelines, vide letter No/SMC/AAVI/140/2019, Dated- 5/10/2019.
19/10/2020	Completion of construction of collection chamber for sewage which dispose directly into Unad Nallah.
22/10/2019	Request to Department of Civil Engineering, GCOE, Pune for 1 st third party technical audit inspection of the scheme by the Director, Directorate of Municipal Administration, Mumbai vide letter No/NAGROTHAN/TPTA/PN-463/2019 /K7/3237, Dated-22/10/2019.
31/10/2019	M/S Sainath Infraland Pvt. Ltd., Amravati was appointed as a contractor for the Execution of New Sewer Pipeline at Lakhpati galli area (DD1, Ward No.8) and Construction of Property chambers at various places.
01/11/2019	Shri. Kalpesh Goti, Gujrat was appointed as a contractor for Providing MBBR Media for STP 7 MLD capacity.
07/11/2019	Shri. Suresh G. Gadekar, Buldhana was appointed as a contractor for the Repair works of Shegaon Underground Sewerage Scheme Phase-I.
08/11/2019	Completion of supply work of MBBR Media for STP 7 MLD capacity.
16/11/2019 & 17/11/2019	Carried out the 1 st site visit for third party technical audit inspection of the scheme by GCOE, Pune

07/12/2019	Completion of various repair works of Shegaon Underground Sewerage Scheme Phase-I.
26/12/2019	1 st third party technical audit inspection report of the scheme by GCOE, Pune was issued vide letter No/GCOEP/CIVIL/NAH/CONS/2019/1168; Dated 26/12/2019.
22/01/2020	Inspection of the completed repair works by contractor along with MJP and SMC officers in Tadpura, Lendi Talav and Yash Convent area and other 5 locations.
05/02/2020	Request to Department of Civil Engineering, GCOE, Pune for 2 nd third party technical audit inspection of the scheme by Chief Officer, Municipal Council, Shegaon vide letter No; SMC/AAVI/703/2020; Dated 05/02/2020.
02/03/2020	Technical Sanction by Executive Engineer, MJP, Div-Buldhana vide letter No/TASHA/694/2020, Dated-02/03/2020 for- i. Cleaning of Manholes and Sewer pipelines in Bhoipura, Bhimnagar, Gujrati Housing society and other areas for Rs. 2,94,600/-. ii. Cleaning and Repairs of sewer Pipelines & Manholes in Unad Nallah in Shegaon city for Rs. 2,84,439/-. iii. Cleaning of Sewage sump at STP for Rs. 2,93,227/-. iv. Cleaning of Manholes and Sewer pipelines in various areas for Rs. 2,91,533/-.
04/05/2020	Shri. Manoj D. Shimpi, Akola was appointed as a contractor for the various cleaning and repair works of the scheme in 4 different work orders (See Table 2).
25/06/2020	Carried out flow tests of laid sewer pipeline in Lakhpati Galli area by contractor along with MJP and SMC officers.
06/07/2020	Inspection of the completed repair works by contractor along with MJP and SMC officers in Jogdi Fael, Toweri Krushi kendra and other 3 locations.
29/08/2020	Status of repair works in the scheme as per 1 st third party technical inspection report of GCOE, Pune given to the Director and Commissioner, DMA by CE, MJP, Div-Amravati vide letter No/CE/MJP/AM/TASHA-2/921/2020; Dated 29/08/2020.
04/05/2020	Carried out meeting for Shegaon USDS Scheme works and other works under Hon'ble Divisional Commissioner, Amravati, Hon'ble Government Prosecutor, Hon'ble Supreme Court, Mumbai (Nagpur) and other respected Government bodies vide report No/COA/STVA/Meeting/85/2020; Dated 15/09/2020.
05/06/2020	Completion of various cleaning and repair works of the scheme in 4 different work orders
23/06/2020	Request to Department of Civil Engineering, GCOE, Pune for 2 nd third party technical audit inspection of the scheme by Chief Engineer, Maharashtra Jeevan Pradhikaran Circle, Akola vide letter No; MJPCA/TASHA-2/1082/2020; Dated 23/06/2020
28/06/2020	Completion of execution of new sewer pipeline at Lakhpati galli area (DD1, Ward No.8) and construction of property chambers at various places
08/10/2020 & 09/10/2020	Carried out the 2 nd site visit for third party technical audit inspection of the scheme by GCOE, Pune.
22/02/2021	2 nd third party technical audit inspection report of the scheme by GCOE, Pune is issued vide letter No/GCOEP/CIVIL/NAH/CONS/2021/1199; Dated 22/02/2021.

B. Detail Information of Project

Table 4: Detail Information of Project

1	Name of scheme	Underground Sewerage System in Shegaon city under Shegaon Tirthkshetra Development Plan, Tal-Shegaon, Dist-Buldhana
2	A. Administrative Approval (First)	1. Commissioner, Departmental Commissioner Office, Div-Amravti, vide letter No/STD/AA/789/2011, Dated-19/01/2011 of Rs. 2292.27 Lac for Laying of sewer line for sewerage disposal. 2. Commissioner, Departmental Commissioner Office, Div-Amravti, vide letter No/STD/AA/898/2011, Dated-21/03/2011 of Rs. 850.11 Lac for Construction of STP.
	B. Administrative Approval (Revised)	1. Commissioner, Departmental Commissioner Office, Div-Amravti, vide letter No/DCA/STD/RAA/106/2017, Dated-17/05/2017 of Rs. 2820.97 Lac for Laying of sewer line for sewerage disposal and Rs. 1116.29 Lac for Construction of STP. Total Rs. 3937.26 Lac
3	A. Technical Sanction (First)	1. Chief Engineer, MJP, Div-Nagpur vide letter No/MJP/TASHA-1/PN-720/1863/11, Dated-15/06/2011 for Rs. 23,53,85,600/- for Laying of sewer line for sewerage disposal. 2. Chief Engineer, MJP, Div-Nagpur vide letter No/MJP/TASHA-1/PN-720/1864/11, Dated-15/06/2011 for Rs. 9,03,98,400/- for Construction of STP.
	B. Technical Sanction (Revised)	1. Chief Engineer, MJP, Div-Amravati vide letter No/CE/MJP/AM/RECHISHA/TA/137/2017, Dated-30/01/2017 for Rs. 3937.26 Lac for Laying of sewer line for sewerage disposal and construction of STP.
4	Population	Year -2001: 52423 souls Year -2042: 115697 souls Designed population of the scheme is 129150 souls.
5	Cost of Tender, Accepted Tender Cost and Payment made to contractor	A) Cost of Tender – Rs. 27,50,08,315/- B) Accepted Cost – Rs. 33,20,72,540/- (20.75% above) C) Cost of Revised Estimate – Rs. 37,49,77,866/- D) Total Expenditure of the Scheme – Rs. 34,90,79,647.82/-

6	Financial Pattern of Scheme					
	Name of Local Body	Cost of Scheme (Rs.)	Govt. grant aid (Rs.)	Local/Civil Society Contribution (Rs.)	Govt. Funds (Rs.)	Local Body Funds (Rs.)
	SMC, Shegaon	Rs. 37,49,77,866/-	Not Provided by MJP & SMC			

7 Information about Main Tender (2011-12) and Revised Work Orders (2019-20)	
Name of Executing Agency	Maharashtra Jeevan Pradhikaran, Div-Amravati
Name of Contractor	M/S SMS Paryavarani Ltd., New Delhi.
Work order No.	No/AB/TC/2424/2011, Dated-14/11/2011
Time Limit	24 months (Excluding Monsoon)
Date of Work Order	Dt. 14/11/2011
Last Date of Work completion	Dt. 13/11/2013
Cost of Tender (Main)	Rs. 27,50,08,315/-
Accepted Tender Cost (Main)	Rs. 33,20,72,540/- (20.75% above)
Cost of Revised Estimate (2017-18)	Rs. 37,49,77,866/-
Expenditure of actual scheme works in revised estimate	Rs. 33,57,50,055/- (As Per 56 th RA Bill Dd; 31/03/2018)
Cost of new 8 Tenders/Work orders for Repairs & Rectification works (2019-20)	Rs. 1,11,85,831/- (See Table 2, for Details of New Tenders/Work orders)
Expenditure of new 8 Tenders/Work orders	Rs. 1,33,29,592/- (The expenditure of extra works in the repair works are sanctioned as per Clause-38 by Executive Engineer and Divisional Accountant, MJP, Div-Buldhana)
Up to date total expenditure of overall scheme works	Rs. 34,90,79,647.82/-
Information about Mobilization in Advance	No Mobilization Advance is given to Contractors
Mobilizations advance recovered.	Not Applicable

8. First Recapitulation Sheet (Original Tender 2011-12)

Table 5: First Recapitulation Sheet (Original Tender 2011-12)

Sr. No.	Name of Sub work	Estimated Cost (Tender Cost Rs.)
1	Providing, lowering, laying, jointing and testing of Sewerage collection system for zone DD1 & DD2.	19,68,37,409.00
2	Designing, providing, constructing sewage treatment plant of 7 MLD capacity based on MBBR technology at Charmori.	5,55,33,418.00
3	Operation and maintenance of the entire underground sewerage scheme (Collection system and STP) for the period of 3 years after completion and commencement of collection system & STP.	2,26,37,487.00
TOTAL NET COST RS		27,50,08,315.00
Accepted Tender Cost (20.75 % Above)		33,20,72,540.00
Total Payable Amount (Rs)		33,20,72,540.00

9. Revised Recapitulation Sheet (Revised Estimate in Tender 2017-18)

The revision in estimate of tender was prepared due to the increased quantity of excavation during actual execution, increased in number of property chambers, laying of sewer lines by push through method below railway line, addition of D.G. set and transformer at STP and increased restoration width of road from 1 m to 3 m etc. The revised recapitulation sheet of revised estimate in tender is shown in Table 6.

Table 6: Revised Recapitulation Sheet (Revised Estimate in Tender 2017-18)

Sr. No.	Name of Sub works	Estimated Cost (Tender Cost Rs.)	Total Expenditure upto 56 th RA Bill (Rs)
1	Development of underground sewerage collection system	27,41,24,782.78	24,44,45,416.00
2	7 MLD capacity sewerage treatment plant	7,16,53,649.00	6,62,76,870.00
3	Maintenance of scheme for the period of 3 years	2,73,34,765.56	2,32,34,550.70
4	Miscellaneous work (Electrical works)	18,64,669.00	17,93,218.20
	TOTAL COST RS	37,49,77,866.00	33,57,50,055.74

10. Detailed Progress of the overall scheme works

10.1. Progress of scheme works as per Revised Recapitulation Sheet (2017-18)

Table 7: Progress of Sub Works as per Revised Recapitulation Sheet

Sr. No.	Name of Sub works (As per Table 6)	% of work completion as per 56 th RA Bill	Remarks as per 1 st Third Party Inspection report
1	Development of underground sewerage collection system	90 %	Started the various repairs & rectification works through new work orders issued by MJP as per the complaints received from SMC and local residents.
2	Sewerage Treatment Plant of 7 MLD capacity	93 %	Construction works was completed and STP was in working condition with 4 MLD capacity at the time of site visit
3	Maintenance of scheme for the period of 3 years	85 %	Maintenance works for 3 years was completed as per revised tender documents.
	Total % of Work Completed	89.55 %	-

10.1.1. Sub work wise detailed progress of scheme works as per Revised Recapitulation Sheet

A) Collection System (Sub Work No.1)-

I. Detail of providing of RCC pipes

Table 8: Detail of providing of RCC pipes as per 1st Third Party Inspection report

Type & Dia. of pipe	Length of pipes as per revised estimate in tender. (m)	Providing pipes (m) up to 56 th R.A. Bill	Third party (RITES/SGS/Dr. Amin) inspection of manufacturing quality of pipes length (m)	Letter No & Date of third party inspection
RCC Class NP2 Pipes-				
200mm	420.00	336.00	977.00	Attached in Annex-V
250mm	3174.00	3174.00	2752.00	Attached in Annex-V
300mm	1340.00	1340.00	500.00	Attached in Annex-V
500mm	190.00	190.00	190.00	Attached in Annex-V
600mm	390.00	390.00	240.00	Attached in Annex-V
RCC Class NP3 Pipes-				
150mm	35390.00	35694.00	31585.00	Attached in Annex-V

200mm	2806.00	2736.00	8500.00	Attached in Annex-V
400mm	2680.00	2625.00	2520.00	Attached in Annex-V
500mm	235.00	235.00	118.00	Attached in Annex-V
RCC Class NP4 Pipes-				
150mm	1900.00	1650.00	1000.00	Attached in Annex-V
250mm	280.00	280.00	666.00	Attached in Annex-V
300mm	517.00	517.00	387.50	Attached in Annex-V
400mm	117.50	117.50	117.50	Attached in Annex-V
Total	49439.50	49284.50	49553.00	

II) Detail of laying of RCC pipes

Table 9: Detail of laying of RCC pipes as per 1st Third Party Inspection report

RCC NP2, NP3 & NP3 pipes with dia. in mm	150	200	250	300	400	500	600
Laying length of pipes as per 56 th RA Bill (m)	37341.10	3105.1	4235.67	1909.51	2762.43	434.65	287.40
Total Length	50075.86 m						

III) Observations in 1st Third Party Inspection report of GCOE, Pune

- i. The sub work No. 1 and item No. 1 to 23 contains providing, lowering, laying and jointing of RCC NP-2, NP-3 & NP-4 of Dia. 150 mm to 600 mm sewer pipeline of **50075.86 m** (Refer Table 9) was completed as per tender document & specifications, approved network plan and approved 56th RA bill.
- ii. The third party inspection certificates for manufacturing quality of RCC NP-2, NP-3 & NP-4 pipes of 49553 m length out of 50075.86 m laid length was released by Rites Ltd., Mumbai, SGS India Pvt. Ltd., Mumbai and Dr. Amin Controllers Pvt. Ltd., Mumbai as per tender specifications. The reports were found satisfactory as per IS 458-2003: Code of precast concrete pipes with and without reinforcement (Attached in Annex-V, A, Page No. 70).
- iii. The flow test report of sewer pipeline was submitted by the MJP. It includes the flow tests at some locations such as Sarkari Fael (Date-23/03/2015), Kumbhar wada (Date-23/03/2015), Sheetalnath temple (Date-23/03/2015), Modi nagar (Date-01/04/2015), Mehelpura Nagzari road (Date-04/04/2015), Deshmukh Pura (Date-24/04/2015), Om nagar (Date-08/09/2015), Jamdar nagar (Date-08/09/2015) and Ganesh tiles area (Date-08/09/2015) etc. The flow tests were found satisfactory based on the signs in the test reports by the Section Engineer, MJP, Div-Amravati and local residents were present during the flow test.
- iv. The flow test of sewer pipeline at various locations such as Lakhpati Gally, Sopinath Temple area, Smashan Bhumi, Trimurthi chowk, Shriram Nagar, Jogdi Fael, Peth Mohalla, Khetan medical area, Maheshwari bhavan area, Toweri krushi Kendra, Lendi talav, Tadpura area, Yash convent, Ramdev Baba nagar etc. was not found in the flow test reports submitted by MJP.

- v. During visual inspection on site visit the choke up and foul gases in manhole chambers was observed at various places such as Sarkari fael (MH-363, 291), Lakhpati gally (MH-143), Toweri Krushi Kendra (MH-1693, 1696) etc. as shown in Figure 2 to 6. The reasons for the choke up in manholes was observed as below:
- a) Lack of maintenance of the scheme from 1 to 1.5 years.
 - b) Undulations in laid sewer pipelines and manholes.
 - c) Filling the waste materials in manholes by residents at some places.
- vi. During visual inspection on site visit it was found that the property chambers at various places such as Shriram Nagar, Sarkari Facl, Peth mohalla etc. was not constructed due to non-availability of land. Hence, it is observed that the land survey and actual count of property chambers was improperly carried out by Fortress Infra. Advisory Services, Mumbai (PMC).
- vii. **Lakhpati Gally (Ward No. 8)** – The secondary sewer line in Lakhpati galli area could not be connected to the main sewer pipeline which is parallel to the National Highway because the NH authority was denied the request of MJP in the year 2012-13 to execute the pipeline works in NH area as per network plan. The MJP was tried to connect the Lakhpati galli area's sewer network to the Hanuman temple area's (Ward No.1) sewer network which is across the railway line. But Railway authority was also denied the request to execute the work in their area. It was also observed during visual inspection that the approximate 150m length of sewer line in Lakhpati galli area was improperly executed. So, the sewer lines in Lakhpati galli area was flowing in opposite direction due to undulations in levels of pipeline.
- viii. The NH authority was agreed in the year 2018-19 to execute the work of sewer pipeline which is parallel to National highway. Hence, the MJP was issued the work order on 31/10/2019 (Refer Table 2) for laying of sewer pipeline parallel to NH and to reinstall the sewer line in Lakhpati galli area, to continue the proper flow of sewer towards the STP as per approved network plan. The pipeline execution work in Lakhpati galli area was in progress as shown in Figure 7 & 8.
- ix. **Sarkari Facl (Ward No. 1)** - It was observed during visual inspection that the property chambers in Sarkari fael was not constructed. The construction of property chambers by MJP was in progress as shown in Figure 9 & 10 and as per discussions with MJP officers.
- x. **Jogdi Facl (Ward No. 15)** - During visual inspection, the improper leveling of laid sewer pipeline was found at Jogdi fael area. Hence the sewer was flowing in opposite direction of STP and choke up in property chambers was observed. The planning of reinstallation of pipeline as per actual levels of network is done.
- xi. It is observed that the laid sewer lines at various places was found improperly executed and the gaps in connection of pipeline was found as per letter of Chief Officer, Shegaon Municipal Council to Assistant Engineer, MJP, Sub Div-Khamgaon vide letter No/SMC/AAVI/140/2019, Dated-05/10/2019.

- xii. The rectification works such as reinstalling the pipeline, removing the choke up in manholes and construction of property chambers at various places was in progress as shown in Figure 11 to 15 by MJP. The completed and working progress of rectification works described in Table 10 and as per letter No/TASHA/STDP/ 794/2019; Dated-04/12/2019 from Assistant Engineer-I, MJP, Div-Amravati to Chief Officer, Shegaon Municipal Council, Shegaon.

Table 10: Locations with rectified works by MJP, Div-Buldhana

Sr. No.	Locations	Ward No.	Completed and ongoing rectification works
1	Modi Nagar, Sopinath Temple area	18	-Removed damaged pipe and laid new RCC pipe 150 mm dia. -Removed gaps in pipeline.
2	Sarkari Fael, Smashan Bhumi	1	-Removal of damaged pipe and laying of new RCC pipe 150 mm dia. was in progress. -Removal of choke up in manholes was in progress. -Construction of property chambers were in progress.
3	Lakhpati Galli	8	-Removal of damaged pipe and laying of new RCC pipe 150 m length was in progress.
4	Trimurti chowk	21	-Removal of damaged pipe and laying of new pipe was in progress.
5	Shriram Nagar	10	-Construction of property chambers were in progress.
6	Khetan Medical area	3	-Construction of property chambers were completed.
7	Maheshwari Bhavan area	11	-Removed damaged pipe and laid new RCC pipe of 150 mm dia.
8	Toweri Krushi kendra	11	-Removal of gaps in pipeline and choke up in manholes was in progress.
9	Lendi Talav	16	-Reinstalling of pipeline with of 200 mm to 250 mm dia. RCC pipe instead of laid 200 mm dia. RCC pipe was in progress.
10	Jogdi Fael	15	-Planning of reinstallation of pipeline was done.
11	Peth Mohalla	15	-Planning of connection to manholes across the bridge was done. -Planning of construction of property chambers was done.
12	Tadpura area	5	-Reinstalled of pipeline was in progress.
13	Yash Convent	24	-Removed of gaps in pipeline and choke up in manholes.
14	Ramdev Baba Nagar	7	-Removed of gaps in pipeline and choke up in manholes.

B. Sewage Treatment Plant (STP) 7 MLD capacity (Sub Work No. 2)

Table 11: Sewage Treatment Plant 7 MLD capacity

Sr. No	Description of RCC STP	SBC	Name of agency	Foundation passing of date	Design approval with date
A	STP based on MMBR Technology at Charmori, Tal-Shegaon. (Sub Work No. 2)	20 T/m ²	N.A.	Not Submitted	Vishveshvaraya National Institute of Technology (VNIT), Nagpur Date- 11/07/2012

I. Observations in 1st Third Party Inspection report of GCOE, Pune

- i. The sub work No. 2 and item No. 1 to 50 contains designing, providing, constructing sewage treatment plant of 7 MLD capacity based on MMBR technology at Charmorri was 100% completed as per tender document & specifications and approved designs and drawings as shown in Figure 16 to 18.
- ii. The hydraulic designs and drawings of STP of 7 MLD capacity was prepared by M/S SMS Paryavaran Ltd., New Delhi and approved by Executive Engineer, MJP, Div-Buldhana.
- iii. The RCC designs and drawings of STP of 7 MLD capacity was prepared by M/S SMS Paryavaran Ltd., New Delhi and approved by Vishvesvaraya National Institute of Technology (VNIT), Nagpur vide Letter No/AGT-19/CE2538/4215, Dated 11/07/2012., and Executive Engineer, MJP, Div-Buldhana.
- iv. The STP was in working condition with 4 MLD capacity during visual inspection and the proper treatment of sewage was found satisfactory as per testing reports of the Maharashtra Engineering Research Institute (MERI- Hydrology project) and the test results in laboratory unit at the STP.
- v. The MJP has conducted the regular tests of inlet and outlet sample of sewer in the laboratory of STP's lab (See Figure 19) and Maharashtra Engineering Research Institute, Water Quality Lab Level-II, Nashik vide latest letter No/WQLAB/NSK/587 & 589/2019; Dated-13/11/2019 and found satisfactory as per permissible limits described in tender specifications.

10.2. Details of Repairs and Rectification Works in New Work Orders (2019-20)

The laying of sewer pipelines, construction of STP and maintenance of the scheme for 3 years as per revised tender document and specifications and approved network plan for Shegaon city Phase-I for DD1 & DD2 (Total wards are 25) was completed by MJP on Dated 31/03/2018. But the complaints were received to the MJP from local residents and Municipal Council about improper laying of sewer lines, undulations of sewer lines at various places, choke-up in manholes at various places. Hence, the new 8 Work Orders (See Table 2 & 12) for various repair works of scheme was issued by the Executive Engineer, MJP, Div-Buldhana to rectify all complaints about the scheme.

Table 12: Details of Repairs and Rectification Works

Sr. No.	Name of Repair Works in New Work Orders	Estimated Cost (Tender Cost Rs.)	Accepted Tender Cost (Rs.)
1	Construction of Collection chamber for sewage which dispose directly into Unad Nallah.	1,97,940	1,97,940
2	Balance work of laying sewer pipeline & construction of Manholes in Lakhpati Galli (DD1, Ward No.8) & Property chambers at various places.	72,64,054	72,56,790 (0.1% Below)
3	Providing MBBR Media for STP 7 MLD capacity.	6,30,000	6,30,000

4	Repair works of Shegaon Underground Sewerage Scheme Phase-I.	19,30,038	19,30,038
5	Cleaning and Repairs of sewer Pipelines & Manholes in Unad Nallah in Shegaon city	2,93,227	2,93,227
6	Cleaning of Sewage sumps at STP.	2,84,438	2,84,438
7	Cleaning of Manholes and Sewer pipelines in various areas.	2,91,534	2,91,534
8	Cleaning of Manholes and Sewer pipelines in Bhoipura, Bhimnagar, Gujrati Housing society and other areas.	2,94,600	2,94,600
TOTAL AMOUNT (Rs.)		1,11,85,831	1,11,78,567

10.2.1. Progress of Repairs and Rectification Works in New Work Orders

Table 13: Progress of Repairs and Rectification Works

Sr. No.	Name of Repair Works in New Work Orders	% of work completion as per R.A. Bills	Total Expenditure (Rs.)	Remarks as per Completion report issued by MJP
1	Construction of Collection chamber for sewage which dispose directly into Unad Nallah.	78 % as per 1 st (Final) R.A. Bill	1,55,222.00	100 % Completed
2	Balance work of laying sewer pipeline & construction of Manholes in Lakhpati Galli (DD1, Ward No.8) & Property chambers at various places.	100 % as per 3 rd (Final) R.A. Bill	90,15,665.39	100 % Completed
3	Providing MBBR Media for STP 7 MLD capacity.	100 % as per approved Invoice	6,30,000.00	100 % Completed
4	Repair works of Shegaon Underground Sewerage Scheme Phase-I.	100 % as per 2 nd (Final) R.A. Bill	20,86,026.00	100 % Completed
5	Cleaning and Repairs of sewer Pipelines & Manholes in Unad Nallah in Shegaon city	100 % as per 1 st (Final) R.A. Bill	3,18,570.00	100 % Completed
6	Cleaning of Sewage sumps at STP.	100 % as per 2 nd (Final) R.A. Bill	4,64,237.69	100 % Completed
7	Cleaning of Manholes and Sewer pipelines in various areas.	100 % as per 1 st (Final) R.A. Bill	3,59,919.00	100 % Completed
8	Cleaning of Manholes and Sewer pipelines in Bhoipura, Bhimnagar, Gujrati Housing society and other areas.	100 % as per 1 st (Final) R.A. Bill	3,29,952.00	100 % Completed
Total % of work completion and Expenditure (Rs.)		99 %	1,33,29,592.08	100 %

10.2.2. Observations of Repairs & Rectification works

I. Construction of Collection Chamber in Unad Nallah (Work Order; Dated 20/09/2019)

- The Item No. 1 to 8 contains construction of collection chamber for sewage which dispose directly into Unad Nallah is physically 100% & financially 78% completed as per tender document & specifications and approved 1st (Final) R.A. bill as shown in Figure 20 & 21.

- ii. The construction of 2 collection chambers in Unad Nallah and 1 collection chamber near STP are completed as per design & drawing which are prepared by M/s SMS Paryavaran Ltd., New Delhi and approved by Executive Engineer, MJP, Div-Buldhana and Sub Divisional Officer, MJP, Sub Div-Khamgaon (Attached in Annex-IV, A, Page No. 64).
- iii. The construction work completion certificate of collection chamber in Unad Nallah is issued by Executive Engineer, MJP, Div-Buldhana and Sub Divisional Officer & AE-II, MJP, Sub Div-Khamgaon (Attached in Annex-IX, Page No. 154).

II. Balance work of laying sewer pipeline & construction of manholes in Lakhpati Galli (DD1, Ward No.8) & Property chambers at various places (Work Order on Dated 31/10/2019)

- i. The Item No. 1 to 14 contains providing, lowering & laying of underground sewer pipeline with construction of manholes in Lakhpati Galli (DD1, Ward No.8) & construction of property chambers at various places are 100% completed as per tender document & specifications, approved 3rd (Final) R.A. bill and approved network plan which is Attached in Annex-III, Page No. 53.
- ii. Providing, lowering, laying and jointing of underground sewer pipelines (See Table 14) are completed as per tender document & specifications and approved network plans.

Table 14: Detail of Laying of sewer pipelines in Lakhpati Galli

Type & Dia. of pipe	Length of pipes in Tender	Provided Length of pipes (m)	SGS third party inspection of pipe length (m)	Details of third-party inspection of pipes	Total Laid length of Pipes (m)
RCC NP-2 200mm dia.	240.00	220.00	250	Attached in Annex-VI, A	206.20
RCC NP-3 150mm dia.	3355.00	2120.00	1200	Attached in Annex-VI, A	2105.50
HDPE SN8 200 mm dia.	180.00	180.00	0	N.A.	172.80
HDPE SN8 150 mm dia.	465.00	465.00	0	N.A.	454.20
Total	2985.00	2985.00	1450	-	2938.70

- iii. The construction of manholes of various depths 2m, 5m & 9m and property chambers are completed as per tender document & specifications and approved section drawings.
- iv. The construction of various manholes for depths 2m, 5m & 9m are completed as per design & drawing which are prepared by M/s SMS Paryavaran Ltd., New Delhi and approved by Executive Engineer, MJP, Div-Buldhana and Sub Divisional Officer, MJP, Sub Div-Khamgaon. (Attached in Annex-IV, B, Page No. 67).
- v. The flow test of sewer pipeline in the Lakhpati Galli area has conducted on Dated 25/06/2020 in the presence of concerned MJP Engineers & Chief Officer, Shegaon Municipal Council, Shegaon and flow in sewer pipelines was found satisfactory as per flow test report (Attached in Annex-VIII, Page No. 150).

- vi. The third party inspection certificates for manufacturing quality of sewer pipelines of RCC NP2 & NP3 of length 1450 m out of 2985 m are issued by SGS India Pvt. Ltd., Pune and test results are found to be satisfactory (Attached in Annex-VI, A, Page No. 90). The HDPE SN8 pipeline of length 645 m is already tested by contractor and has taken approval by MJP (Attached in Annex-VI, A, Page No. 92) for laying of HDPE pipe instead of RCC pipe.
- vii. The work completion certificate of laying of sewer pipelines with construction of 20 manholes and 282 property chambers at various places in Lakhpati Galli area is issued by Executive Engineer, MJP, Div-Buldhana and Sub Divisional Officer & AE-II, MJP, Sub Div-Khamgaon (Attached in Annex-IX, Page No. 154).
- viii. During visual inspection on site, it is observed that the laying of underground sewer pipeline with construction of manholes in Lakhpati Galli (DD1, Ward No.8) & construction of property chambers at various places are found satisfactory as per L-section of sewer pipeline & tender document and specifications as shown in Figure 22 to 27.
- ix. The designed hydraulic levels given in submitted L-section plan on site are cross checked with invert levels of executed sewer pipeline by using Auto level in Lakhpati Galli area by GCOE, Pune as shown in Figure 43 & 44. The levels are found same as per given in L-section plan.

III. Providing MBBR Media for STP 7 MLD capacity (Work Order on Dated 01/11/2019)

- i. Providing of MBBR Fluidized Random Bio Media of size 22 mm x 16 mm (50 Cum) for STP 7 MLD capacity is 100% completed as per Invoice of Greenleaf Invirotech Pvt. Ltd., Nagpur which is approved by AE-I & AE-II, MJP, Sub Div-Khamgaon.
- ii. Testing certificate of Fluidized Random Bio Media (50 Cum) for dimension, material of construction, void age etc. is issued by P.N. Industries, Quality Control Department, Rajkot, Gujrat vide report No/TC/20/PN1/2019-20; Dated 26/10/2019 and found satisfactory as per tender document & specifications (Attached in Annex-VI, A, Page No. 96).
- iii. The construction work completion certificate for providing of MBBR Fluidized Random Bio Media is issued by Executive Engineer, MJP, Div-Buldhana and Sub Divisional Officer & AE-II, MJP, Sub Div-Khamgaon (Attached in Annex-IX, Page No. 154).
- iv. During visual inspection on site it is observed that the provided MBBR Fluidized Random Bio Media for STP 7 MLD capacity is found satisfactory as per tender document & specifications as shown in Figure 28.

IV. Repair works of Shegaon Underground Sewerage Scheme (Work Order on Dated 07/11/2019)

- i. The Item No. 1 to 17 contains repair works of the scheme such as laying of sewer pipelines, cleaning of existing sewer pipelines and manholes at Yash Convent, Ramdev Baba Nagar, Lendi Talav, Peth Mohalla and Tadpura etc. are 100% completed as per tender document &

specifications, approved 2nd (Final) R.A. bill and approved network plans (Attached in Annex-III, Page No. 53) as shown in Figure 29 to 32.

- ii. Providing, lowering, laying and jointing of underground sewer pipelines (See Table 15) are completed as per tender document & specifications and approved network plans.

Table 15: Detail of Laying of sewer pipelines at various places

Type & Dia. of pipe	Length of pipes in Tender	Provided Length of pipes (m)	Third party inspection of pipe length (m)	Details of third party inspection of pipes	Total Laid length of Pipes (m)
RCC NP-2 250mm dia.	156.00	156.00	0	N.A.	143.30
RCC NP-2 200mm dia.	54.00	54.00	0	N.A.	49.80
RCC NP-2 150mm dia.	250.00	250.00	0	N.A.	245.50
Total	460.00	460.00	0	-	438.60

- iii. The construction of manholes of various depths 2m, 5m & 9m and property chambers are completed as per tender document & specifications and approved section drawings.
- iv. The third party inspections for manufacturing quality of sewer pipelines are not carried out by MJP. The physical inspection of RCC pipes before laying has carried out by MJP Engineers as per discussion with AE-II, MJP, Sub Div-Khamgaon. But any approval or letter regarding inspection of pipes has not submitted by MJP.
- v. The flow test of sewer pipeline at various locations such as Sopinath Temple area, Smashan Bhumi, Trimurthi chowk, Shriram Nagar, Jogdi Fael, Peth Mohalla, Khetan medical area, Maheshwari bhavan area, Toweri krushi Kendra, Lendi talav, Tadpura area, Yash convent, Ramdev Baba Nagar etc. are carried out on Dated 22/01/2020 and 06/07/2020 in the presence of concerned MJP Engineers & Chief Officer, Shegaon Municipal Council, Shegaon and sewer flow was found satisfactory as per flow test reports (Attached in Annex-VIII, Page No. 151).
- vi. The work completion certificate of laying of sewer pipelines at Yash Convent of 20 m length, Ramdev Baba Nagar of 30.50 m length, Lendi Talav of 201.10 m length, Garib Nawab Masjid of 93.70 m length, Toweri Krushi Seva of 12 m length and Peth Mohalla of 43.50 m length etc. is issued by Executive Engineer, MJP, Div-Buldhana and Sub Divisional Officer & AE-II, MJP, Sub Div-Khamgaon (Attached in Annex-IX, Page No. 154).
- vii. During visual inspection at the time of 2nd site visit by GCOE, Pune, the sewer flow in pipelines has inspected at various locations such as Sarkari Fael, Jogdi Fael and Ramdev Baba Nagar etc. as shown in Figure 39 to 42. The sewer flow at Sarkari Fael and Jogdi Fael is found satisfactory towards the STP, but the sewage was stuck in the Manholes (MH-218 & 219) at Ramdev Baba Nagar area due to lack of cleaning works.

V. Cleaning and Repairs of Sewer Pipelines & Manholes in Unad Nallah in Shegaon city (Work Order on Dated 04/05/2020)

- i. The Item No. 1 to 4 contains cleaning and repairs of sewer pipelines & manholes in Unad Nallah in Shegaon city is 100% completed as per tender document & specifications, approved 1st (Final) R.A. bill as shown in Figure 33 & 34.
- ii. The work completion certificate of cleaning and repairs of sewer pipelines & 20 manholes in Unad Nallah is issued by Executive Engineer, MJP, Div-Buldhana and Sub Divisional Officer & AE-II, MJP, Sub Div-Khamgaon (Attached in Annex-IX, Page No. 154).

VI. Cleaning of Sewage sumps at STP. (Work Order on Dated 04/05/2020)

- i. The Item No. 1 to 7 contains cleaning of sludge thickener tank and thickened sludge sump at STP by engaging labour & Mali is 100% completed as per tender document & specifications and approved 2nd (Final) R.A. bill.
- ii. The work completion certificate of cleaning of sludge thickener tank and thickened sludge sump at STP is issued by Executive Engineer, MJP, Div-Buldhana and Sub Divisional Officer & AE-II, MJP, Sub Div-Khamgaon (Attached in Annex-IX, Page No. 154).
- iii. During visual inspection on site, it is observed that the cleaning of sludge thickener tank and thickened sludge sump at STP is found to be satisfactory as per tender document & specifications as shown in Figure 35 & 36.

VII. Cleaning of Manholes and Sewer pipelines in various areas. (Work Order on Dated 04/05/2020)

- i. The Item No. 1 to 7 contains cleaning of manholes and sewer pipelines in various areas such as Ramdev Baba nagar, Gujrathi Housing Society etc. is 100% completed as per tender document & specifications and approved 1st (Final) R.A. bill (See Figure 37 & 38).
- ii. The work completion certificate of cleaning of manholes and sewer pipelines in various areas such as Ramdev Baba nagar, Gujrathi Housing Society etc. is issued by Executive Engineer, MJP, Div-Buldhana and Sub Divisional Officer & AE-II, MJP, Sub Div-Khamgaon (Attached in Annex-IX, Page No. 154).

VIII. Cleaning of Manholes and Sewer pipelines at Bhoipura, Bhimnagar, Gujrati Housing Society and other areas. (Work Order on Dated 04/05/2020)

- i. The Item No. 1 to 7 contains cleaning of manholes and sewer pipelines at Bhoipura, Bhimnagar, Gujrati Housing society and other areas is 100% completed as per tender document & specifications, approved 1st (Final) R.A. bill and approved network plan which showing cleaning works for a length of sewer pipeline and number of manholes.

- ii. The work completion certificate of cleaning of manholes and sewer pipelines at Bhoipura, Bhimnagar, Gujrati Housing society and other areas is issued by Executive Engineer, MJP, Div-Buldhana and Sub Divisional Officer & AE-II, MJP, Sub Div-Khamgaon (Attached in Annex-IX, Page No. 154).
- iii. During visual inspection on site, it is observed that the cleaning of manholes and sewer pipelines at Bhoipura, Bhimnagar, Gujrati Housing society and other areas is found to be satisfactory as per tender document & specifications.

11. Material Testing Reports

11.1. Material Testing Reports of Various Construction work of sub works in Revised Recapitulation sheet (2017-18)

Testing reports of different types of materials used in the various construction work of sub works of scheme was examined. Relevant Indian codes has been followed for verification of quality of different types of materials used in the construction of different Sub work of Revised Recapitulation sheet of proposed scheme at Shegaon.

11.1.1. Testing of Cement

Birla-A1 OPC 43 Grade cement is used in the construction works of the scheme. The Contractor and MJP was carried out the test of Cement in the laboratory of Government Polytechnic, Khamgaon, vide report No/GPK/AMD/852/TRN-840/13-14/5050; Dated 23/10/2013. Results obtained are given in the Table 15 (Attached in Annex-V, B, Page No. 79).

Table 15: Tests conducted on Cement

Sr. No	Description	Test	Result	Remark
1	Birla-A1 OPC 43	Fineness	6.33%	Test result satisfies as per IS-12269-1987, code of OPC 53 grade of cement
		Consistency	32.25 %	
		Initial setting time	100 minutes	
		Final setting time	235 minutes	
		Compressive Strength		
		3 days	236.67 kg/cm ²	
		7 days	336.67 kg/cm ²	

11.1.2. Testing of Sand, coarse aggregate

The Sand, coarse aggregates are used in the construction works of the scheme. The Contractor and MJP was carried out the test of Sand and coarse aggregates in the laboratory of Government Polytechnic, Khamgaon, vide report No/GPK/AMD/048/TRN-048/14-15/1637; Dated 14/08/2014. Results obtained are given in the Table 16 and 17 respectively (Attached in Annex-V, B, Page No. 79).

Table 16: Tests conducted on Sand

Sr. No.	Description	Test	Result	Remark
1	Natural Sand	Fineness modulus	3.028	Test result satisfies as per IS-383-1970: code of Specification for Coarse and Fine Aggregates from Natural Sources for concrete.
		Silt content	3.80 %	
		Sieve analysis		
		4.75 mm	95.80 % passing	
		2.36 mm	91.20 % passing	
		1.18 mm	57.75 % passing	
		0.6 mm	39.65 % passing	
		0.3 mm	8.75 % passing	
0.15 mm	4.10 % passing			

Table 17: Tests conducted on Aggregate

Sr. No.	Description	Test	Result	Remark	
1	Agg. 20 mm.	Crushing strength	18.29 %	Test result satisfies as per IS-383-1970 and IS- 2386-2016 code of methods of test for aggregates for concrete.	
		Water absorption	0.35 %		
		Sieve analysis			
		20 mm Sieve	91.55 % passing		
		16 mm Sieve	56.45 % passing		
		12.5 mm Sieve	24.25 % passing		
		10 mm Sieve	5.30 % passing		
2	Agg. 40 mm.	Crushing strength	17.94 %	Test result satisfies as per IS-383-1970 and IS- 2386-2016 code of methods of test for aggregates for concrete.	
		Water absorption	0.4 %		
		Sieve analysis			
		40 mm Sieve	90.50 % passing		
		25 mm Sieve	11.00 % passing		
		20 mm Sieve	01.50 % passing		

11.1.3. Testing of Concrete Cubes

The M20 & M30 grades of concrete are used in the RCC construction works of the scheme. The Contractor and MJP was carried out the test on concrete cubes of M20 & M30 grade in the laboratory of Government Polytechnic, Khamgaon vide report No/GPK/AMD/877/TRN-863/13-14/122; Dated 17/01/2014 and others. Some results obtained are given in the Table 18. It was observed that the grade of concrete cubes has not mentioned in many testing reports issued by Govt. Polytechnic, Khamgaon. Hence, it was very difficult to check the satisfactory results as per the IS codes and approved RCC designs (Some testing reports are attached in Annex-V, C, Page No. 79).

Table 18: Tests conducted on Concrete cubes

Sr. No	Description	Date of Casting	Date of Testing	No of Days	Average Comp. Strength	Remark
1	RCC column & footing of meter room (M20 Grade)	20/11/2013	21/12/2013	30	23.00 N/mm ²	Test result satisfies as per IS-516-1959 code of methods of test for strength of concrete.
2	RCC beams & slabs of meter room (M20 Grade)	09/12/2013	03/01/2014	26	23.37 N/mm ²	
3	RCC column of Raw Sewage Sump (M30 Grade)	19/04/2013	09/07/2013	78	31.40 N/mm ²	
4	RCC wall of Biological Sludge Sump (M30 Grade)	07/09/2013	17/10/2013	40	31.85 N/mm ²	

11.1.4. Testing of Steel

The tor steel grade of steel is used in the RCC construction works of the scheme. The Contractor and MJP was carried out the test of steel in the laboratory of Government Polytechnic,

Khamgaon vide report No/GPK/AMD/687/TRN-670/12-13/2057; Dated 04/09/2012. Results obtained are given in the Table 19 and found satisfactory as per IS: 432- 1982 code of methods of test steel bar. (Attached in Annex-V, B, Page No. 79)

Table 19: Test conducted on steel

Sr. No.	Nom.dia.in mm	Avg. Weight Kg/m	Avg. yield Stress N/mm ²	% Elongation	Remark
1	8.00 mm	0.395	618.99	25.33	Test result satisfies as per the IS: 432-1982 code
2	10.00 mm	0.618	609.08	22.67	
3	12.00 mm	0.889	612.79	21.11	
4	16.00 mm	1.578	627.31	19.16	
5	20.00 mm	2.468	617.70	20.00	

11.2. Material Testing Reports of Various Construction works for Repairs & Rectification works of the scheme (2019-20)

Testing reports of cement, sand, aggregates and bricks used in the construction of various manholes and property chambers are examined. Relevant Indian codes are followed for verification of quality of different types of materials used in the construction of various manholes and property chambers for the sewerage scheme at Shegaon.

11.2.1. Testing of Cement

OPC 43 Grade cement is used in the construction works of the new manholes and property chambers in the sewerage scheme. The Contractor and MJP has carried out the test of Cement in the laboratory of Padmashri Dr. V. B. Kolte College of Engineering, Malkapur vide report No/VBKCOE/Civil/Testing/2019/244/01; Dated 21/11/2019. Results obtained are given in the Table 20 (Attached in Annex-VI, D, Page No. 97).

Table 20: Tests conducted on Cement

Sr. No.	Description	Test	Result	Remark
1	Birla-A1 OPC 43	Fineness	3.24%	Test result satisfies as per IS-12269-1987, code of OPC 53 grade of cement.
		Consistency	28.56 %	
		Initial setting time	136 minutes	
		Final setting time	338 minutes	
		Compressive Strength		
		3 days	24.19 N/mm ²	
		7 days	34.45 N/mm ²	

11.2.2. Testing of Sand, Coarse aggregate

The Sand, coarse aggregates are used in the construction works of the new manholes and property chambers in the sewerage scheme. The Contractor and MJP has carried out the test of sand and coarse aggregates in the laboratory of Padmashri Dr. V. B. Kolte College of Engineering,

Malkapur vide report No/VBKCOE/Civil/Testing/2019/244/01; Dated 21/11/2019. Results obtained are given in the Table 21 and 22 respectively (Attached in Annex-VI, D, Page No. 97).

Table 21: Tests conducted on Sand

Sr. No.	Description	Test	Result	Remark
1	Sand	Fineness modulus	2.78	Test result satisfies as per IS-383-1970: code of Specification for Coarse and Fine Aggregates from Natural Sources for concrete.
		Silt content	3.10 %	

Table 22: Tests conducted on Aggregate

Sr. No.	Description	Test	Result	Remark
1	Agg. 20 mm.	Crushing strength	11.57 %	Test result satisfies as per IS-383-1970 and IS- 2386-2016 code of methods of test for aggregates for concrete.
		Impact Value	9.08 %	
		Abrasion test	12.77 %	

11.2.3 Testing of Bricks

Bricks of sizes 6"x4"x9" & 4"x3"x9" are used in the construction works of the new manholes and property chambers in the sewerage scheme. The Contractor and MJP has carried out the test of Cement in the laboratory of Padmashri Dr. V. B. Kolte College of Engineering, Malkapur vide report No/VBKCOE/Civil/Testing/2019/244/01; Dated 21/11/2019. Results obtained are given in the Table 23 (Attached in Annex-VI, D, Page No. 97).

Table 23: Tests conducted on Bricks

Sr. No.	Description	Test	Result	Remark
1	Brick 6"x4"x9"	Crushing Load	43.19 KN	Test result satisfies as per IS-3495-1992, code for testing of burnt clay bricks.
		Comp. Strength	2.94 N/mm ²	
2	Brick 4"x3"x9"	Crushing Load	24.15 KN	
		Comp. Strength	3.10 N/mm ²	

12. Observations for overall scheme works by Third Party Technical Auditor

A. Underground Sewerage Collection System

- i. The execution works of Underground Sewerage System in Shegaon city was started in November 2011 and completed in March 2018 as per the approved 56th R.A. Bill. After the completion of scheme works, the Commissioner and Director, Directorate of Municipal Administration, Mumbai has requested to Third Party Auditor vide letter No/NAGROTHAN/TPTA/PN-463/2019/K7/3237, Dated-22/10/2019 to inspect the overall construction quality of existing Underground Sewerage System in Shegaon city.
- ii. The Fortress Infra. Advisory Services, Mumbai (PMC) had not mentioned the hydraulic levels of sewer pipeline and flow directions towards the STP in approved network plan of the scheme which was signed by Executive Engineer, MJP, Div-Buldhana (Attached in Annex-I, Page No. 50). The approved network plan with hydraulic levels of sewer pipeline in A0 drawing sheets was demanded at the time of 1st site visit (Dated 16/11/2019) by GCOE, Pune. During 1st site visit the hydraulic levels was given separately in A4 spreadsheet only, which was not approved or signed by any concerned authorities. The contractor or MJP has not submitted approved network plan with hydraulic levels of sewer pipeline till the end of 2nd site visit (Dated 09/10/2020).
- iii. The L-section of sewer pipeline at various locations in A4 sheets are submitted by MJP at the time of 2nd site visit which are also not signed by any concerned authorities (Attached in Annex-II, Page No. 52). But the maximum complaints received from residents regarding **Lakhpati Galli area**. Therefore, the third party technical auditor has cross checked the executed RLs (Ground Level & Invert Level) of sewer pipeline at manholes for MH-79, MH-94, MH-152 & MH-153 randomly by using Auto level instrument in the presence of concerned MJP Engineers & City Engineer, Shegaon Municipal Council, Shegaon as shown in Figure 43 & 44. The on-site levels of sewer pipeline in **Lakhpati Galli area** are found same as per the levels in L-section plan.
- iv. The cross checking of executed RLs (Ground Level & Invert Level) are not carried out in various areas such as **Tadpura area, Lendi Talav, Yash Convent, Ramdev Baba nagar, Garib Navaz Masjid, Peth Mohalla, Bhoipura, Mahadev Mandir, Jogdi Fael, Toweri Krushi Kendra, Trimurti Chowk, Sarkari Fael, Khetan Medical, Maheshwari Bhavan area and Modi Nagar etc.** due to unavailability of approved L-section plans.
- v. The approved network plan with all hydraulic levels and flow direction of sewer pipeline is submitted by MJP on dated 17/12/2020 to GCOE, Pune (Attached in Annex-II, Page No. 51). The date of drawing or the date approval is not specified in the submitted network plans.
- vi. It is observed that, the contractor (M/s. SMS Paryavaran Ltd., New Delhi) had distributed the execution works of sewer pipeline (Sewerage network of the scheme) to various sub-contractors. But the contractor had not given the approved hydraulic network plan with all hydraulic levels to those sub-contractors. The sewer pipelines were laid by sub-contractors without valid invert

- levels. Therefore, the undulations in the laid sewer pipelines are formed and the problems of choke-up in manholes were started at various locations such as **Lakhpati Galli area, Tadpura area, Lendi Talav, Yash Convent, Ramdev Baba nagar, Garib Navaz Masjid, Peth Mohalla, Bhoipura, Mahadev Mandir, Jogdi Fael, Toweri Krushi Kendra, Trimurti Chowk, Sarkari Fael, Khetan Medical, Maheshwari Bhavan area and Modi Nagar etc.** Hence, the MJP issued the new 8 Work Orders to rectify all the repair works in above mentioned locations in the scheme.
- vii. The repairs, rectification and cleaning work in new 8 Work Orders are 100% completed as per completion report issued by Executive Engineer, MJP, Div-Buldhana and Sub Divisional Officer & AE-II, MJP, Sub Div-Khamgaon (Attached in Annex-IX, Page No. 154). The date of issue is not mentioned in this completion report. The MJP has not submitted the completion report to Chief Officer, Shegaon Municipal Council, Shegaon. The all 8 Work Orders with their respective final R.A. Bills are Attached in Annex-X, Page No. 163.
 - viii. During visual inspection at the time of 2nd site visit by GCOE, Pune, the sewer flow in pipelines has inspected at various locations such as **Lakhpati Galli area (Work Order on dated 31/10/2019), Sarkari Fael, Jogdi Fael and Ramdev Baba Nagar (Work Order on dated 07/11/2019) etc.** as shown in Figure 39 to 42. The sewer flow at **Lakhpati Galli area, Sarkari Fael and Jogdi Fael** is found satisfactory towards the STP, but the sewage was stuck in the Manholes (MH-218 & 219) at **Ramdev Baba Nagar area** due to lack of cleaning works.
 - ix. The rectification works in remaining 6 Work Orders such as construction of collection chamber in Unad Nallah, cleaning of sewer pipelines & manholes at various locations and supply of MBBR media at STP (See Table No. 2) etc. are satisfactorily completed.
 - x. The flow test of sewer pipeline at various locations such as **Tadpura area, Lendi Talav, Yash Convent, Ramdev Baba nagar, Garib Navaz Masjid, Peth Mohalla, Bhoipura, Mahadev Mandir etc.** conducted on dated 22/01/2020 in the presence of concerned MJP Engineers & Chief Officer, Shegaon Municipal Council, Shegaon. The MJP Engineers & Chief Officer, Shegaon Municipal Council, Shegaon were accepted that the sewer is satisfactorily flowing towards the STP as per flow test report signed by them (Attached in Annex-VIII, Page No. 151).
 - xi. The flow test of sewer pipeline in the **Lakhpati Galli area** has conducted on dated 25/06/2020 in the presence of concerned MJP Engineers & Chief Officer, Shegaon Municipal Council, Shegaon. The MJP Engineers & Chief Officer, Shegaon Municipal Council, Shegaon were accepted that the sewer is satisfactorily flowing towards the STP as per flow test report signed by them (Attached in Annex-VIII, Page No. 150).
 - xii. The flow test of sewer pipeline at various locations such as **Jogdi Fael, Toweri Krushi Kendra, Trimurti Chowk, Sarkari Fael, Khetan Medical, Maheshwari Bhavan area & Modi Nagar etc.** conducted on Dated 06/07/2020 in the presence of concerned MJP Engineers & Chief Officer, Shegaon Municipal Council, Shegaon. The MJP Engineers & Chief Officer, Shegaon Municipal

Council, Shegaon were accepted that the sewer is satisfactorily flowing towards the STP as per flow test report signed by them (Attached in Annex-VIII, Page No. 151). The unsatisfied remarks about sewer flow at **Sarkari Fael & Jogdi Fael** area in flow test report by City Engineer, SMC are rectified from MJP as per visual inspection at the time of 2nd site visit.

- xiii. The present status of the scheme and works completion report is submitted by Chief Engineer, MJP, Div-Amravati to the Hon'ble Member Secretary, MJP, Mumbai vide letter No/MA/MJP/AM/TASHA-2/921/2020; Dated 29/08/2020 (Attached in Annex-IX, Page No. 157).
- xiv. The construction of manhole chambers for depth of 2m, 5m & 9m in overall scheme has been executed as per section drawings of manholes which are approved by Executive Engineer, MJP, Div-Buldhana and Sub Divisional Officer, MJP, Sub Div-Khamgaon (Attached in Annex-IV, B, Page No. 67). As the scope of third party technical auditor, the approved section of manhole chamber has been verified as per IS code provisions, But it is observed that the specifications of manholes in approved drawing are not followed as per the IS 4111:1986 (Part-I, Clause 4- Construction of manholes, Fig 4- Typical section of circular manholes). The detailed observations of the manhole drawings are discussed in Table 24.
- xv. The benching of manhole chambers is not provided as per typical section of circular manholes given in IS 4111:1986 (Part-I, Fig-4). The benching of manhole could not inspect by GCOE, Pune at the time of 1st site visit due to sewer stagnant in manholes at various locations and also at the time of 2nd site visit due to sewer flow in manhole chambers.
- xvi. There is the possibility of choke-up in manholes chambers due to improper benching. Perhaps, the sewer is not flowing in aligned direction from inlet to outlet of the manhole chamber.

Table 24: Detailed Observations of Approved Manhole Drawings

Sr. No.	Members of Manhole chamber	Provided/Executed as per Approved drawings	IS codes provisions
1	Thickness of PCC concrete bed	Provided 250 mm thick PCC concrete bed for 2 m depths of manhole and same 250 mm for 5m & 9m depths	As per the IS 4111:1986, Cl. 4.2, Page-11, the depth of manhole greater than 2.30m provide 300 mm thick of PCC concrete bed.
2	Thickness of brick walls of manhole	Provided Thickness for- Depth of manhole- 2m -230mm Depth of manhole- 5m -350mm Depth of manhole- 9m -450mm	Recommended Thickness for- Depth of manhole- 2m -230mm Depth of manhole- 5m -460mm Depth of manhole- 9m -580mm as per IS 4111:1986, Cl. 4.4, Page- 12
3	Cement-Mortar ratio for brickwork	Provided CM 1:4 ratio for brickwork	As per IS 4111:1986, Cl. 4.4, Page- 11, Recommended CM 1:5 ratio for brickwork
4	Benching of manholes	Provided the benching slope from bottom of pipe in C.C 1:2:4	As per IS 4111:1986, Cl. 4.7, Page- 12, Benching shall be semi-circular in

			bottom half and of diameter equal to sewer. Above the horizontal diameter, sides shall be extended vertically 50 mm above the crown of sewer pipe and the top edge shall be suitably rounded off. The branch channels shall also be similarly constructed with respect to the benching but at their junction with main channel, an appropriate fan, if required suitably rounded off in direction of flow in the main channel, shall be given. Hence, the sewer can flow easily in the aligned direction of sewer pipeline. (The typical manhole section as shown in comparison)
5	Cement-Mortar ratio for plastering	Not mentioned in drawings	As per IS 4111:1986, Cl. 4.5, Page- 12, Recommended CM 1:3 ratio for plastering work both side internal & external
6	Rungs in the manholes	Not shown in drawings	As per IS 4111:1986, Cl. 4.8, Page- 13, Rungs shall be provided in all manholes over 0.8 m in depth and shall preferably be of cast iron and of suitable dimensions. These rungs may be set staggered in two vertical runs, which may be 300 mm apart horizontally as well as vertically and shall project a minimum of 100 mm beyond the finished surface of the manhole wall. The top rung shall be 450 mm below the manhole cover and the lowest not more than 300mm above the benching. Footrests shall be painted with coal tar, the portion embedded in masonry on cement concrete block being painted with thick cement slurry before fixing. Hence, the labor can go easily and safely into the manhole chamber for cleaning and other maintenance works.
7	Clear Opening of Manhole chamber	Provided clear opening of 560 mm diameter for all depth of manholes.	As per IS 4111:1986, Cl. 4.9, Page- 13, The size of manhole covers shall be such that there shall be clear opening of not less than 560 mm diameter for manholes exceeding 0.9 m depth.
8	Grade & types of Precast Concrete manhole covers	Grade is not mentioned in drawings, Provided 560 mm Heavy Duty Circular Cover as per Testing Report of MH covers (Attached in Annex-VI, B, Page No. 93)	As per IS 12592:2002, Cl. 3, Page-1, Classification of manhole covers as per the load criteria. a) Light duty b) Medium duty c) Heavy duty d) Extra heavy duty

9	Comparison of Approved Manhole Drawing with IS Code Typical Section	
	<p>TYPICAL C.S. OF MANHOLE UP TO 9.0M DEPTH</p>	<p>SECTION AA</p>
	A. Section of Manholes in Approved Drawings	B. Typical section of circular manholes as per IS 4111:1986, Part-I, Clause 4, Fig 4

B. Sewage Treatment Plant (STP) 7 MLD capacity

- i. The STP was in working condition during visual inspection at the time of 1st site visit. The testing of inlet and outlet sample of sewage was found satisfactory as per testing reports of the Maharashtra Engineering Research Institute (MERI- Hydrology project) and as per tests conducted in the laboratory of STP (See Figure 19). The test of inlet and outlet samples has found satisfactory as per permissible limits described in CPHEEO Manual.
- ii. The STP is in working condition with effluent of 4.4 MLD as per present status report given by Chief Engineer, MJP, Div-Amravati to the Hon'ble Member Secretary, MJP, Mumbai vide letter No/MA/MJP/AM/TASHA-2/921; Dated 29/08/2020 (Attached in Annex-IX, Page No. 157).
- iii. As per visual inspection at the time of 2nd site visit as shown in Figure 45 & 46, the STP is in working condition. The testing of inlet and outlet sample of sewage are found satisfactory as per testing reports of the Maharashtra Engineering Research Institute (MERI- Hydrology project) (Monthly from 04/11/2019 to 18/02/2021) (Attached in Annex-VII, A, Page No. 100) and as per tests conducted in the laboratory of STP site (Daily from 12/10/2019 to 30/01/2021, Approved by AE-II, MJP, Sub Div-Khamgaon) (Attached in Annex-VII, A, Page No. 133).

C. Maintenance of the scheme

- i. The Work Order was issued to the contractor in year 2011 and the year of completion for execution works was 2013. It is observed that the construction of scheme works is prolonged by 5 years because the latest 56th R.A. bill was approved in year 2018.
- ii. The Shegaon Municipal Council, Shegaon (SMC) has received the complaints repeatedly regarding the choke-up in manholes and undulations in sewer pipeline at various locations such as **Lakhpati Galli area, Tadpura area, Lendi Talav, Yash Convent, Ramdev Baba nagar, Garib Navaz Masjid, Peth Mohalla, Bhoipura, Mahadev Mandir, Jogdi Fael, Toweri Krushi Kendra, Trimurti Chowk, Sarkari Fael, Khetan Medical, Maheshwari Bhavan area and Modi Nagar etc.**
- iii. The MJP has done all the repair works in the scheme as per completion report. The Executive Engineer, MJP, Div-Buldhana has requested repeatedly to Chief Officer, Municipal Council, Shegaon to take over the scheme for further maintenance works to avoid any future failures in the sewerage system as per letter No/TASHA/2568/2020; Dated 07/12/2020 (Attached in Annex-IX, Page No. 161).
- iv. The combined inspection for flow tests of sewer pipelines has also carried out by concerned MJP Engineers & Chief Officer, Shegaon Municipal Council, Shegaon at various areas such as **Tadpura area, Lendi Talav, Yash Convent, Ramdev Baba nagar, Garib Navaz Masjid, Peth Mohalla, Bhoipura, Mahadev Mandir, Lakhpati Galli area, Jogdi Fael, Toweri Krushi Kendra, Trimurti Chowk, Sarkari Fael, Khetan Medical, Maheshwari Bhavan area & Modi Nagar etc.** (Attached in Annex-VIII, Page No. 150).

13. Recommendations for overall scheme works by Third Party Technical Auditor

As discussed in observations of all sub works in revised recapitulation sheet (2019-20) repairs & rectification works in new Work Orders (2019-20). The following recommendations are made to continue the scheme for Shegaon City:

- i. The execution of all repairs and rectification works are completed as per completion report issued by MJP. The flow of sewer at various locations has found satisfactory as per flow test reports signed by the SMC & MJP officers during combined inspection. Also, the flow of sewer at various locations is found satisfactory as per visual inspection by GCOE, Pune. Hence, it is recommended to continue the further maintenance of "Underground Sewerage System in Shegaon city under Shegaon Tirthkshetra Development Plan, Tal-Shegaon, Dist-Buldhana" by any concerned authority.
- ii. As discussed in observations, the specifications of manholes in approved drawing are not followed as per the IS 4111:1986. So, the manhole chambers in overall sewerage network of scheme would be require regular cleaning works. However, the cleaning & maintenance works of manhole chambers of overall sewerage network should be regularly carried out to avoid any choke-up in the manhole chambers & sewer pipelines.
- iii. As per CPHEEO Manual, the maintenance of the whole scheme should be well planned. The sewerage system shall be divided into different areas and each area shall be maintained by individual maintenance teams. The maintenance works shall be carried out at regular intervals or as per requirements.
- iv. The maintenance team should check the manhole condition such as deposition of silt, flow, damaged walls or rungs, manhole covers and clogged vertical pipes etc.
- v. The maintenance team should check the sewer line between two successive manholes, to check the flow conditions, remove the deposited silt, check for any harmful and extraneous matter entering into sewer line.
- vi. The record of daily work done by team and also a record of work done on the sewer lines should be maintained so that chronic trouble spots may be investigated and remedial action taken.

14. On Site Photographs of Construction Works in Revised Tender (2017-18) and 1st Site Visit by GCOE, Pune



Figure 1. Third Party Audit Inspection by GCOE, Pune under the presence of Chief Engineer & Assistant Engineers of MJP, Chief Officer & Deputy Engineer of Municipal Council, Shegaon and representative of contractor.



Figure 2. Choke up observed in MH-1693 at Toweri krushi Kendra area



Figure 3. Choke up observed in MH-1696 at Toweri krushi Kendra area



Figure 4. Choke up observed in MH-363 at Sarkari Fael area

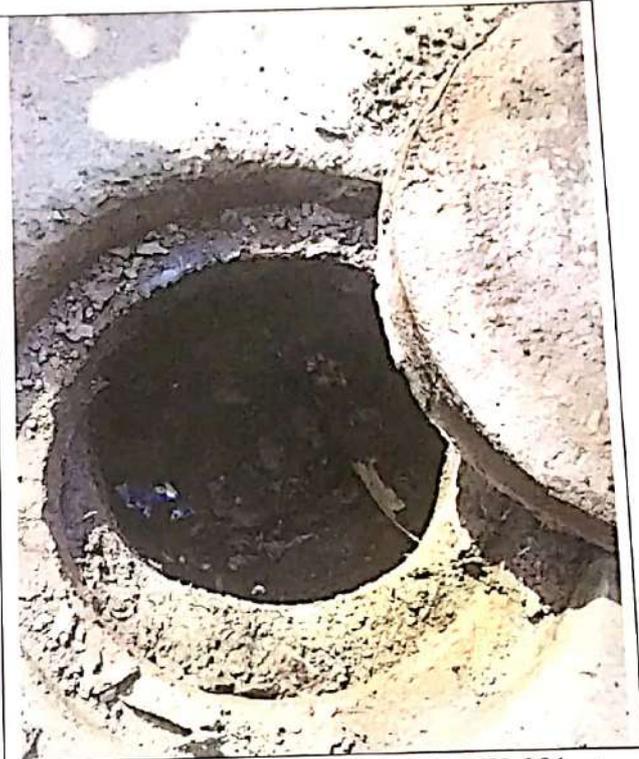


Figure 5. Choke up observed in MH-291 at Sarkari Fael area



Figure 6. Choke up observed in MH-143 at Lakpati Gally Area

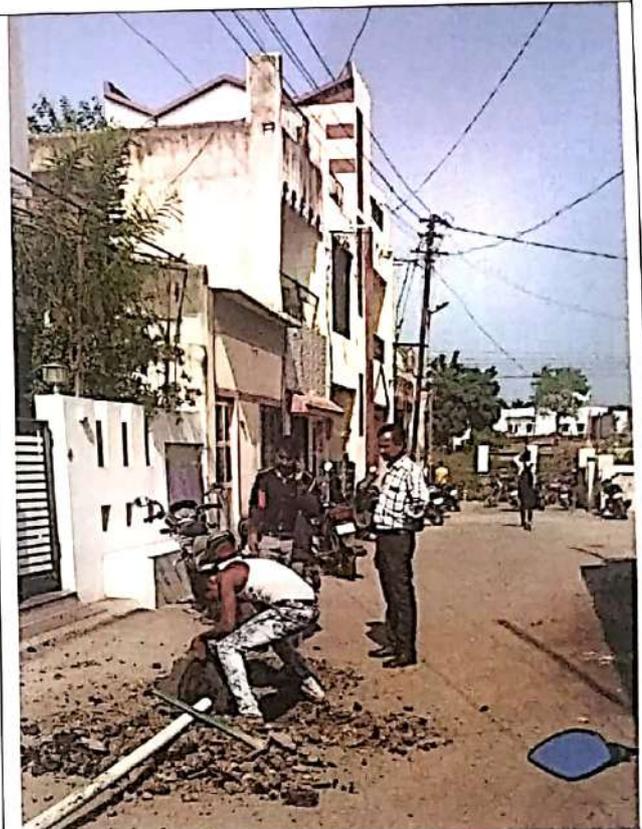


Figure 7. Progress of Rectification works in Lakhati Gally Area

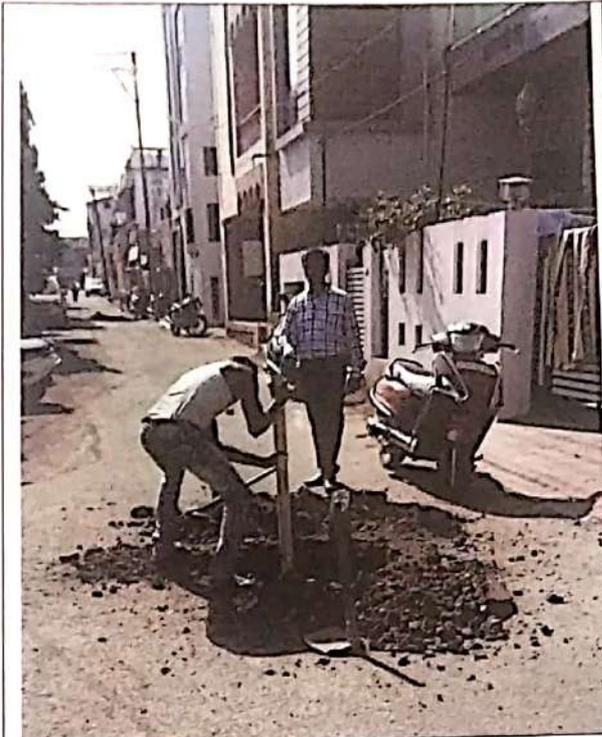


Figure 8. Progress of Rectification works in Lakhpati Gally Area

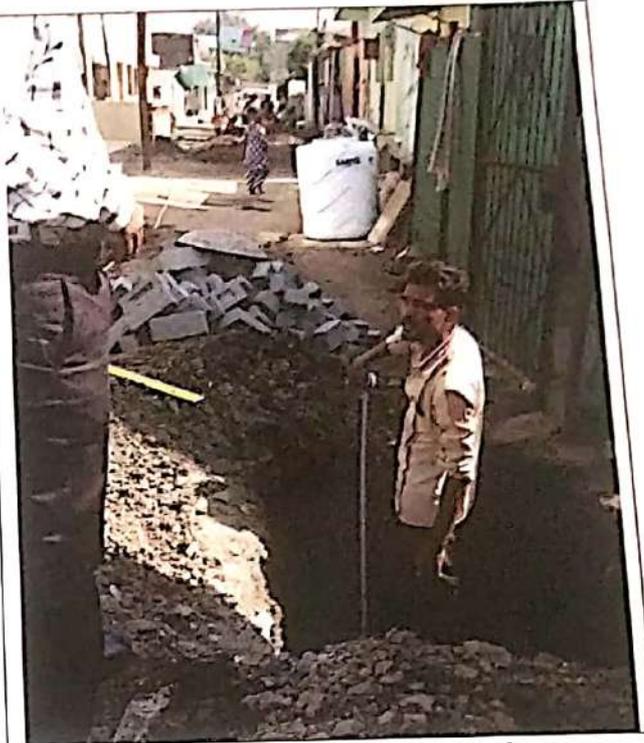


Figure 9. Progress of construction of property chambers in Sarkari Fael area



Figure 10. Progress of construction of property chambers in Sarkari Fael area

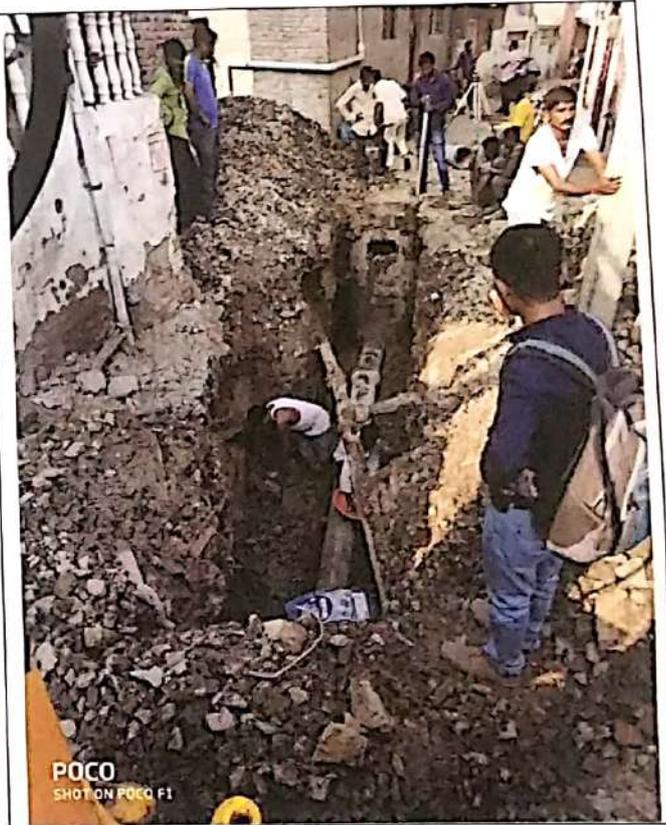


Figure 11. Progress of Reinstalling the sewer pipeline in Lendi Talav



Figure 12. Progress of Reinstalling the sewer pipeline in Ramdev Baba nagar



Figure 13. Progress of Reinstalling the sewer pipeline in Ramdev Baba nagar



Figure 14. Progress of construction of property chambers in Peth Mohalla

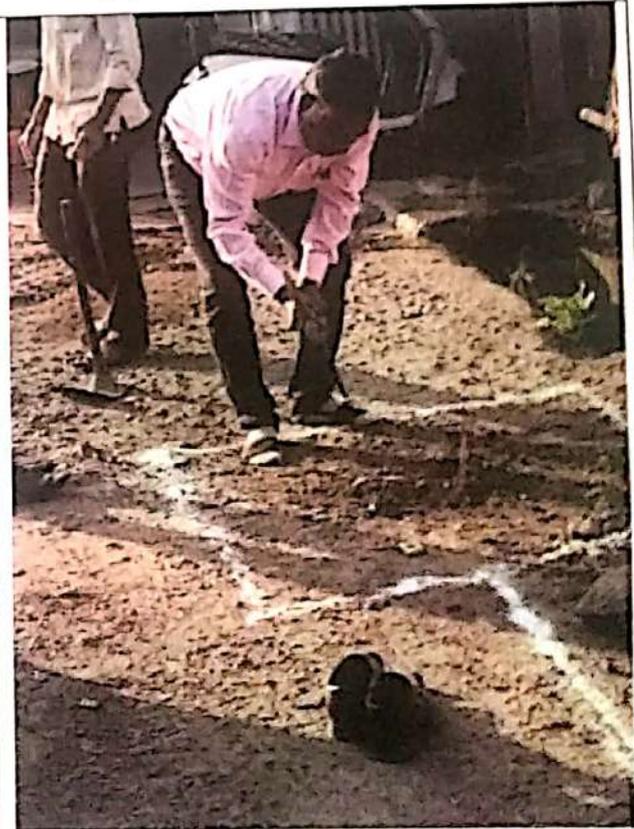


Figure 15. Progress of construction of property chambers in Shriram nagar

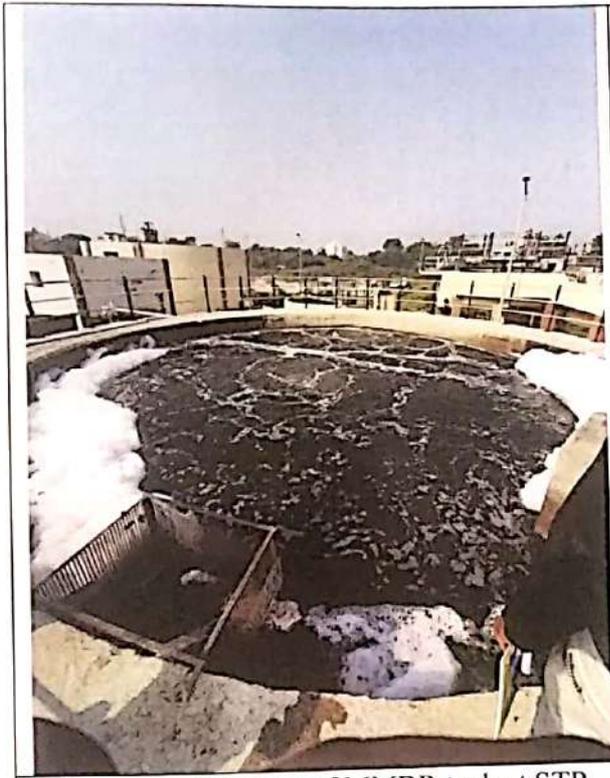


Figure 16. Working of MMBR tank at STP during site visit



Figure 17. Working of Clarifier tank at STP during site visit

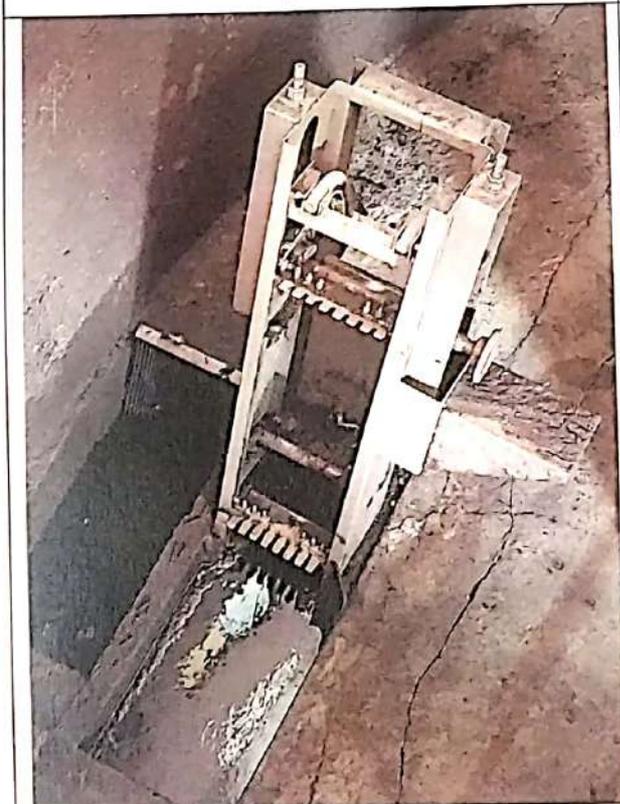


Figure 18. Mechanical and manual screen in sludge sump of STP.

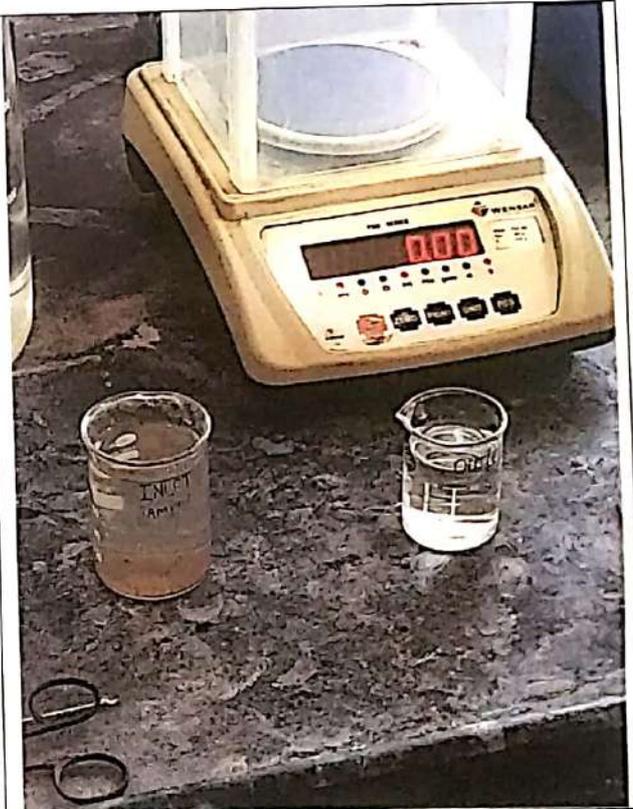


Figure 19. Sample of Inlet & Outlet of sewage during 1st site visit

15. On Site Photographs of Repairs & Rectification Works and 2nd Site visit by GCOE, Pune

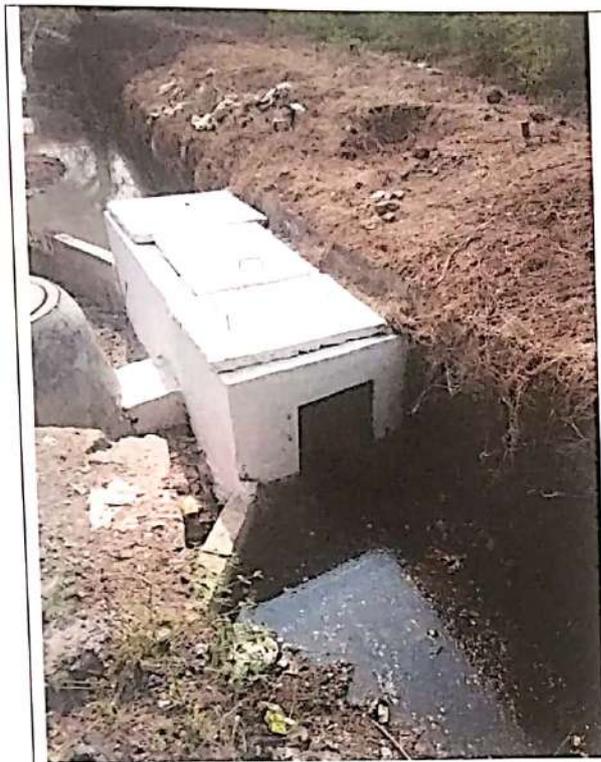


Figure 20. Construction of Collection chamber in Unad Nallah in Shegaon City

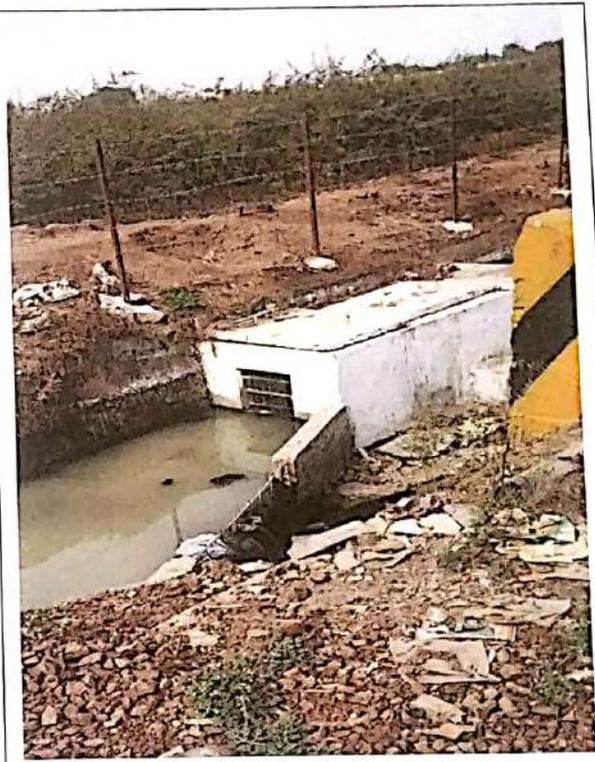


Figure 21. Construction of Collection chamber in Unad Nallah in Shegaon City



Figure 22. Execution of sewer pipeline RCC NP-2 150 mm dia. pipe in Lakhpati Galli area

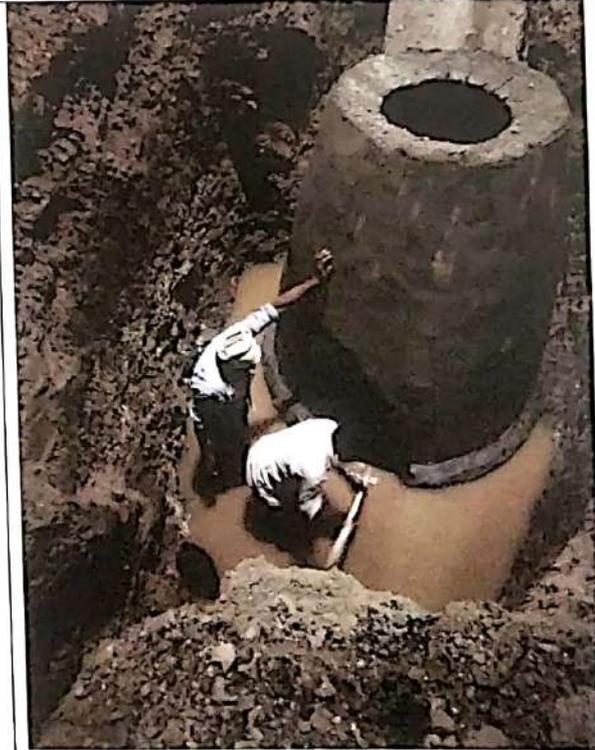


Figure 23. Execution of RCC manhole for sewer pipeline in Lakhpati Galli area

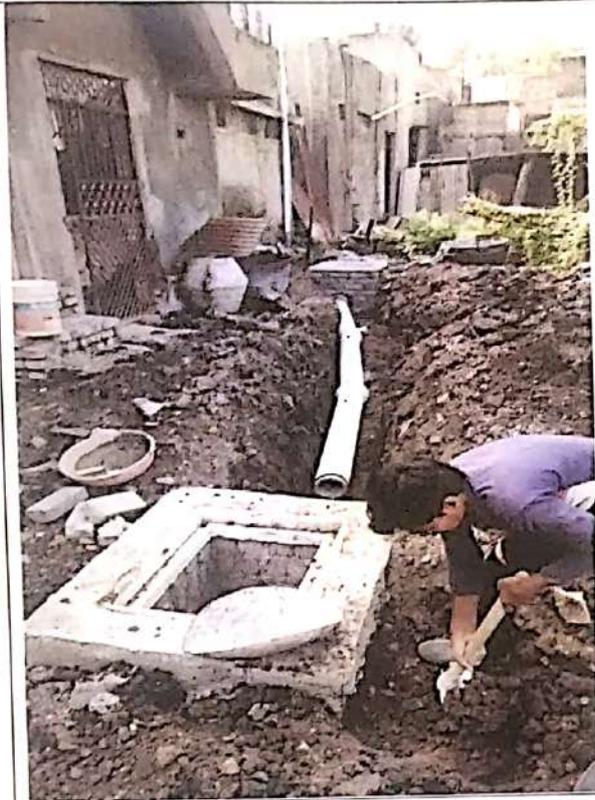


Figure 24. Execution of property chamber for sewer collection in Lakhpati Galli area

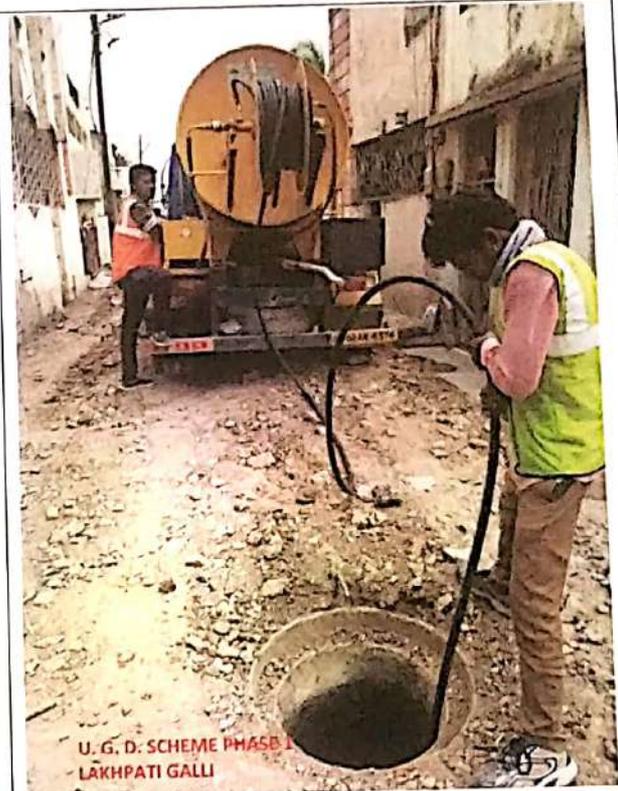


Figure 25. Cleaning of manholes & sewer pipelines in Lakhpati Galli area



Figure 26. Inspection of cleaning and repairing works by MJP officers

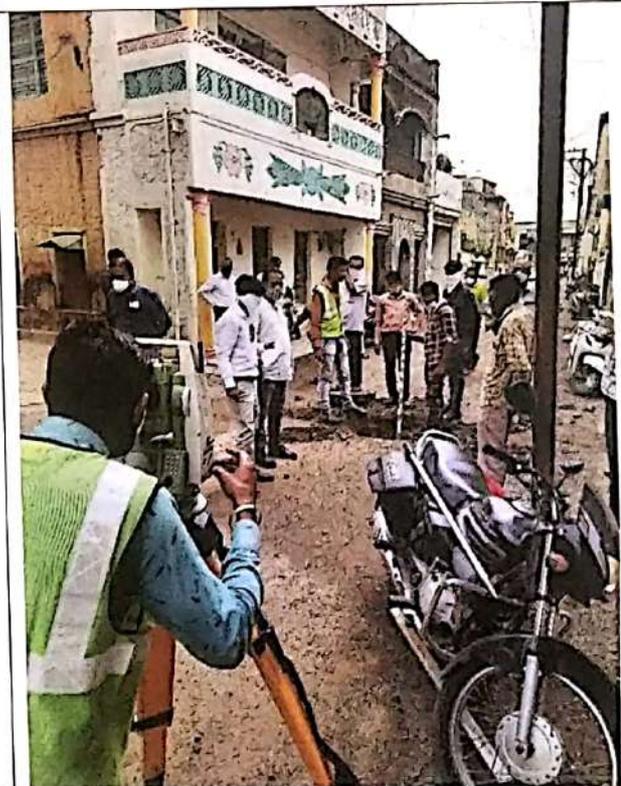


Figure 27. Cross checking of hydraulic levels of pipeline with executed levels by using Auto level in Lakhpati Galli area by GCOE, Pune.

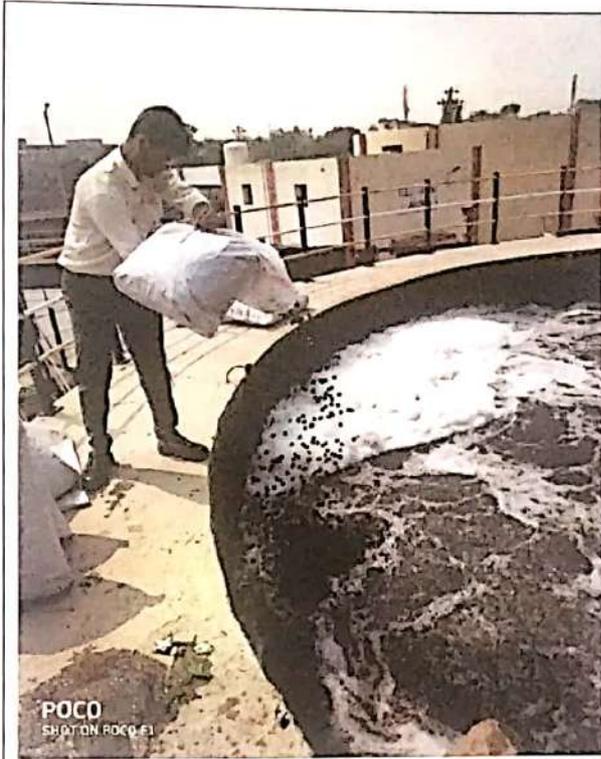


Figure 28. Provided Fluidized Random Bio Media in MBBR tank of STP.

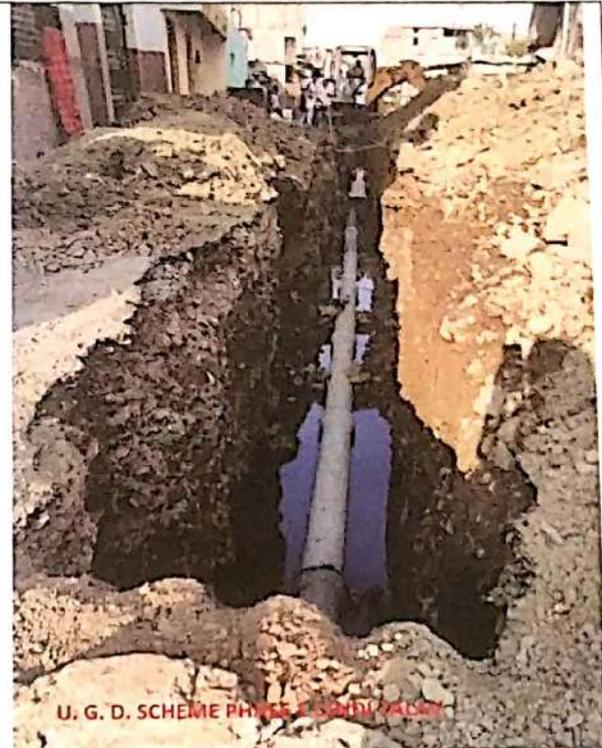


Figure 29. Execution of RCC sewer pipeline in Lendi Talav area

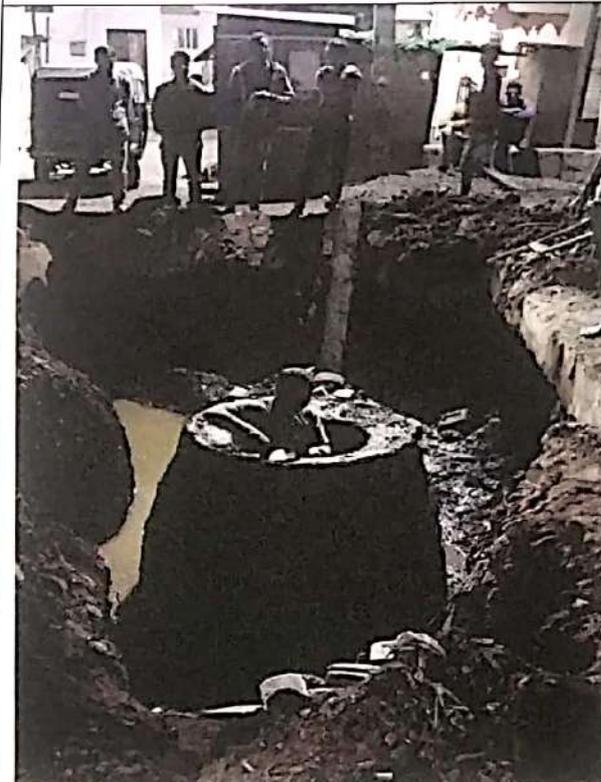


Figure 30. Execution of RCC manhole for sewer pipeline in Peth Mohalla



Figure 31. Reinstallation of RCC sewer pipeline in Yash Convent area



Figure 32. Execution of RCC sewer pipeline in Toweri Krushi kendra area



Figure 33. Cleaning works of sewer pipelines and manholes in Unad Nallah

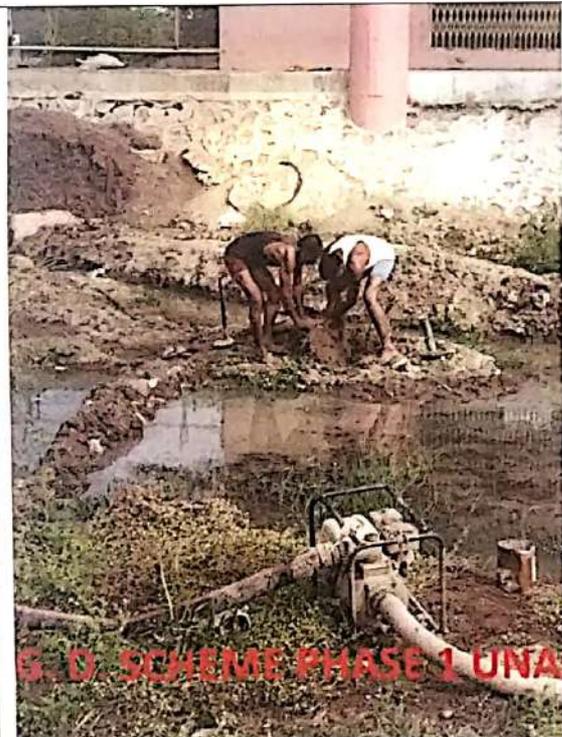


Figure 34. Cleaning works of sewer pipelines and manholes in Unad Nallah



Figure 35. Sludge Thickener Tank at STP after cleaning works completion

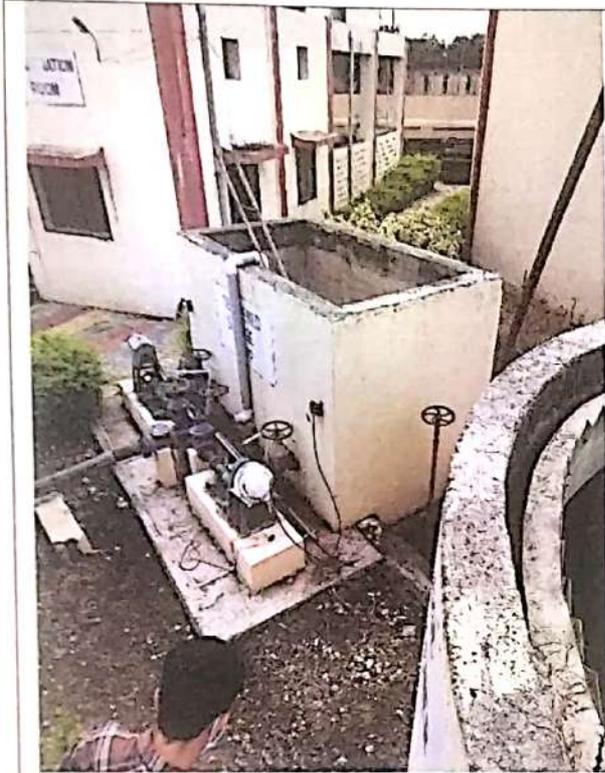


Figure 36. Thickened Sludge Sump at STP after cleaning works completion

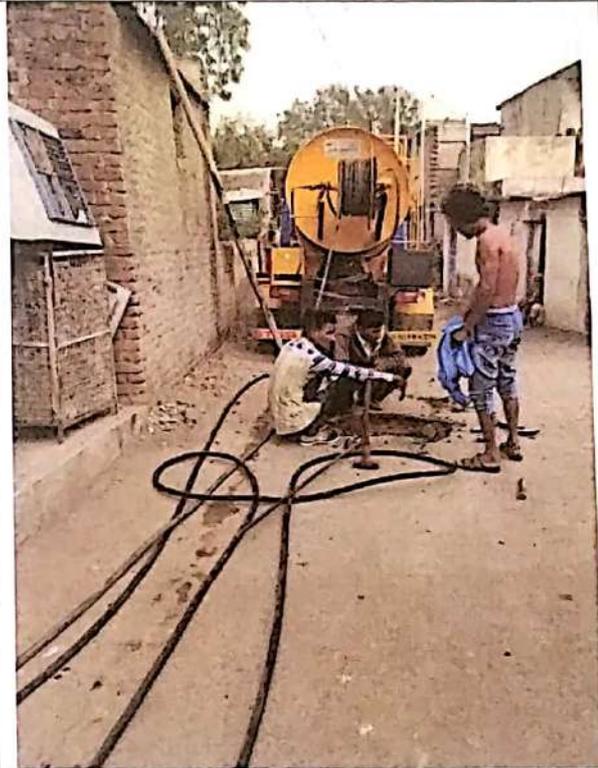


Figure 37. Cleaning works of sewer pipelines and manholes at Gujrathi Housing Society

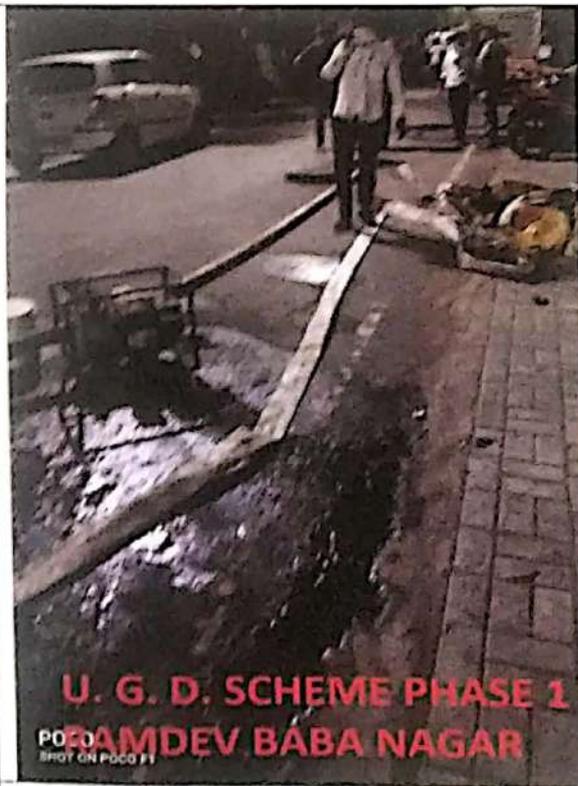


Figure 38. Cleaning works of sewer pipelines and manholes at Ramdev Baba nagar

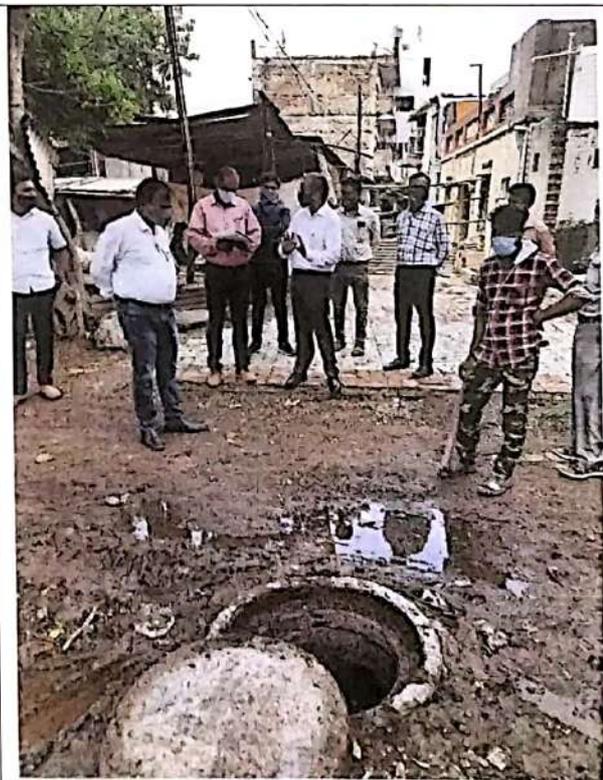


Figure 39. Inspection of sewer pipeline with Manholes MH 218 at Ramdev Baba nagar area

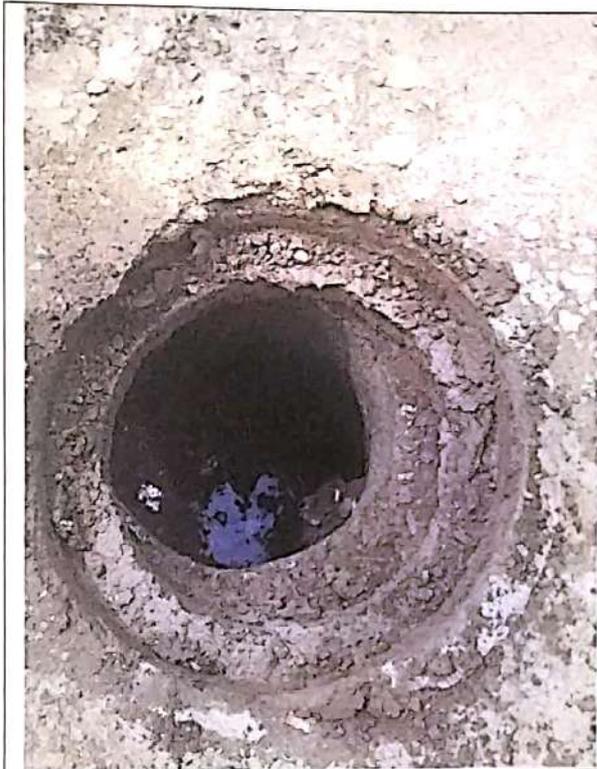


Figure 40. Inspection of sewer pipeline with Manholes at Sarkari Fael area



Figure 41. Inspection of sewer pipeline with Manholes at Jogdi Fael area



Figure 42. Inspection of sewer pipeline with Manholes at Bhoipura area



Figure 43. Cross checking of levels of sewer pipeline by using Auto-level at Lakhpati galli area by GCOE, Pune

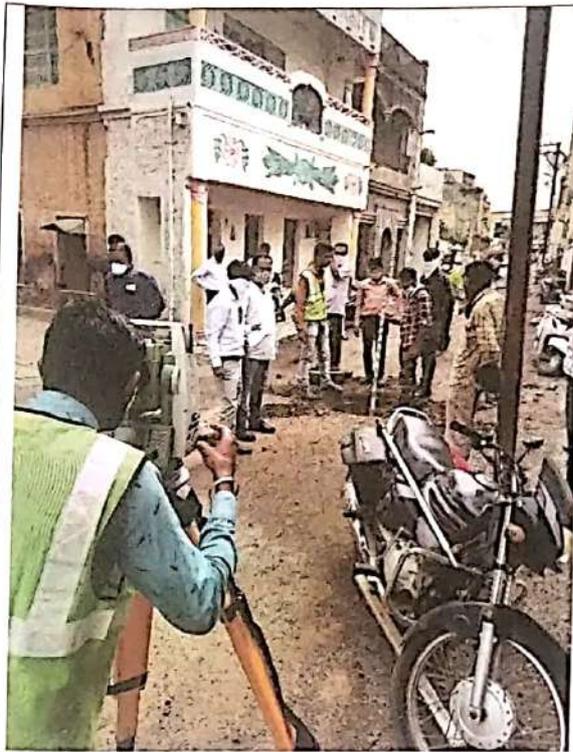


Figure 44. Cross checking of levels of sewer pipeline by using Auto-level at Lakhpati galli area by GCOE, Pune

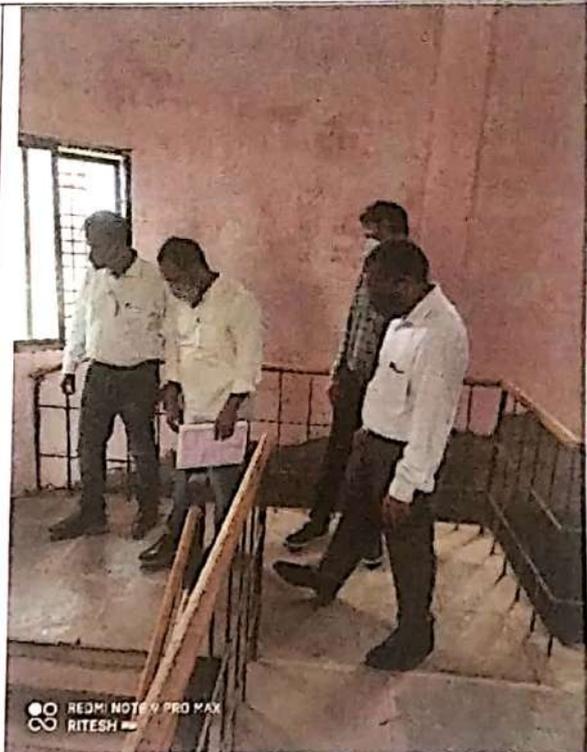


Figure 45. Inspection of STP units by third-party technical auditor (GCOE, Pune)



Figure 46. Inspection of STP units by third-party technical auditor (GCOE, Pune) along with MJP Engineers & SMC Officers

16. Conclusion

The 1st third party technical audit inspection report on “Underground Sewerage System in Shegaon city under Shegaon Tirthkshetra Development Plan, Tal-Shegaon, Dist-Buldhana” was carried out based on the visual inspection with all relevant documents of the existing construction scheme at the time of site visit on dated 16/11/2019 & 17/11/2019. The technical audit was conducted for works completed between 16/11/2011 to 17/11/2019.

The 1st third party technical audit inspection report including all observations was issued to the Commissioner and Director, Directorate of Municipal Administration, Mumbai vide letter No/GCOEP/CIVIL/NAH/CONS/2019/1168; dated 26/12/2019. Based on this report, the progress of scheme works was about 89.55% for Rs. 33,57,50,055.74/- as per approved 56th R. A. Bill; dated- 31/03/2018.

The 2nd (Final) third party technical audit inspection report on “Underground Sewerage System in Shegaon city” is carried out based on the visual inspection with all relevant documents of overall execution works in the scheme such as underground sewerage collection system, construction of STP 7 MLD capacity & maintenance of the scheme for 3 years after completion of all execution works and various repairs & rectification works as per new Work Orders at the time of site visit on dated 08/10/2020 & 09/10/2020. The 2nd (Final) third party technical audit inspection report is issued to the Commissioner and Director, Directorate of Municipal Administration, Mumbai vide letter No/GCOEP/CIVIL/NAH/CONS/2021/1199; dated 22/02/2021.

The overall scheme works with all repairs & rectifications as per new 8 Work Orders of "Underground Sewerage System in Shegaon city under Shegaon Tirthkshetra Development Plan, Tal-Shegaon, Dist-Buldhana" are 100% completed on 28/06/2020 as per the completion report issued by Executive Engineer, MJP, Div-Buldhana (Attached in Annex-IX, Page No. 154).

The construction of ‘Underground Sewerage System in Shegaon City’ was completed in the year 2018 before the commencement of 1st site visit by GCOE, Pune dated 17/11/2019. The hydraulic levels of sewer pipelines in approved network plans were demanded at the time of both site visits by third-party technical auditor (GCOE, Pune). But it was not provided by the M/s. Fortress Infra. Advisory Services, Mumbai (Planning Agency), M/s. SMS Paryavaran Ltd., New Delhi (Contractor), MJP (Executing Agency) and Shegaon Municipal Council, Shegaon until the 2nd site visit. Therefore, third-party technical auditor was unable to verify the invert levels of laid sewer pipelines with respect to designed invert levels. However, the third-party technical auditor has cross checked the executed RLs (Ground Level & Invert Level) of sewer pipeline randomly by using Auto level instrument. The on-site levels of sewer pipeline are found same as per the levels in the L-section plans which were only available at the time of site visit and not approved by any concerned authorities for execution.

The cross sections of executed manhole chambers are not followed as per the specifications of IS 4111:1986 (Code of Practice for Ancillary Structures in Sewerage System; Part 1: Manholes). So, there is the possibility of choke-up in manhole chambers due to improper benching. Perhaps, the sewer is not flowing in aligned direction from inlet to outlet of the manhole chamber. Hence, it is necessary to carry out the regular cleaning works of manhole chambers in overall sewerage network of scheme to get proper flow of sewer towards the STP.

The RCC design & drawings of STP 7 MLD capacity was approved by VNIT, Nagpur for further construction. The STP is effectively working at the time of both site visits and the inlet & outlet samples of sewage are tested regularly in the laboratory of Maharashtra Engineering Research Institute, Nashik (MERI) and STP site's laboratory which are found satisfactory as per prescribed limits in CPHEEO Manual.

Based on the observations (Sr. No. 12, Page No. 29), the maintenance works of overall scheme such as cleaning of sewer pipelines & manhole chambers and operations of STP required more attention to avoid any discrepancy in the future. Hence, it is recommended to continue the further maintenance works of "Underground Sewerage System in Shegaon City" by any concerned authority and follow the recommendations (Sr. No. 13, Page No. 35) to achieve the maximum designed efficiency of the scheme.



Hedao
22/02/24
Dr. Namdeo A. Hedao
(M.Tech. & Ph.D Structures)
Associate Professor
Department of Civil Engineering
Govt. College of Engineering, Pune -05

ANNEXURE-I

**Approved Network Plan submitted by
M/S Fortress Infra. Advisory Services,
Mumbai (PMC) after 1st Site Visit by
GCOE, Pune (2019)**

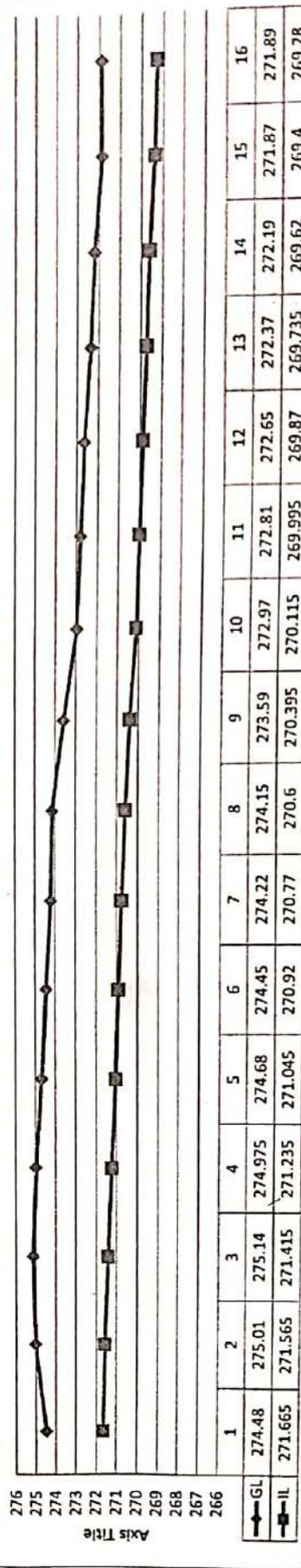
ANNEXURE-II

**Approved Network Plan with all
Hydraulic levels and Flow Direction of
Sewer submitted by MJP after 2nd Site
Visit by GCOE, Pune (2020)**

Details of Lakhpati Galli

MH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Dia of Pipe	150mm	150mm	150mm	150mm	150mm	150mm	150mm	150mm	150mm	150mm	200mm	200mm	200mm	200mm	200mm	200mm
Chainage	0	43.60	84.80	113.00	144.40	175.00	212.70	245.70	278.70	302.70	331.10	359.00	390.10	422.30	459.70	491.40
C/C Length	0.00	43.60	41.20	28.20	31.40	30.60	37.70	33.00	33.00	24.00	28.40	27.90	31.10	32.20	37.40	31.70
GL	274.48	275.01	275.14	274.975	274.68	274.45	274.22	274.15	273.59	272.97	272.81	272.65	272.37	272.19	271.87	271.89
IL	271.665	271.565	271.415	271.235	271.045	270.92	270.77	270.6	270.395	270.115	269.995	269.87	269.735	269.62	269.4	269.28
Depth of MH	2.815	3.445	3.725	3.74	3.635	3.53	3.45	3.55	3.195	2.855	2.815	2.78	2.635	2.57	2.47	2.61
Remark	Existing MH no.2 from entrance	To be reconstructed	Entrance at new MH of Lakhpati Galli	New MH	New MH	New MH	New MH	New MH at Shivaji, Chouk	New MH	New MH	New MH	New MH	New MH	New MH	New MH	Existing MH below flyover

L-SECTION LAKHPATI GALLI



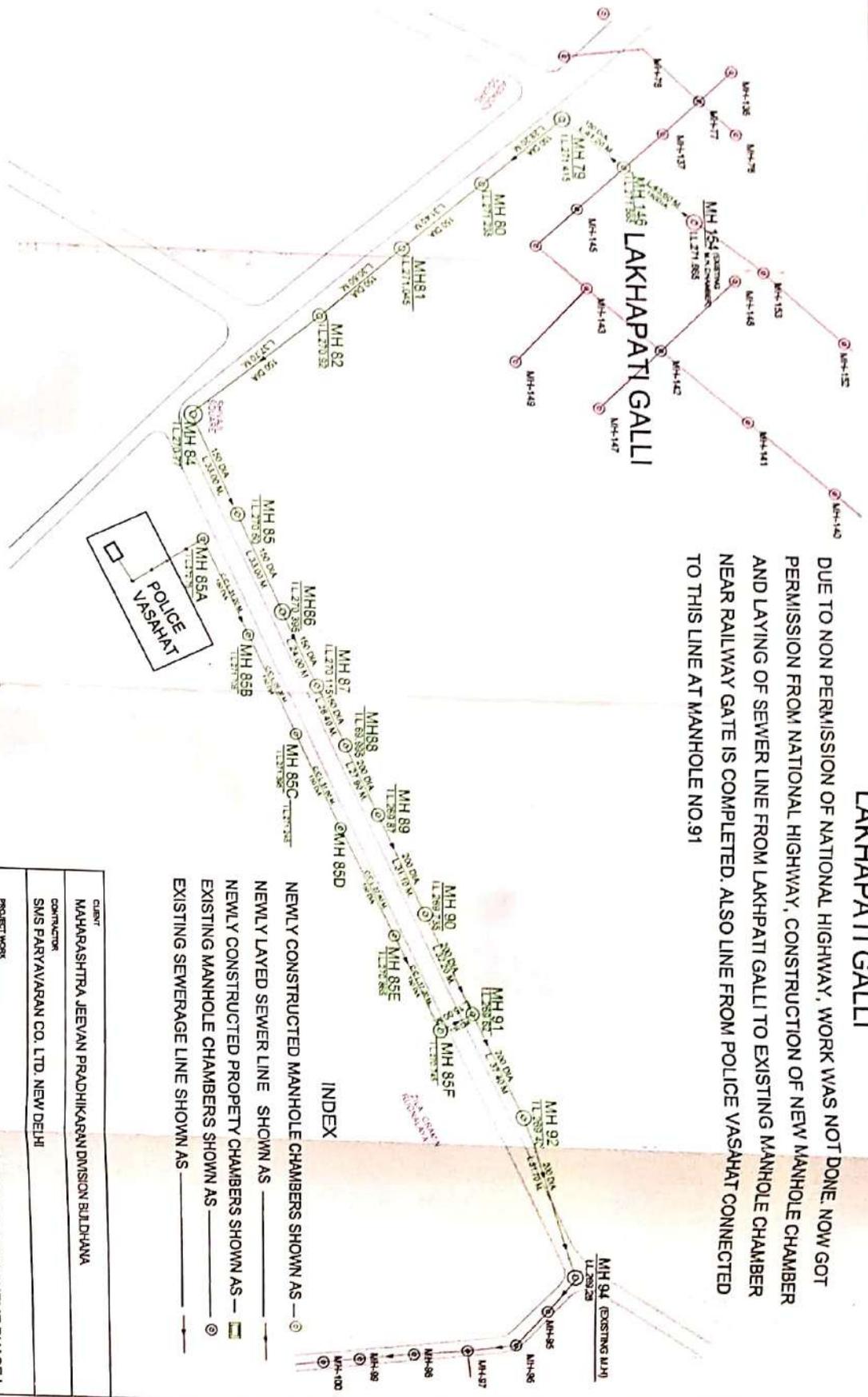
881/25

ANNEXURE-III

**Approved Network Plans of Repairs
and Rectification Works at Various
Locations as per New 8 Work Orders**

LAKHPATI GALLI

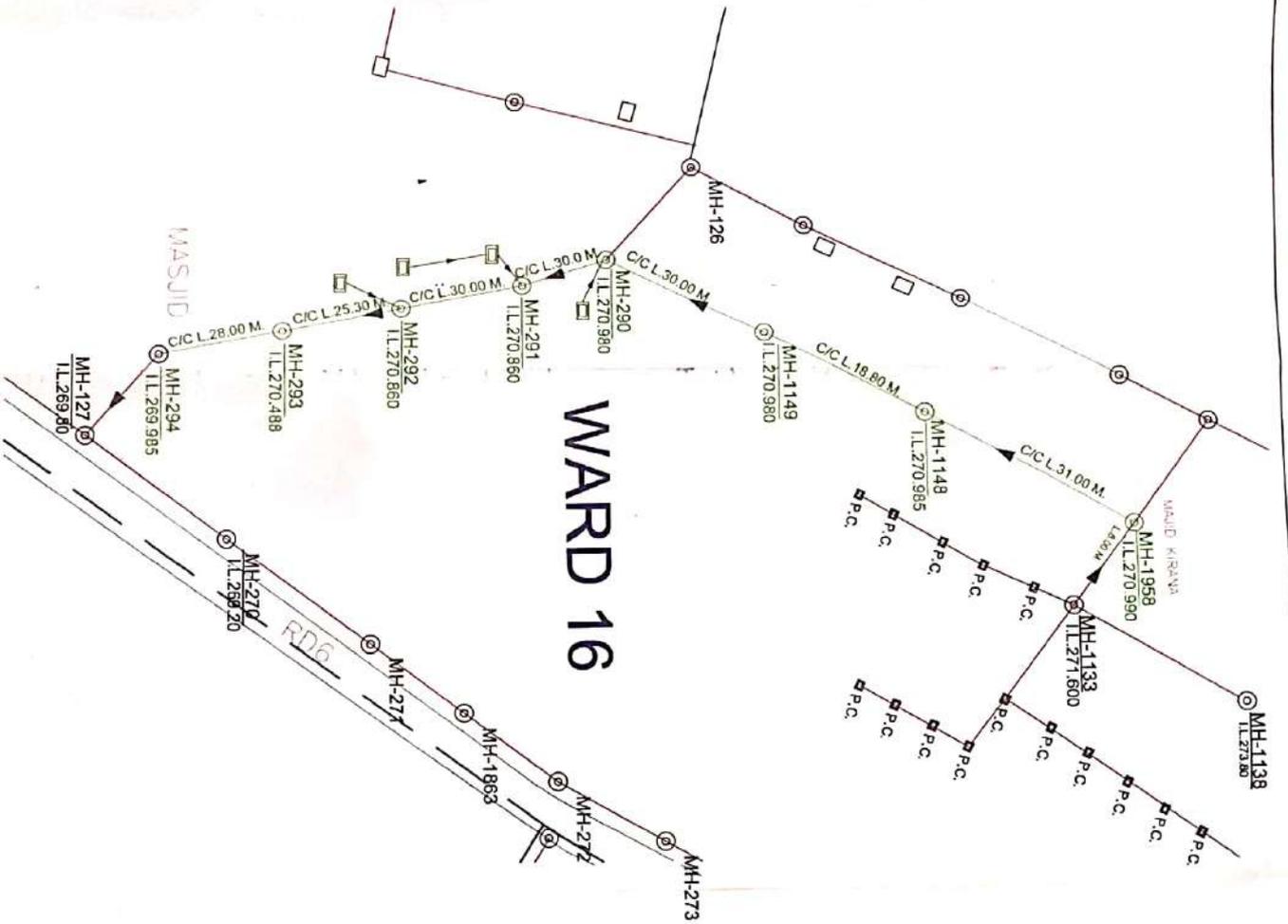
DUE TO NON PERMISSION OF NATIONAL HIGHWAY, WORK WAS NOT DONE. NOW GOT PERMISSION FROM NATIONAL HIGHWAY, CONSTRUCTION OF NEW MANHOLE CHAMBER AND LAYING OF SEWER LINE FROM LAKHPATI GALLI TO EXISTING MANHOLE CHAMBER NEAR RAILWAY GATE IS COMPLETED. ALSO LINE FROM POLICE VASAHAT CONNECTED TO THIS LINE AT MANHOLE NO.91



INDEX

- NEWLY CONSTRUCTED MANHOLE CHAMBERS SHOWN AS - (circle with dot)
- NEWLY LAYED SEWER LINE SHOWN AS - (dashed line)
- NEWLY CONSTRUCTED PROPERTY CHAMBERS SHOWN AS - (square with dot)
- EXISTING MANHOLE CHAMBERS SHOWN AS - (circle with dot)
- EXISTING SEWERAGE LINE SHOWN AS - (solid line)

CLIENT MAHARASHTRA JEEVAN PRADHIKARAN DIVISION BULDHANA	
CONTRACTOR SMS PARYAVARAN CO. LTD. NEW DELHI	
PROJECT WORK DEVELOPMENT OF UNDERGROUND SEWERAGE SCHEME PHASE I FOR SHEGAON CITY TQ. SHEGAON DISTT BULDHANA	
DRAWING TITLE RECTIFICATION WORK AT LAKHPATI GALLI	
WORK ORDER NO. B1 - 17 OF 2019-20 DT:31/10/2019	
DRAWING NO. SHGLUD-1/RECT.WORK/1	SHEET NO. 1 OF 11
SCALE - NOT TO SCALE	DATE
DRAWN BY	REV. NO.
CHD. BY	
DRAWING STATUS - AS PER RECTIFICATION	
APPROVED BY	



WARD 16

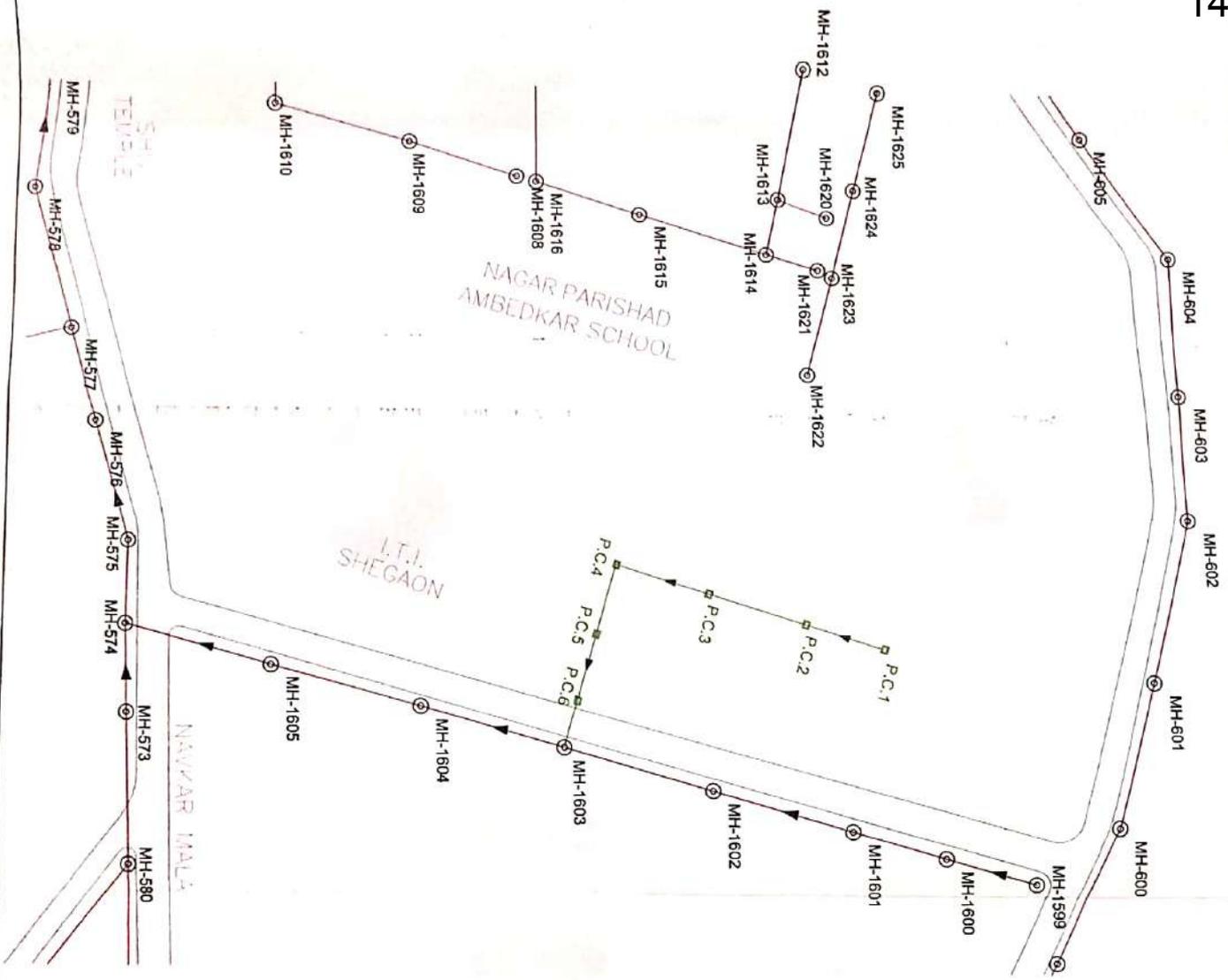
LENDI TALAV

DUE TO DENSITY OF PROPERTY CONNECTION SEWER LINE FROM MH 1958 TO MH 294 REPLACED BY HIGHER DIAMETER OF PIPE

INDEX

- NEWLY CONSTRUCTED MANHOLE CHAMBERS SHOWN AS --- ○
- NEWLY LAYED SEWER LINE SHOWN AS _____
- NEWLY CONSTRUCTED PROPERTY CHAMBERS SHOWN AS --- □
- EXISTING MANHOLE CHAMBERS SHOWN AS --- ○
- EXISTING SEWERAGE LINE SHOWN AS _____

CLIENT MAHARASHTRA JEEVAN PRADHIKARAN DIVISION BULDHANA			
CONTRACTOR SMS PARYAVARAN CO. LTD. NEW DELHI			
PROJECT WORK DEVELOPMENT OF UNDERGROUND SEWERAGE SCHEME PHASE I FOR SHEGAON CITY TQ. SHEGAON DISTT BULDHANA			
DRAWING TITLE RECTIFICATION WORK AT LENDI TALAV AREA			
DRAWING NO. SH/GU/D-1/RECT.WORK/2		SHEET NO. 2 OF 11	
SCALE - NOT TO SCALE		DRAWN BY: <i>[Signature]</i>	CHD BY: <i>[Signature]</i>
DRAWING STATUS -- AS RER RECTIFICATION		REV. NO.	
APPROVED BY	SUB DIVISIONAL OFFICER MAP S/LE/IN KAWGAON		EXECUTIVE ENGINEER MAP DIVISION KAWGAON



TADPURA

DUE TO REVERSE SLOPE OF PROPERTY CHAMBER LINE THE SEWAGE LINE RELAYED AND SIX PROPERTY CHAMBER RECONSTRUCTED. CONNECTED TO MH 1603

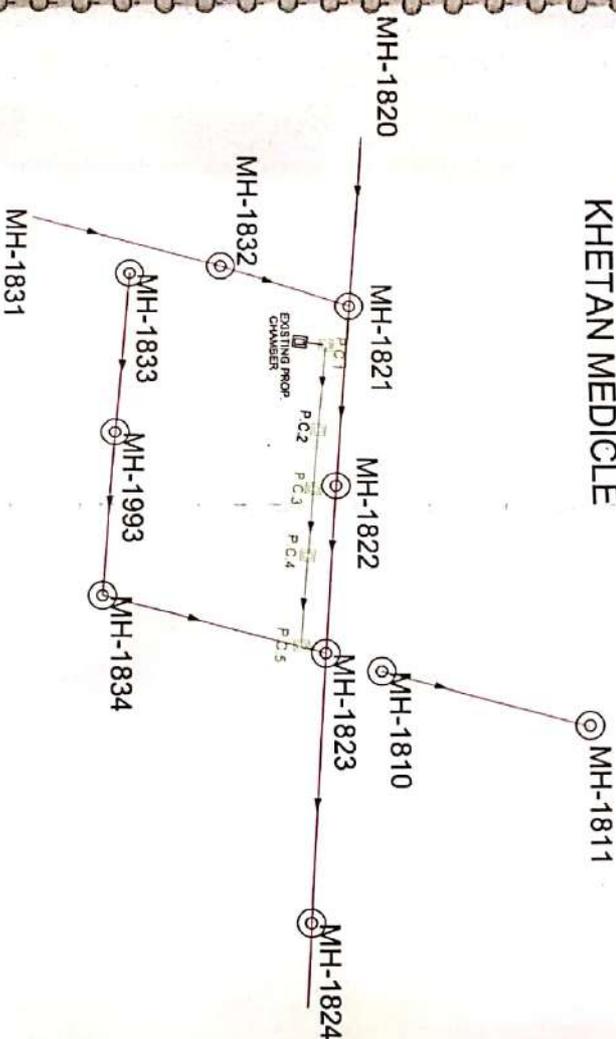
INDEX

- 150 MM DIA RCC PIPE RELAYED SHOWN AS _____
- NEWLY CONSTRUCTED PROPERTY CHAMBERS SHOWN AS _____
- EXISTING MANHOLE CHAMBERS SHOWN AS _____
- EXISTING SEWERAGE LINE SHOWN AS _____

CLIENT MAHARASHTRA JEEVAN PRADHIKARAN DIVISION BULDHANA	
CONTRACTOR SMS PARYAVARAN CO. LTD. NEW DELHI	
PROJECT WORK DEVELOPMENT OF UNDERGROUND SEWERAGE SCHEME PHASE I FOR SHEGAON CITY TQ. SHEGAON DISTT BULDHANA	
DRAWING TITLE RECTIFICATION WORK AT TADPURA	
WORK ORDER NO. B1 - 170F 2019-20 DT. 31/10/2019	
DRAWING NO. SHG/UGD-1/RECT.WORK/3	SHEET NO. 3 OF 11
SCALE - NOT TO SCALE	DRAWN BY: _____ CHD. BY: _____ DATE
DRAWING STATUS - AS PER RECTIFICATION	REV. NO.
APPROVED BY: _____ S.E. DIVISION OFFICER U.P. S.B. DIVISION BULDHANA	DESIGNED BY: _____ S.E. DIVISION BULDHANA

KHETAN MEDICLE

KHETAN MEDICLE



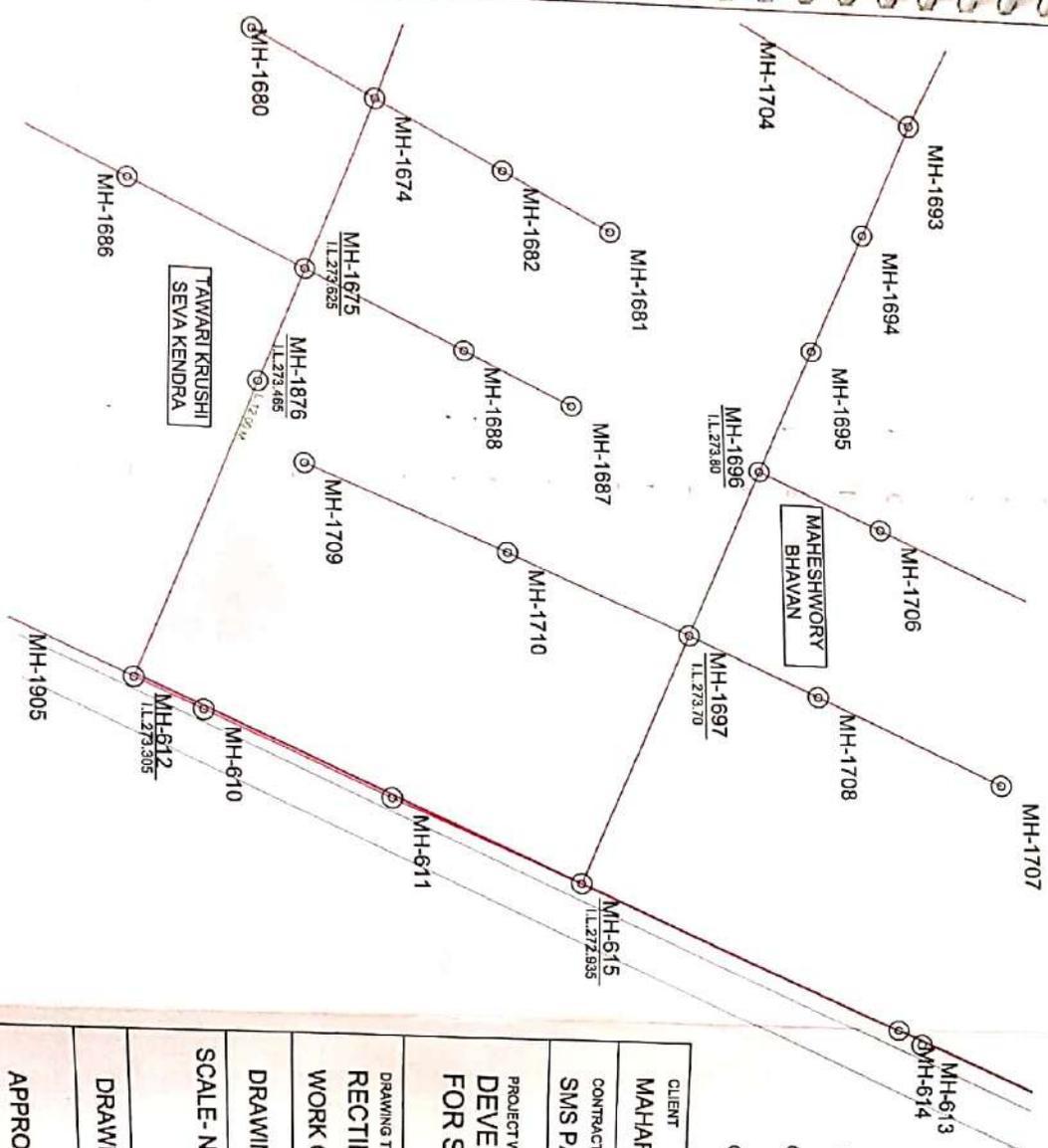
4 PROPERTY CHAMBER NEWLY CONSTRUCTED AND CONNECTED TO MH 1823 ON RD-18 ROAD

INDEX

- 150 MM DIA DW HDPE PIPE NEWLY LAYED SHOWN AS _____
- NEWLY CONSTRUCTED PROPERTY CHAMBERS SHOWN AS _____
- EXISTING PROPERTY CHAMBERS SHOWN AS _____
- EXISTING MANHOLE CHAMBERS SHOWN AS _____
- EXISTING SEWER LINE SHOWN AS _____

CLIENT MAHARASHTRA JEEVAN PRADHIKARAN DIVISION BULDHANA			
CONTRACTOR SMS PARYAVARAN CO. LTD. NEW DELHI			
PROJECT WORK DEVELOPMENT OF UNDERGROUND SEWERAGE SCHEME PHASE I FOR SHEGAON CITY TQ. SHEGAON DISTT BULDHANA			
DRAWING TITLE RECTIFICATION WORK AT KHETAN MEDICLE			
WORK ORDER NO. B1 - 17 OF 2019-20 DT. 31/10/2019			
DRAWING NO. SHG/UGD-1/RECT.WORK/4		SHEET NO. 4 OF 11	
SCALE- NOT TO SCALE	DRAWN BY. <i>[Signature]</i>	CHD.BY. <i>[Signature]</i>	DATE
DRAWING STATUS-- AS RER RECTIFICATION		REV.NO.	
APPROVED BY	<i>[Signature]</i> SUB DIVISIONAL OFFICER MJP SUB DN KHAMGAON	EXECUTIVE ENGINEER MJP DIVISION BULDHANA	

MAHESHWORY BHAVAN AND TAWARI KRUSHI SEVA KENDRA



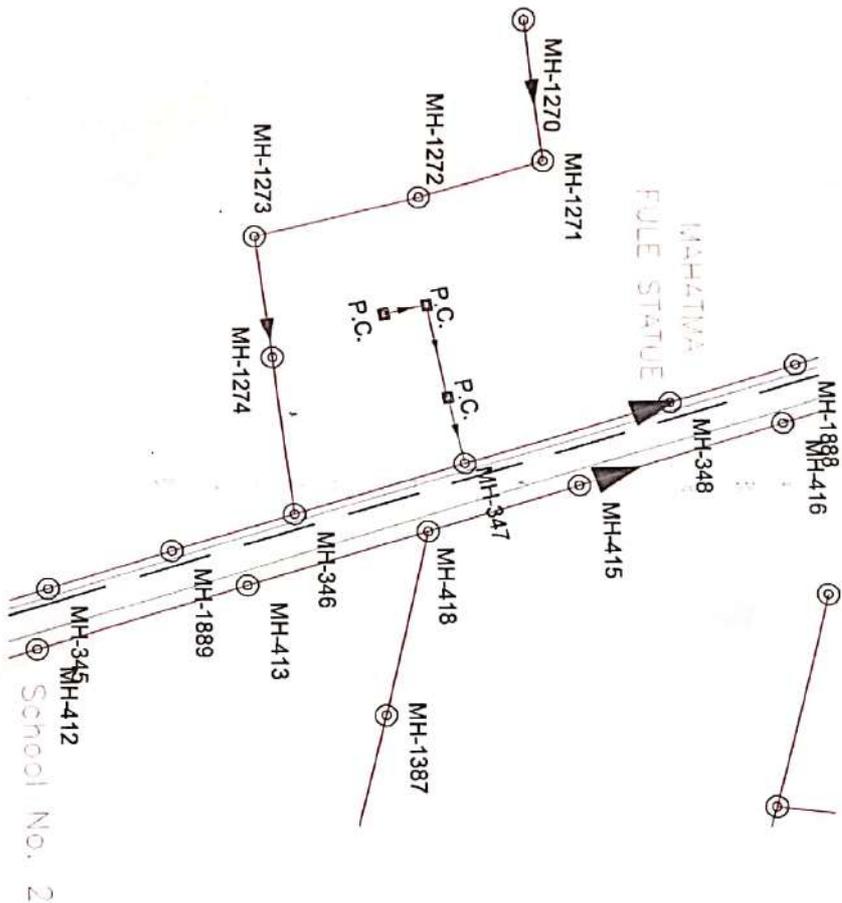
- 1) MAHESHWARI BHAVAN 8M LINE RELAYED DUE TO BLOCKAGE BETWEEN MH 1696 TO MH NO. 1997 BY MUNICIPAL COUNCIL.
- 2) TAWARI KRUSHI KENDRA 12M LINE RELAYED DUE TO BLOCKAGE BETWEEN MH 1876 TO MH 612 BY MJP

INDEX

- 150 MM DIA RCC PIPE RELAYED SHOWN AS ————→
- EXISTING MANHOLE CHAMBERS SHOWN AS ○
- EXISTING SEWERAGE LINE SHOWN AS - - - - -

CLIENT MAHARASHTRA JEEVAN PRADHIKARAN DIVISION BULDHANA	
CONTRACTOR SMS PARYAVARAN CO. LTD. NEW DELHI	
PROJECT WORK DEVELOPMENT OF UNDERGROUND SEWERAGE SCHEME PHASE I FOR SHEGAON CITY TQ. SHEGAON DIST BULDHANA	
DRAWING TITLE RECTIFICATION WORK AT MAHESHWORI BHAVAN AND TAORI KRISHI KENDRA	
WORK ORDER NO. B1 - 18 OF 2019-20 DT. 7/11/2019	
DRAWING NO. SHG/UGD-1/RECT.WORK/5	SHEET NO.5 OF 11
SCALE - NOT TO SCALE	DATE
DRAWN BY. <i>[Signature]</i>	CHD. BY. <i>[Signature]</i>
DRAWING STATUS - AS RER RECTIFICATION	
APPROVED BY	REV. NO.
<i>[Signature]</i> SUB DIVISIONAL OFFICER MAP SUB DN KHAMGAON	<i>[Signature]</i> EXECUTIVE ENGINEER MAP DIVISION BULDHANA

TRIMURTI NAGAR



PROPERTY CONNECTION TO EXISTING MH 347 WAS BROKEN BY PWD IN CONSTRUCTION OF RCC DRAIN. NOW CONNECTION RESTORED.

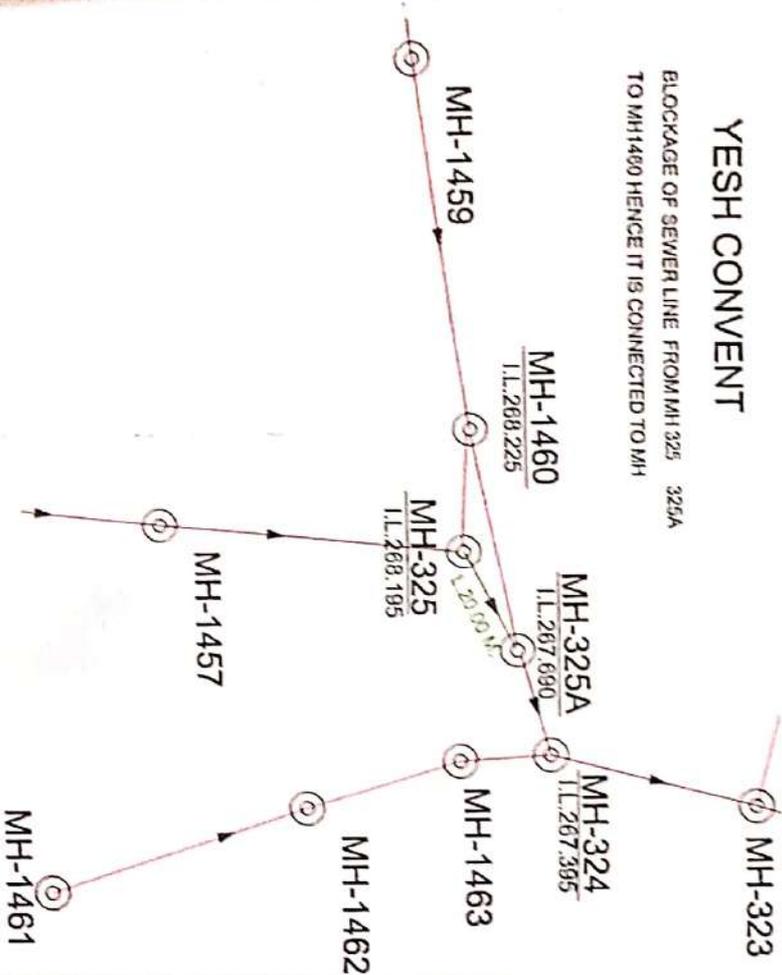
INDEX

- 150 MM DIA RCC PIPE RECONNECTED SHOWN AS
- EXISTING PROPERTY CHAMBERS SHOWN AS
- EXISTING MANHOLE CHAMBERS SHOWN AS
- EXISTING SEWER LINE SHOWN AS

CLIENT MAHARASHTRA JEEVAN PRADHIKARAN DIVISION BULDHANA			
CONTRACTOR SMS PARYAVARAN CO. LTD. NEW DELHI			
PROJECT WORK DEVELOPMENT OF UNDERGROUND SEWERAGE SCHEME PHASE I FOR SHEGAON CITY TQ. SHEGAON DISTT BULDHANA			
DRAWING TITLE RECTIFICATION WORK AT TRIMURTI NAGAR			
WORK ORDER NO. B1 - 17 OF 2019-20 DT. 31/10/2019			
DRAWING NO. SHG/UGD-1/RECT.WORK/ 6		SHEET NO. 6 OF 11	
SCALE - NOT TO SCALE	DRAWN BY. 	CHD. BY. 	DATE
DRAWING STATUS.-- AS RER RECTIFICATION			REV.NO.
APPROVED BY	 SUB DIVISIONAL OFFICER MAP SUB DN KHAMGAON	EXECUTIVE ENGINEER MAP DIVISION BULDHANA	

YESH CONVENT

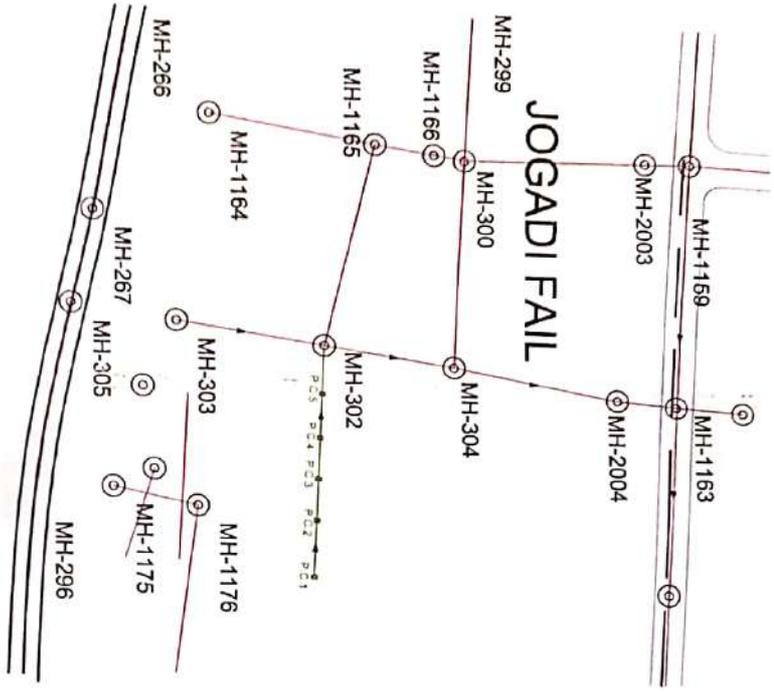
BLOCKAGE OF SEWER LINE FROM MH-325 325A TO MH-1460 HENCE IT IS CONNECTED TO MH



- INDEX
- 150 MM DIA RCC PIPE RELAYED SHOWN AS -----
 - EXISTING MANHOLE CHAMBERS SHOWN AS ○-----
 - EXISTING SEWERAGE LINE SHOWN AS -----

<p>CLIENT MAHARASHTRA JEEVAN PRADHIKARAN DIVISION BULDHANA</p> <p>CONTRACTOR SMS PARYAVARAN CO. LTD. NEW DELHI</p> <p>PROJECT WORK DEVELOPMENT OF UNDERGROUND SEWERAGE SCHEME PHASE I FOR SHEGAON CITY TO SHEGAON DISTT BULDHANA</p>			
<p>DRAWING TITLE RECTIFICATION WORK AT YESH CONVENT</p> <p>WORK ORDER NO. B1 - 17 OF 2019-20 DT. 31/10/2019</p>			
DRAWING NO. SHGUGD-1/RECT.WORK/7		SHEET NO. 7 OF 11	
SCALE - NOT TO SCALE	DRAWN BY. <i>[Signature]</i>	CHD. BY. <i>[Signature]</i>	DATE
DRAWING STATUS... AS RER RECTIFICATION		REV. NO.	
APPROVED BY	<p>SUB DIVISIONAL OFFICER MAP SUB DN KHALSIACH</p> <p><i>[Signature]</i></p>		<p>EXECUTIVE ENGINEER MAP DIVISION BULDHANA</p> <p><i>[Signature]</i></p>

JOGADI FAIL

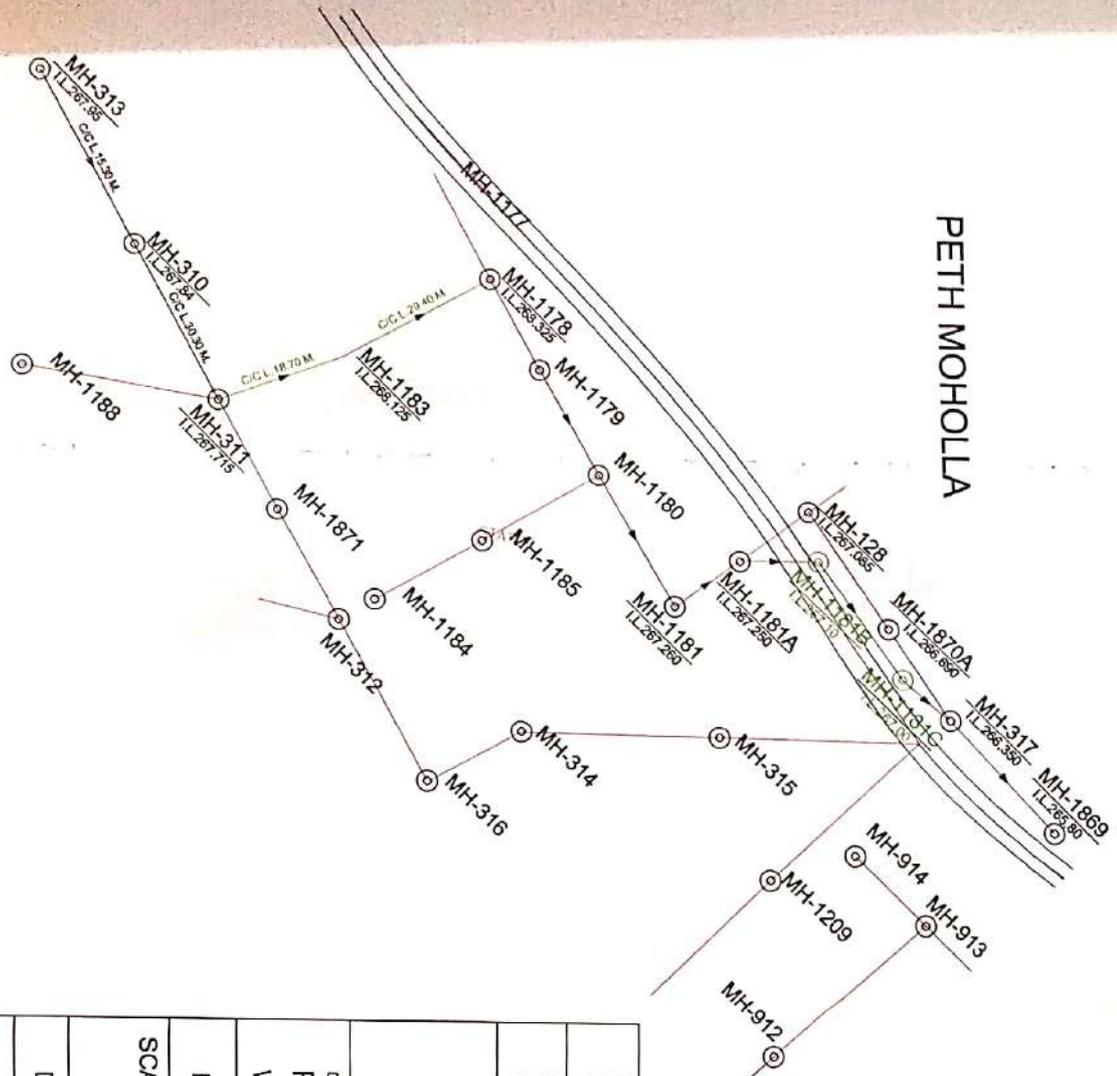


DUE TO REVERSE SLOPE THE SEWAGE LINE
RELAYED AND FIVE PROPERTY CHAMBER
RECONSTRUCTED AND CONNECTED TO MH 302

INDEX

- 150 MM DIA RCC PIPE RELAYED SHOWN AS _____
- NEWLY CONSTRUCTED PROPERTY CHAMBERS SHOWN AS _____
- EXISTING MANHOLE CHAMBERS SHOWN AS _____
- EXISTING SEWERAGE LINE SHOWN AS _____

<p>CLIENT MAHARASHTRA JEEVAN PRADHIKARAN DIVISION BULDHANA</p>			
<p>CONTRACTOR SMS PARYAVARAN CO. LTD. NEW DELHI</p>			
<p>PROJECT WORK DEVELOPMENT OF UNDERGROUND SEWERAGE SCHEME PHASE I FOR SHEGAON CITY TQ. SHEGAON DISTT BULDHANA</p>			
<p>DRAWING TITLE RECTIFICATION WORK AT JOGADI FAIL</p>			
<p>WORK ORDER NO. B1 - 17 OF 2019-20 DT. 31/10/2019</p>			
<p>DRAWING NO. SHG/UGD-1/RECT.WORK/ 8</p>		<p>SHEET NO.8 OF 11</p>	
<p>SCALE - NOT TO SCALE</p>	<p>DRAWN BY. <i>[Signature]</i></p>	<p>CHD. BY. <i>[Signature]</i></p>	<p>DATE</p>
<p>DRAWING STATUS.- AS RER RECTIFICATION</p>		<p>REV./NO.</p>	
<p>APPROVED BY</p>	<p>SUB DIVISIONAL OFFICER M.P. SUB DN KHAJGAON <i>[Signature]</i></p>	<p>EXECUTIVE ENGINEER M.P. DIVISION BULDHANA <i>[Signature]</i></p>	



PETH MOHOLLA

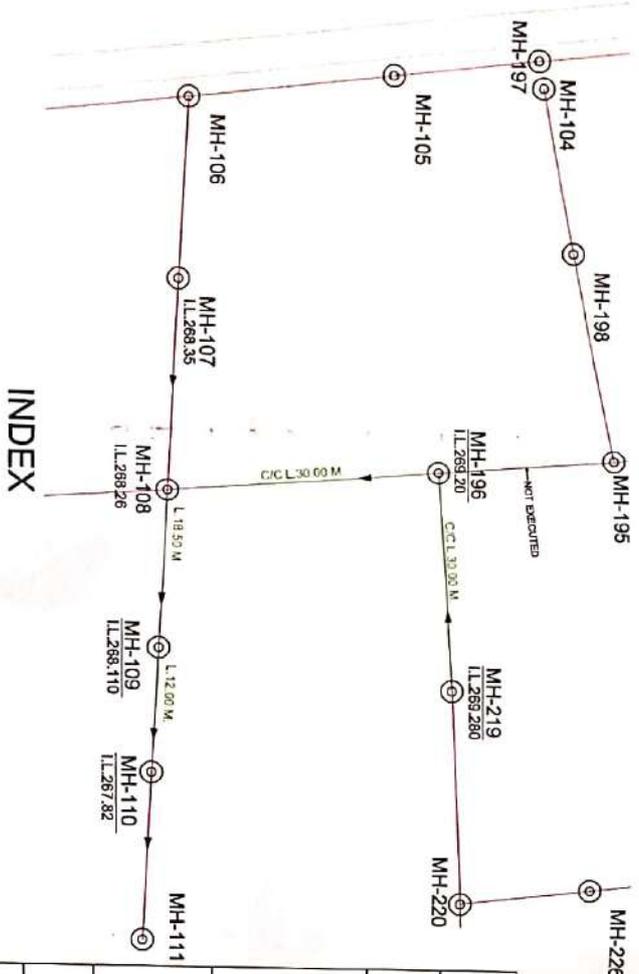
- 1) DUE TO OBSTRUCTION OF BRIDGE MH 1181A TO MH 128 WAS NOT COMPLETED, NOW MH 1181A CONNECTED TO MH 317 BY CONSTRUCTING 2 NEW MANHOLE CHAMBERS.
- 2) DUE TO BLACKAGE OF LINE RELAYED FROM MH 313 TO 311 AND MH311 TO MH1178

INDEX

- NEWLY CONSTRUCTED MANHOLE CHAMBERS SHOWN AS —○
- RELAYED SEWER LINE SHOWN AS ————
- NEWLY LAYED SEWER LINE SHOWN AS ————
- EXISTING MANHOLE CHAMBERS SHOWN AS ————
- EXISTING SEWERAGE LINE SHOWN AS ————

CLIENT MAHARASHTRA JEEVAN PRADHIKARAN DIVISION BULDHANA			
CONTRACTOR SMS PARYAVARAN CO. LTD. NEW DELHI			
PROJECT WORK DEVELOPMENT OF UNDERGROUND SEWERAGE SCHEME PHASE I FOR SHEGAON CITY TQ. SHEGAON DISTT BULDHANA			
DRAWING TITLE RECTIFICATION WORK AT PETH MOHOLLA			
WORK ORDER NO. B1 - 18 OF 2019-20 DT. 7/11/2019			
DRAWING NO. SHG/UGD-1/RECT.WORK/9		SHEET NO.9 OF 11	
SCALE - NOT TO SCALE	DRAWN BY. <i>[Signature]</i>	CHD. BY. <i>[Signature]</i>	DATE
DRAWING STATUS - AS RER RECTIFICATION			REV. NO.
APPROVED BY	SUB DIVISIONAL OFFICER MJP SUB DN KHAMGAON <i>[Signature]</i>		EXECUTIVE ENGINEER MJP DIVISION BULDHANA <i>[Signature]</i>

RAMDEO BABA NAGAR



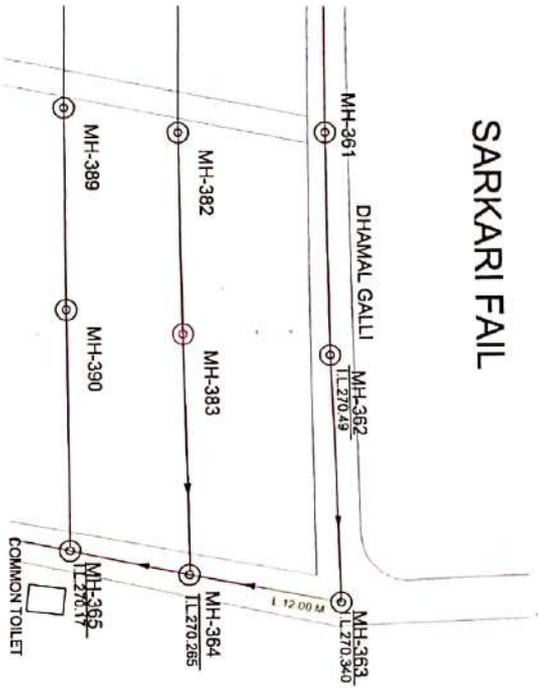
DUE TO BLOCKAGE OF LINE RELAYED FROM MH 219 TO 196,
MH 196 TO MH 108, MH 108 TO 109 AND MH 109 TO 110.

INDEX

- 200/300 MM DW HDPE SEWER PIPE RELAYED SHOWN AS ————
- EXISTING MANHOLE CHAMBERS SHOWN AS ———— ⊙ ————
- EXISTING SEWERAGE LINE SHOWN AS ————

CLIENT MAHARASHTRA JEEVAN PRADHIKARAN DIVISION BULDHANA			
CONTRACTOR SMS PARYAVARAN CO. LTD. NEW DELHI			
PROJECT WORK DEVELOPMENT OF UNDERGROUND SEWERAGE SCHEME PHASE I FOR SHEGAON CITY TQ. SHEGAON DISTT BULDHANA			
DRAWING TITLE RECTIFICATION WORK AT RAMDEOBABA NAGAR			
WORK ORDER NO. B1 - 18 OF 2019-20 DT. 7/11/2019			
DRAWING NO. SHG/UGD-1/RECT.WORK/ 10	SHEET NO. 10 OF 11		
SCALE - NOT TO SCALE	DRAWN BY. <i>Pratik</i>	CHD. BY. <i>Pratik</i>	DATE
DRAWING STATUS -- AS PER RECTIFICATION		REV. NO.	
APPROVED BY	SUB DIVISIONAL OFFICER MAP SUB DN KHAMGAON <i>Pratik</i>		EXECUTIVE ENGINEER MAP DIVISION BULDHANA <i>Pratik</i>

SARKARI FAIL



DUE TO BLOCKAGE OF SEWER LINE , 150 MM DIA 12.0 M RCC
SEWER LINE RELAYED FROM MH 364 TO MH 363

INDEX

- 200 MM RCC SEWER PIPE RELAYED SHOWN AS _____ →
- EXISTING MANHOLE CHAMBERS SHOWN AS _____ ⊙
- EXISTING SEWERAGE LINE SHOWN AS _____ →

CLIENT MAHARASHTRA JEEVAN PRADHIKARAN DIVISION BULDHANA			
CONTRACTOR SMS PARYAVARAN CO. LTD. NEW DELHI			
PROJECT WORK DEVELOPMENT OF UNDERGROUND SEWERAGE SCHEME PHASE I FOR SHEGAON CITY TQ. SHEGAON DISTT BULDHANA			
DRAWING TITLE RECTIFICATION WORK AT SARKARI FAIL			
WORK ORDER NO. B1 - 17 OF 2019-20 DT. 31/10/2019			
DRAWING NO. SHG/UGD-1/RECT.WORK/ 11		SHEET NO. 11 OF 11	
SCALE- NOT TO SCALE	DRAWN BY. <i>[Signature]</i>	CHD. BY. <i>[Signature]</i>	DATE
DRAWING STATUS -- AS RER RECTIFICATION			REV. NO.
APPROVED BY	<i>[Signature]</i> SUB DIVISIONAL OFFICER MAP SUB DN KHAMGAON	EXECUTIVE ENGINEER MAP DIVISION BULDHANA	

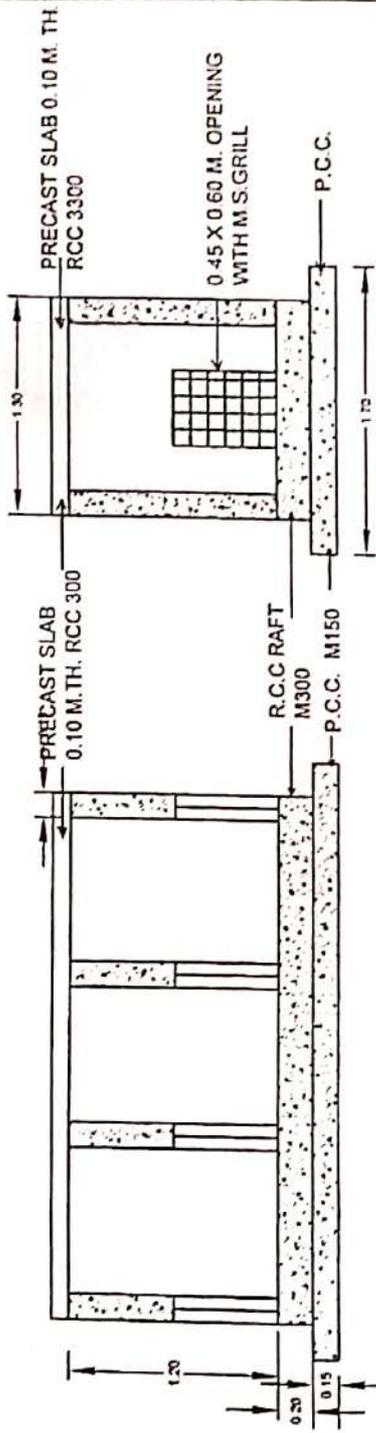
ANNEXURE-IV

Approved Drawings

A. Approved Drawings of Collection Chambers

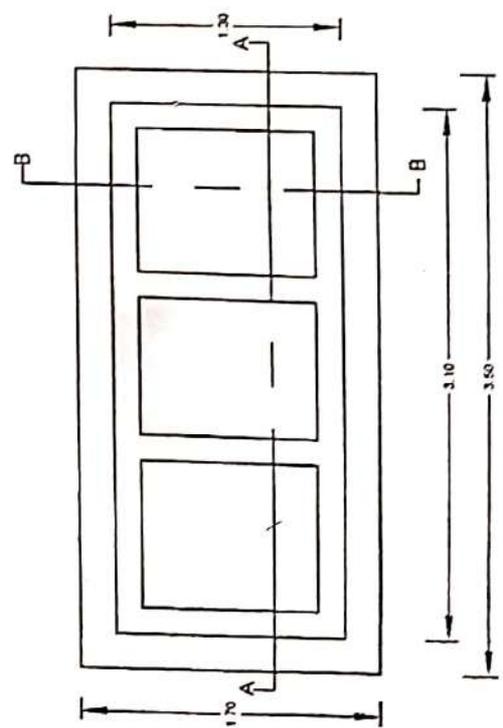
NAME OF WORK - CONSTRUCTION OF R.C.C. CHAMBER NEAR UNNAD NALA AT SHEGAON (PHASE 1)

CHEMBER NO. 1



SECTION A-A'

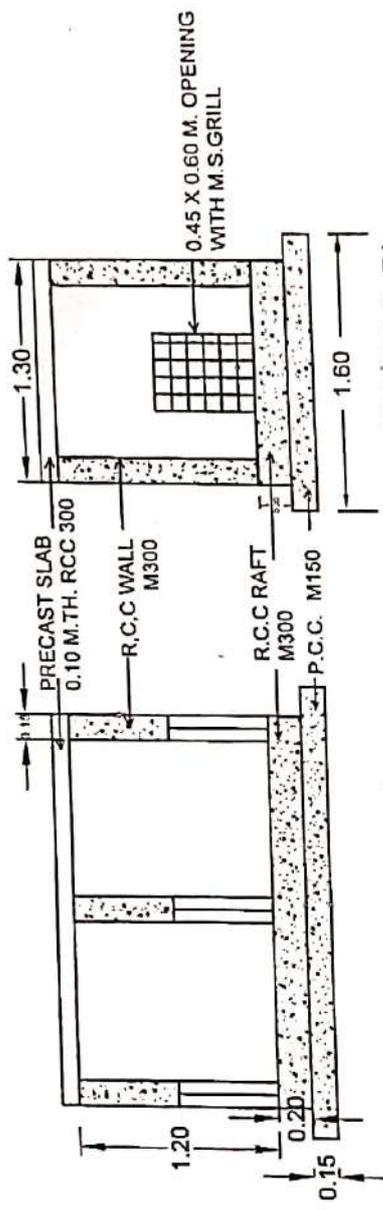
SECTION B-B'



PLAN

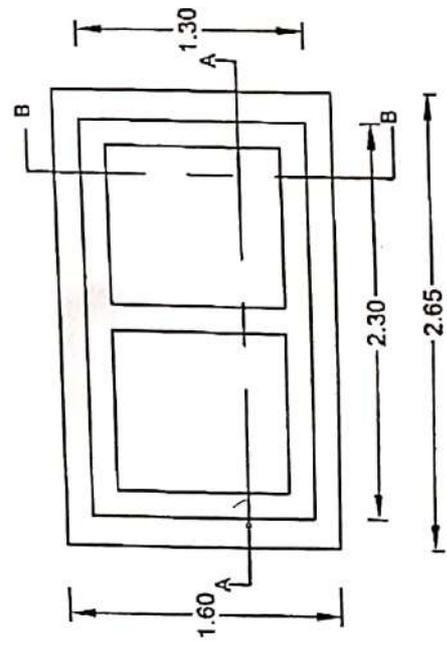
CLIENT MAHARASHTRA JEEVAN PRADHIKARAN DIVISION BULDHANA	
CONTRACTOR SMS PARYAVARAN CO LTD NEW DELHI	
PROJECT WORK DEVELOPMENT OF UNDERGROUND SEWERAGE SCHEME PHASE I FOR SHEGAON CITY TO SHEGAON DISTT BULDHANA	
DRAWING TITLE CONSTRUCTION OF COLLECTION CHAMBER NEAR UNNAD NALA	
WORK ORDER NO. B1 - 15 OF 2019-20 DT 23/3/2019	
DRAWING NO. SHG-UCC-1-RECT.WORK.COLL.CHAMBER/1	SHEET NO. 1 OF 3
SCALE: NOT TO SCALE	DRAWN BY: <i>Harish</i> CHD BY: <i>Pr</i> DATE:
DRAWING STATUS - AS APPROVED	
APPROVED BY: <i>Harish</i> SUB DIVISIONAL OFFICER M.P. SUB DIV. SHEGAON	REV NO.

NAME OF WORK - CONSTRUCTION OF R.C.C. CHAMBER NEAR UNNAD NALA AT SHEGAON PHASE 1
CHEMBER NO. 2



SECTION A-A'

SECTION B-B'

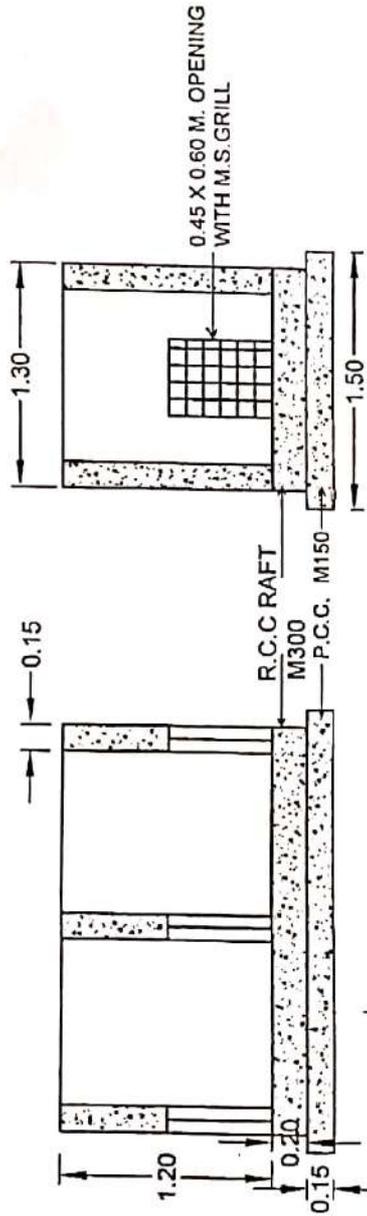


PLAN

CLIENT MAHARASHTRA JEEVAN PRADHIKARAN DIVISION BULDHANA	
CONTRACTOR SMS PARYAVARAN CO. LTD. NEW DELHI	
PROJECT WORK DEVELOPMENT OF UNDERGROUND SEWERAGE SCHEME PHASE I FOR SHEGAON CITY TO SHEGAON DISTT BULDHANA	
DRAWING TITLE CONSTRUCTION OF COLLECTION CHAMBER NEAR UNAD NALLA WORK ORDER NO. B1 - 15 OF 2019-20 DT. 20/02/2019	
DRAWING NO. SHGAUGD-1RECT WORK/COLL CHAMBER/2	SHEET NO. 2 OF 3
SCALE - NOT TO SCALE	DATE
DRAWN BY: <i>[Signature]</i>	CHO BY: <i>[Signature]</i>
DRAWING STATUS - AS APPROVED	
APPROVED BY: <i>[Signature]</i> SLB DIVISIONAL OFFICER MJP SUB DN MHAUSGAON	REV NO <i>[Signature]</i> EXECUTIVE ENGINEER UJP MJP SUB DN BULDHANA

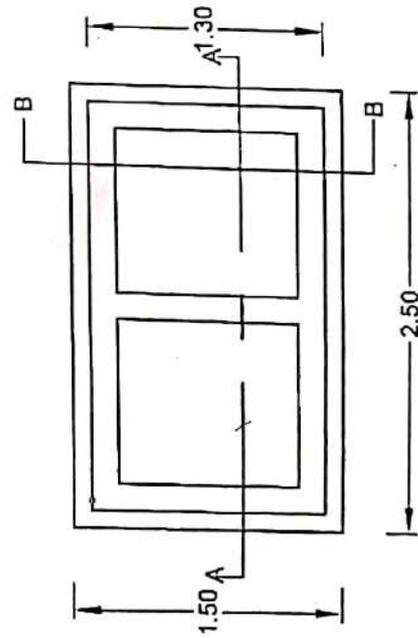
NAME OF WORK - CONSTRUCTION OF R.C.C. CHAMBER NEAR STP. AT SHEGAON (PHASE 1)

CHAMBER NO. 3



SECTION A-A'

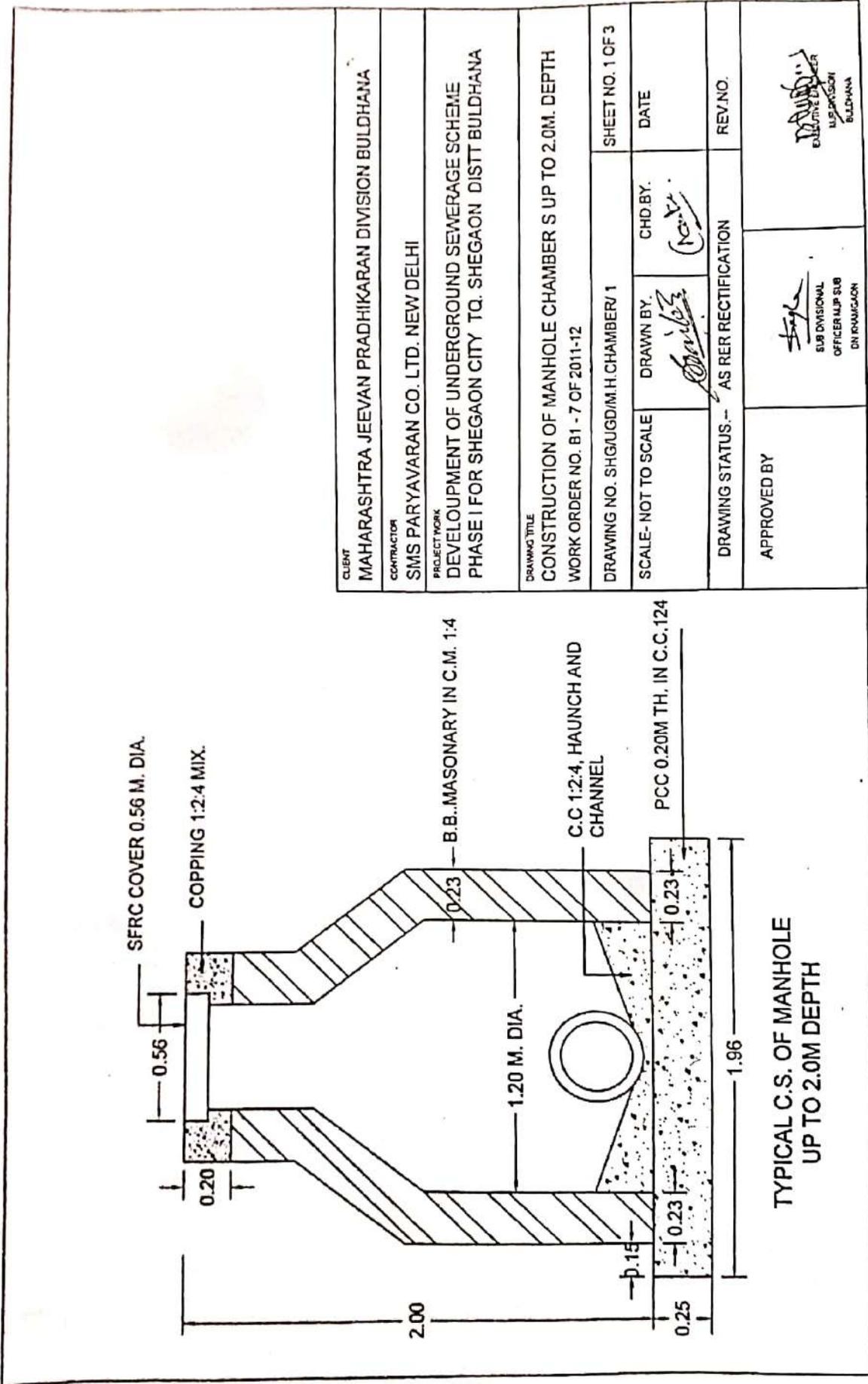
SECTION B-B'



PLAN

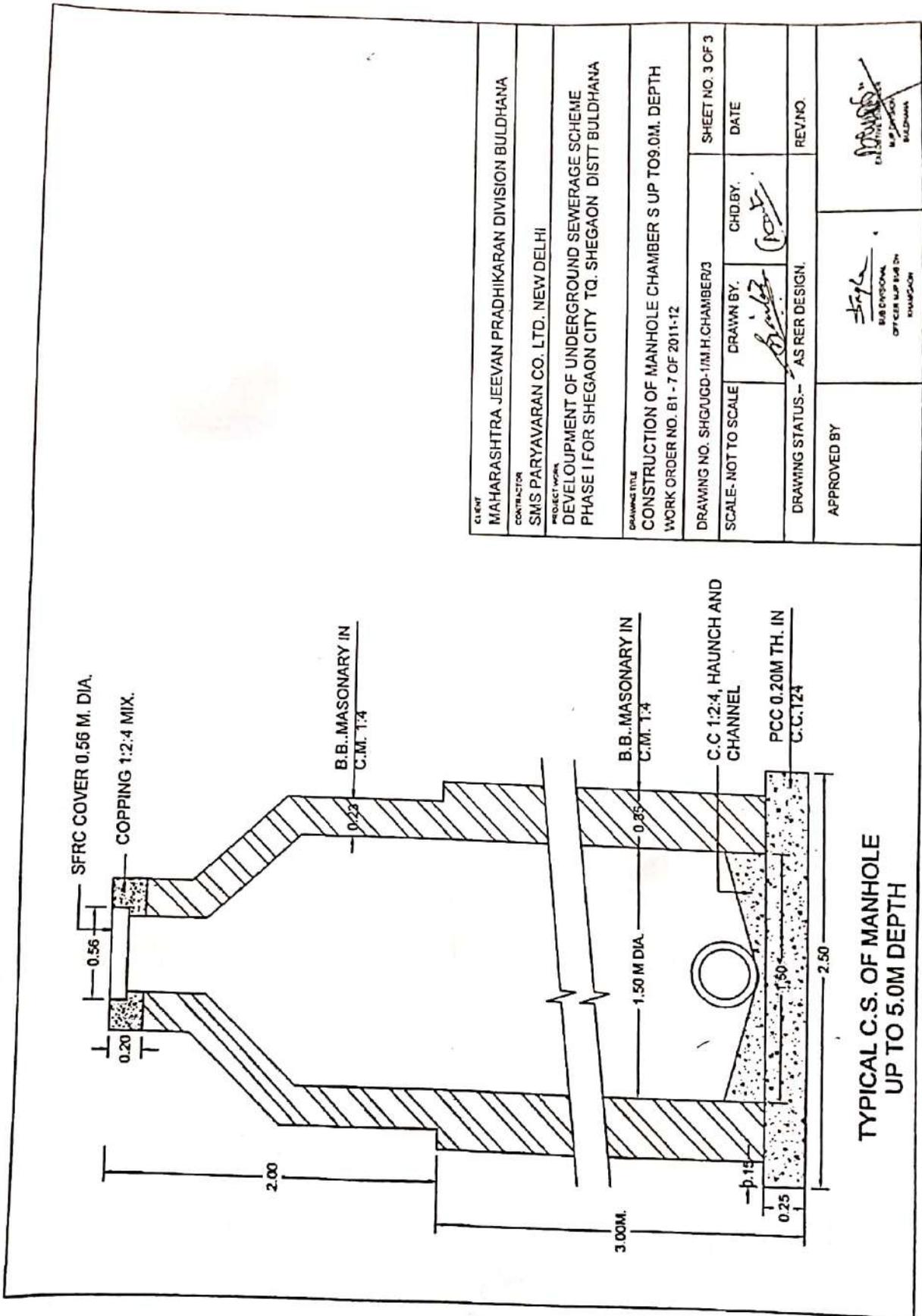
CLIENT MAHARASHTRA JEEVAN PRADHIKARAN DIVISION BULDHANA	
CONTRACTOR SMS PARYAVARAN CO. LTD. NEW DELHI	
PROJECT WORK DEVELOPMENT OF UNDERGROUND SEWERAGE SCHEME PHASE I FOR SHEGAON CITY TO SHEGAON DISTT BULDHANA	
DRAWING TITLE CONSTRUCTION OF COLLECTION CHAMBER NEAR STP. WORK ORDER NO B1 - 15 OF 2019-20 DT. 19/9/2019	
DRAWING NO. SHGUJD-1 RECT WORK/COIL CHAMBER/3	SHEET NO. 3 OF 3
SCALE - NOT TO SCALE	DRAWN BY: <i>Abhishek</i> (P) CHD BY: <i>Abhishek</i> (P) DATE:
DRAWING STATUS -- AS APPROVED	
APPROVED BY: <i>Abhishek</i>	REV. NO.
SUB DIVISIONAL OFFICER M.P. SUB DN SHEGAON	
ENGINEER BULDHANA	

**B. Approved Drawings of Manhole
Chambers**



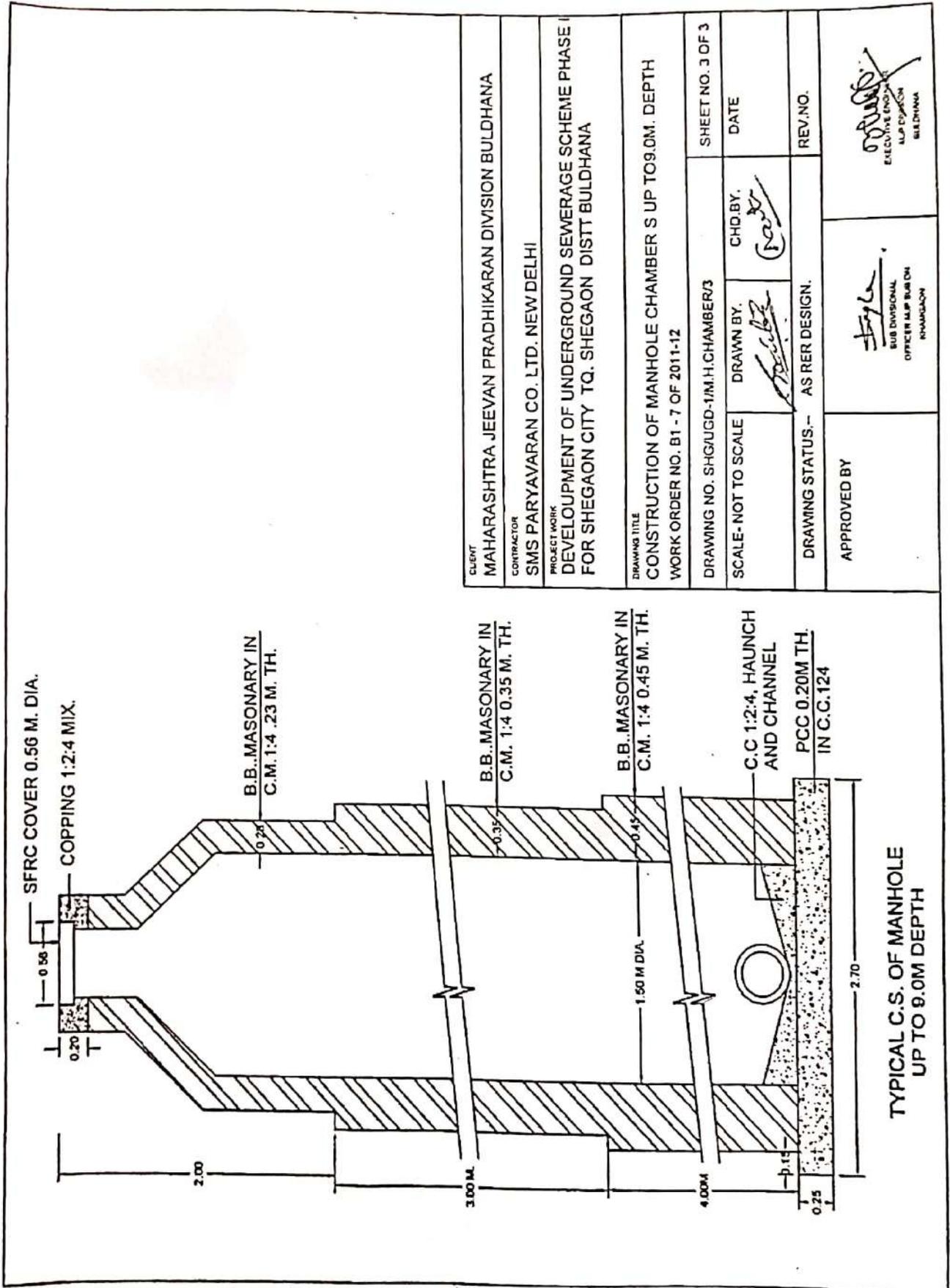
CLIENT MAHARASHTRA JEEVAN PRADHIKARAN DIVISION BULDHANA	
CONTRACTOR SMS PARYAVARAN CO. LTD. NEW DELHI	
PROJECT WORK DEVELOPMENT OF UNDERGROUND SEWERAGE SCHEME PHASE I FOR SHEGAON CITY TQ. SHEGAON DISTT BULDHANA	
DRAWING TITLE CONSTRUCTION OF MANHOLE CHAMBER S UP TO 2.0M. DEPTH WORK ORDER NO. B1 - 7 OF 2011-12	
DRAWING NO. SHGUGD/M.H.CHAMBER/ 1	SHEET NO. 1 OF 3
SCALE- NOT TO SCALE	DRAWN BY. <i>[Signature]</i>
	CHD BY. <i>[Signature]</i>
DRAWING STATUS -- AS PER RECTIFICATION	
APPROVED BY	REV. NO.
<i>[Signature]</i> SUB DIVISIONAL OFFICER N.P. SUB ON PUNJAGON	<i>[Signature]</i> SUB DIVISIONAL OFFICER N.P. SUB ON PUNJAGON

67/188



TYPICAL C.S. OF MANHOLE
UP TO 5.0M DEPTH

CLIENT MAHARASHTRA JEEVAN PRADHIKARAN DIVISION BULDHANA	
CONTRACTOR SMS PARYAVARAN CO. LTD., NEW DELHI	
PROJECT WORK DEVELOPMENT OF UNDERGROUND SEWERAGE SCHEME PHASE I FOR SHEGAON CITY, TQ. SHEGAON, DISTT BULDHANA	
DRAWING TITLE CONSTRUCTION OF MANHOLE CHAMBER S UP TO 0.0M. DEPTH WORK ORDER NO. B1 - 7 OF 2011-12	
DRAWING NO. SHG/UCD-1/M H.CHAMBER/3	SHEET NO. 3 OF 3
SCALE - NOT TO SCALE	DATE
DRAWN BY: <i>[Signature]</i>	CHD BY: <i>[Signature]</i>
DRAWING STATUS: -- AS PER DESIGN.	
APPROVED BY: <i>[Signature]</i>	REV. NO.



TYPICAL C.S. OF MANHOLE UP TO 9.0M DEPTH

CLIENT MAHARASHTRA JEEVAN PRADHIKARAN DIVISION BULDHANA		SHEET NO. 3 OF 3	
CONTRACTOR SMS PARYAVARAN CO. LTD. NEW DELHI		SCALE- NOT TO SCALE	DATE
PROJECT WORK DEVELOPMENT OF UNDERGROUND SEWERAGE SCHEME PHASE I FOR SHEGAON CITY TQ. SHEGAON DISTT BULDHANA		DRAWN BY. <i>[Signature]</i>	CHD. BY. <i>[Signature]</i>
DRAWING TITLE CONSTRUCTION OF MANHOLE CHAMBER S UP TO 9.0M. DEPTH WORK ORDER NO. B1 - 7 OF 2011-12		DRAWING STATUS.-- AS PER DESIGN.	
DRAWING NO. SHGAUGD-1/M.H.CHAMBER/3		REV. NO.	
APPROVED BY <i>[Signature]</i> SUB DIVISIONAL OFFICER M.P. BUL DH N		EXECUTIVE ENGINEER M.P. DIVISION BULDHANA	

ANNEXURE-V

**Material Testing Reports of Various
Construction Work of Sub Works in
Revised Recapitulation Sheet (2017-18)**

A. Testing Reports of RCC Pipes

11/17.5/114

बुक सं. Book No. 2090
सेट सं. Set No. 13



मूल प्रति : बिल सहित
Original Copy : Contractor with Bill



पश्चिमी क्षेत्र
चर्चगेट स्टेशन बिल्डिंग
दूसरी मंजिल, मुंबई - 400 020.
दूरभाष : 22015573, 22012523 फैक्स : 22084155
ई-मेल : wrinspn@rites.com

WESTERN REGION
Churchgate Station Bldg.,
2nd Floor, Mumbai - 400 020.
Tel.: 22015573, 22012523 Fax: 2208 4155
E-mail : wrinspn@rites.co.in

निरीक्षण प्रमाण पत्र
INSPECTION CERTIFICATE

समाविष्ट : अनुवर्ती कागज
Contains : Continuation Sheet

Note RITES Inspection report attached with consignee copy of IC

प्रमाण पत्र सं Certificate No. W11120382 / RJS		दिनांक Date 11/01/2012	प्रस्तुत विल सं Offered Instr No. First विल सं पारित Passed No. First & Part					
उदात्तकार Contractor M/s SMS Paryavaran Limited. Vardhman Grand Plaza, Manglam Place Rohini, New Delhi		निर्मित्त Manufacturer M/s Amba Cement Products C-10 MIDC Area Amaravati.						
विल सं Contract Reference P.O. No. indp/Shegaon/RCC-Pipe/151211 MJP Letter No. TB - 1/2706/2011		दिनांक Date Dt 15/12/2011 Dt 21/12/2011	विल उदात्तगो अधिकारी Bill Paying Officer M/s SMS Paryavaran Limited. SH-2, Vardhman Grand Plaza, Plot 7, Manglam Place, Sector - 3, Rohini, New Delhi 110085.					
उदात्तगो Consignee M/s SMS Paryavaran Limited. New Delhi For E. E. MJP Urban & Rural Scheme Division Buldana.		कय अधिकारी Purchasing Authority M/s SMS Paryavaran Limited. New Delhi For E. E. MJP Urban & Rural Scheme Division Buldana.						
विल सं Item No.	विल सं का विवरण Description of Stores	आदेशित मात्रा Quantity On order	पहले प्रस्तुत विल सं Cumulative Qty. offered previously	पहले पारित मात्रा Quantity previously passed	अब प्रस्तुत मात्रा Qty now offered	अब पारित मात्रा Qty now passed	अब रद्द मात्रा Qty now rejected	बकाया मात्रा Qty. still due
1	RCC Pipes, Class NP-II as per IS No 433:2003 & as per F. O. Requirements for following sizes 300 mm. Dia (200 Nos)	RMT 1011	RMT NIL	RMT NIL	RMT 500	RMT 500	RMT NIL	RMT 511
2	500 mm. Dia (76 Nos)	190	NIL	NIL	190	190	NIL	NIL
3	500 mm. Dia (96 Nos)	239	NIL	NIL	240	240	NIL	NIL
जांच की गयी इकाईयों की संख्या No. of Items checked Three		बुलावे की तारीख Date of call 02/01/2012 & 09/01/2012	कितनी बार गये No. of visits 01	निरीक्षण की तारीखें Date(s) of inspection 11/01/2012				
<ul style="list-style-type: none"> सील बंदी मोहर बंदी का स्वरूप और सील मोहर का स्थान Pattern of sealing/stamping and location of seal/stamp/sticker Stencil mark with indelible ink on each pipe near marking.		मोहर का परिचय Description of seal/stamp/sticker		निरीक्षण अधिकारी Inspecting Engineer राजिन्दर सिंह / Rajinder Singh वरिष्ठ निरीक्षण इंजीनियर/Sr. Inspecting Engineer राइट्स लिमिटेड/RITES LTD. पश्चिमी क्षेत्र, मुंबई/W.R. Mumbai-20.				
रद्द करने के कारण Reasons for rejection Not Applicable NIL.								

पंजीकृत कार्यालय : स्कोप मिनार, लक्ष्मी नगर, दिल्ली 110 092.
Registered Office : Scope Minar, Laxmi Nagar, Delhi - 110 092.

30/1/12

एफ/एम/एम

बुक सं. Book No.	पेज सं. Page No.
2073	40



छठी प्रति : परेवितो के लिए अग्रिम प्रति
Sixth Copy : Advance Copy for Consignee



पश्चिमी क्षेत्र
चर्चगेट स्टेशन बिल्डिंग
दूसरी भवन, मुंबई - 400 020.
दूरभाष : 22015573, 22012523 फैक्स : 22084155
ई-मेल : wrinspn@rites.com

WESTERN REGION
Churchgate Station Bldg.,
2nd Floor, Mumbai - 400 020
Tel.: 22015573, 22012523 Fax : 2208 4155
E-mail : wrinspn@rites.co.in

मिरीक्षण प्रमाण पत्र
INSPECTION CERTIFICATE

समाविष्ट : अनुवर्ती कागज
Contains : Continuation Sheet

NOTE : RITES Inspection Report shall be used only for the purpose mentioned above.

प्रमाण पत्र का Certificate No.		दिनांक Date	प्रस्तावित मात्रा Offered (with No. 1 st and Final Part में प्रति)					
WI2020276/MAK		28-02-2012	Proposed (with No. 1 st and Final Part में प्रति)					
उपार Contractor		निर्माता Manufacturer						
M/s SMS Paryavaran Limited, Yardman Grand Plaza, Manglem Place Rohini, New Delhi		M/s. Manika Industries E/No. 3712A, Kokambran, Tal. Kopergaon, Dist. A. Nagar						
प्रमुख संदर्भ Contract Reference		दिनांक Date						
P.O. No. 144/Siddhant/RCC-Pipe/1912/1		Dt 15/12/2011						
MPS Letter No. TB-1/2708/2011		Dt 21/12/2011						
उपरोक्त Consignee		कार्यालयी Purchasing Authority						
M/s BMS Paryavaran Limited, New Delhi For E. & MIP Urban & Rural Scheme Division Buldana.		E & MIP Urban & Rural Scheme Division Buldana.						
क्र. सं. S/N	विवरण Description of Goods	अंशित मात्रा Quantity On order	पूर्व में प्रस्तावित मात्रा Qty offered previously	प्रायः पारित मात्रा Qty previously passed	उपरोक्त मात्रा Qty now offered	पारित मात्रा Qty now passed	अपारित मात्रा Qty now rejected	संग्रहित मात्रा Qty still dur
1.	2.	3.	4.	5.	6.	7.	8.	9.
1.	400-mm Dia. NP3 Class-S & S type R.C.C. Pipes 2.5 Mtr. Length as per IS 458:2007	220 Rmt (88Nos)	Nil	Nil	220 Rmt (88Nos)	220 Rmt (88Nos)	Nil	Nil
Qty. Now Passed : Two Hundred and Twenty Rmt. Only								
प्रमाणित की गईं Inspected	दिनांक Date of test	विशेष कर सं. No. of visits	मिरीक्षण का तिथि Date(s) of inspection					
One	24-02-2012	One	26-02-2012					
मिरीक्षण के दौरान बर्तन के स्थिति और स्थिति के स्थिति Pattern of Staining/Sampling and location of seal/stamp/sticker			मिरीक्षण के दौरान बर्तन के स्थिति Facsimile of seal/stamp/sticker			मिरीक्षण अधिकारी Inspecting Engineer		
RITES Stencil on each R.C.C. Pipe			[Facsimile of seal/stamp/sticker]			[Signature]		
अपारित के कारण Reasons for rejection			[Facsimile of seal/stamp/sticker]			प. कुमरसामी / M. A. Kumarasamy मिरीक्षण इंजीनियर / Sr. Inspecting Engineer उपरोक्त RITES LTD.		
Not applicable			[Facsimile of seal/stamp/sticker]			[Signature]		

पंजीकृत कार्यालय : स्कोप मिनार, लक्ष्मी नगर, दिल्ली 110 092.
Registered Office : Scope Minar, Laxmi Nagar, Delhi - 110 092.

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SGS India Pvt. Ltd.

Inspection report

File No.: IN/INAG/IND/20120019
 Place of Inspection: M/S Medhavi Prestressed Pipe Pvt. Ltd, Nanded
 Time In: 10.00am
 Name of the Project: (if any)
 Name of Client
 Name Seller / Manufacturer / Vendor
 Client's P/O No. & Date
 Date of last inspection
 Inspection call reference
 Status of previous hold points / Deviation
 P.O. Status: Completed / Balance / Hold

Inspection Report No.: LC/MPPPL/03/2012/BP/001
 Date of inspection: 06.03.2012 & 07.03.2012
 Time Out: 09.30pm
 UNDERGROUND SEWERAGE SYSTEM FOR SHEGAON TOWN
 M/S Medhavi Prestressed Pipe Pvt. Ltd, Nanded
 M/S Medhavi Prestressed Pipe Pvt. Ltd, Nanded
 LC/OR/258/2011-2012 DT. 22.02.2012 & DEPTT. LETTER NO. TB-1/402/2012 DT. 22.02.2012
 LETTER Dt. 28.02.2012
 NIL
 Complete

Item # as per Contract Order	Description & Size	Quantity as per P.O. (Nos.)	Quantity Previously passed (Nos.)	Quantity Offered (Nos.)	Quantity Now Passed (Nos.)	Quantity Rejected (Nos.)	Quantity Balance (Nos.)
1.	REINFORCED CONCRETE CEMENTED PIPES AS PER IS:458/2003 WITH ITS RELATED STANDARDS & UPTO DATE AMENDMENTS 400 MM CLASS NP3 2.5 MTR	920 NOS	NIL	920 NOS	920 NOS	NIL	NIL

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SGS India Pvt. Ltd.

Inspection Report No : LCMPPPL/03/2012/EP/001		Annexure No of Detailed report
Reference Documents	Scope of Inspection and Status	
PO No : LCM/2582011-2012 DT: 27/02/2012 & DEBIT LETTER NO: 15/02/2012 DT: 27/02/2012	<ol style="list-style-type: none"> 1. VISUAL EXAMINATION 2. DIMENSION CHECK 3. WITNESSED HYDROSTATIC PRESSURE TEST 4. WITNESSED THREE EDGE BEARING TEST 5. WITNESSED OF PERMEABILITY 6. MARKING CHECK 7. QUANTITY VERIFICATION 8. REVIEW OF MANUFACTURER INTERNAL TEST REPORTS 	1
QAP ATR No: NA Revision: NA		
Approved Drawing No.: Revision:		
Reference standard / code / specification : IS 458:2003 & IS 3597:1993		
Sampling Standard : IS 458:2003		
Current Hold points / Deviations		
NIL		
Remarks		
NIL		
Enclosure		
1. JOINT TEST REPORT 2. INTERNAL TEST REPORTS & TC 3. P.O COPY 4. INSPECTION CALL		

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CM-(IN)-(IND)-IN-003/ Ver.00/01-01-2010/ Page 2 of 3

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SGS India Pvt. Ltd.

Detailed Inspection Report

File No: IN/NAG/IND/20420019	Annexure No: 1
Report No and Date: LC/MPPPL/03/2012/BP/001 DT: 06.03.2012 & 07.03.2012	Page: 3 of 3

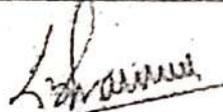
Material and Quantity Inspected

Details as per Joint test report.

Sr. No.	Details of activity performed, findings and product marking	Conclusion
1.	Visual Inspection Carried out w.r.t. Completeness, Workmanship, Finish & Found Satisfactory.	Material acceptable
2.	Witnessed Dimension & found Satisfactory. (As per IS 458:2003)	
3.	Witnessed of hydrostatic pressure test at pressure of 0.07 mpa for 1 min 30 seconds & found no leakage & sweating through pipes.	
4.	Witnessed of Three Edge Bearing Test of Sampled Pipes & found No Crack from pipes at Specified Load.	
5.	Witnessed of Permeability test & found as per requirement of IS 458:2003.	
6.	Quantity Verified & found as Declared.	
7.	Review of manufacturer Internal Test Reports & Test Certificates and found In Satisfactory.	

Number of Photographs taken: Not Allowed.

Confirm Instruments used are suitable for intended purpose : YES / NO

Instrument / Eqp't No	Calibration date	Calibration Due on	Calibration by
	AS PER ANNEXTURE		
Inspection Identification (Actual Impression)	Location of Identification	Name and signature of SGS representative	Name and signature of Manufacturer / Vendor representative
SGS YELLOW STICKER TWICE ON SAMPLED PIPES & ONCE RANDOMLY ON REMAINING PIPES.	OUTSIDE SOCKET END OF PIPES.		

Debriefing & Vetting Status:

Name & sign of vetting authority:



①

एफ/ए/7.5/1/4

बुक सं. Book No. **2213** सेट सं. Set No. **05**

दूसरी प्रति : क्रय प्राधिकारी की प्रति
Second Copy : Purchasing Authority Copy



पश्चिमी क्षेत्र
चर्चगेट स्टेशन बिल्डिंग
दूसरी मंजिल, मुंबई - 400 020.
दूरभाष : 22015573, 22012523 फक्स : 22084155
ई-मेल : wrinspn@rites.com



WESTERN REGION
Churchgate Station Bldg.,
2nd Floor, Mumbai - 400 020.
Tel: 22015573, 22012523 Fax : 2208 4155
E-mail : wrinspn@rites.co.in

निरीक्षण प्रमाण पत्र
INSPECTION CERTIFICATE

समाविष्ट : अनुवर्ती कागज
Contains : Continuation Sheet

Note: RITES Inspection report attached with consignee copy of I.C.

पत्र सं. Certificate No. WI2020845/SCB		दिनांक Date 08-05-2012		प्रमाणित कित्त सं. Offered Insst No. 'I' & Part कित्त सं. पारित Passed Insst No. 'I' & Part				
केदार Contractor M/s SMS Paryavaran Limited. Vardhman Grand Plaza, Manglam Place Rohini, New Delhi			निर्माता Manufacturer M/S Shree Balaji Concrete Product, Rajura, Mardi Road Infront of MJP Amravati.					
संबंधित संदर्भ Contract Reference P.O. No. mdp/Shegaon/RCC-Pipe/151211 Dt 15/12/2011 MJPS Letter No. TB - 1/2706/2011			दिनांक Date Dt 15/12/2011 Dt 21/12/2011		विल अदायगी अधिकारी Bill Paying Officer M/S Shree Balaji Concrete Product, Rajura, Mardi Road Infront of MJP Amravati.			
प्रेषितो Consignee M/s SMS Paryavaran Limited. Vardhman Grand Plaza, Manglam Place Rohini, New Delhi			क्रय अधिकारी Purchasing Authority Executive Engineer, MJP, Work Division Buldana					
वस्तु सं. Item No.	खंड का विवरण Description of Stores	आदेशित मात्रा Quantity On order	पहले प्रस्तावित कुल मात्रा Cumulative Qty. offered previously	पहले पारित मात्रा Quantity previously passed	अब प्रस्तावित मात्रा Qty now offered	अब पारित मात्रा Qty now passed	अब रद्द मात्रा Qty now rejected	बचाया मात्रा Qty still due
1	RCC Socket & Spigot Pipes Class NP 3 Pipes 150 mm Dia as per IS -458-2003	Rmt 35309	Rmt NIL	Rmt NIL	Rmt 5000	Rmt 5000	Rmt NIL	Rmt 30309
2	RCC Socket & Spigot Pipes Class NP 3 Pipes 200 mm Dia as per IS -458-2003	3500	NIL	NIL	3500	3500	NIL	NIL
3	RCC Socket & Spigot Pipes Class NP 4 Pipes 250 mm Dia as per IS -458-2003	666	NIL	NIL	666	666	NIL	NIL
Quantity now passed Six Hundred Sixty Six Rmt only								
जांच की गयी इकाईयों की संख्या No. of items checked 03		बुलाने की तारीख Date of call 02.05.2012		कितनी बार गये No. of visits 02		निरीक्षण की तारीख Date(s) of inspection 07/05/2012 & 08/05/2012		
• छील बंदी मोहर बंदी का स्थान और छील मोहर का स्थान • Pattern of sealing/stamping and location of seal/stamp/sticker STENCIL MARK ON EACH PIPES.				छील मोहर का प्रतिरूप Facsimile of seal/stamp/sticker		निरीक्षण अधिकारी Inspecting Engineer 		
• रद्द करने के कारण Reasons for rejection NOT APPLICABLE.								

पंजीकृत कार्यालय : स्कोप मिनार, लक्ष्मी नगर, दिल्ली 110 092.
Registered Office : Scope Minar, Laxmi Nagar, Delhi - 110 092.

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FINAL REPORT	
Report No:	DACPL/REPORT/MUM/MJP/2013-2014/167
Issued on:	08.06.2013
For visit Period:	07.06.2013 & 08.06.2013

Customer Inspection Ref. No(s):	
L.No. TB-1/980/2013	
MJP Urban & Rural Scheme Division Buldana	
Date: 10.05.2013	

Inspection Subject:	Inspection of RCC S/S Pipes,		
Customer:	Executive Engineer MJP Urban & Rural Scheme.		
Address:	Buldana.		
Contractor:	M/s. SMS Paryavaran Ltd.	Location:	New Delhi.
Order No:			
Manufacturer:	M/s. Shree Balaji Concrete Product.	Location:	Amravati.
Order No:			
Inspector:	Lokesh Tikapache		
Specification:	458:2003	Other:	

Item Description and Inspected Quantity Details:

Sl. No.	Material Description	Quantity					
		Offered Qty.		Accepted Qty.		Rejected Qty.	
		Rmt.	Nos.	Rmt.	Nos.	Rmt.	Nos.
01	RCC S/S Pipe 150 MM Dia. (NP-3 & NP-4)	33169	16585	33169	16585	Nil	Nil
02	RCC S/S Pipe 200 MM Dia. (NP-2 & NP-4)	953	477	953	477	Nil	Nil
03	RCC S/S Pipe 250 MM Dia. (NP-2)	503	252	503	252	Nil	Nil
04	RCC S/S Pipe 500 MM Dia. (NP-3)	235	118	235	118	Nil	Nil

Testing Equipment details.

Sr. No	Equipment	Make	Model No./Ref.	Equipment Sr.No	Calibration Certificate No. (with NABL Traceability)	Calibration due date.
1	Pressure Guage	Presco	0to 140kg/cm2	I 1939	SCSC/G/075/2013-14	12.10.13
2	Pressure Guage	H GURU	0to 2.1kg/cm2	N/S	SCSC/G/077/2013-14	12.10.13
3	Outside Micrometer	Aerospace	0to 25mm	N/S	SCSC/OM/078/2013-14	13.04.14



Dr. Amin Controllers Private Limited
Embassy Chambers, 6th Floor, Plot-No.5, 3rd Road, Khar(W), Mumbai - 400 052
Tel.: Tel: +91-22-2648 9260-7 Fax: +91-22-2648 9270-271
E-Mail: vikram@rcaindia.com, ks@rcaindia.com

FINAL REPORT	
Report No:	DACPL/REPORT/MUM/MJP/2013-2014/167
Issued on:	08.06.2013
For visit Period:	07.06.2013 & 08.06.2013

Customer-Inspection Ref. No(s) :
L.No. TB-1/980/2013
MJP Urban & Rural Scheme Division Buldana
Date : 10.05.2013

4	Vernier Calliper	Aerospace	0to 500mm	VC-01	SCSC/OM/079/2013-14	13.04.14
5	Measuring Tape	Freemains	0to 3000mm	Hi-16	SCSC/OM/080/2013-14	13.04.14
6	Measuring Scale	Omega	0to 500mm	--	SCSC/OM/081/2013-14	13.04.14

Points to Note:

[Empty box for notes]

Inspection Details:

The following Inspection have been carried out and found the result (attached herewith) matching the specification. Prior to test the calibration records and correlation with Inspection instruments / equipments verified.

1. Raw Material TC review for Fine Aggregates, Coarse Aggregates, Water, Steel & Cement.
2. Manufacturer Internal Test Report Review. (Sieve Analysis report & Compressive Strength of Concrete Cube).
3. Factory inspection report for Dimensional Review.
4. Random witness Hydro Test at pressure 0.07 Mpa.
5. Visual / Dimension - Inspection - Check Witness @ Random found satisfactory.
6. Permeability Test Review & Witness @ Random found within limit.
7. Ultimate Load Test witness and found satisfactory.

Marking Details:

Manufacturer Logo, Size...

Randomly selected pipes were identified with RCA Soft Sticker in the ID surface of the pipes as inspection identification.




Dr. Amin Controllers Private Limited

Embassy Chambers, 6th Floor, Plot-No.5, 3rd Road, Khar(W), Mumbai - 400 052
 Tel.: Tel: +91-22-2648 9260-7 Fax: +91-22-2648 9270-271
 E-Mail: vikram@rcaindia.com., ks@rcaindia.com

Page 3 of 3

FINAL REPORT	
Report No:	DACPL/REPORT/MUM/MJP/2013-2014/167
Issued on:	08.06.2013
For visit Period:	07.06.2013 & 08.06.2013

Customer Inspection Ref. No(s) :
 L.No. TB-1/980/2013
 MJP Urban & Rural Scheme Division Buldana
 Date : 10.05.2013

Enclosed:

1. Joint Inspection Reports.
2. Factory Inspection Reports.
3. Raw Material Test Reports.
 (Fine Aggregates, Coarse Aggregates, Water, Steel, Cement, Sieve Analysis...
 Report, Compressive Strength of Concrete Cube.)
4. Calibration Reports.

Conclusion:

All the offered RCC S/S Pipes comply with the technical requirements & we recommend issuing dispatch clearance.

The material offered for inspection is new and meets with the specification of IS458:2003 and its related standards. The inspection report does not relieve the Supplier/Manufacturer/Contractor from the responsibility of delivering material in new/sound condition and meeting contractual specifications.

Inspection report cannot be reproduced, except in full.

Lokesh Tikapache

Inspector's Printed Name

Lokesh Tikapache
 Inspector's Signature



**B. Testing Reports of Cement, Sand,
Aggregates & Steel**



GOVERNMENT POLYTECHNIC, KHAMGAON

JALAMB ROAD, DIST. BULDANA, KHAMGAON -444303
(07263) -252278, 256644 (O), 254609 (R), E-mail No. gpkhamgaon@rediffmail.com

*Cement, sand,
agg. steel*

1506
114
*

GPK/AMD/852/TRN-840/13-14/S050

Date: - 23-10-2013

To,
Sub-Divisional Engineer
MJP U&R Scheme
Sub. Division, Khamgaon

Sub: - Testing of Materials.

Ref.: - Letter No. TB/Sewerage System/263/2013, Dated. 14/10/2013

Name of Work: - Underground Sewerage Scheme for Shegaon Town, Taluka Shegaon, Dist.- Buldana.

Following are the test results of the sample supplied by you on 14/10/2013. Testing charges Rs.149/- (Rs. One Hundred & Forty Nine only) are deposited by you vide this office receipt No. 9207944, dated 14/10/2013.

A) Testing of Cement (Birla-A1) 43 Grade

Sr. No.	Name of the Test	Test Result
01	Consistency	32.25 %
02	Fineness	6.33 %
03	Initial Setting Time	1 Hrs. 40 min
04	Final Setting Time	3 Hrs. 550 min
05	Compressive Strength (For Three Days)	236.67 Kg/cm ²
	(For Seven Days)	336.67 Kg/cm ²

B) Testing of Sand

Sr. No.	Name of the Test	Test Result
01	Fineness-Modulus Test	Fineness Modulus 2.898
02	Silt Content Test	Silt Content 2.87 %
03	Specific Gravity	2.67
04	Water Absorption	0.8%

5. Sieve Analysis

Sr. No.	IS Sieve No	Cumulative % Passing
01	10 mm	100.00
02	4.75 mm	98.75
03	2.36 mm	95.20
04	1.18 mm	58.80
05	600 micron	41.80
06	300 micron	10.80
07	150 micron	04.85

TRN - 840 is continued from previous page No.1

C) Testing of Metal (20mm)

Sr. No.	Name of Test	Test Result
01	Water Absorption	00.35 %
02	Crushing Test (Crushing Value)	18.29 %

3. Gradation Test

Sr. No.	I. S. Sieve Size (mm)	Percent Passing
01	40	100.00
02	20	65.90
03	16	16.55
04	12.5	1.20
05	10	0.00
06	4.75	0.00
07	2.36	0.00
08	Pan	0.00

Metal (40mm)

Sr. No.	Name of Test	Test Result
01	Water Absorption	00.4 %
02	Crushing Test (Crushing Value)	17.94 %

3 Gradation Test

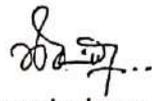
Sr. No.	I. S. Sieve Size (mm)	Percent Passing
01	63	100.00
02	40	100.00
03	20	90.50
04	16	11.00
05	12.5	1.50
06	10	0.00
07	4.75	0.00
08	Pan	0.00

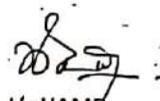


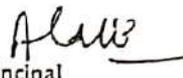
D) Testing of Bricks

Sr. No.	Name of the Test	Test Result
01	Compressive Strength Test:	
	a) Dry Test: Average Compressive Strength	51.38 kgf/cm ²
	b) Wet Test: Average Compressive Strength	55.91 kgf/cm ²
02	Water Absorption Test :	16.19 %

- Note :
- 1) This report refers only for the particular samples submitted in the Laboratory.
 - 2) Materials are disposed after testing.
 - 3) This laboratory is not responsible for any error in the test which is beyond the control of this Lab.
 - 4) Test Results are pertaining to the unsealed material supplied by you / your representative to institute.


Lecturer-In-charge
Material Testing
AGK10201306


I/c HAMD
Govt. Polytechnic,
Khamgaon.


Principal
Govt. Polytechnic,
Khamgaon.

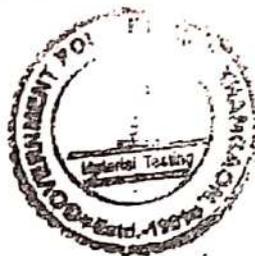


GOVERNMENT POLYTECHNIC, KHAMGAON

JALAMB ROAD, DIST. BULDANA, KHAMGAON -444303

1508

GPK/AMD/048/TRN-048/14-15/1637
Date: -14-8-2014



To,
Sub-Divisional Engineer
MJP U & R Scheme,
Sub-Division, Khamgaon

Sub: Testing of Materials.

Ref.: Letter No. TB/Sewerage System/196/2014 Date:- 30.05.2014

Name of Work: Underground Sewerage Scheme for Shegaon Town.

Following are the test results of the sample supplied by you on 04/08/2014. Testing charges Rs. 9933/- (Rs. Nine Thousand Nine Hundred Thirty Three only) are deposited by you vide this Office Receipt No. 1954006, dated 04/08/2014.

• Test on 80mm Metal

Sr. No	Name of Test	80mm			40 mm	
		Sr. No.	I. S. Sieve Size (mm)	Percent Passing	I. S. Sieve Size (mm)	Percent Passing
1	Gradation Test	01	80	95.75	63	100.00
		02	63	07.69	40	91.25
		03	40	01.29	20	19.95
		04	Pan	00.00	16	11.68
		05			12.5	05.34
		06			10	00.75
		07				
2	Water Absorption		00.70 %		00.70 %	
3	Crushing Test	Crushing Value	18.29 %		18.57 %	

• Test On Murum

Sr. No	Name of Test	Test Result	
1	Hard Murum	Plasticity Index	Non Plastic
		OMC	19.00%
		MDD	1.9 t/cm ³
2	Soft Murum	Plasticity Index	6.50%
		OMC	23.00%
		MDD	1.79 t/cm ³

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• Testing Of Concrete Block
i) Water Absorption Test

Sr. No.	Dry Weights in gms	Wet weights in gms	Wt. Absorbed	% Wt. Absorbed	Average %
1	7787	8198	411	5.28	6.60
2	7856	8419	563	7.17	
3	7550	7920	370	4.90	
4	7480	8217	737	9.85	
5	7827	8281	454	5.80	

ii) Compressive Strength

Sample No.	Identity of Sample	Ultimate load in Kg	Compressive strength in kgf / cm ²	Average %
1	Sample 01	54000	156.52	153.04
2	Sample 02	51000	147.83	
3	Sample 03	52000	150.72	
4	Sample 04	50000	144.93	
5	Sample 05	57000	165.22	

• Testing Of Cement

Cement - ACC OPC 43 Grade

Sr. No.	Name of the Test	Test Result
1	Fineness	6.33 %
2	Normal Consistency	31.75 %
3	Initial Setting Time	1 Hrs. 50 min
4	Final Setting Time	3 Hrs. 55 min
5	Compressive Strength (For Three Days)	235.33 kg/cm ²
	(For Seven Days)	338.67 kg/cm ²

• Fine aggregate (Sand)

Sr. No.	Name of the Test	Test Result
1	Silt Content Test	Silt Content 3.80 %
2	Fineness Modulus Test	Fineness Modulus 3.028
3	Specific Gravity	2.67
4	Water Absorption	0.9%
5	Sieve Analysis	
	Sr.No.	IS Sieve No
	1	10 mm
	2	4.75 mm
	3	2.36 mm
	4	1.18 mm
	5	600 micron
	6	300 micron
	7	150 micron
		Comulative %
		100.00
		95.80
		91.20
		57.75
		39.65
		08.75
		04.10



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82

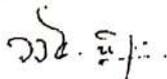
Coarse Aggregates- 20mm & 40mm

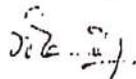
Sr. No.	Name of Test	20 mm		40 mm		
		Sr. No.	I. S. Sieve Size (mm)	Percent Passing	I. S. Sieve Size (mm)	Percent Passing
1	Gradation Test	01	40	100	40	90.50
		02	20	91.55	25	11.00
		03	16	56.45	20	01.50
		04	12.5	24.25		
		05	10	05.30		
		06	4.75	01.05		
		07				
2	Water Absorption		00.35 %		00.4 %	
3	Crushing Test	Crushing Value	18.29 %		17.94 %	

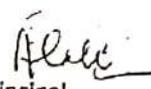
• Testing Of Bricks

Sr. No.	Name of the Test	Test Result
01	Compressive Strength Test:	
	a) Dry Test: Average Compressive Strength	50.22 kgf/cm ²
	b) Wet Test: Average Compressive Strength	56.62 kgf/cm ²
02	Water Absorption Test :	18.99 %

- Note :
- 1) This report refers only for the particular samples submitted in the Laboratory.
 - 2) The tested samples are not preserved in Lab.
 - 3) This laboratory is not responsible for any error in the test which is beyond the control of this Lab.
 - 4) Test Results are pertaining to the unsealed material supplied by you / your representative to institute


Lecturer-In-charge
Material Testing
AGK0801401


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Govt. Polytechnic,
Khamgaon.


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Govt. Polytechnic,
Khamgaon.

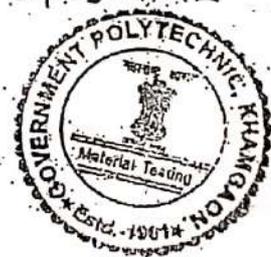
GOVERNMENT POLYTECHNIC, KHAMGAON.

Jalamb Road, Khamgaon Dist:- Buldana - 444303

☎ (07263) - 52278, 56644 (O); 54609 (R), E-mail No. gpkhamgaon@rediffmail.com

GPK/AMD/687/ TRN- 670 /12-13/ 2012
Date: 04.04.2012

To.
Sub Division Engineer
MJP(U&R) Scheme
Sub.-Dn. Khamgaon



Sub: Testing of Cubes.
Ref: Letter No.TB/SHEGAON/284/2012. Dated. 23/08/2012
Name of Work : Underground Sewerage System to Shegaon Town.

Following are the test results of the sample supplied by you on 23/08/2012. Testing charges Rs.3477/- (Rs. Three Thousand Four Hundred & Seventy Seven only) are deposited by you vide this office receipt No. 6342123, dated 23/08/2012.

Testing of Steel Bar

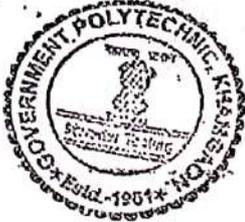
Sr. No.	Diameter of Steel Bar (mm)	Wt./Meter in (kgf/m)	Area Cross section (mm ²)	Ultimate Tensile Strength (N/mm ²)	Eie %	Bend Test
1	8	0.395	50.29	620.06	25.00	No Visual damage is seen
2	8	0.396	50.29	626.82	25.00	
3	8	0.396	50.29	610.11	25.00	
1	10	0.618	78.57	610.27	22.00	No Visual damage is seen
2	10	0.619	78.57	606.07	22.00	
3	10	0.617	78.57	610.91	24.00	
1	12	0.890	113.14	620.10	21.67	No Visual damage is seen
2	12	0.889	113.14	607.20	20.00	
3	12	0.890	113.14	611.09	21.67	
1	16	1.579	201.14	623.84	20.00	No Visual damage is seen
2	16	1.579	201.14	629.90	18.75	
3	16	1.580	201.14	628.21	18.75	

- Note: .1) This report refers only for the particular samples submitted in the Laboratory.
2) This laboratory is not responsible for any error in the test which is beyond the control of this Lab.

[Signature]
Lecturer-in-charge
Material Testing
GSJ09201202

[Signature]
i/c HAMD
Govt. Polytechnic,
Khamgaon.

[Signature]
Principal
Govt. Polytechnic,
Khamgaon.



GOVERNMENT POLYTECHNIC, KHAMGAON.

Jalamb Road, Khamgaon Dist. Buldana - 444305

☎ (07263) - 52278, 56644 (O) 54609 (R). E-mail No. gpkhamgaon@rediffmail.com

GPK/AMD/726/ TRN-717/12-13/ 3888
Date: - 28-12-2012

To,
Sub Divisional Engineer
MJP U&R Scheme, Sub Division Khamgaon

Sub: Testing of Materials.

Ref.: Letter No. TB/Sewerage System/454/2012

Dated: 03/12/2012

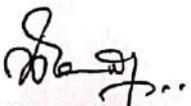
Name of Work : Underground Sewerage System to Shegaon Town Ta. Shegaon Dist. Buldana

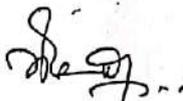
Following are the test results of the sample supplied by you on 03/12/2012. Testing charges Rs.2202/- (Rs. Two Thousand Two Hundred & Two only) are deposited by you vide this office receipt No. 6012892, dated 03/12/2012.

Testing of Steel

Sample No.	Nominal Dia of Bar	Calculated Dia in mm	Wt./Meter in kg/m	Area Cross section in mm ²	Ultimate Strength in N/mm ²	El% %	Bend Test
1	16	16.00	1.579	201.15	608.51	18.75	No Visual damage is seen
2	16	16.01	1.581	201.43	618.84	20.00	
3	16	16.01	1.580	201.27	625.12	18.75	
4	20	20.01	2.470	314.85	615.29	20.00	No Visual damage is seen
5	20	20.01	2.469	314.52	617.70	20.00	
6	20	20.00	2.466	314.14	623.23	20.00	

- Note: 1) This report refers only for the particular samples submitted in the Laboratory
2) Materials are disposed after testing
3) This laboratory is not responsible for any error in the test which is beyond the control of this Lab.
4) Test Results are pertaining to the unsealed material supplied by you. your representative to institute


Lecturer-in-charge,
Material Testing
GSJ12201207


I/c HAMD
Govt. Polytechnic,
Khamgaon.


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Govt. Polytechnic,
Khamgaon.

48/117
85

C. Testing Reports of Concrete Cubes

Concrete cubes

1514



GOVERNMENT POLYTECHNIC, KHAMGAON

JALAMB ROAD, DIST. BULDANA, KHAMGAON -444303
(07263) -252278, 256644 (O), 254609 (R), E-mail No. gpkhamgaon@rediffmail.com



GPK/AMD/877/TRN - 863/13 -14/122

Date: --17-1-2014

To,
Sub-Divisional Engineer
MJP U&R Scheme
Sub. Division, Khamgaon

Sub: - Testing of Materials.

Ref.: - Letter No. TB/Sewerage System/17/2014, Dated. 10 /01/2014

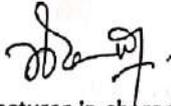
Name of Work: - Underground Sewerage Scheme for Shegaon Town, Taluka Shegaon, Dist. - Buldana.

Following are the test results of the sample supplied by you on 15/01/2014. Testing charges Rs.295/- (Rs. Two Hundred & Ninety Five only) are deposited by you vide this office receipt No. 9207983, dated 15/01/2014.

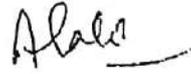
TESTING OF CEMENT CONCRETE CUBES (M-20)

Sample No.	Description	Date of Casting	Date of Testing	Area in cm ²	Ultimate Load In Kg	Compressive Strength In Kgf/cm ²
1	RCC BEAM (METER ROOM)	05.12.2013	03.01.2014	225	53000	235.56
2	RCC BEAM (METER ROOM)	05.12.2013	03.01.2014	225	50000	222.22
3	RCC BEAM (METER ROOM)	05.12.2013	03.01.2014	225	51000	226.67
4	RCC SLAB (METER ROOM)	09.12.2013	03.01.2014	225	52000	231.11
5	RCC SLAB (METER ROOM)	09.12.2013	03.01.2014	225	53000	235.56
6	RCC SLAB (METER ROOM)	09.12.2013	03.01.2014	225	53000	235.56

- Note:
- 1) This report refers only for the particular samples submitted in the Laboratory.
 - 2) The tested samples are not preserved in Lab.
 - 3) This laboratory is not responsible for any error in the test which is beyond the control of this Lab.
 - 4) Test Results are pertaining to the unsealed material ..applied by you / your representative to institute.


Lecturer-in-charge
Material Testing
AGK01201403


I/c HAMD
Govt. Polytechnic,
Khamgaon.

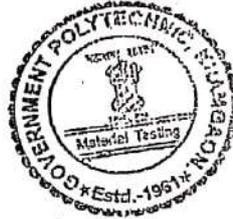

Principal
Govt. Polytechnic,
Khamgaon.

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GOVERNMENT POLYTECHNIC, KHAMGAON

JALAMB ROAD, DIST. BULDANA, KHAMGAON -444303
(07263)-252278, 256644 (O), 254609 (R), E-mail No. gpkhamgaon@rediffmail.com



GPK/AMD/876/TRN - 862/13-14/ 78
Date: -- 08 -- 01 -- 2014

To,
Sub-Divisional Engineer
MJP U&R Scheme
Sub. Division, Khamgaon

Sub: - Testing of Materials.

Ref.: - Letter No. TB/Sewerage System/456/2013, Dated. 31/12/2013

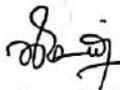
Name of Work: - Underground Sewerage Scheme for Shegaon Town: Taluka Shegaon, Dist. - Buldana.

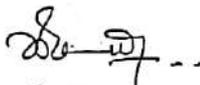
Following are the test results of the sample supplied by you on 03/01/2014. Testing charges Rs.295/- (Rs. Two Hundred & Ninety Five only) are deposited by you vide this office receipt No. 9207979, dated 03/01/2014.

TESTING OF CEMENT CONCRETE CUBES (M-20)

Sample No.	Description	Date of Casting	Date of Testing	Area in cm ²	Ultimate Load In Kg	Compressive Strength in Kg/cm ²
1	RCC COLUMN (METER ROOM)	29.11.2013	03.01.2014	225	51000	226.67
2	RCC COLUMN (METER ROOM)	29.11.2013	03.01.2014	225	51000	226.67
3	RCC COLUMN (METER ROOM)	29.11.2013	03.01.2014	225	53000	235.56
4	RCC PLINTH BEAM (METER ROOM)	30.11.2013	03.01.2014	225	53000	235.56
5	RCC PLINTH BEAM (METER ROOM)	30.11.2013	03.01.2014	225	50000	222.22
6	RCC PLINTH BEAM (METER ROOM)	30.11.2013	03.01.2014	225	52000	231.11

- Note:**
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 - 3) This laboratory is not responsible for any error in the test which is beyond the control of this Lab.
 - 4) Test Results are pertaining to the unsealed material supplied by you / your representative to Institute.


Lecturer-in-charge
Material Testing
AGK01201402


I/c HAMD
Govt. Polytechnic,
Khamgaon.


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Govt. Polytechnic,
Khamgaon.

5/11/7
87



GOVERNMENT POLYTECHNIC, KHAMGAON.

Jalamb Road, Khamgaon Dist- Buldana - 444303

☎ (07263) - 52278, 56644 (O), 54609 (R), E-mail No. gpkhamgaon@rediffmail.com



GPK/AMD/839/TRN-827/13-14/2013

Date: - 18-9-2013

To,
Sub Divisional Engineer
MJP U & R Scheme, Sub Division Khamgaon

Sub: Testing of Materials.

Ref.: Letter No. TB/Sewerage System/227/2013.

Dated. 16/09/2013

Name of Work : Underground Sewerage System For Shegaon Town Ta. Shegaon Dist. Buldana

Following are the test results of the sample supplied by you on 17/09/2013.

Testing charges Rs.295/- (Rs. Two Hundred & Ninety Five only) are deposited by you vide this Office Receipt No. 8837574, dated 17/09/2013.

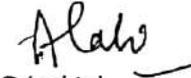
Testing of Concrete Cube

Sample No.	Notation on Cube	Date of Casting	Date of Testing	Area in cm ²	Ultimate Load In Kg	Compressive Strength in Kg/cm ²
1	RCC Slab (Clo Room)	18.08.2013	18.09.2013	225	75000	333.33
2	RCC Slab (Clo Room)	18.08.2013	18.09.2013	225	68000	302.22
3	RCC Slab (Clo Room)	18.08.2013	18.09.2013	225	71000	315.56
4	RCC Wall (Bio. Slud. Sump)	07.09.2013	18.09.2013	225	55000	244.44
5	RCC Wall (Bio. Slud. Sump)	07.09.2013	18.09.2013	225	51000	226.67
6	RCC Wall (Bio. Slud. Sump)	07.09.2013	18.09.2013	225	53000	235.56

- Note :
- 1) This report refers only for the particular samples submitted in the Laboratory.
 - 2) Materials are disposed after testing.
 - 3) This laboratory is not responsible for any error in the test which is beyond the control of this Lab.
 - 4) Test Results are pertaining to the unsealed material supplied by you / your representative to institute.


Lecturer-in-charge
Material Testing
GSJ08201313


I/c HAMD
Govt. Polytechnic,
Khamgaon.


Principal
Govt. Polytechnic,
Khamgaon.



GOVERNMENT POLYTECHNIC, KHAMGAON.

Jalamb Road, Khamgaon Dist:- Buldana - 444303

(07263) - 52278, 50344 (O) 54609 (R), E-mail No. gpkhamgaon@rediffmail.com



GPK/AMD/828/TRN-816/13-14/1566
Date: 20-09-2013

To,
Sub Divisional Engineer
MJP U & R Scheme, Sub Division Khamgaon

Sub: Testing of Materials.

Ref.: Letter No. TB/Sewerage System/287/2013,

Dated. 27/08/2013

Name of Work : Underground Sewerage System For Shegaon Town Ta. Shegaon Dist. Buldana

Following are the test results of the sample supplied by you on 03/09/2013.

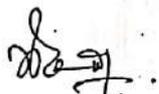
Testing charges Rs. 149/- (Rs. One Hundred & Fourty Nine only) are deposited by you vide this Office Receipt No. 8837559, dated 03/09/2013.

Testing of Concrete Cube

Sample No.	Notation on Cube	Date of Casting	Date of Testing	Area in cm ²	Ultimate Load In Kg	Compressive Strength in Kg/cm ²
1	Raft (Biolo Sludge Sump)	19.08.2013	04.09.2013	225	53000	235.56
2	Raft (Biolo Sludge Sump)	19.08.2013	04.09.2013	225	48000	213.33
3	Raft (Biolo Sludge Sump)	19.08.2013	04.09.2013	225	49000	217.78

- Note :
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 - 4) Test Results are pertaining to the unsealed material supplied by you / your representative to institute


Lecturer-in-charge
Material Testing
GSJ09201302


I/c HAMD
Govt. Polytechnic,
Khamgaon.


Principal
Govt. Polytechnic,
Khamgaon.

56/115
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ANNEXURE-VI

Material Testing Reports of Various Construction Work of Repairs & Rectification Works in the Scheme (2019-20)

A. Testing Reports of RCC Pipes

SGS

SGS India Pvt. Ltd.

Inspection report

BOSS Order No.:	Inspection Report No.: PUNE/DNC/099/2019
Place of inspection: Fursungi (Shevalwadi)	Date of inspection: 28 th December 2019
Time In: 09:00 Hrs.	Time Out: 17:30 Hrs.
Name of the Project (if any)	Shegaon Tirth Kshetra Vikas Arakhada
Name of Client	M/s. Maharashtra Jeevan Pradhikaran Buldana
Name Seller / Manufacturer / Vendor	M/s. Samath Infraland Pvt. Ltd. M/s. New India cement Pipe, Pune
Client's P/O No. & Date	MJP to Samath Letter No. Out No./TENDER/3134/2019 Dated: 31.10.2019
Date of last inspection	NIL
Inspection call reference	E-Mail Confirmation Dated: 25.12.2019
Status of previous hold points / Deviation	
P.O. Status: Completed / Balance / Hold	Completed

Item # as per Contract Order	Description & Size	Quantity as per Contract / Order (Nos.)	Quantity Previously passed (Nos.)	Quantity Offered (Nos.)	Quantity Now Passed (Nos.)	Quantity Rejected (Nos.)	Quantity Balance (Nos.)
	M/s. New India cement Pipe, Make RCC Pipes, Details as Below: - RCC (Reinforced Cement Concrete) Spun Pipe Spigot & Socket End Pipes.						
1.	Size: Ø 200mm Dia., NP2 Class, 1.93 Meters Effective Length Approx.	250 Meters.	NIL	250.9 Meters (130 No's)	*250.9 Meters (130 No's)	NIL	NIL
2.	Size: Ø 150mm Dia., NP3 Class, 2 Meters Effective Length Approx.	1200 Meters	NIL	1200 Meters (600 No's)	*1200 Meters (600 No's)	NIL	NIL
	*Refer Remark on Page 02 of This IR						



[Handwritten Signature]

जा.क्रं / SIPL / १३२ / २०२०-२१

दिनांक: १६.०६.२०२०

प्रती,

कार्यकारी अभियंता
महाराष्ट्र जीवन प्राधिकरण
विभाग, बुलढाणा.

विषय: शेगाव तिर्थक्षेत्र विकास आराखडा

शेगाव भुयारी गटार योजना टप्पा -१ योजनेतील लखपती गल्ली भागातील मलवाहिनीच्या व इतर
विविध भागातील प्रॉपर्टि चेंबरचे बांधकामाबाबत ता.शेगाव जि.बुलढाणा, - - - -
एच.डी.पी.ई. डी.डब्ल्यू.सी. कोरोगेटेड १५० मि.मि. व २०० मि.मि. व्यासाच्या पाईपचे भुगतान
मिळण्याबाबत.

संदर्भ: १) करारनामा क्रं वी-१/१७ सन २०१९-२०

२) आमचे पत्र क्रं. जा.क्रं / SIPL / १३२ / २०२०-२१ दिनांक: ३१/०३/२०२०

महोदय,

मा.अधीक्षक अभियंता, म.जी.प्रा. मंडळ, अकोला यांनी दि. ३०/१२/२०१९ रोजी प्रत्यक्ष कामाची पाहणी करून कामे
शीघ्र गतीने पूर्ण होण्यासाठी एच.डी.पी.ई. डी.डब्ल्यू.सी. , क्लास एस.एन.- ८ पाईप वापरण्याबाबत परवानगी दिली आहे. माझे
म.जी.प्रा. विभाग अमरावती मध्ये अमरावती भुयारी गटार योजनेची कामे चालू असल्याने मि त्याकरिता १५० मि.मि. व २०० मि.मि.
व्यासाचे एच.डी.पी.ई. डी.डब्ल्यू.सी. कोरोगेटेड प्रिन्स कंपनीचे पाईप थर्ड पार्टी तपासणी करून विकत घेतेलेले सदर पाईप
पूर्णपणे माझ्या ताब्यात होते. लखपती गल्ली येथील काम शीघ्र गतीने पूर्ण करण्याच्या दृष्टीने मी सदर पाईप वापरण्याच्या
परवानगीबाबत संदर्भ क्रं.०२ अन्वये विचारणा केली होती. मा. अधीक्षक अभियंता व आपल्याशी झालेल्या चर्चेनुसार सदर पाईप
हे मी विषयांकित योजनेकरीता वापरले आहेत.

सदर पाईप पूर्णपणे माझ्या ताब्यात असल्याने सदर पाईपचे म.जी.प्रा. विभाग, अमरावती कडून कोणतेही भुगतान
आलेले नाही. त्यामुळे त्या पाईपचा १००% मालक मि आहे.

विषयांकित योजनेच्या दुसऱ्या धावते देयकामध्ये सदर पाईपचे पुरवठा करण्याचे देयक अदा न करता
Lowering, Lyaing, Jointing ची रक्कम अदा करण्यात आली आहे. आपणास विनंती करण्यात येते की, सदर पाईप हे माझ्या
मालकीचे असल्याने व म.जी.प्रा. अमरावतीतून सदर बाबतीत कोणतेही भुगतान न झाल्याने अंतिम बिलामध्ये पाईप पुरवठ्याची
रक्कम देण्याबाबत उपविभागास आदेशित करावे, हि विनंती.

आपल्या माहिती व पुढील कार्यावाहीस्तव करावे आदराने सादर.

धन्यवाद.

आपला विश्वासू

(संचालक)

प्रतिलिपी: १) सहाय्यक अभियंता श्रेणी -१ मजीप्रा, उपविभाग खामगाव यांना माहिती व पुढील कार्यवाही

करिता सविनय सादर.

B. Testing Reports of Manhole Cover



K K MANHOLE & GRATINGS CO.

Nasik Office : Shop No.8, Sterling Apartment, Gangapur Road, Anandvali, Nasik-422013
Ph.: +91 253 2340556 Fax : +91 253 2340634 Mob. +91 94222 53037, 98220 36550

Mfg. : Precast Concrete Covers / Frames, Interlocking Pavers, Kerb Stone, Door Frames & other Precast Concrete & Allied Products

Date : 01/11/2017

TEST REPORT

- 1) Description of Stores : 560 mm Dia Manhole Covers & Frames
- 2) Specification : Heavy Duty circular
- 3) Consignee : M/S SMS Paryavaran Ltd.
Shegaon
Dist Buldhana
- 4) Lot Size : 75 Sets
- 5) Sampling Plan : IS 12592 -2002
- 6) Sample Size : 2 Nos for Load Test only

S. No	Parameters	Value Specified	Observation	Remarks
1	Visual	Should be free from Manufacturing Defects etc.	Checked visually & found Satisfactory	Acceptable
2	Load Test	Should Withstand 20 Ton for 30 sec.	Checked for 2 Nos & found no Damage	Acceptable
3	Dimension Test	560 mm Dia Manhole Covers & Frames	Checked for 10 Nos Randomly & found Satisfactory	Acceptable

Thanking you
Yours faithfully
For K K Manhole & Gratings Co.

Proprietor / Authorized Signatory





K K MANHOLE & GRATINGS CO.

Nasik Office : Shop No.8, Sterling Apartment, Gangapur Road, Anandvati, Nasik-422013
 Ph.: +91 253 2340566 Fax : +91 253 2340634 Mob. +91 94222 53037, 98220 36550

Mfg. : Precast Concrete Covers / Frames, Interlocking Pavers, Kerb Stone, Door Frames & other Precast Concrete & Allied Products

Date: 25.09.2017

TEST REPORT

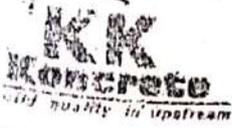
- 1) Description of Stores : 560 mm Dia Manhole Covers & Frames
- 2) Specification. : Heavy Duty circular
- 3) Consignee : M/S SMS Paryavaran Ltd.
Shegaon
Dist Buldhana
- 4) Lot Size : 75 Sets
- 5) Sampling Plan : IS 12592 -2002
- 6) Sample Size : 2 Nos for Load Test only

S.No	Parameters	Value Specified	Observation	Remarks
1	Visual	Should be free from Manufacturing Defects etc.	Checked visually & Found Satisfactory	Acceptable
2	Load Test	Should Withstand 20 Ton for 30 sec.	Checked for 2 Nos & found no Damage	Acceptable
3	Dimension Test	560 mm Dia Manhole Covers & Frames	Checked for 10 Nos Randomly & found Satisfactory	Acceptable

Thanking you
 Yours faithfully
 For K K Manhole & Gratings Co.



Proprietor / Authorised Signatory



K K MANHOLE & GRATINGS CO.

Nasik Office : Shop No.8, Sterling Apartment, Gangapur Road, Anandwadi, Nasik-422013
 Ph.: +91 253 2340550 Fax: +91 253 2340634 Mob: +91 94222 53037 98220 36550

Mfg. : Precast Concrete Covers / Frames, Interlocking Pavings, Kerb Stones, Door Frames & other Precast Concrete & Allied Products

Date: 12/02/12

TEST REPORT

- 1) Description of Stores : 560 mm Dia Manhole Covers & Frames
- 2) Specification : Heavy Duty circular
- 3) Consignee : M/S SMS Paryavaran Ltd.
Shegaon
Dist Buldhara
- 4) Lot Size : 73 Sets
- 5) Sampling Plan : IS 12592 -2002
- 6) Sample Size : 2 Nos for Load Test only

S.No	Parameters	Value Specified	Observation	Remarks
1	Visual	Should be free from Manufacturing Defects etc.	Checked visually & Found Satisfactory	Acceptable
2	Load Test	Should Withstand 20 Ton for 30 sec.	Checked for 2 Nos & found no Damage	Acceptable
3	Dimension Test	560 mm Dia Manhole Covers & Frames	Checked for 10 Nos Randomly & found Satisfactory	Acceptable

Thanking you
 Yours faithfully
 For K K Manhole & Gratings Co



Proprietor / Authorised Signatory

**C. Testing Reports of MBBR (Fluidized
Random Bio Media) Media**

**D. Testing Reports of Cement, Sand,
Aggregates & Bricks**

Lok Sewa Shikshan Bahiruddeshiya Mandal's
Padmashri Dr. V. B. Kolte College of Engineering
Malkapur
 (Approved By AICTE-New Delhi, Government of Maharashtra,
 DTE, Affiliated to SGBAU Amravati and MSBTE-Mumbai)

DTE Code: 1182

VBKCOE/Civil/Testing/2019/ 2 4 4 | 01

Date: 21/11/2019

To,
 The Assistant Engineer Grade-I
 M.J.P. Sub Dn Khamgaon

Subject: Under Shegaon Tirtha Kshetra Vikas Aarakhada
 Balance work construction of manhole chambers at Lakhpati Galli and construction
 of property chambers at different location in, shegaon.

Reference: L.TB/Shegaon Phase-I/749/2020
 M.J.P. Sub Dn Khamgaon Dated: 18/11/2019

Name of site: At Shegaon

Name of Agency: Sainath Infraland Pvt. Ltd, Gulshan plaza, Raja Peth, Amravati

TEST REPORT

Testing of Cement (OPC 43 Grade)

Sr. No.	Name of Test	Test Result
1	Finess	3.24
2	Normal Consistency	28.56
3	Initial Setting Time	136 Minute
4	Final Setting Time	338 Minute
5	Compressive Strength (3Days)	24.19 N/mm ²
	Compressive Strength (7Days)	34.45 N/mm ²
	Compressive Strength (28Days)	43.23 N/mm ²
6	Soundness Test	4.00 mm

Testing of Crushed Metal (20mm)

Sr. No.	Name of Test	Test Result
1	Impact Value	9.08 %
2	Crushing Strength	11.57 %
3	Abrasion Test	12.77 %

Testing of Sand

Sr. No.	Name of Test	Test Result
1	Fineness Modulus Test	2.78
2	Silt Content	3.10 %

Tel : (07267) 226700 Fax:07267-224943
 Website : www.coemalkapur.ac.in Email : coemalkapur@rediffmail.com

Mati

97/188

ANNEXURE-VII

Test Reports of Sewage Samples at Inlet and Outlet of Sewage Treatment Plant

A. Test Reports of Maharashtra Engineering Research Institute (MERI- Hydrology project), Nashik

Jalvidyan Bhavan
Dindori Road
Nashik-422004

Government of Maharashtra
(Water Resources Department)
Hydrology Project

☎/FAX (0233) 2532972

WATER QUALITY LABORATORY LEVEL-II,NASHIK	
QF/SALES/01	Amendment No : 01. Date: 01/04/2016
	Page No: 01 of 01
Web : www.mahahp.gov.in	Email Id : sdehps.Nashik@mahahp.org
No. WQLAB L-II/NASHIK/39/2021	Date : 18/02/2021

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No. MJP/Shegaon/Est/89/2021 Date: 09/02/2021
Respected Sir/Madam,

Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

SAMPLE ANALYSIS REPORT

- 1. Nature of Sample: - 07 MLD STP Outlet Water
- 2. Date of Sampling: -10/02/2021
- 3. Date of receipt of Sample: 10/02/2021
- 4. Sample Collected by: -Party

Sr.No.	Parameters	Results	Units
<i>Physiochemical Analysis</i>			
1	pH	7.56	---
2	Suspended Solids	28.0	mg/L
3	Total Dissolved Solid	214	mg/L
4	Biochemical Oxygen Demand (BOD)	14.0	mg/l
5	Chemical Oxygen Demand(COD)	34.0	mg/L

Yours Faithfully,



[Signature]
ASSISTANT ENGINEER-I,
HYDROLOGY PROJECT SUB DIVISION
NASHIK.

WATER QUALITY LABORATORY LEVEL-II, NASHIK	
QF/SALES/01	Amendment No : 01, Date: 01/04/2016
	Page No: 01 of 01
Web : : www.mahahp.gov.in	Email Id : : sdehps:Nashik@mahahp.org
No. WQLAB L-II/NASHIK/14/2021	Date : 29/01/2021

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref - Your Letter No. MJP/Shegaon/Test/ 43 /2021 Date: 21/01/2021

Respected Sir/Madam,

Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

SAMPLE ANALYSIS REPORT

1. Nature of Sample: -: 07 MLD STP Inlet Water 2. Date of Sampling: -22/01/2021
3. Date of receipt of Sample: 22/01/2021 4. Sample Collected by: -Party

Sr.No.	Parameters	Results	UPnits
<i>Physiochemical Analysis</i>			
1	pH	7.14	---
2	Suspended Solids	212	mg/L
3	Total Dissolved Solid	522	mg/L
4	Biochemical Oxygen Demand (BOD)	74.6	mg/L
5	Chemical Oxygen Demand(COD)	224	mg/L

Yours Faithfully,



12/12/21
ASSISTANT ENGINEER-I,
HYDROLOGY PROJECT SUB DIVISION
NASHIK.

WATER QUALITY LABORATORY LEVEL-II, NASHIK
QF/SALES/01

Amendment No : 01. Date: 01/04/2016

Page No: 01 of 01

Email Id: : sdehps.Nashik@mahahp.org

Web: www.mahahp.gov.in

Date : 29/01/2021

No. WQLAB L-II/NASHIK/15/2021

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No. MJP/Shegaon/Test/43/2021 Date: 21/01/2021

Respected Sir/Madam,

Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

SAMPLE ANALYSIS REPORT

1. Nature of Sample: -: 07 MLD STP Outlet Water 2. Date of Sampling: -22/01/2021
3. Date of receipt of Sample: 22/01/2021 4. Sample Collected by: -Party

Sr.No.	Parameters	Results	Units
<i>Physiochemical Analysis</i>			
1	pH	7.56	---
2	Suspended Solids	26.0	mg/L
3	Total Dissolved Solid	212	mg/L
4	Biochemical Oxygen Demand (BOD)	14.0	mg/L
5	Chemical Oxygen Demand(COD)	38.2	mg/L

Yours Faithfully,



ASSISTANT ENGINEER-1,
HYDROLOGY PROJECT SUB DIVISION
NASHIK.

Jalvidyan Bhavan
Dindori Road
Nashik 422004

Government of Maharashtra
(Water Resources Department)
Hydrology Project

FAX (0253) 2532972

WATER QUALITY LABORATORY LEVEL-II, NASHIK
QF/SALES/01

Amendment No : 01, Date: 01/04/2016

Page No: 01 of 01

Email Id : sdchps.Nashik@mahahp.org

Date : 24/12/2020

Web : www.mahahp.gov.in

No. WQLAB L-II/NASHIK/514/2020

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No. MJP/Shegaon/Test/754/2020 Date: 15/12/2020

Respected Sir/Madam,

Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

SAMPLE ANALYSIS REPORT

1. Nature of Sample: - 07 MLD STP Inlet Water 2. Date of Sampling: - 16/12/2020
3. Date of receipt of Sample: 16/12/2020 4. Sample Collected by: - Party

Sr.No.	Parameters	Results	UPnits
<i>Physiochemical Analysis</i>			
1	pH	7.18	---
2	Suspended Solids	164	mg/L
3	Total Dissolved Solid	452	mg/L
4	Biochemical Oxygen Demand (BOD)	62.2	mg/L
5	Chemical Oxygen Demand (COD)	142	mg/L

Yours Faithfully,



ASSISTANT ENGINEER-1,
HYDROLOGY PROJECT SUB DIVISION
NASHIK.

Jalvidhyan Bhavan
Dindori Road
Nashik 422004

Government of Maharashtra
(Water Resources Department)
Hydrology Project

FAX (0253) 2532972

WATER QUALITY LABORATORY LEVEL-II, NASHIK
QF/SALES/01

Amendment No : 01, Date: 01/04/2016

Page No: 01 of 01

Email Id : sdelhps.Nashik@mahahp.org

Date : 24/12/2020

Web : www.mahahp.gov.in

No. WQLAB L-II/NASHIK/515/2020

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No. MJP/Shigaon/Tes/754/2020 Date: 15/12/2020

Respected Sir/Madam,

Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

SAMPLE ANALYSIS REPORT

1. Nature of Sample: - 07 MLD STP Outlet Water
2. Date of Sampling: - 16/12/2020
3. Date of receipt of Sample: 16/12/2020
4. Sample Collected by: - Party

Sr.No.	Parameters	Results	Units
<i>Physiochemical Analysis</i>			
1	pH	7.56	---
2	Suspended Solids	16.0	mg/L
3	Total Dissolved Solid	154	mg/L
4	Biochemical Oxygen Demand (BOD)	9.0	mg/L
5	Chemical Oxygen Demand(COD)	22.0	mg/L

Yours Faithfully,



ASSISTANT ENGINEER-1,
HYDROLOGY PROJECT SUB DIVISION
NASHIK.

Jalvidyan Bhavan
Dindori Road
Nashik 422004

Government of Maharashtra
(Water Resources Department)
Hydrology Project

☎/FAX (0253) 2512972

WATER QUALITY LABORATORY LEVEL-II, NASHIK	
QF/SALES/01	Amendment No: 01, Date: 01/04/2016
	Page No: 01 of 01
Web : www.mahhp.gov.in	Email Id : sdehps.Nashik@mahhp.org

No. WQLAB L-II/NASHIK/494/2020

Date : 18/11/2020

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No. MJP/Shegaon/Test/679/2020 Date: 06/11/2020

Respected Sir/Madam,

Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

SAMPLE ANALYSIS REPORT

- 1. Nature of Sample: -: 07 MLD STP Inlet Water
- 2. Date of Sampling: -06/11/2020
- 3. Date of receipt of Sample: 06/11/2020
- 4. Sample Collected by: -Party

Sr.No.	Parameters	Results	UPUnits
<i>Physiochemical Analysis</i>			
1	pH	7.21	---
2	Suspended Solids	226	mg/l.
3	Total Dissolved Solid	388	mg/l.
4	Biochemical Oxygen Demand (BOD)	64.2	mg/l.
5	Chemical Oxygen Demand(COD)	188	mg/l.

Yours Faithfully,



[Signature]
 ASSISTANT ENGINEER-I,
 HYDROLOGY PROJECT SUB DIVISION
 NASHIK.

Jalvidyan Bhawan
Dindori Road
Nashik 422001

Government of Maharashtra
(Water Resources Department)
Hydrology Project

☎/FAX (0253) 2532972

WATER QUALITY LABORATORY LEVEL-II, NASHIK	
QF/SALES/01	Amendment No : 01, Date: 01/04/2016
Web : : www.mahahp.gov.in	Page No: 01 of 01
No. WQLAB L-II/NASHIK/495/2020	Email Id : : sdehps.Nashik@mahahp.org Date : 18/11/2020

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No. MJP/Shegaon/Test/679/2020 Date: 06/11/2020

Respected Sir/Madam.

Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

SAMPLE ANALYSIS REPORT

1. Nature of Sample: -: 07 MLD STP Outlet Water 2. Date of Sampling: -06/11/2020
3. Date of receipt of Sample: 06/11/2020 4. Sample Collected by: -Party

Sr.No.	Parameters	Results	Units
<i>Physiochemical Analysis</i>			
1	pH	7.54	---
2	Suspended Solids	18.0	mg/L
3	Total Dissolved Solid	184	mg/L
4	Biochemical Oxygen Demand (BOD)	10.0	mg/L
5	Chemical Oxygen Demand(COD)	28.0	mg/L

Yours Faithfully,



[Signature]
ASSISTANT ENGINEER-1,
HYDROLOGY PROJECT SUB DIVISION
NASHIK.

Jalvidyan Bhavan
Dindori Road
Nashik-422004

Government of Maharashtra
(Water Resources Department)
Hydrology Project

Tel/FAX (0253) 2532972

WATER QUALITY LABORATORY LEVEL-II, NASHIK	
QF/SALES/01	Amendment No : 01, Date: 01/04/2016
Web: www.mahaqp.gov.in	Page No: 01 of 01
No. WQLAB L-II/NASHIK/263/2020	Email Id: sdehps.Nashik@mahaqp.org
	Date : 14/09/2020

To:
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No: MJP/Shegaon/Test/ /2019 Date: 04/09/2020

Respected Sir/Madam,

Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

SAMPLE ANALYSIS REPORT

1. Nature of Sample: - 07 MLD STP Inlet Water 2. Date of Sampling: -07/09/2020
3. Date of receipt of Sample: 07/09/2020 4. Sample Collected by: -Party

Sr.No.	Parameters	Results	UPnits
<i>Physiochemical Analysis</i>			
1	pH	7.32	—
2	Suspended Solids	232	mg/L
3	Total Dissolved Solid	655	mg/L
4	Biochemical Oxygen Demand (BOD)	76.3	mg/L
5	Chemical Oxygen Demand(COD)	238	mg/L

Yours Faithfully,



[Signature]
ASSISTANT ENGINEER-1,
HYDROLOGY PROJECT SUB DIVISION
NASHIK.

Jalvidyan Bhavan
Dindori Road
Nashik-422004

Government of Maharashtra
(Water Resources Department)
Hydrology Project

FAX (0253) 2532972

1538

WATER QUALITY LABORATORY LEVEL-II, NASHIK
QF/SALES/01

Amendment No.: 01, -Date: 01/04/2016
Page No: 01 of 01
Email Id: sdehps.Nashik@mahaip.org
Date: 14/09/2020

Web: www.mahaip.gov.in
No. WQLAB L-II/NASHIK/264/2020

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: Your Letter No. MIP/Shegan/Tes/ /2020 Date: 04/09/2020

Respected Sir/Madam,

Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

SAMPLE ANALYSIS REPORT

1. Nature of Sample: - 07 MLD STP Outlet Water
2. Date of Sampling: - 07/09/2020
3. Date of receipt of Sample: 07/09/2020
4. Sample Collected by: - Party

Sr.No.	Parameters	Results	Units
<i>Physiochemical Analysis</i>			
1	pH	7.42	
2	Suspended Solids	22.0	mg/L
3	Total Dissolved Solid	208	mg/L
4	Biochemical Oxygen Demand (BOD)	12.0	mg/L
5	Chemical Oxygen Demand(COD)	38.2	mg/L

Yours Faithfully,



ASSISTANT ENGINEER-1,
HYDROLOGY PROJECT SUB DIVISION
NASHIK

WATER QUALITY LABORATORY LEVEL-II, NASHIK

QF/SALES/01	Amendment No : 01 / Date: 01/04/2016
	Page No: 01 of 01
Web : www.mahhp.gov.in	Email Id : sdehps.Nashik@mahhp.org
No. WQLAB-I-II/NASHIK/293 /2020	Date : 14/08/2020

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No. MJP/Shegaon/Test/477/2019 Date: 06/08/2020

Respected Sir/Madam,

Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

SAMPLE ANALYSIS REPORT

1. Nature of Sample: - 07 MLD STP Inlet Water 2. Date of Sampling: - 06/08/2020
3. Date of receipt of Sample: 06/08/2019 4. Sample Collected by: - Party

Sr.No.	Parameters	Results	UPnits
<i>Physicochemical Analysis</i>			
1	pH	7.36	---
2	Suspended Solids	222	mg/L
3	Total Dissolved Solid	602	mg/L
4	Biochemical Oxygen Demand (BOD)	72.4	mg/L
5	Chemical Oxygen Demand(COD)	234	mg/L

Yours Faithfully,



ASSISTANT ENGINEER-1,
HYDROLOGY PROJECT SUB DIVISION
NASHIK.

Division of Jeevan
Dindori Road
Nashik-422001

Government of Maharashtra
(Water Resources Department)
Hydrology Project

T/FAX (0253) 2532972

WATER QUALITY LABORATORY LEVEL-II, NASHIK

QF/SALES/01

Amendment No: 01, Date: 01/03/2016

Page No: 01 of 01

Web: www.maharp.gov.in

Email Id: scelips.Nashik@maharp.org

No. WQLAB-II/NASHIK/294/2020

Date: 14/08/2020

To:

Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No. MJP/Shegaon/Test/477/2020 Date: 06/08/2020

Respected Sir/Madam,

Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

SAMPLE ANALYSIS REPORT

1. Nature of Sample: - 07 MLD STP Outlet Water 2. Date of Sampling: - 06/08/2020
3. Date of receipt of Sample: 06/08/2020 4. Sample Collected by: - Party

Sr.No.	Parameters	Results	Units
<i>Physiochemical Analysis</i>			
1	pH	7.56	---
2	Suspended Solids	24.0	mg/L
3	Total Dissolved Solid	182	mg/L
4	Biochemical Oxygen Demand (BOD)	12.0	mg/L
5	Chemical Oxygen Demand (COD)	32.0	mg/L

Yours Faithfully,



ASSISTANT ENGINEER-1
HYDROLOGY PROJECT SUB DIVISION
NASHIK.

Jalvidnyan Bhavan
Dindori Road
Nashik 422004

Government of Maharashtra
(Water Resources Department)
Hydrology Project

/FAX (0253) 2532972

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WATER QUALITY LABORATORY LEVEL-II, NASHIK

QF/ SALES/01

Amendment No.: 01, Date: 01/04/2016

Page No: 01 of 01

Web: www.mahahp.gov.in

Email Id: sdehps.Nashik@mahahp.org

No. WQLAB L-II/NASHIK/243/2020

Date: 06/07/2020

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No. MJP/Shegaon/Test/ 72020 Date: 30/06/2020

Respected Sir/Madam,

Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

SAMPLE ANALYSIS REPORT

1. Nature of Sample: -: 07 MLD STP Inlet Water 2. Date of Sampling: -30/06/2020
3. Date of receipt of Sample: 30/06/2020 4. Sample Collected by: -Party

Sr.No.	Parameters	Results	UPnits
<i>Physiochemical Analysis</i>			
1	pH	7.46	---
2	Suspended Solids	148	mg/L
3	Total Dissolved Solid	452	mg/L
4	Biochemical Oxygen Demand (BOD)	76.2	mg/L
5	Chemical Oxygen Demand(COD)	188	mg/L

Yours Faithfully,



[Signature]
ASSISTANT ENGINEER-I,
HYDROLOGY PROJECT SUB DIVISION
NASHIK.

WATER QUALITY LABORATORY LEVEL-II, NASHIK

QF/SALES/01

Amendment No. 01, Date: 01/04/2016

Page No. 01 of 01

Web : www.mahatp.gov.in

Email id : sdclips.Nashik@mahatp.org

Date : 06/07/2020

No. WQLAB L-II NASHIK/344/2020

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref. - Your Letter No. MJP/Shegaon/Fest/ /2020 Date: 30/06/2020

Respected Sir/Madam,

Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

SAMPLE ANALYSIS REPORT

1. Nature of Sample: -: 07 MLD STP Outlet Water 2. Date of Sampling: -30/06/2020
3. Date of receipt of Sample: 30/06/2020 4. Sample Collected by: -Party

Sr.No.	Parameters	Results	Units
<i>Physiochemical Analysis</i>			
1	pH	7.58	---
2	Suspended Solids	22.0	mg/L
3	Total Dissolved Solid	220	mg/L
4	Biochemical Oxygen Demand (BOD)	10.0	mg/L
5	Chemical Oxygen Demand (COD)	36.0	mg/L

Yours Faithfully,



ASSISTANT ENGINEER-I,
HYDROLOGY PROJECT SUB-DIVISION
NASHIK.

Jalvidyan Bhiyan
Dindori Road
Nashik 422004

Government of Maharashtra
(Water Resources Department)
Hydrology Project

☎/FAX (0253) 2532972

WATER QUALITY LABORATORY LEVEL-II, NASHIK

QF/ SALES/01	Amendment No : 01. Date: 01/04/2016
Web : www.mahahp.gov.in	Page No: 01 of 01
No. WQLAB L-II/NASHIK/262 /2020	Email-Id: sdehps.Nashik@mahahp.org
	Date : 14/07/2020

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No. MJP/Shegaon/Test/ /2019 Date: 05/07/2020

Respected Sir/Madam,

Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

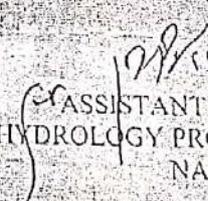
SAMPLE ANALYSIS REPORT

1. Nature of Sample: - 07 MLD STP Inlet Water 2. Date of Sampling: - 07/07/2020
3. Date of receipt of Sample: 07/07/2020 4. Sample Collected by: - Party

Sr.No.	Parameters	Results	UPunits
<i>Physiochemical Analysis</i>			
1	pH	7.24	---
2	Suspended Solids	162	mg/L
3	Total Dissolved Solid	416	mg/L
4	Biochemical Oxygen Demand (BOD)	54.2	mg/L
5	Chemical Oxygen Demand(COD)	158.0	mg/L

Yours Faithfully,



for 
ASSISTANT ENGINEER-1,
HYDROLOGY PROJECT SUB DIVISION
NASHIK

Varjanyan Bhavan
Dindori Road
Nashik 422004

Government of Maharashtra
(Water Resources Department)
Hydrology Project

☎/FAX (0253) 2512972

WATER QUALITY LABORATORY LEVEL-II, NASHIK

QR/SALES/01	Amendment No. 01, Date: 01/04/2016
Web: www.walialhp.gov.in	Page No. 01 of 01
No. WQLAB/II/NASHIK/263/2020	Email Id: sdehps.Nashik@maharip.org
	Date: 14/07/2020

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No. MJP/Shegaon/Teft/.../2020 Date: 05/07/2020

Respected Sir/Madam,
Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

SAMPLE ANALYSIS REPORT

- 1. Nature of Sample: - 07 MLD STP Outlet Water
- 2. Date of Sampling: - 07/07/2020
- 3. Date of receipt of Sample: 07/07/2020
- 4. Sample Collected by: - Party

Sr.No.	Parameters	Results	Units
<i>Physiochemical Analysis</i>			
1	pH	7.48	--
2	Suspended Solids	22.0	mg/L
3	Total Dissolved Solid	112	mg/L
4	Biochemical Oxygen Demand (BOD)	14.0	mg/L
5	Chemical Oxygen Demand(COD)	38.0	mg/L

Yours Faithfully,



[Signature]
ASSISTANT ENGINEER-I,
HYDROLOGY PROJECT SUB DIVISION
NASHIK.

Jalvidyan Bhavan
Dindori Road
Nashik 422004

Government of Maharashtra
(Water Resources Department)
Hydrology Project

TEL/FAX (0253) 253253

WATER QUALITY LABORATORY LEVEL-II, NASHIK

QF/SALES/01	Amendment No.: 01, Date: 01/04/2016
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Web : www.mahhp.gov.in	Email Id : sdehps.Nashik@mahhp.org
No. WQLAB L-II/NASHIK/223/2020	Date : 16/06/2020

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No. MJP/Shegaon/Test/317/2019 Date: 08/06/2020

Respected Sir/Madam,

Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

SAMPLE ANALYSIS REPORT

1. Nature of Sample: -: 07 MLD STP Inlet Water
2. Date of Sampling: -08/06/2020
3. Date of receipt of Sample: 08/06/2020
4. Sample Collected by: -Party

Sr.No.	Parameters	Results	Units
<i>Physiochemical Analysis</i>			
1	pH	7.34	---
2	Suspended Solids	226	mg/L
3	Total Dissolved Solid	521	mg/L
4	Biochemical Oxygen Demand (BOD)	74.0	mg/L
5	Chemical Oxygen Demand(COD)	256	mg/L

Yours Faithfully,



[Signature]
ASSISTANT ENGINEER-1,
HYDROLOGY PROJECT SUB DIVISION
NASHIK.

Adityan Bhavan
Dori Road
Nashik-422004

Government of Maharashtra
(Water Resources Department)
Hydrology Project

TELEPHONE: 2532972
FAX: (0253) 2532972

WATER QUALITY LABORATORY LEVEL-II, NASHIK

QF/SALES/01

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Page No. 01 of 01

Web : www.mahahp.gov.in

Email Id : sdehps.Nashik@mahahp.org

No. WQLAB L-II/NASHIK/224/2020

Date : 16/06/2020

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No. MJP/Shegaon/Test/317/2019 Date: 08/06/2020

Respected Sir/Madam,

Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

SAMPLE ANALYSIS REPORT

1. Nature of Sample: - 07 MLD STP Outlet Water
2. Date of Sampling: -08/06/2020
3. Date of receipt of Sample: 08/06/2020
4. Sample Collected by: -Party

Sr.No.	Parameters	Results	Units
<i>Physiochemical Analysis</i>			
1	pH	7.54	---
2	Suspended Solids	22.0	mg/L
3	Total Dissolved Solid	224	mg/L
4	Biochemical Oxygen Demand (BOD)	12.0	mg/L
5	Chemical Oxygen Demand(COD)	38.0	mg/L

Yours Faithfully,



ASSISTANT ENGINEER-I,
HYDROLOGY PROJECT SUB DIVISION
NASHIK.

Jalvidyan Bhavan
Dindori Road
Nashik 422004

Government of Maharashtra
(Water Resources Department)
Hydrology Project

/FAX (0253) 2532972

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WATER QUALITY LABORATORY LEVEL-II, NASHIK	
QF/SALES/01	Amendment No : 01, Date: 01/04/2016
	Page No: 01 of 01
Web : www.mahhp.gov.in	Email Id : sdehps.Nashik@mahhp.org
No. WQLAB-L-II/NASHIK/210 2020	Date : 05/06/2020

To:
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No. MIP/Shegaon/Test/ /2019 Date: 29/05/2020

Respected Sir/Madam,

Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

SAMPLE ANALYSIS REPORT

1. Nature of Sample: - 07 MED STP Inlet Water 2. Date of Sampling: - 30/05/2020
3. Date of receipt of Sample: 30/05/2020 4. Sample Collected by: - Party

Sr.No.	Parameters	Results	UPnits
<i>Physiochemical Analysis</i>			
1	pH	7.12	---
2	Suspended Solids	220	mg/L
3	Total Dissolved Solid	540	mg/L
4	Biochemical Oxygen Demand (BOD)	64.4	mg/L
5	Chemical Oxygen Demand (COD)	164	mg/L

Yours Faithfully,



[Signature]
ASSISTANT ENGINEER-I
HYDROLOGY PROJECT SUB DIVISION
NASHIK

WATER QUALITY LABORATORY LEVEL-II, NASHIK

QT/SALUS/01

Amendment No: 01, Date: 07/04/2016

Page No: 01 of 01

Web: www.mahahp.gov.in

Email Id: sdehps.Nashik@mahahp.org

No. WQLAB-II/NASHIK/211/2020

Date: 05/06/2020

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No. MJP/Shegaon/Test/ 2020 Date: 29/05/2020

Respected Sir/Madam,

Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

SAMPLE ANALYSIS REPORT

1. Nature of Sample: - 07 MED STP Outlet Water 2. Date of Sampling: - 30/06/2020
3. Date of receipt of Sample: 30/06/2020 4. Sample Collected by: - Party

Sr.No.	Parameters	Results	Units
<i>Physiochemical Analysis</i>			
1	pH	7.42	
2	Suspended Solids	22.0	mg/L
3	Total Dissolved Solid	142	mg/L
4	Biochemical Oxygen Demand (BOD) ₅	11.0	mg/L
5	Chemical Oxygen Demand (COD)	36.0	mg/L

Yours Faithfully,



Assistant Engineer-I
HYDROLOGY PROJECT SUB DIVISION
NASHIK.

WATER QUALITY LABORATORY LEVEL-II NASHIK	
QI7/SAL/BS/01	Amendment No: 01, Date: 01/03/2016
Web: www.mahahp.gov.in	Page No: 01 of 01
No. WQA/BT-II/NASHIK/203/20120	Email Id: sdehps.Nashik@mahahp.org
	Date: 15/05/2020

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division, Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No. NPP/Shegaon/Test/ /2020 Date: 05/05/2020

Respected Sir/Madam,

Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

SAMPLE ANALYSIS REPORT

1. Nature of Sample: - MLD STP Inlet Water 2. Date of Sampling: - 06/05/2020
3. Date of receipt of Sample: 06/05/2020 4. Sample Collected by: - Party

Sr.No.	Parameters	Results	Units
<i>Physiochemical Analysis</i>			
1	pH	7.46	
2	Suspended Solids	232	mg/L
3	Total Dissolved Solid	606	mg/L
4	Biochemical Oxygen Demand (BOD)	78.0	mg/L
5	Chemical Oxygen Demand (COD)	242	mg/L

Yours Faithfully,



[Signature]
ASSISTANT ENGINEER,
HYDROLOGY PROJECT SUB DIVISION
NASHIK

Jeevan Bhavan
Dindori Road
Nashik 422004

Government of Maharashtra
(Water Resources Department)
Hydrology Project

WATER QUALITY LABORATORY LEVEL-II, NASHIK
Q/SALES/01

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Email Id: : sdehps.Nashik@mahaqp.org

Web : www.mahaqp.gov.in
No. WQL AB L-II/NASHIK/205/2020

Date : 15/05/2020

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No. MJP/Shegaon/Tests/2020 Date: 06/05/2020

Respected Sir/Madam,

Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

SAMPLE ANALYSIS REPORT

- 1. Nature of Sample: - 07 MLD STP Outlet Water
- 2. Date of Sampling: - 06/05/2020
- 3. Date of receipt of Sample: 06/05/2020
- 4. Sample Collected by: - Party

Sr.No.	Parameters	Results	Units
<i>Physiochemical Analysis</i>			
1	pH	7.52	---
2	Suspended Solids	26.0	mg/L
3	Total Dissolved Solid	26.4	mg/L
4	Biochemical Oxygen Demand (BOD)	16.0	mg/L
5	Chemical Oxygen Demand (COD)	48.0	mg/L

Yours Faithfully,



[Signature]
ASSISTANT ENGINEER-I
HYDROLOGY PROJECT SUB DIVISION
NASHIK

Jalvidyan Bhavan
Dindori Road
Nashik 422004

Government of Maharashtra
(Water Resources Department)
Hydrology Project

/FAX (0253) 2532972

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WATER QUALITY LABORATORY LEVEL-II, NASHIK	
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	Page No: 01 of 01
Web : : www.mahhp.gov.in	Email Id : : sdehps.Nashik@mahhp.org

No. WQLAB L-II/NASHIK/111/2020

Date : 08/04/2020

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: Your Letter No. MJP/Shegaon/Test/246/2019 Date: 27/03/2020

Respected Sir/Madam,

Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

SAMPLE ANALYSIS REPORT

1. Nature of Sample: -: 07 MLD STP Inlet Water 2. Date of Sampling: -30/03/2020
3. Date of receipt of Sample: 30/03/2019 4. Sample Collected by: -Party

Sr.No.	Parameters	Results	Units
<i>Physiochemical Analysis</i>			
1	pH	7.36	---
2	Suspended Solids	222	mg/L
3	Total Dissolved Solid	602	mg/L
4	Biochemical Oxygen Demand (BOD)	72.4	mg/L
5	Chemical Oxygen Demand(COD)	234	mg/L

Yours Faithfully,



ASSISTANT ENGINEER-1,
HYDROLOGY PROJECT SUB DIVISION
NASHIK.

Jalvidhyan Bhavan
Dindori Road
Nashik 422004

Government of Maharashtra
(Water Resources Department)
Hydrology Project

FAX (0253) 2532972

WATER QUALITY LABORATORY LEVEL-II, NASHIK	
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Web : www.mahahp.gov.in	Email Id : sdehps.Nashik@mahahp.org
No. WOLAB L-II/NASHIK/112/2020	Date : 08/04/2020

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No. MJP/Shegaon/Test/246/2020 Date: 27/03/2020

Respected Sir/Madam,

Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

SAMPLE ANALYSIS REPORT

- 1. Nature of Sample :- 07 MLD STP Outlet Water
- 2. Date of Sampling: -30/03/2020
- 3. Date of receipt of Sample: 30/03/2020
- 4. Sample Collected by: -Party

Sr.No.	Parameters	Results	Units
<i>Physiochemical Analysis</i>			
1	pH	7.54	---
2	Suspended Solids	22.0	mg/L
3	Total Dissolved Solid	212	mg/L
4	Biochemical Oxygen Demand (BOD)	14.0	mg/L
5	Chemical Oxygen Demand(COD)	38.2	mg/L

Yours Faithfully,



[Signature]
 ASSISTANT ENGINEER-I,
 HYDROLOGY PROJECT SUB DIVISION
 NASHIK.

Jalvibhavan Bhavan
Dindori Road
Nashik-422004

Government of Maharashtra
(Water Resources Department)
Hydrology Project

T/FAX (0253) 2532972

WATER QUALITY LABORATORY LEVEL-II, NASHIK	
Q7/SALES/01	Amendment No: 01, Date: 01/04/2016
	Page No: 01 of 01
Web: : www.mahahp.gov.in	Email Id: : sdehps.Nashik@mahahp.org
No: WQLAB L-II/NASHIK/73/2020	Date: 12/02/2020

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division-Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No. MJF/Shigson/Test/110/2020 Date: 04/02/2020

Respected Sir/Madam,

Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

SAMPLE ANALYSIS REPORT

1. Nature of Sample: - 07 MLD STP Inlet Water 2. Date of Sampling: -05/02/2020
3. Date of receipt of Sample: 05/02/2020 4. Sample Collected by: -Party

Sr.No.	Parameters	Results	Units
<i>Physicochemical Analysis</i>			
1	pH	7.42	---
2	Suspended Solids	218	mg/L
3	Total Dissolved Solid	524	mg/L
4	Biochemical Oxygen Demand (BOD)	72.0	mg/L
5	Chemical Oxygen Demand(COD)	210	mg/L

Yours Faithfully,



[Signature]
ASSISTANT ENGINEER-I
HYDROLOGY PROJECT SUB DIVISION
NASHIK

Jaladhyan Bhavan
Director, Board
Nashik-422004

Government of Maharashtra
(Water Resources Department)
Hydrology Project

TELEPHONE: (0253) 2532972
FAX: (0253) 2532972

WATER QUALITY LABORATORY LEVEL-II, NASHIK	
QW/SALUS/01	Amendment No: 01, Date: 01/04/2016
Page No: 01 of 1	
Email Id: edehp.nashik@maharip.org	
Date: 12/02/2020	

Web: www.maharip.gov.in
No. WQLAB-L-II/NASHIK/74/2020

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No. MJP/Shegaon/154/110/2020 Date: 04/02/2020

Respected Sir/Madam,
Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

SAMPLE ANALYSIS REPORT

- 1. Nature of Sample: - 07 MID STP Outlet Water
- 2. Date of Sampling: - 05/02/2020
- 3. Date of receipt of Sample: 05/02/2020
- 4. Sample Collected by: - Party

Sr.No.	Parameters	Results	Units
<i>Physicochemical Analysis</i>			
1	pH	7.22	---
2	Suspended Solids	22.0	mg/L
3	Total Dissolved Solid	234	mg/L
4	Biochemical Oxygen Demand (BOD)	14.0	mg/L
5	Chemical Oxygen Demand(COD)	38.0	mg/L

Yours Faithfully,



[Signature]
ASSISTANT ENGINEER-I
HYDROLOGY PROJECT SUB DIVISION
NASHIK

Jalvidnyan Bhavan
Dindori Road
Nashik 422004

Government of Maharashtra
(Water Resources Department)
Hydrology Project

FAX (0253) 2532972

1555

WATER QUALITY LABORATORY LEVEL-II, NASHIK	
QF/ SALES/01	Amendment No : 01, Date: 01/04/2016
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Web : : www.mahahp.gov.in	Email Id : : sdehps.Nashik@mahahp.org
No. WQLAB L-II/NASHIK/13/2020	Date : 18/01/2020

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No. MJP/Shegaon/Test/42/2020 Date: 10/01/2020
Respected Sir/Madam,

Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

SAMPLE ANALYSIS REPORT

1. Nature of Sample: -: 07 MLD STP Inlet Water
2. Date of Sampling: -10/01/2020
3. Date of receipt of Sample: 10/01/2020
4. Sample Collected by: -Party

Sr.No.	Parameters	Results	Units
<i>Physiochemical Analysis</i>			
1	pH	7.54	---
2	Suspended Solids	232	mg/L
3	Total Dissolved Solid	614	mg/L
4	Biochemical Oxygen Demand (BOD)	82.2	mg/L
5	Chemical Oxygen Demand(COD)	256	mg/L

Yours Faithfully,



ASSISTANT ENGINEER-1,
HYDROLOGY PROJECT SUB DIVISION
NASHIK.

Jalvidyan Bhava
Dindori Road
Nashik 422004

Government of Maharashtra
(Water Resources Department)
Hydrology Project

Tel/FAX (0253) 2 172

WATER QUALITY LABORATORY LEVEL-II, NASHIK	
QF/SALES/01	Amendment No : 01, Date: 01/04/2016
Web : www.mahaqp.gov.in	Page No: 01 of 01
No. WQLAB L-II/NASHIK/14/2020	Email Id : sdehps.Nashik@mahaqp.org
	Date : 18/01/2020

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No. MJP/Shegaon/Test/42/2020 Date: 10/01/2020

Respected Sir/Madam,
Please find Sample Analysis report for the sample submitted to water quality lab by the party for required parameters.

SAMPLE ANALYSIS REPORT

1. Nature of Sample: - 07 MLD STP Outlet Water 2. Date of Sampling: -10/01/2020
3. Date of receipt of Sample: 10/01/2020 4. Sample Collected by: -Party

Sr.No.	Parameters	Results	Units
<i>Physiochemical Analysis</i>			
1	pH	7.64	---
2	Suspended Solids	26.0	mg/L
3	Total Dissolved Solid	262	mg/L
4	Biochemical Oxygen Demand (BOD)	16.0	mg/L
5	Chemical Oxygen Demand(COD)	46.0	mg/L

Yours Faithfully,



Assistant Engineer-1,
Hydrology Project Sub Division
NASHIK.

Jalvidyan Bhavan
Dindori Road
Nashik 422004

Government of Maharashtra
(Water Resources Department)
Hydrology Project

FAX (0253) 2532972

WATER QUALITY LABORATORY LEVEL-II, NASHIK	
QF/ SALES/01	Amendment No : 01, Date: 01/04/2016
	Page No: 01 of 01
Web : : www.mahahp.gov.in	Email Id : : sdehps.Nashik@mahahp.org
No. WQLAB L-II/NASHIK/587/2019	Date : 13/11/2019

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No. MJP/Shegaon/Test/708/2019 Date: 05/11/2019

Respected Sir/Madam,
Please find Sample Analysis report for the sample submitted along with desired parameters.

SAMPLE ANALYSIS REPORT

1. Nature of Sample: -: 07 MLD STP Inlet Water 2. Date of Sampling: -05/11/2019
3. Date of receipt of Sample: 05/11/2019 4. Sample Collected by: -Party

Sr.No.	Parameters	Results	Units
<i>Physiochemical Analysis</i>			
1	pH	7.30	---
2	Suspended Solids	190	mg/L
3	Total Dissolved Solid	852	mg/L
4	Biochemical Oxygen Demand (BOD)	62.0	mg/L
5	Chemical Oxygen Demand(COD)	186	mg/L



Yours Faithfully,

ASSISTANT ENGINEER-I,
HYDROLOGY PROJECT SUB DIVISION
NASHIK.

Jalvidnyan Bhavan
Dindori Road
Nashik 422004

Government of Maharashtra
(Water Resources Department)
Hydrology Project

2/FAX (0253) 53852

WATER QUALITY LABORATORY LEVEL-II, NASHIK	
QF/ SALES/01	Amendment No : 01. Date: 01/04/2016
	Page No: 01 of 01
Web : : www.mahahp.gov.in	Email Id : : sdehps.Nashik@mahahp.org
No. WQLAB L-II/NASHIK/589/2019	Date : 13/11/2019

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No. MJP/Shegaon/Test/708/2019 Date: 05/11/2019

Respected Sir/Madam,
Please find Sample Analysis report for the sample submitted along with desired parameters.

SAMPLE ANALYSIS REPORT

1. Nature of Sample: -: 07 MLD STP Outlet Water
2. Date of Sampling: -05/11/2019
3. Date of receipt of Sample: 05/11/2019
4. Sample Collected by: -Party

Sr.No.	Parameters	Results	Units
<i>Physiochemical Analysis</i>			
1	pH	7.59	---
2	Suspended Solids	24.0	mg/L
3	Total Dissolved Solid	226	mg/L
4	Biochemical Oxygen Demand (BOD)	17.0	mg/L
5	Chemical Oxygen Demand(COD)	51.0	mg/L

Yours Faithfully,



[Signature]
ASSISTANT ENGINEER-1,
HYDROLOGY PROJECT SUB DIVISION
NASHIK.

Jalvidnyan Bhavan
Dindori Road
Nashik 422004

Government of Maharashtra
(Water Resources Department)
Hydrology Project

FAX (0253) 2532972

WATER QUALITY LABORATORY LEVEL-II, NASHIK	
QF/ SALES/01	Amendment No : 01, Date: 01/04/2016
	Page No: 01 of 01
Web : : www.mahahp.gov.in	Email Id : : sdehps.Nashik@mahahp.org
No. WQLAB L-II/NASHIK/552/2019	Date : 04/11/2019

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No. MJP/Shegaon/Test/684/2019 Date: 23/10/2019

Respected Sir/Madam,
Please find Sample Analysis report for the sample submitted along with desired parameters.

SAMPLE ANALYSIS REPORT

1. Nature of Sample: -: 07 MLD STP Inlet Water 2. Date of Sampling: -01/11/2019
3. Date of receipt of Sample: 01/11/2019 4. Sample Collected by: -Party

Sr.No.	Parameters	Results	Units
<i>Physiochemical Analysis</i>			
1	pH	7.14	---
2	Suspended Solids	216	mg/L
3	Total Dissolved Solid	582	mg/L
4	Biochemical Oxygen Demand (BOD)	78.0	mg/L
5	Chemical Oxygen Demand(COD)	235	mg/L

Yours Faithfully,



ASSISTANT ENGINEER-1,
HYDROLOGY PROJECT SUB DIVISION
NASHIK.



Jalvidnyan Bhavan
Dindori Road
Nashik 422004

Government of Maharashtra
(Water Resources Department)
Hydrology Project

T/FAX (253) 2532972

WATER QUALITY LABORATORY LEVEL-II, NASHIK	
QF/ SALES/01	Amendment No : 01, Date: 01/04/2016
Web : : www.mahahp.gov.in	Page No: 01 of 01
No. WQLAB L-II/NASHIK/553/2019	Email Id: : sdehps.Nashik@mahahp.org
	Date : 04/11/2019

To,
Executive Engineer,
Maharashtra Jeevan Pradhikaran,
Division Buldhana.

Subject: Sample Analysis Report

Ref: - Your Letter No. MJP/Shegaon/Test/684/2019 Date: 23/10/2019

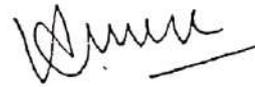
Respected Sir/Madam,
Please find Sample Analysis report for the sample submitted along with desired parameters.

SAMPLE ANALYSIS REPORT

1. Nature of Sample: -: 07 MLD STP Outlet Water
2. Date of Sampling: -01/11/2019
3. Date of receipt of Sample: 01/11/2019
4. Sample Collected by: -Party

Sr.No.	Parameters	Results	Units
<i>Physiochemical Analysis</i>			
1	pH	7.48	---
2	Suspended Solids	23.0	mg/L
3	Total Dissolved Solid	214	mg/L
4	Biochemical Oxygen Demand (BOD)	15.0	mg/L
5	Chemical Oxygen Demand(COD)	48.0	mg/L

Yours Faithfully,



ASSISTANT ENGINEER-1,
HYDROLOGY PROJECT SUB DIVISION
NASHIK.



**B. Test Reports in the Laboratory of
Sewage Treatment Plant**

INLET

BIOLOGICAL REACTOR - I

OUTLET

Sign

Date	Temp °C	pH	BOD ₅ mg/lit	COD ₅ mg/lit	TSS ₅ mg/lit	Temp °C	pH	BOD ₅ mg/lit	COD ₅ mg/lit	TSS ₅ mg/lit	Temp °C	pH	BOD ₅ mg/lit	COD ₅ mg/lit	TSS ₅ mg/lit	Sign
12/10/19	27°C	7.42	78	238	218	27°C	7.48	36	138	124	27°C	7.40	18	48	25	18/1
3/10/19	28°C	7.44	70	242	219	28°C	7.50	37	136	132	28°C	7.48	20	46	20	18/1
4/10/19	28°C	7.50	77	239	224	28°C	7.38	35	144	118	28°C	7.43	17	43	22	18/1
5/10/19	28°C	7.40	79	237	232	27°C	7.43	38	133	124	28°C	7.52	19	51	24	18/1
6/10/19	27°C	7.52	80	236	238	28°C	7.52	34	134	132	27°C	7.60	16	47	21	18/1
7/10/19	28°C	7.53	79	238	235	27°C	7.50	36	132	124	27°C	7.50	18	48	22	18/1
18/10/19	27°C	7.42	77	242	242	28°C	7.40	38	139	132	28°C	7.62	19	49	22	18/1
9/10/19	29°C	7.44	77	239	236	27°C	7.43	37	142	136	27°C	7.44	17	48	24	18/1
20/10/19	27°C	7.48	78	237	218	23°C	7.44	35	141	138	28°C	7.45	16	46	25	18/1
1/10/19	28°C	7.40	78	238	224	28°C	7.60	38	136	138	28°C	7.44	15	47	20	18/1
2/10/19	29°C	7.42	77	239	223	29°C	7.62	39	144	136	29°C	7.42	16	45	22	18/1
3/10/19	27°C	7.48	76	242	225	27°C	7.48	37	138	134	27°C	7.43	18	52	24	18/1
4/10/19	28°C	7.43	75	236	228	28°C	7.43	37	135	129	28°C	7.50	17	48	23	18/1
5/10/19	28°C	7.50	77	235	218	28°C	7.42	38	139	128	27°C	7.52	15	49	23	18/1
6/10/19	27°C	7.43	78	236	219	27°C	7.40	39	142	132	28°C	7.52	18	46	22	18/1
7/10/19	28°C	7.44	79	238	232	28°C	7.48	38	146	133	28°C	7.40	18	48	25	18/1
8/10/19	27°C	7.45	80	237	229	28°C	7.40	39	136	124	27°C	7.52	16	49	22	18/1
9/10/19	28°C	7.40	78	242	243	27°C	7.44	38	135	128	28°C	7.50	17	48	23	18/1
10/10/19	27°C	7.42	77	248	238	27°C	7.48	32	125	129	27°C	7.52	19	47	22	18/1
1/10/19	28°C	7.44	79	238	232	28°C	7.46	38	132	130	28°C	7.42	16	52	21	18/1
2/10/19	27°C	7.40	78	239	218	27°C	7.49	33	142	132	27°C	7.50	15	47	22	18/1
3/10/19	27°C	7.44	80	242	231	27°C	7.40	36	143	133	27°C	7.52	17	49	20	18/1
4/10/19	28°C	7.42	78	243	219	28°C	7.48	32	132	134	28°C	7.50	18	48	23	18/1
5/10/19	27°C	7.48	79	243	218	27°C	7.50	38	138	134	28°C	7.60	19	51	22	18/1
6/10/19	29°C	7.42	80	240	232	29°C	7.52	32	136	135	29°C	7.52	15	52	23	18/1
7/10/19	28°C	7.48	76	236	218	28°C	7.48	38	139	139	28°C	7.53	18	51	22	18/1
8/10/19	29°C	7.42	78	240	232	29°C	7.43	33	130	132	29°C	7.50	20	53	23	18/1
9/10/19	28°C	7.44	77	229	229	29°C	7.52	35	135	138	29°C	7.52	19	48	20	18/1

Sign

OUTLET

I

BIOLOGICAL REACTOR

INLET

Date	INLET				BIOLOGICAL REACTOR				OUTLET				Sign	Remark		
	Temp	pH	BOD ₅ mg/lit	CO ₂ mg/lit	TSS mg/lit	Temp C	pH	BOD ₅ mg/lit	CO ₂ mg/lit	TSS mg/lit	Temp C	pH			BOD ₅ mg/lit	CO ₂ mg/lit
3/11/19	29C	7.44	78	238	244	29C	7.48	32	242	238	29C	7.50	19	48	23	Steel
7/11/19	29C	7.48	79	239	232	29C	7.44	33	132	133	29C	7.52	18	47	23	Steel
11/11/19	28C	7.49	78	238	234	28C	7.50	33	138	136	28C	7.53	19	52	24	Steel
1/11/19	29C	7.42	78	256	240	29C	7.44	32	138	120	29C	7.52	15	51	20	Steel
5/11/19	28C	7.43	75	232	242	28C	7.48	33	138	120	28C	7.50	20	46	22	Steel
9/11/19	26C	7.42	79	235	240	27C	7.64	35	128	120	27C	7.50	19	56	24	Steel
13/11/19	27C	7.62	80	232	242	27C	7.92	36	144	144	27C	7.82	20	48	22	Steel
17/11/19	27C	7.43	77	224	224	27C	7.8	37	128	126	27C	7.82	18	48	24	Steel
21/11/19	27C	7.60	75	256	166	27C	7.42	33	136	108	27C	7.30	21	56	18	Steel
25/11/19	27C	7.82	79	238	242	27C	7.60	38	132	133	27C	7.44	20	52	25	Steel
29/11/19	27C	7.63	77	245	255	27C	7.52	39	138	144	27C	7.40	21	53	26	Steel
3/12/19	28C	7.82	80	218	258	28C	7.60	36	152	153	28C	7.48	19	50	25	Steel
7/12/19	27C	7.83	78	280	228	27C	7.60	36	160	150	27C	7.47	18	48	24	Steel
11/12/19	27C	7.82	75	238	255	27C	7.52	36	158	158	27C	7.48	18	48	24	Steel
15/12/19	27C	7.82	77	242	266	27C	7.58	32	148	156	27C	7.43	17	46	22	Steel
19/12/19	28C	7.81	80	236	252	28C	7.63	33	142	158	28C	7.48	16	48	22	Steel
23/12/19	28C	7.85	78	242	258	28C	7.68	36	148	152	28C	7.49	18	47	23	Steel
27/12/19	27C	7.86	77	236	252	28C	7.62	36	142	152	27C	7.48	17	45	21	Steel
31/12/19	28C	7.78	76	244	266	28C	7.70	33	148	148	28C	7.47	18	42	20	Steel
4/1/20	27C	7.83	78	296	258	27C	7.68	34	166	152	27C	7.48	19	40	21	Steel
8/1/20	27C	7.88	75	224	250	27C	7.62	33	144	126	27C	7.38	16	48	24	Steel
12/1/20	27C	7.76	78	228	252	27C	7.63	35	142	127	27C	7.42	18	46	22	Steel
16/1/20	28C	7.82	72	244	258	28C	7.62	32	152	128	28C	7.40	15	46	20	Steel
20/1/20	27C	7.62	78	246	268	27C	7.50	34	159	158	27C	7.42	16	44	28	Steel
24/1/20	28C	7.78	75	244	262	28C	7.60	32	158	156	28C	7.40	18	47	29	Steel
28/1/20	27C	7.72	69	248	258	28C	7.62	27	152	160	27C	7.38	15	48	25	Steel
31/1/20	26C	7.72	68	242	258	26C	7.68	30	158	162	26C	7.40	15	44	27	Steel

INLET MMGR I OUTLET

Date	1 st Sample				2 nd Sample				3 rd Sample				Sign	
	pH	Temp °C	BOD mg/Lit	T.S.S. mg/Lit	pH	Temp °C	BOD mg/Lit	COD mg/Lit	T.S.S. mg/Lit	pH	Temp °C	BOD mg/Lit		COD mg/Lit
5/01/2020	7.42	25°C	58	238	7.52	26°C	33	125	134	7.42	25°C	15	36	22
6/01/2020	7.62	26°C	79	218	7.42	26°C	30	130	132	7.40	26°C	15	38	24
7/01/2020	7.60	24°C	75	232	7.40	25°C	34	128	126	7.38	24°C	16	32	20
8/01/2020	7.62	25°C	80	238	7.45	25°C	35	130	132	7.40	25°C	15	36	22
9/01/2020	7.50	26°C	82	218	7.48	26°C	33	132	134	7.39	26°C	17	34	23
10/01/2020	7.52	27°C	81	232	7.46	27°C	32	128	126	7.42	27°C	16	32	20
11/01/2020	7.62	22°C	78	232	7.69	23°C	30	128	142	7.42	22°C	15	32	24
12/01/2020	7.70	25°C	80	234	7.50	26°C	34	126	158	7.40	25°C	16	36	22
1/01/2020	7.60	24°C	78	232	7.48	25°C	30	128	142	7.40	24°C	15	32	24
2/01/2020	7.60	24°C	82	248	7.46	25°C	34	136	148	7.39	24°C	16	38	22
3/01/2020	7.50	24°C	80	282	7.43	26°C	32	149	146	7.40	25°C	15	39	25
4/01/2020	7.52	25°C	82	268	7.40	25°C	33	132	139	7.40	24°C	15	42	23
5/01/2020	7.68	23°C	78	224	7.52	24°C	30	152	126	7.43	23°C	16	32	26
6/01/2020	7.62	24°C	79	236	7.52	25°C	32	134	152	7.40	24°C	15	33	24
7/01/2020	7.60	23°C	80	252	7.50	24°C	33	138	154	7.42	23°C	17	39	25
8/01/2020	7.58	24°C	81	248	7.48	25°C	32	134	162	7.38	24°C	16	42	26
9/01/2020	7.47	24°C	80	256	7.54	25°C	30	136	204	7.38	24°C	15	48	24
10/01/2020	7.50	23°C	82	252	7.62	24°C	32	134	198	7.42	23°C	16	42	23
11/01/2020	7.58	24°C	80	248	7.63	25°C	30	136	186	7.40	24°C	16	46	25
12/01/2020	7.62	24°C	81	250	7.68	25°C	33	138	182	7.42	24°C	16	38	26
1/01/2021	7.58	25°C	80	242	7.63	26°C	30	130	186	7.40	25°C	17	32	22
2/01/2021	7.48	25°C	82	238	7.63	27°C	33	138	182	7.40	26°C	17	34	24
3/01/2021	7.55	27°C	80	238	7.62	28°C	32	132	158	7.44	27°C	16	38	26
4/01/2021	7.58	27°C	81	242	7.63	28°C	30	134	142	7.42	27°C	17	35	21
5/01/2021	7.62	28°C	76	236	7.60	28°C	29	132	128	7.40	27°C	16	32	20
6/01/2021	7.62	28°C	79	232	7.63	29°C	32	128	126	7.48	28°C	15	36	21
7/01/2021	7.68	28°C	78	234	7.62	29°C	30	128	132	7.42	28°C	16	32	20
8/01/2021	7.62	27°C	80	230	7.63	28°C	30	126	134	7.42	28°C	15	34	21

Sign

3rd Sample

MMGR I

2nd Sample

1st Sample

INLET

OUTLET

Date	1st Sample					2nd Sample					BIOLOGICAL REACTOR MMBRI					OUTLET					3rd Sample	Sign							
	Temp C	pH	CO ₂ mg/Lit	TSS mg/Lit	Temp pC	pH	CO ₂ mg/Lit	TSS mg/Lit	Temp C	pH	CO ₂ mg/Lit	TSS mg/Lit	Temp C	pH	CO ₂ mg/Lit	TSS mg/Lit	Temp C	pH	CO ₂ mg/Lit	TSS mg/Lit			Temp C	pH	CO ₂ mg/Lit	TSS mg/Lit	Temp C	pH	CO ₂ mg/Lit
29/03/2020	30C	7.82	78	234	218	7.68	38	108	118	30C	7.42	18	24	22	22	22	22	7.42	18	24	118	30C	7.42	18	24	22	22	22	22
30/03/2020	30C	7.83	80	228	216	7.62	36	98	128	30C	7.38	19	26	20	20	20	20	7.38	19	26	128	30C	7.38	19	26	20	20	20	20
31/03/2020	31C	7.64	82	232	214	7.60	37	202	126	31C	7.39	17	30	21	21	21	21	7.39	17	30	126	30C	7.39	17	30	21	21	21	21
12/04/2020	30C	7.90	85	248	222	7.82	40	106	128	30C	7.40	20	26	27	27	27	27	7.40	20	26	128	30C	7.40	20	26	27	27	27	27
12/04/2020	30C	7.82	82	228	218	7.58	42	108	126	30C	7.42	19	25	26	26	26	26	7.42	19	25	126	30C	7.42	19	25	26	26	26	26
12/04/2020	29C	7.83	86	232	216	7.63	44	98	118	30C	7.38	20	24	28	28	28	28	7.38	20	24	118	30C	7.38	20	24	28	28	28	28
14/04/2020	30C	7.84	84	234	226	7.68	40	104	112	30C	7.32	18	28	23	23	23	23	7.32	18	28	112	30C	7.32	18	28	23	23	23	23
15/04/2020	29C	7.82	83	226	232	7.60	43	122	114	30C	7.48	17	26	25	25	25	25	7.48	17	26	114	30C	7.48	17	26	25	25	25	25
16/04/2020	30C	7.82	85	218	234	7.62	48	112	124	30C	7.38	19	24	22	22	22	22	7.38	19	24	124	30C	7.38	19	24	22	22	22	22
17/04/2020	30C	7.73	88	248	218	7.62	46	118	124	30C	7.40	18	28	24	24	24	24	7.40	18	28	124	30C	7.40	18	28	24	24	24	24
18/04/2020	29C	7.78	86	224	232	7.68	44	108	122	30C	7.42	18	28	23	23	23	23	7.42	18	28	122	30C	7.42	18	28	23	23	23	23
19/04/2020	29C	7.90	84	226	228	7.52	38	126	122	30C	7.39	17	36	28	28	28	28	7.39	17	36	122	30C	7.39	17	36	28	28	28	28
10/04/2020	30C	7.80	84	228	218	7.58	44	128	118	30C	7.40	16	38	24	24	24	24	7.40	16	38	118	30C	7.40	16	38	24	24	24	24
11/04/2020	29C	7.78	86	226	232	7.56	46	108	106	30C	7.40	16	38	24	24	24	24	7.40	16	38	106	30C	7.40	16	38	24	24	24	24
2/04/2020	29C	7.76	83	228	234	7.60	36	98	112	29C	7.52	17	28	25	25	25	25	7.52	17	28	112	29C	7.52	17	28	25	25	25	25
3/04/2020	30C	7.99	88	248	214	7.58	33	208	118	30C	7.40	15	24	22	22	22	22	7.40	15	24	118	30C	7.40	15	24	22	22	22	22
1/04/2020	29C	7.76	84	226	218	7.62	32	122	126	30C	7.38	18	25	20	20	20	20	7.38	18	25	126	30C	7.38	18	25	20	20	20	20
5/04/2020	30C	7.82	85	248	232	7.58	36	108	112	30C	7.39	17	24	22	22	22	22	7.39	17	24	112	30C	7.39	17	24	22	22	22	22
6/04/2020	29C	7.83	82	232	234	7.62	38	98	118	30C	7.42	15	28	25	25	25	25	7.42	15	28	118	30C	7.42	15	28	25	25	25	25
7/04/2020	28C	7.78	78	228	228	7.68	42	100	126	29C	7.60	16	32	27	27	27	27	7.60	16	32	126	29C	7.60	16	32	27	27	27	27
8/04/2020	29C	7.84	79	226	226	7.53	36	106	126	30C	7.38	18	25	20	20	20	20	7.38	18	25	126	30C	7.38	18	25	20	20	20	20
9/04/2020	29C	7.92	82	236	218	7.58	33	108	132	30C	7.49	19	28	28	28	28	28	7.49	19	28	132	30C	7.49	19	28	28	28	28	28
0/04/2020	30C	7.79	80	232	214	7.96	35	112	1108	30C	7.39	17	24	25	25	25	25	7.39	17	24	1108	30C	7.39	17	24	25	25	25	25
2/04/2020	28C	7.82	77	228	222	7.62	34	126	1112	29C	7.42	16	28	24	24	24	24	7.42	16	28	1112	29C	7.42	16	28	24	24	24	24
2/04/2020	29C	7.85	79	236	242	7.68	36	107	116	29C	7.63	17	26	22	22	22	22	7.63	17	26	116	29C	7.63	17	26	22	22	22	22
3/04/2020	30C	7.82	82	234	218	7.63	33	126	1128	30C	7.53	15	32	23	23	23	23	7.53	15	32	1128	30C	7.53	15	32	23	23	23	23
4/04/2020	30C	7.78	83	236	232	7.64	34	128	126	30C	7.68	18	24	23	23	23	23	7.68	18	24	126	30C	7.68	18	24	23	23	23	23
5/04/2020	29C	7.73	84	226	234	7.68	38	132	132	30C	7.40	17	24	22	22	22	22	7.40	17	24	132	30C	7.40	17	24	22	22	22	22

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Date	INLET						OUTLET						Sign				
	Temp	pH	CO ₂ mg/Lit	CO ₂ mg/Lit	TS _S mg/Lit	Temp	pH	CO ₂ mg/Lit	CO ₂ mg/Lit	TS _S mg/Lit	Temp	pH		CO ₂ mg/Lit	CO ₂ mg/Lit	TS _S mg/Lit	STP Chemist
10/05/2020	30°C	7.48	75	226	240	31°C	7.62	28	128	124	30°C	7.09	14	40	25	STP	
10/05/2020	30°C	7.40	74	304	298	31°C	7.49	30	132	128	30°C	7.68	14	40	26	STP	
10/05/2020	29°C	7.42	74	298	242	30°C	7.48	28	126	130	30°C	7.62	15	42	24	STP	
10/06/2020	30°C	7.55	76	296	242	31°C	7.43	29	128	126	30°C	7.83	14	48	24	STP	
10/06/2020	30°C	7.56	75	268	240	31°C	7.48	30	126	128	30°C	7.82	14	42	26	STP	
10/06/2020	30°C	7.48	74	270	248	31°C	7.58	29	132	126	30°C	7.78	15	40	24	STP	
10/06/2020	29°C	7.62	77	272	230	30°C	7.49	33	168	120	28°C	7.82	14	48	22	STP	
10/06/2020	29°C	7.64	75	268	220	30°C	7.73	30	186	128	30°C	7.96	15	56	23	STP	
10/06/2020	30°C	7.68	76	290	242	31°C	7.74	29	192	168	30°C	7.82	16	52	26	STP	
10/07/2020	29°C	7.43	74	262	248	30°C	7.60	28	184	170	30°C	7.90	15	48	25	STP	
10/07/2020	29°C	7.58	76	302	288	30°C	7.63	29	186	166	29°C	7.42	14	48	26	STP	
10/07/2020	30°C	7.92	75	308	292	31°C	7.52	30	186	182	30°C	7.48	14	48	25	STP	
10/07/2020	29°C	7.69	76	298	284	30°C	7.68	28	169	188	29°C	7.42	15	42	24	STP	
10/07/2020	30°C	7.82	78	296	292	31°C	7.68	28	195	168	30°C	7.48	16	40	28	STP	
10/07/2020	29°C	7.69	80	310	269	30°C	7.53	30	188	184	29°C	7.32	16	42	23	STP	
10/07/2020	29°C	7.73	77	310	270	30°C	7.63	29	188	182	29°C	7.42	15	38	25	STP	
10/07/2020	30°C	7.78	74	310	280	31°C	7.62	32	192	184	30°C	7.48	16	42	26	STP	
10/07/2020	29°C	7.48	76	318	284	30°C	7.62	34	198	168	30°C	7.40	17	48	26	STP	
10/07/2020	29°C	7.72	74	318	286	31°C	7.68	32	188	192	29°C	7.49	16	48	26	STP	
10/07/2020	30°C	7.72	74	300	292	30°C	7.60	33	186	194	29°C	7.48	15	40	25	STP	
10/07/2020	29°C	7.68	78	298	280	30°C	7.62	30	184	180	29°C	7.38	14	38	23	STP	
10/07/2020	30°C	7.63	77	284	268	31°C	7.60	28	174	188	30°C	7.24	14	46	27	STP	
10/07/2020	29°C	7.69	79	284	280	30°C	7.52	32	186	188	29°C	7.42	15	48	26	STP	
10/07/2020	28°C	7.72	75	298	284	29°C	7.62	34	192	192	28°C	7.52	19	52	28	STP	
10/07/2020	29°C	7.68	74	268	278	30°C	7.62	30	184	194	30°C	7.48	16	54	27	STP	
10/07/2020	30°C	7.53	78	286	264	31°C	7.48	28	176	178	30°C	7.40	18	48	25	STP	
10/07/2020	29°C	7.72	76	242	256	30°C	7.58	30	168	176	29°C	7.39	14	52	24	STP	
10/07/2020	30°C	7.78	78	246	242	31°C	7.68	30	166	186	30°C	7.42	16	56	25	STP	

Date	INLET				1st Sample				BIOLOGICAL REACTOR MMBRI				OUTLET				Sign
	Temp °C	pH	BOD mg/Lit	COO mg/Lit	T.S.S mg/Lit	Temp °C	pH	BOD mg/Lit	COO mg/Lit	T.S.S mg/Lit	Temp °C	pH	BOD mg/Lit	COO mg/Lit	T.S.S mg/Lit		
06/07/2020	29c	7.78	78	248	232	30c	7.62	33	154	168	29c	7.43	14	52	22	STBL	Remark
1/07/2020	29c	7.79	75	256	238	30c	7.60	30	192	184	29c	7.48	15	56	24	STBL	
22/07/2020	30c	7.67	77	262	234	30c	7.62	28	186	188	30c	7.39	14	52	2c	STBL	
03/07/2020	29c	7.78	74	256	226	30c	7.68	32	192	186	29c	7.49	16	48	27	STBL	
24/07/2020	28c	7.59	70	248	224	28c	7.48	28	188	188	28c	7.40	14	46	24	STBL	
25/07/2020	30c	7.78	72	256	226	31c	7.62	30	174	168	30c	7.48	14	40	25	STBL	
26/07/2020	28c	7.69	70	242	228	29c	7.60	28	178	176	28c	7.50	14	46	22	STBL	
27/07/2020	30c	7.73	72	248	224	30c	7.58	24	168	156	30c	7.39	15	44	26	STBL	
28/07/2020	29c	7.48	70	224	218	30c	7.39	25	156	168	29c	7.28	14	48	22	STBL	
29/07/2020	29c	7.35	73	288	212	30c	7.11	28	152	158	29c	7.03	14	52	20	STBL	
30/07/2020	28c	7.40	74	294	216	29c	7.29	26	168	148	28c	7.20	15	48	23	STBL	
31/07/2020	28c	7.38	70	288	212	29c	7.29	28	156	152	28c	7.08	14	46	20	STBL	
1/08/2020	28c	7.48	74	288	216	29c	7.38	30	168	148	28c	7.32	15	48	22	STBL	
2/08/2020	27c	7.40	72	276	218	28c	7.40	28	156	146	27c	7.28	14	46	24	STBL	
03/08/2020	27c	7.52	78	264	212	28c	7.42	30	154	138	27c	7.18	15	52	20	STBL	
14/08/2020	28c	7.48	75	266	218	29c	7.40	28	158	146	28c	7.30	14	50	24	STBL	
25/08/2020	29c	7.56	72	268	224	30c	7.48	30	156	138	29c	7.39	15	48	26	STBL	
06/08/2020	28c	7.49	74	264	218	29c	7.42	28	158	134	28c	7.30	14	46	22	STBL	
07/08/2020	29c	7.68	78	256	236	30c	7.40	29	158	146	29c	7.38	15	52	24	STBL	
08/08/2020	30c	7.69	75	262	234	30c	7.42	32	156	144	30c	7.44	14	50	25	STBL	
09/08/2020	28c	7.48	70	256	224	29c	7.40	28	158	156	28c	7.32	14	48	26	STBL	
10/08/2020	27c	7.52	72	252	218	28c	7.42	24	168	152	27c	7.30	16	46	24	STBL	
11/08/2020	27c	7.48	74	254	234	28c	7.34	28	156	146	27c	7.08	14	48	22	STBL	
12/08/2020	28c	7.40	73	260	216	29c	7.28	28	174	138	28c	7.20	15	52	20	STBL	
13/08/2020	26c	7.28	75	224	212	27c	7.20	30	152	128	26c	7.12	14	40	20	STBL	
14/08/2020	27c	7.23	74	228	214	28c	7.18	28	148	126	27c	7.10	14	42	21	STBL	
15/08/2020	28c	7.48	77	242	224	29c	7.32	33	146	128	28c	7.23	15	46	23	STBL	
16/08/2020	27	7.42	74	238	234	28c	7.38	27	138	126	27c	7.18	14	44	20	STBL	Remark

Date	INLET					BIOLOGICAL REACTOR					MMBR I					OUT LET					
	Temp	pH	DO	T.S.S	CO ₂	Temp	pH	DO	T.S.S	CO ₂	Temp	pH	DO	T.S.S	CO ₂	Temp	pH	DO	T.S.S	CO ₂	Chemical Oxygen Demand
12/10/20	28°C	7.72	7.4	246	32	29°C	7.72	32	266	136	138	7.42	16	48	2.9	28°C	7.42	16	48	2.9	1.5
13/10/20	29°C	7.98	7.5	244	33	30°C	7.60	33	244	128	140	7.38	15	44	2.4	29°C	7.38	15	44	2.4	1.5
14/10/20	30°C	7.70	7.0	248	28	31°C	7.52	28	248	118	142	7.52	16	46	2.2	30°C	7.52	16	46	2.2	1.5
15/10/20	28°C	7.99	6.9	234	29	29°C	7.50	29	210	114	144	7.51	14	38	2.5	29°C	7.51	14	38	2.5	1.5
16/10/20	28°C	7.62	7.6	188	30	29°C	7.58	30	218	126	146	7.48	12	32	2.6	28°C	7.48	12	32	2.6	1.5
17/10/20	28°C	7.58	7.5	194	32	29°C	7.48	32	246	128	148	7.48	13	36	2.8	28°C	7.40	13	36	2.8	1.5
18/10/20	30°C	7.49	7.9	208	34	31°C	7.42	34	222	132	125	7.38	15	34	2.4	28°C	7.38	15	34	2.4	1.5
19/10/20	31°C	7.62	8.0	232	30	32°C	7.68	30	232	136	138	7.32	16	40	2.3	30°C	7.32	16	40	2.3	1.5
20/10/20	30°C	7.50	7.8	236	32	31°C	7.63	32	234	118	132	7.48	13	42	2.2	31°C	7.48	13	42	2.2	1.5
21/10/20	29°C	7.62	7.4	210	32	30°C	7.60	32	218	114	134	7.40	16	38	2.4	29°C	7.40	16	38	2.4	1.5
22/10/20	30°C	7.53	6.9	218	33	31°C	7.62	33	216	112	152	7.60	15	34	2.0	30°C	7.60	15	34	2.0	1.5
23/10/20	29°C	7.58	7.5	214	29	30°C	7.60	29	288	126	148	7.42	15	36	2.8	29°C	7.42	15	36	2.8	1.5
24/10/20	29°C	7.62	7.5	236	32	30°C	7.63	32	282	128	142	7.42	12	36	2.3	29°C	7.42	12	36	2.3	1.5
25/10/20	29°C	7.40	7.4	240	28	28°C	7.32	28	230	140	132	7.18	14	46	2.4	29°C	7.18	14	46	2.4	1.5
26/10/20	28°C	7.48	7.6	230	28	29°C	7.32	28	224	140	132	7.10	15	48	2.6	28°C	7.10	15	48	2.6	1.5
27/10/20	28°C	7.62	7.5	246	32	29°C	7.43	32	232	148	138	7.38	15	52	2.4	28°C	7.38	15	52	2.4	1.5
28/10/20	28°C	7.48	7.6	242	30	24°C	7.42	30	234	128	132	7.30	16	44	2.2	28°C	7.30	16	44	2.2	1.5
29/10/20	28°C	7.45	7.5	250	32	28°C	7.38	32	226	132	130	7.29	15	46	2.4	28°C	7.29	15	46	2.4	1.5
30/10/20	28°C	7.52	7.7	255	30	29°C	7.48	30	228	135	134	7.34	15	48	2.6	28°C	7.34	15	48	2.6	1.5
31/10/20	28°C	7.60	8.0	242	32	30°C	7.52	32	234	132	136	7.40	16	46	2.7	29°C	7.40	16	46	2.7	1.5
1/11/20	29°C	7.68	8.2	248	33	30°C	7.60	33	236	138	138	7.48	16	48	2.6	29°C	7.48	16	48	2.6	1.5
2/11/20	29°C	7.63	8.0	252	30	30°C	7.58	30	240	154	136	7.42	16	52	2.4	29°C	7.42	16	52	2.4	1.5
3/11/20	28°C	7.68	7.9	248	29	29°C	7.52	29	242	152	138	7.26	15	48	2.2	28°C	7.26	15	48	2.2	1.5
4/11/20	29°C	7.48	7.8	248	29	30°C	7.35	29	240	158	138	7.58	15	46	2.8	29°C	7.58	15	46	2.8	1.5
5/11/20	28°C	7.59	7.6	246	28	29°C	7.39	28	246	152	152	7.52	16	52	2.2	28°C	7.52	16	52	2.2	1.5
6/11/20	29°C	7.52	7.5	224	29	28°C	7.36	29	236	158	152	7.28	15	48	2.2	29°C	7.28	15	48	2.2	1.5
7/11/20	28°C	7.46	7.7	238	28	28°C	7.38	28	234	152	158	7.28	16	52	2.4	28°C	7.28	16	52	2.4	1.5
8/11/20	28°C	7.60	7.8	244	30	28°C	7.38	30	236	156	155	7.42	15	52	2.6	28°C	7.42	15	52	2.6	1.5

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Date	INLET				BIOLOGICAL REACTOR				OUT LET				Remarks		
	Temp °C	pH	BOD mg/lit	T.S.S mg/lit	Temp °C	pH	BOD mg/lit	cod mg/lit	T.S.S mg/lit	Temp °C	pH	BOD mg/lit		cod mg/lit	T.S.S mg/lit
9/11/20	30°C	7.58	7.5	226	250	7.62	2.8	128	12.5	30°C	7.69	14	50	2.5	S.P.A.L.
10/11/20	30°C	7.50	7.5	804	238	7.49	3.0	132	12.8	30°C	7.68	15	50	2.6	S.P.A.L.
11/11/20	29°C	7.52	7.5	298	252	7.58	2.8	126	13.0	29°C	7.62	15	52	2.5	S.P.A.L.
12/11/20	30°C	7.55	7.6	296	252	7.53	2.9	128	12.6	30°C	7.83	15	58	2.5	S.P.A.L.
13/11/20	30°C	7.55	7.5	268	250	7.58	3.0	126	12.8	30°C	7.82	15	52	2.6	S.P.A.L.
16/11/20	30°C	7.58	7.5	270	258	7.58	2.9	132	12.6	30°C	7.78	15	46	2.4	S.P.A.L.
15/11/20	29°C	7.62	7.7	272	230	7.73	3.3	168	12.0	29°C	7.82	16	58	2.2	S.P.A.L.
16/11/20	29°C	7.64	7.5	268	220	7.73	3.0	186	12.8	30°C	7.96	15	56	2.3	S.P.A.L.
17/11/20	30°C	7.68	7.6	270	252	7.75	2.9	192	16.8	28°C	7.82	14	52	2.6	S.P.A.L.
18/11/20	30°C	7.53	7.5	262	258	7.62	3.0	185	17.0	29°C	7.70	15	58	2.5	S.P.A.L.
19/11/20	30°C	7.58	7.6	202	288	7.60	2.8	192	16.6	27°C	7.52	15	52	2.6	S.P.A.L.
20/11/20	28°C	7.52	7.5	308	292	7.63	2.9	186	18.2	28°C	7.68	16	58	2.5	S.P.A.L.
21/11/20	28°C	7.69	7.5	292	285	7.52	3.0	169	18.8	26°C	7.52	16	52	2.4	S.P.A.L.
22/11/20	28°C	7.56	7.2	268	224	7.48	3.0	156	18.8	29°C	7.99	15	48	2.6	S.P.A.L.
23/11/20	28°C	7.49	7.4	264	218	7.52	2.8	169	15.8	28°C	7.99	16	48	2.5	S.P.A.L.
24/11/20	29°C	7.23	7.4	226	215	7.18	2.8	158	12.6	28°C	7.10	14	52	2.1	S.P.A.L.
25/11/20	30°C	7.55	7.6	286	250	7.58	3.0	126	12.8	30°C	7.83	14	48	2.5	S.P.A.L.
26/11/20	30°C	7.58	7.5	226	250	7.62	2.8	128	12.5	30°C	7.64	14	50	2.5	S.P.A.L.
27/11/20	29°C	7.42	7.6	300	252	7.62	2.5	198	16.8	30°C	7.58	16	50	2.6	S.P.A.L.
28/11/20	29°C	7.78	8.3	216	208	7.62	3.6	126	12.5	30°C	7.69	15	50	2.5	S.P.A.L.
29/11/20	30°C	7.50	7.4	304	238	7.49	3.0	132	12.8	30°C	7.68	15	58	2.6	S.P.A.L.
30/11/20	30°C	7.58	7.4	270	248	7.58	2.9	132	12.6	30°C	7.82	16	48	2.5	S.P.A.L.
1/12/20	29°C	7.76	7.8	228	250	7.62	2.8	128	12.5	29°C	7.65	15	40	2.5	S.P.A.L.
2/12/20	26°C	7.82	7.2	239	238	7.54	3.0	132	12.8	26°C	7.68	15	40	2.6	S.P.A.L.
3/12/20	27°C	7.62	7.8	270	252	7.58	2.8	126	13.0	29°C	7.62	15	42	2.5	S.P.A.L.
4/12/20	26°C	7.28	7.5	262	252	7.53	2.9	128	12.6	26°C	7.83	15	58	2.5	S.P.A.L.
5/12/20	27°C	7.72	6.9	270	250	7.58	3.0	126	12.8	27°C	7.82	14	42	2.6	S.P.A.L.
6/12/20	27°C	7.72	6.8	239	258	7.58	2.0	132	12.6	27°C	7.78	15	50	2.4	S.P.A.L.
7/12/20	26°C	7.72	6.9	270	230	7.73	3.3	168	12.0	26°C	7.82	16	48	2.2	S.P.A.L.

(S.P.A.L.)

महाराष्ट्र जीवन प्राधिकरण

दूरध्वनी क्रमांक
(ऑ.) ०७२१ - २६६४२९२
२६६४३६०
(थेट) ०७२१ - २६६४२९०
फॅक्स ०७२१ - २६६३३३२



मुख्य अभियंता
महाराष्ट्र जीवन प्राधिकरण
प्रादेशिक विभाग "अक्षितम्" मालटेव्ही,
अमरावती - ४४४ ६०१.
E-mail : cemjpamravati@gmail.com

तांत्रिक मंजूरी

प्रपत्र नमुना क्र.८५ बाब क्र.३० माहे नोव्हेंबर २०२२

विषय :- अमृत अभियान अंतर्गत शेगांव शहर भुयारी गटार योजना टप्पा-३ योजनेच्या कामास तांत्रिक मंजूरी प्रदान करणेबाबत.

संदर्भ :- तांत्रिक सल्लागार, पुराणिक ब्रदर्स, नागपूर यांचे पत्र क्र.१३५/२०२२ दि.७.११.२०२२.

संदर्भिय विषयांकीत पत्रान्वये अमृत अभियान अंतर्गत शेगांव शहर भुयारी गटार योजना टप्पा-३ योजनेचा सविस्तर प्रकल्प अहवाल रू.१,०५,६८,५८,४०१/- ढोबळ किंमतीचा तांत्रिक मंजूरीकरिता प्राप्त झालेला आहे. सदर प्रस्ताव अधीक्षक अभियंता, महाराष्ट्र जीवन प्राधिकरण, म.नि.व सं. व सं.कक्ष, मुंबई यांचेकडे सादर केलेला असून मा.सदस्य सचिव, मजीप्रा, मुंबई यांचे निर्देशानुसार कालापव्यय टाळण्यासाठी प्रस्तुत प्रस्तावास CPDM च्या अभिप्रायाची वाट न बघता तांत्रिक मान्यता प्रदान करण्यात येत आहे.

सदर प्रस्तावाची अंदाजपत्रकीय किंमत रू.१,०५,६८,५८,४०१/- (अक्षरी रू.एकशे पाच कोटी, अडुसष्ट लक्ष, अठ्ठावन हजार, चारशे एक फक्त) आहे. सदर किंमतीस बाब क्र.३०, फॉर्म क्र.८५ माहे नोव्हेंबर २०२२ अन्वये सोबत जोडलेल्या अटी व शर्तीच्या अधीन राहून "तांत्रिक मंजूरी" प्रदान करण्यात येत आहे.

सहपत्र:- तांत्रिक मान्यतेचा गोषवारा,
अटी व शर्ती.


(श्रीनिवास रं.कातके)
मुख्य अभियंता

जा.क्र.मु.अ./मजीप्रा/अम/रेचिशा/ता.मं./ २९८१/२०२२
दिनांक:- १०.११.२०२२

प्रत:-

१. मा.सदस्य सचिव, महाराष्ट्र जीवन प्राधिकरण, मुंबई यांना माहितीकरीता सविनय सादर.
२. विशेष कार्य अधिकारी, पाणी पुरवठा व स्वच्छता विभाग, मंत्रालय, मुंबई यांना माहिती करिता सादर.
३. अधीक्षक अभियंता, महाराष्ट्र जीवन प्राधिकरण, म.नि.व सं. व सं.कक्ष, (CPDM) २१, मित्तल चेंबर्स २२८, २ रा मजला, नरिमन पॉईंट, मुंबई यांना माहिती करिता.
४. अधीक्षक अभियंता, म.जी.प्रा.मंडळ, अकोला यांना माहितीकरीता तथा उपरोक्त तांत्रिक मान्यता प्राप्त अंदाजपत्रक शेगाव नगर परिषदेला पुढील कार्यवाहीस्तव आपल्या स्तरावरून हस्तांतरीत करण्याकरिता अग्रेषीत.
५. कार्यकारी अभियंता, म.जी.प्रा.विभाग, बुलढाणा यांना माहिती व पुढील आवश्यक कार्यवाहीकरीता. शेगाव नगर परिषदेकडून तांत्रिक तपासणी शुल्क म.जी.प्रा.कडे जमा करून घ्यावे.

अटी व शर्ती

१. योजनेचे कार्यान्वयन करतांना महाराष्ट्र शासन, नगर विकास विभाग, शासन निर्णय क्र. संकिर्ण/२०१५/ प्र.क्र.१५०/ नवि ३३, मंत्रालय, मुंबई, दिनांक-२८ मार्च, २०१६ मधील सुचनांचे व शर्तीचे काटेकोरपणे पालन करण्यात यावे.
२. योजनेचे कार्यान्वयन करतांना मा.सदस्य सचिव यांनी त्यांचे पत्रक्र.मजीप्रा/सस/तांशा-३/ ५३०, दि.०७.०५.२०१६ अन्वये दिलेल्या निर्देशांचे काटेकोरपणे पालन करण्यात यावे.
३. योजनेची निविदा प्रपत्रे तयार करण्यापूर्वी, योजनेचे कार्यपूर्व सर्वेक्षण, तसेच भू-स्तर पडताळणी करीता आवश्यक Trial pit/Trial Bore घेण्यात यावेत. व तदनंतरच प्राप्त परिमाणावर (Results) आधारीत कार्यपूर्व अंदाजपत्रके तयार करून त्यास सक्षम अधिकाऱ्यांची मंजूरी घेण्यात यावी.
४. प्रस्तावित मलशुद्धीकरण केंद्राची जागा महत्तम पूर पातळीच्या (HFL) वर असल्याबाबतची खात्री केल्याशिवाय कामास सुरुवात करण्यात येऊ नये.
५. ट्रंकमेन पाईपचे खाली टाकावयाचे बेडिंग करीता Manual on Sewerage & Sewage Treatment System Part-A (Year २०१३) परिच्छेद ३.५०.३.३ मधील निर्देशांचे काटेकोरपणे पालन करण्यात यावे.
६. ट्रंकमेन पाईपचे खाली टाकावयाचे बेडिंगचा वर्ग निश्चित करणेकरीता Manual on Sewerage & Sewage Treatment System Part-A (Year २०१३) परिच्छेद ३.५०.३.४ मधील निर्देशांचे काटेकोरपणे पालन करण्यात यावे.
७. ट्रंकमेनच्या Conduit पाईपचे Structural design Manual on Sewerage & Sewage Treatment System Part-A (Year २०१३) परिच्छेद ३.४३ मधील निर्देशानुसार करण्यात यावे.
८. निविदापूर्वी कार्यव्ययी अंदाजपत्रक तयार करून त्यास सक्षम अधिकाऱ्यांची मंजूरी घेण्यात यावी.
९. योजनेच्या कामाचा समावेश सर्व कालबद्ध प्रगती अहवालात करण्यात यावा.
१०. योजनेवर मंजूर किंमतीपेक्षा जास्त खर्च करण्यात येऊ नये.
११. योजना विहित कालावधीत पूर्ण करण्यात यावी.
१२. सर्व कामे प्रचलीत भारतीय मानकाप्रमाणे पूर्ण करण्यात यावीत.
१३. प्रत्येक उपांगाकरीता वेळोवेळी घेण्यात येणा-या काँक्रीट टोकळ्यांच्या चांचणीचे अहवाल अभियांत्रिकी महाविद्यालयाकडून किंवा अधिकृत यंत्रणेकडून करून घेणे अनिवार्य राहिल.
१४. रस्त्याच्या कडेनी व रस्ता ओलांडण्याकरीता टाकण्यात येणा-या पाईप लाईनसाठी संबंधीत यंत्रणेकडून रितसर परवानगी घेऊनच कामे हाती घ्यावी.
१५. सर्व उपांगांकरिता लागणा-या सर्व प्रकारच्या साहित्याची म.जी.प्रा.मार्फत मान्यता प्राप्त एजन्सीकडून थर्ड पार्टी निरीक्षण करून प्रमाणपत्रे घेणे अनिवार्य राहिल.
१६. बांधकामाकरीता वापरण्यात येणा-या साहित्याची जसे-सिमंट, खडी, रेती, विटा, लोखंड, इत्यादीची तपासणी शासकीय अभियांत्रिकी महाविद्यालयातून तपासून घेण्यात यावी व Test Results जतन करून ठेवण्यात यावे. सदर साहित्याचा दर्जा व गुणवत्ता भारतीय मानकानुसार असावा.
१७. मंजूर अंदाजपत्रकामध्ये कोणत्याही स्वरूपाचे बदल करावयाचे झाल्यास त्यास सुधारीत तांत्रिक मान्यता घेण्यात यावी.
१८. सदर तांत्रिक मंजूरी ही Provisional स्वरूपाची असून संकल्पनातील सुधारणा व कार्यव्ययी अंदाजपत्रके तयार झाल्यानंतर आवश्यकतेनुसार सुधारीत तांत्रिक मंजूरी प्रदान करण्यात येईल.
१९. सदर DPR तयार करतांना नगर परिषदेने उपलब्ध करून दिलेल्या DP Plan नुसार सर्व भागाचे प्रभागनिहाय सर्वेक्षण करून Collection system चे Design व नागरी तसेच ग्रामीण भागातील Population forecasting करून संकल्पने तयार केलेले आहे.

२१. सदर योजनेची निविदा प्रपत्रे तयार करतांना त्यामध्ये Working Survey या उपांगाचा समावेश करावा. कंत्राटदाराने निविदा स्विकृती झाल्यानंतर Working Survey तयार करून त्यास सक्षम प्राधिकरणाची मंजूरी घ्यावी व तदनंतरच कामे सुरू करण्याची अट निविदेत समाविष्ट करावी.
२२. सदर योजनेची कामे सुरू करण्यापूर्वी MPCB/CPCB यांचेकडून Permission to Establish and Permission to Operate प्राप्त करून घेण्याची जबाबदारी नगर परिषदेची राहिल.
२३. मा.राष्ट्रीय हरित लवाद (NGT)/ MPCB/CPCB यांचे निर्देशानुसार शहरातील सर्व १००% भाग Sewerage system ने जोडला जाईल व १००% जमा होणाऱ्या Sewage ला Treatment होईल. याबाबत निविदेमध्ये उल्लेख करून त्यानुसार कार्यवाही करावी.
२४. सर्व STP चे Effluent ची Quality (BOD/COD ई.) अद्यावत MPCB/CPCB चे मानकाप्रमाणे राहिल, याची खातरजमा करावी. आवश्यकतेनुसार तशी तरतूद निविदेत करावी.
२५. Effluent वर प्रक्रिया करून निघणारे पाण्याबाबत योग्य ते नियोजन करून नगर परिषदेच्या उत्पन्नामध्ये वाढ करण्याबाबत नगर परिषदेने नियोजन करावे.
२६. सदर DPR तयार करतांना प्रस्तावित करण्यात आलेली कामे ही नगर परिषद अभियंता/ नगर परिषद कर्मचारी यांनी प्रत्यक्ष कामाचे स्थळी दाखविलेल्या हद्दिनुसार प्रस्तुत DPR मध्ये घेण्यात आलेली आहेत.
२७. सदर प्रस्तावाची तांत्रिक छाननी पोटी मंजूर अंदाजपत्रकीय किंमतीच्या १% तांत्रिक तपासणी शुल्क नगर परिषदेला म.जी.प्रा.विभाग, बुलढाणा यांचेकडे जमा करणे आवश्यक राहिल.

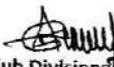
Shri Nivasa R. Khatkade
(श्रीनिवास रं.कातकडे) 10/11

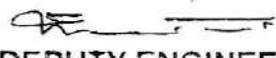
✶ मुख्य अभियंता
म.जी.प्रा.प्रादेशिक विभाग,
अमरावती

MAHARASHTRA JEEVAN PRADHIKARAN
SHEGAON SEWERAGE SCHEME FOR PHASE 3
Tq. Shegaon Dist. Buldhana

Recapulation Sheet

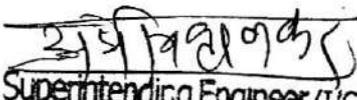
Sr. No.	Particulars of Work	Amount
1	SUB WORK NO 1 - WORKING SURVEY	51,00,000.00
2	SUB WORK NO. 2 :- SEWERAGE COLLECTION SYSTEM FOR PHASE 3	47,93,09,673.00
3	SUBWORK NO 3 - SEWERAGE TREATMENT PLANT	
a	STP 2 (5 MLD)	8,29,78,375.00
b	STP 1 (12 MLD)	16,12,00,000.00
4	SUB WORK NO 4 - PROVIDING & CONSTRUCTING RCC WET WELL	
a	WET WELL 1	1,51,39,000.00
b	WET WELL 2	1,51,39,000.00
c	WET WELL 3	1,51,39,000.00
5	SUB WORK No 5 : PROVIDING LOWERING, LAYING AND JOINTING	
	PUMPING MAIN FOR WETWELL 1	18,44,212.00
	PUMPING MAIN FOR WETWELL 2	31,90,540.00
	PUMPING MAIN FOR WETWELL 3	23,95,813.00
6	SUB WORK NO - 6 MISCELLANEOUS	1,52,56,806.00
7	SUB WORK NO 7 :- FOR RAILWAY, & ROAD CROSSING BY	3,66,22,348.00
8	SUB WORK NO 8 :- COMPOUND WALL	55,10,394.00
9	SUB WORK NO 9 :- SEWERAGE PUMPING MACHINERY AT PUMPING	
	PUMPING MACHINERY AT VARIOUS PUMPING STATION	1,37,02,984.00
	SUMP FOR REUSE WORK (EFFULENT)	3,33,54,840.00
	Total Net Cost	Rs. 88,58,82,985.00
	Add 18% GST	Rs. 15,94,58,937.00
	ADD 1 % TS CHARGES	Rs. 88,58,830.00
	Add labour insurance on PWD items works 1% of Rs. 265764896	26,57,649.00
	Total Gross Cost	Rs. 1,05,68,58,401.00
	Total Gross Cost	Rs In Crores 105.69


Sub Divisional Engineer
MJP Sub division Khamsaon


DEPUTY ENGINEER
(MECH + ENVIROT)
M.C.SHEGAON


Chief Officer
Municipal Council Shegaon


Executive Engineer
MJP Division Buldhana


Superintending Engineer (I/C)
M. J. P. Circle, Akola

Checked by :-
JE/SECT ENGR
MJP Sub division Khamsaon


Executive Engineer (Mech.)
M. J. P. Circle, Akola


Prepared by :-
Puranik Brothers
Consulting Engineers Nagpur

TECHNICAL SANCTION

Technically Sanctioned for

Rs. 1,05,68,58,401/- Gross

Rs. one hundred five crores, sixty eight lakh,
fifty eight thousand four hundred one only.

Vide Item No. 30 of form No.85

for the month of November 2022


Chief Engineer
Maharashtra Jeevan Pradhikaran
Region, Amravati

शेगांव नगर परिषद कार्यालय, शेगांव
(आरोग्य विभाग)

1580

फोन नं. ०७२६५ - २५२०१५
गांधी चौक, शेगांव

ई-मेल :- co.shegaon@gamil.com

जा.क्र./आवि/नपाशे/ २०७ /२२

दिनांक: ११/११/२०२२

प्रति,

✓ **म्ह. प्रधान सचिव सो.**
(नवि-२) मंत्रालय, मुंबई ३२

विषय : स्वच्छ भारत अभियान अंतर्गत शेगांव शहर भुयारी गटार योजना टप्पा-३ योजनेच्या कामास प्रशासकीय मंजूरी प्रदान करणे बाबत.

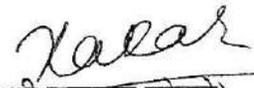
संदर्भ :

१. मा. राष्ट्रीय हरीत लवाद यांचे दि. २३.०८.२०२२ रोजीचे आदेश
२. मा. मुख्य सचिव यांचे दि. ०६.१०.२०२२ रोजीचे बैठकीतील निर्देश.
३. मा. प्रादेशिक अधिकारी, महाराष्ट्र प्रदुषण नियंत्रण मंडळ अमरावती यांचे निर्देश.
४. मा. प्रधान सचिव सो. यांचे दि. १३.१०.२०२२ चे बैठकीतील निर्देश
५. कार्यकारी अभियंता, म.जी.प्रा. विभाग, बुलडाणा यांचे पत्र क्र. तांशा / ३१७७ / दि. १०.११.२०२२.
६. न.प. शेगांव प्रशासक यांची प्रकल्प अहवालास मंजूरी आदेश दि. ११.११.२०२२

उपरोक्त विषयास सविनय सादर की, संदर्भ क्र. १ ते ४ चे अनुषंगाने शेगांव नगर परिषद उर्वरित क्षेत्राकरीता महाराष्ट्र जीवन प्राधिकरण यांचे मार्फत संदर्भ क्र. ५ नुसार शेगांव भुगटार योजना टप्पा ३ चा सविस्तर प्रकल्प अहवाल तांत्रिक मंजूरीसह प्राप्त झालेला आहे. यास संदर्भ क्र. ६ नुसार मंजूरी देण्यात आलेली आहे. तरी सादर प्रस्ताव या पत्रासोबत प्रशासकीय मंजूरी करीता सविनय सादर.

सहपत्र :- १. संदर्भ क्र. ५ चे तांत्रिक मंजूरी आदेश
२. संदर्भ क्र. ६ चे प्रशासक यांचे आदेश

आपली नम्र


(डॉ. जयश्री काटकर-बोराडे)
मुख्याधिकारी तथा प्रशासक,
न.प. शेगांव, जि. बुलडाणा

प्रत :

१. मा. संचालक तथा आयुक्त, नगर पालिका प्रशासन संचालनालय, मुंबई यांना माहितीस सादर.
 २. कार्यकारी अभियंता, महाराष्ट्र जीवन प्राधिकरण विभाग, बुलडाणा यांना माहिती करीता रवाना.
- मा.



महाराष्ट्र जीवन प्राधिकरण विभाग, बुलडाणा

जलशुध्दीकरण केंद्राच्या आवारात, बुलडाणा ४४३००१.

दुरध्वनी :- ०७२६२-२४२४५७, फॅक्स :- ०७२६२-२४२४५१

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जा.क्र.मजीप्राविबु/ तांशा/ 3177 /2022

दिनांक :- 10 / 11 / २०२२

प्रति,

मुख्याधिकारी,
नगर परिषद,
शेगांव

विषय :- स्वच्छ भारत अभियान अंतर्गत शेगांव शहर भुयारी गटार योजना टप्पा-3 योजनेच्या कामास तांत्रिक मंजूरी प्रदान करणे बाबत.

संदर्भ :- 1. मुख्याधिकारी, नगर परिषद, शेगांव यांचे पत्र क्र. 1651, दि. 17.10.2022.
2. तांत्रिक मंजूरी आदेश क्र. मुअ./मजीप्रा / अम / रेचिशा / ता.मं. / 2981/22, दि. 10.11.2022

वरील संदर्भीय विषयान्वये स्वच्छ भारत अभियान अंतर्गत शेगांव शहर भुयारी गटार योजना टप्पा-3 योजनेच्या कामास तांत्रिक मंजूरी प्रदान करण्यात आली असून अंदाजपत्रक तांत्रिक मान्यतेसह पुढील कार्यवाहीस्तव पाठविण्यात येत आहे.

आपल्या माहिती व पुढील कार्यवाही करीता अग्रेषीत.

सहपत्र : तांत्रिक मान्यता प्राप्त अंदाजपत्रक

Ahad
(कृ.बी.आव्हाड)
कार्यकारी अभियंता

प्रत :- १) मा.मुख्य अभियंता, म.जी.प्रा.प्रादेशिक विभाग, अमरावती यांना माहितीसाठी सविनय सादर.
२) मा. अधीक्षक अभियंता, म.जी.प्रा. मंडळ, अकोला यांना माहितीसाठी सविनय सादर.

महाराष्ट्र जीवन प्राधिकरण

दूरध्वनी क्रमांक
(ऑ.) ०७२१ - २६६४२९२
२६६४३६०
(थेट) ०७२१ - २६६४२९०
फॅक्स ०७२१ - २६६३३३२



मुख्य अभियंता
महाराष्ट्र जीवन प्राधिकरण
प्रादेशिक विभाग "अक्षितम्" मालटेव्ही,
अमरावती - ४४४ ६०१.
E-mail : cemjpamravati@gmail.com

तांत्रिक मंजूरी

प्रपत्र नमुना क्र.८५ बाब क्र.३० माहे नोव्हेंबर २०२२

विषय :- अमृत अभियान अंतर्गत शेगांव शहर भुयारी गटार योजना टप्पा-३ योजनेच्या कामास तांत्रिक मंजूरी प्रदान करणेबाबत.

संदर्भ :- तांत्रिक सल्लागार, पुराणिक ब्रदर्स, नागपूर यांचे पत्र क्र.१३५/२०२२ दि.७.११.२०२२.

संदर्भिय विषयांकीत पत्रान्वये अमृत अभियान अंतर्गत शेगांव शहर भुयारी गटार योजना टप्पा-३ योजनेचा सविस्तर प्रकल्प अहवाल रू.१,०५,६८,५८,४०१/- ढोबळ किंमतीचा तांत्रिक मंजूरीकरिता प्राप्त झालेला आहे. सदर प्रस्ताव अधीक्षक अभियंता, महाराष्ट्र जीवन प्राधिकरण, म.नि.व सं. व सं.कक्ष, मुंबई यांचेकडे सादर केलेला असून मा.सदस्य सचिव, मजीप्रा, मुंबई यांचे निर्देशानुसार कालापव्यय टाळण्यासाठी प्रस्तुत प्रस्तावास CPDM च्या अभिप्रायाची वाट न बघता तांत्रिक मान्यता प्रदान करण्यात येत आहे.

सदर प्रस्तावाची अंदाजपत्रकीय किंमत रू.१,०५,६८,५८,४०१/- (अक्षरी रू.एकशे पाच कोटी, अडुसष्ट लक्ष, अठ्ठावन हजार, चारशे एक फक्त) आहे. सदर किंमतीस बाब क्र.३०, फॉर्म क्र.८५ माहे नोव्हेंबर २०२२ अन्वये सोबत जोडलेल्या अटी व शर्तीच्या अधीन राहून "तांत्रिक मंजूरी" प्रदान करण्यात येत आहे.

सहपत्र:- तांत्रिक मान्यतेचा गोषवारा,
अटी व शर्ती.


(श्रीनिवास रं.कातके)
मुख्य अभियंता

जा.क्र.मु.अ./मजीप्रा/अम/रेचिशा/ता.मं./ २९८१/२०२२
दिनांक:- १०.११.२०२२

प्रत:-

१. मा.सदस्य सचिव, महाराष्ट्र जीवन प्राधिकरण, मुंबई यांना माहितीकरीता सविनय सादर.
२. विशेष कार्य अधिकारी, पाणी पुरवठा व स्वच्छता विभाग, मंत्रालय, मुंबई यांना माहिती करिता सादर.
३. अधीक्षक अभियंता, महाराष्ट्र जीवन प्राधिकरण, म.नि.व सं. व सं.कक्ष, (CPDM) २१, मित्तल चेंबर्स २२८, २ रा मजला, नरिमन पॉईंट, मुंबई यांना माहिती करिता.
४. अधीक्षक अभियंता, म.जी.प्रा.मंडळ, अकोला यांना माहितीकरीता तथा उपरोक्त तांत्रिक मान्यता प्राप्त अंदाजपत्रक शेगाव नगर परिषदेला पुढील कार्यवाहीस्तव आपल्या स्तरावरून हस्तांतरीत करण्याकरिता अग्रेषीत.
५. कार्यकारी अभियंता, म.जी.प्रा.विभाग, बुलढाणा यांना माहिती व पुढील आवश्यक कार्यवाहीकरीता. शेगाव नगर परिषदेकडून तांत्रिक तपासणी शुल्क म.जी.प्रा.कडे जमा करून घ्यावे.

अटी व शर्ती

१. योजनेचे कार्यान्वयन करतांना महाराष्ट्र शासन, नगर विकास विभाग, शासन निर्णय क्र. संकिर्ण/२०१५/ प्र.क्र.१५०/ नवि ३३, मंत्रालय, मुंबई, दिनांक-२८ मार्च, २०१६ मधील सुचनांचे व शर्तीचे काटेकोरपणे पालन करण्यात यावे.
२. योजनेचे कार्यान्वयन करतांना मा.सदस्य सचिव यांनी त्यांचे पत्रक्र.मजीप्रा/सस/तांशा-३/ ५३०, दि.०७.०५.२०१६ अन्वये दिलेल्या निर्देशांचे काटेकोरपणे पालन करण्यात यावे.
३. योजनेची निविदा प्रपत्रे तयार करण्यापूर्वी, योजनेचे कार्यपूर्व सर्वेक्षण, तसेच भू-स्तर पडताळणी करीता आवश्यक Trial pit/Trial Bore घेण्यात यावेत. व तदनंतरच प्राप्त परिमाणावर (Results) आधारीत कार्यपूर्व अंदाजपत्रके तयार करून त्यास सक्षम अधिकाऱ्यांची मंजूरी घेण्यात यावी.
४. प्रस्तावित मलशुद्धीकरण केंद्राची जागा महत्तम पूर पातळीच्या (HFL) वर असल्याबाबतची खात्री केल्याशिवाय कामास सुरुवात करण्यात येऊ नये.
५. ट्रंकमेन पाईपचे खाली टाकावयाचे बेडिंग करीता Manual on Sewerage & Sewage Treatment System Part-A (Year २०१३) परिच्छेद ३.५०.३.३ मधील निर्देशांचे काटेकोरपणे पालन करण्यात यावे.
६. ट्रंकमेन पाईपचे खाली टाकावयाचे बेडिंगचा वर्ग निश्चित करणेकरीता Manual on Sewerage & Sewage Treatment System Part-A (Year २०१३) परिच्छेद ३.५०.३.४ मधील निर्देशांचे काटेकोरपणे पालन करण्यात यावे.
७. ट्रंकमेनच्या Conduit पाईपचे Structural design Manual on Sewerage & Sewage Treatment System Part-A (Year २०१३) परिच्छेद ३.४३ मधील निर्देशानुसार करण्यात यावे.
८. निविदापूर्वी कार्यव्ययी अंदाजपत्रक तयार करून त्यास सक्षम अधिकाऱ्यांची मंजूरी घेण्यात यावी.
९. योजनेच्या कामाचा समावेश सर्व कालबद्ध प्रगती अहवालात करण्यात यावा.
१०. योजनेवर मंजूर किंमतीपेक्षा जास्त खर्च करण्यात येऊ नये.
११. योजना विहित कालावधीत पूर्ण करण्यात यावी.
१२. सर्व कामे प्रचलीत भारतीय मानकाप्रमाणे पूर्ण करण्यात यावीत.
१३. प्रत्येक उपांगाकरीता वेळोवेळी घेण्यात येणा-या काँक्रीट टोकळ्यांच्या चांचणीचे अहवाल अभियांत्रिकी महाविद्यालयाकडून किंवा अधिकृत यंत्रणेकडून करून घेणे अनिवार्य राहिल.
१४. रस्त्याच्या कडेनी व रस्ता ओलांडण्याकरीता टाकण्यात येणा-या पाईप लाईनसाठी संबंधीत यंत्रणेकडून रितसर परवानगी घेऊनच कामे हाती घ्यावी.
१५. सर्व उपांगांकरिता लागणा-या सर्व प्रकारच्या साहित्याची म.जी.प्रा.मार्फत मान्यता प्राप्त एजन्सीकडून थर्ड पार्टी निरीक्षण करून प्रमाणपत्रे घेणे अनिवार्य राहिल.
१६. बांधकामाकरीता वापरण्यात येणा-या साहित्याची जसे-सिमंट, खडी, रेती, विटा, लोखंड, इत्यादीची तपासणी शासकीय अभियांत्रिकी महाविद्यालयातून तपासून घेण्यात यावी व Test Results जतन करून ठेवण्यात यावे. सदर साहित्याचा दर्जा व गुणवत्ता भारतीय मानकानुसार असावा.
१७. मंजूर अंदाजपत्रकामध्ये कोणत्याही स्वरूपाचे बदल करावयाचे झाल्यास त्यास सुधारीत तांत्रिक मान्यता घेण्यात यावी.
१८. सदर तांत्रिक मंजूरी ही Provisional स्वरूपाची असून संकल्पनातील सुधारणा व कार्यव्ययी अंदाजपत्रके तयार झाल्यानंतर आवश्यकतेनुसार सुधारीत तांत्रिक मंजूरी प्रदान करण्यात येईल.
१९. सदर DPR तयार करतांना नगर परिषदेने उपलब्ध करून दिलेल्या DP Plan नुसार सर्व भागाचे प्रभागनिहाय सर्वेक्षण करून Collection system चे Design व नागरी तसेच ग्रामीण भागातील Population forecasting करून संकल्पने तयार केलेले आहे.

२१. सदर योजनेची निविदा प्रपत्रे तयार करतांना त्यामध्ये Working Survey या उपांगाचा समावेश करावा. कंत्राटदाराने निविदा स्विकृती झाल्यानंतर Working Survey तयार करून त्यास सक्षम प्राधिकरणाची मंजूरी घ्यावी व तदनंतरच कामे सुरू करण्याची अट निविदेत समाविष्ट करावी.
२२. सदर योजनेची कामे सुरू करण्यापूर्वी MPCB/CPCB यांचेकडून Permission to Establish and Permission to Operate प्राप्त करून घेण्याची जबाबदारी नगर परिषदेची राहिल.
२३. मा.राष्ट्रीय हरित लवाद (NGT)/ MPCB/CPCB यांचे निर्देशानुसार शहरातील सर्व १००% भाग Sewerage system ने जोडला जाईल व १००% जमा होणाऱ्या Sewage ला Treatment होईल. याबाबत निविदेमध्ये उल्लेख करून त्यानुसार कार्यवाही करावी.
२४. सर्व STP चे Effluent ची Quality (BOD/COD ई.) अद्यावत MPCB/CPCB चे मानकाप्रमाणे राहिल, याची खातरजमा करावी. आवश्यकतेनुसार तशी तरतूद निविदेत करावी.
२५. Effluent वर प्रक्रिया करून निघणारे पाण्याबाबत योग्य ते नियोजन करून नगर परिषदेच्या उत्पन्नामध्ये वाढ करण्याबाबत नगर परिषदेने नियोजन करावे.
२६. सदर DPR तयार करतांना प्रस्तावित करण्यात आलेली कामे ही नगर परिषद अभियंता/ नगर परिषद कर्मचारी यांनी प्रत्यक्ष कामाचे स्थळी दाखविलेल्या हद्दिनुसार प्रस्तुत DPR मध्ये घेण्यात आलेली आहेत.
२७. सदर प्रस्तावाची तांत्रिक छाननी पोटी मंजूर अंदाजपत्रकीय किंमतीच्या १% तांत्रिक तपासणी शुल्क नगर परिषदेला म.जी.प्रा.विभाग, बुलढाणा यांचेकडे जमा करणे आवश्यक राहिल.

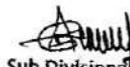
Shri Nivasa R. Khatkade
(श्रीनिवास रं.कातकडे) 10/11

✶ मुख्य अभियंता
म.जी.प्रा.प्रादेशिक विभाग,
अमरावती

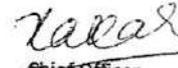
MAHARASHTRA JEEVAN PRADHIKARAN
SHEGAON SEWERAGE SCHEME FOR PHASE 3
Tq. Shegaon Dist. Buldhana

Recapulation Sheet

Sr. No.	Particulars of Work	Amount
1	SUB WORK NO 1 - WORKING SURVEY	51,00,000.00
2	SUB WORK NO. 2 :- SEWERAGE COLLECTION SYSTEM FOR PHASE 3	47,93,09,673.00
3	SUBWORK NO 3 - SEWERAGE TREATMENT PLANT	
a	STP 2 (5 MLD)	8,29,78,375.00
b	STP 1 (12 MLD)	16,12,00,000.00
4	SUB WORK NO 4 - PROVIDING & CONSTRUCTING RCC WET WELL	
a	WET WELL 1	1,51,39,000.00
b	WET WELL 2	1,51,39,000.00
c	WET WELL 3	1,51,39,000.00
5	SUB WORK No 5 : PROVIDING LOWERING, LAYING AND JOINTING	
	PUMPING MAIN FOR WETWELL 1	18,44,212.00
	PUMPING MAIN FOR WETWELL 2	31,90,540.00
	PUMPING MAIN FOR WETWELL 3	23,95,813.00
6	SUB WORK NO - 6 MISCELLANEOUS	1,52,56,806.00
7	SUB WORK NO 7 :- FOR RAILWAY, & ROAD CROSSING BY	3,66,22,348.00
8	SUB WORK NO 8 :- COMPOUND WALL	55,10,394.00
9	SUB WORK NO 9 :- SEWERAGE PUMPING MACHINERY AT PUMPING	
	PUMPING MACHINERY AT VARIOUS PUMPING STATION	1,37,02,984.00
	SUMP FOR REUSE WORK (EFFULENT)	3,33,54,840.00
	Total Net Cost	Rs. 88,58,82,985.00
	Add 18% GST	Rs. 15,94,58,937.00
	ADD 1 % TS CHARGES	Rs. 88,58,830.00
	Add labour insurance on PWD items works 1% of Rs. 265764896	26,57,649.00
	Total Gross Cost	Rs. 1,05,68,58,401.00
	Total Gross Cost	Rs In Crores 105.69

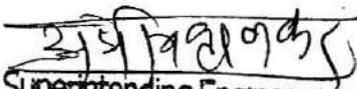

Sub Divisional Engineer
MJP Sub division Khamsaon


DEPUTY ENGINEER
(MECH + ENVIROT)
M.C.SHEGAON


Chief Officer
Municipal Council Shegaon


Executive Engineer (Mech.)
M. J. P. Circle, Akola


Executive Engineer
MJP Division Buldhana


Superintending Engineer (I/C)
M. J. P. Circle, Akola

Checked by :-
JE/SECT ENGR
MJP Sub division Khamsaon


Prepared by :-
Puranik Brothers
Consulting Engineers Nagpur

TECHNICAL SANCTION

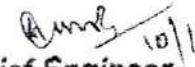
Technically Sanctioned for

Rs. 1,05,68,58,401/- Gross

Rs. one hundred five crores, sixty eight lakh,
fifty eight thousand four hundred one only.

Vide Item No. 30 of form No.85

for the month of November 2022


Chief Engineer
Maharashtra Jeevan Pradhikaran
Region, Amravati



शेगाव नगर परिषद कार्यालय, शेगाव
(आरोग्य विभाग)

गांधी चौक, फोन नं. ०७२६५-२५२०१५

ईमेल- co.shegaon@gmail.com

जा.क./आवि/नपाशे/224/२०२२
प्रति,

दिनांक :- १४/११/२०२२

१. मा. संचालक तथा आयुक्त सो.,
नगर प्रशासन संचालनालय, मुंबई- ३२
२. मा. संचालक स्वच्छ महाराष्ट्र मिशन (नागरी)
नरीमन पॉईन्ट, मुंबई.

विषय :- राज्य नगरोत्थान/अंतर्गत शेगाव शहर भुयारी गटार योजना टप्पा ३ च्या
व स्वच्छ भारत मिशन-२-० प्रकल्पास प्रशासकीय मंजूरी प्रदान करणेबाबत.

संदर्भ :-

१. मा. राष्ट्रीय हरीत लवाद यांचे दिनांक २३/०८/२०२२ रोजीचे आदेश.
२. मा. मुख्य सचिव यांचे दिनांक ०६/१०/२०२२ रोजीचे बैठकीतील निर्देश.
३. मा. प्रादेशिक अधिकारी, महाराष्ट्र प्रदुषण नियंत्रण मंडळ, अमरावती यांचे निर्देश.
४. मा. प्रधान सचिव सो. यांचे दिनांक १४/१०/२०२२ चे बैठकीतील निर्देश.
५. मा. कार्यकारी अभियंता तथा प्रकल्प व्यवस्थापन सल्लागार म.जी.प्रा.विभाग, बुलढाणा यांचे पत्र क्रमांक/मजीप्राविबु /तांशा/३१७७/२०२२ दिनांक १०/११/२०२२ नुसार सादर सविस्तर प्रकल्प अहवाल.
६. मा. मुख्य अभियंता यांची प्रस्तावास तांत्रिक मंजूरी क.मु.अ./मजीप्रा/अम/रेचिशा /ता.मं./२९८१/२०२२ दिनांक १०/११/२०२२
७. नगर परिषद शेगाव प्रशासक यांची प्रकल्प अहवाल मंजूरी आदेश दिनांक ११/११/२०२२

मा. महोदय,

उपरोक्त विषयास सविनय सादर की, संदर्भ क्र. १ ते ४ चे अनुषंगाने शेगाव नगर परिषद उर्वरीत क्षेत्राकरीता संदर्भ क्र. ५ नुसार शेगाव भुगटार योजना टप्पा-३ चा सविस्तर प्रकल्प अहवाल तांत्रिक मंजूरीसह तयार केला आहे. यास संदर्भ क्र. ६ नुसार नगर परिषद प्रशासक यांची मंजूरी देण्यात आली आहे. उपरोक्त तांत्रिक मंजूरी प्राप्त भुगटार प्रकल्प टप्पा-३ हा मा. राष्ट्रीय हरीत लवाद यांचे समक्ष दाखल मुळ अर्ज क्र. ९/२०१७ व मुळ अर्ज क्र. ५/२०१८ यामधील प्रकल्पाचे अनुषंगाने दिनांक २३/०८/२०२२ रोजी चे आदेशाचे अनुषंगाने मा. मुख्य सचिव सो. यांचे दिनांक ०६/१०/२०२२ व मा. प्रधान सचिव सो. नवि-२ यांचे अध्यक्षतेखालील समितीचे दिनांक १४/१०/२०२२ चे निर्देशानुसार तातडीने महाराष्ट्र जीवन प्राधिकरण यांना प्रकल्प सल्लागार म्हणून नियुक्त करून तयार करण्यात आलेला आहे. त्यास मजीप्राने सीपीडीएम चे अंतिम तांत्रिक छाननीचे अधिन राहून रुपये १०५,६९,५८,४०१/- चे प्रकल्पास तांत्रिक मंजूरी प्रदान केली आहे. यामध्ये शेगाव शहरातील हद्दवाढीचा संपूर्ण भाग, नव्याने समाविष्ट ग्रामपंचायत रोकडीया परिसर ईत्यादी सर्व भागासाठी मलनिःस्सारण वाहीन्या व व्यवस्था तसेच गावातील भविष्यातील ३० वर्षातील लोकसंख्या वाढीनुसार दोन मल प्रक्रिया केंद्रासह विविध प्रदुषण नियंत्रण मंडळाचे मानकानुसार इतर सर्व बाबी सविस्तर प्रकल्प अहवालात समाविष्ट आहेत. ईत्यादी सर्व एकत्रित कामाचा एक प्रकल्प तयार करून त्यास तांत्रिक मंजूरी देण्यात आली आहे. तसेच यापूर्वी शेगाव शहरात भुगटार योजना टप्पा क्र. १ व २ हे दोन मल प्रक्रिया केंद्र ७ एम.एल.डी. व २

एम.एल.डी. क्षमता असलेले शेगांव तिर्थक्षेत्र आराखड्यात मंजूर करून कार्यान्वित करण्यात आलेले आहेत. मात्र हद्दवाढ व नव्याने विस्तारीत क्षेत्र यासाठी भुगटार सेवा उपलब्ध नाही.

सबब वरील सर्व बाबींचा विचार करता व मा. राष्ट्रीय हरीत लवादाचे आदेश व त्या अनुषंगाने मा. मुख्य सचिव सो. मा. प्रधान सचिव सो. नवि-२ यांचे अध्यक्षतेखालील समितीचे आदेशानुसार कालमर्यादित भुगटार टप्पा-३ तयार केला आहे. या कार्यवाहीस बंधन असल्याने सदर प्रस्ताव तातडीने तयार करण्यात आलेला आहे. उपरोक्त तांत्रिक मान्यता प्राप्त सविस्तर प्रकल्प अहवाल आपणाकडील अनुज्ञेय योजनेनुसार प्रशासकीय मंजूरी मिळणेस्तव सविनय सादर

सहपत्र :-१. मुळ तांत्रिक मंजूरी प्राप्त अंदाजपत्रक प्रत.
२. तांत्रिक मंजूरी आदेश.
३. नगर परिषद प्रशासक मंजूरी प्रत.

आपली नम्र
Kakar
(डॉ. जयश्री काटकर-बोराडे)
मुख्याधिकारी तथा प्रशासक,
नगर परिषद, शेगांव.

प्रतिलिपी,

१. मा. प्रधान सचिव सो (नवि-२) मंत्रालय मुंबई- ३२ यांना माहितीस्तव सविनय सादर.
२. मा. मुख्य अभियंता महाराष्ट्र जीवन प्राधिकरण, अमरावती.
३. मा. कार्यकारी अभियंता महाराष्ट्र जीवन प्राधिकरण, बुलढाणा यांना माहितीस सादर.
४. उपविभागीय अभियंता, मजीप्रा उपविभाग खामगांव तथा प्रकल्प व्यवस्थापन सल्लागार यांना पुढील आवश्यक कार्यवाहीस्तव.



68

1353

Government of Maharashtra
 No- Nagaro-2019/CR281/UD-33
 Urban Development Department
 Government of Maharashtra
 Madame Cama Road, Mantralaya
 Mumbai-400032
 4th December, 2019

To

Chairman
 Central Pollution Control Board
 Parivesh Bhawan,
 East Arjun Nagar,
 Delhi-110032

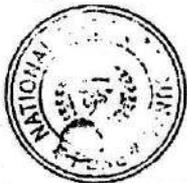
Sub: Performance Guarantee regarding Shegaon Underground sewerage project as per order of Hon. National Green Tribunal (NGT)

Reference :- NGT Order dated 24.9.2019 with respect to OA 09/2017 and OA 05/2018.

In accordance with para 8 of the directions of the National Green Tribunal dated 24th September 2019 in Original Application no. 09/2017 (WZ) with Original Application No. 05/2018 (WZ), the State Government hereby undertakes to complete the balance works of Shegaon Under Ground Drainage project (Phase-I) and adhere to the timelines laid down by the Hon'ble NGT in its order dated 24th September 2019.

2. Further, in the event that the balance works are not completed within the said timelines, the State Government undertakes to deposit an amount of Rs. 1 crore with the Central Pollution Control Board (CPCB).

Yours



(Signature)
 (Manisha Thakur)
 Principal Secretary, (2)
 Government of Maharashtra

TRUE COPY

Copy to

- (1) Hon. Chief Secretary, Government of Maharashtra
- (2) Principal Secretary, Environment, Government of Maharashtra
- (3) Principal Secretary, Water Supply Department, Government of Maharashtra
- (4) Member Secretary, Maharashtra Jeevan Pradhikaran
- (5) Director, Municipal Administration, Government of Maharashtra
- (6) Member Secretary, Maharashtra Pollution Control Board
- (7) Chief Officer, Municipal Council, Shegaon.



Speed Post/E-mail

21/11/2022

F. No. A-14011/1/2022 -WQM-I 6268

To

The Principal Secretary
Urban Development Department, Govt. of Maharashtra
Madame Cama Road, Hutatma Rajguru Chowk, Mantralaya
Mumbai-400032

Sub: Hon'ble NGT, New Delhi order dated 23/8/2022 in O.A. No. 09/2017 titled Suresh Banarasilal Jajipuria Vs SMS Paryavaran Ltd & Ors reg.

Sir,

This is in reference to Hon'ble NGT order dated 24.09.2019 on the subject matter, wherein Tribunal directed State Government to furnish a Performance Guarantee of Rs. 1 Crore to CPCB within 2 weeks from date of Order. The operative part of the said order is reproduced hereunder for reference:

"9. The Chief Secretary shall ensure that the entire work is completed within a period of six months against which the State Government shall furnish a performance guarantee of ₹1 Crore to the satisfaction of the Central Pollution Control Board (CPCB) within two weeks from hence."

In compliance of the said order, State Govt has given undertaking to deposit an amount of Rs 1 Crore with CPCB, in place of Performance Guarantee vide letter no. Nagaro-2019/CR281/UD-33 dated 4/12/2019 (copy enclosed). Till date, CPCB has not received the Performance Guarantee.

Further, vide Order dated 23/8/2022, para 10, Tribunal observed that the damage to environment is still continuing and therefore **directed CPCB to forfeit the Performance Guarantee as deposited by State Government.**

In view of the above, it is directed to deposit Rs. 1 Crore to CPCB account immediately to avoid legal action for non-compliance of the Hon'ble NGT direction, in line with the provisions of The Water (Prevention and Control of Pollution) Act, 1974 and The Environment (Protection) Act, 1986.

Bank details of CPCB account is provided below:

Bank & Branch	:	Union Bank of India, I. P. Extension Branch
A/c No	:	532702010009078
Beneficiary Name	:	CPCB-NGT-EC75
IFSC Code no.	:	UBIN0553271
PAN No	:	AAALC0228L

Yours faithfully,

(P.K. Mishra)

Divisional Head, WQM-I Division

: For kind information please

Copy to:

The Regional Director
Regional Directorate (Pune), CPCB
Survey No. 110, Dhankude Multi-Purpose Hall, Baner Road,
Baner, Pune - 411045
rdpune.cpcb@gov.in

(P.K. Mishra)

MAHARASHTRA POLLUTION CONTROL BOARD

Phone : (0721) 2563592

Fax : (0721) 2563597

Email : roamravati@mpcb.gov.in

Visit At : <http://mpcb.gov.in>

"Sahakar Surabhi" Bapatwadi Near Vivekanand Colony

Amravati - 444606

Red/ Municipal Council.

Date: 18.01.2019

Consent No: RO-AMRAVATI/CONSENT/1901001356

Consent to Operate under section 26 of the water (Prevention & Control of Pollution) Act, 1974 & under section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization / Renewal of Authorization under of the Hazardous and Other wastes(Management and Transboundary Movement) Rules 2016.

[To be referred as water Act, Air Act and HW & OW (M & T) Rules respectively]

Consent is hereby granted to

M/s. Municipal Council Shegaon (B-Class),
Tal.-Shegaon, Dist.-Buldana.

located in the area declared under the provisions of the Water Act, Air act and Authorization under the provisions of H & OW (M&TM) Rules and amendments thereto subject to the provisions of the Act and the Rules and the Orders that may be made further and subject to the following terms and conditions:

The Consent to Operate is granted for a period up to: 30/11/2021.

1. CONDITIONS UNDER WATER ACT:

Sr. No.	Name of STP	Quantity of Effluent in MLD	To be discharged into
	STP located at Charmori Indira Nagar, Shegaon.	7.00 MLD	Unad Nalla

- (i) The daily quantity of trade effluent from the STP shall not exceed NIL
(ii) The daily quantity of sewage effluent from the STP shall not exceed 7000.00 CMD

3. **Collection:** The effluent shall be collected through proper underground drainage system to STP. Care shall taken to prevent the spreading of effluent on an open land, which creating mosquito breeding.

4. **Effluent Treatment:** The Municipal Council shall provide comprehensive treatment system consisting of primary / secondary and tertiary treatment as is warranted with reference to influent quality and operate and maintain the same continuously so as to achieve the quality of treated effluent to the following standers:

Sr. No.	Parameter	Limits
1	pH	Not to exceed 6.5 to 9.0
2	Total Suspended Solids	Not to exceed 20 mg/l.
3	BOD 3 Days 27 degree C	Not to exceed 10 mg/l.
4	COD	Not to exceed 50 mg/l.
5	NH4-N	Not to exceed 5 mg/l.
6	N-total	Not to exceed 10 mg/l.
7	Fecal Coliform	<100
8	PO4-P	Not to exceed 2 mg/l.

Also, the Municipal Council should monitor water quality of final outlet of STP and trade effluent shall meet respective standards mentioned as above. If local body is admitting any effluent arising from the industries located in their jurisdiction, arrangement shall be made by the local body to see that such admittance:-

1. Will not cause any deterioration of sewage / drains.
2. Will not cause any toxic either or treatment works or enroute.
3. Will not cause harmful effect on people working at treatment work

The local body shall fully treat such industrial effluent to meet the above standards.

5. Effluent Disposal:

Collection and Pumping facility and pumping facility shall be made available Necessary pumping stations with standby arrangement shall be provided. The treated effluent after achieving the above standards shall be discharged into Unad Nalla as stated above.

1. At the outlet terminal, manholes with measuring devices in the form of "V" notches properly calibrated or suitable flow measurement devices shall be provided. No effluent shall find its way other than in designed and provided collection system Measurement of flow shall be made Board staff at these terminal mantillas.
2. The sludge garbage and the solid waste be scientifically collected, transported, and composted in a place more than 2 km away on leeward side. Otherwise may be disposed by incineration / sanitary land filling. The Municipal Council shall comply with the provisions of **Solid Waste (Management) Rules, 2016 and amendments thereto and the Bio-Medical waste Management rules, 2016 and amendments thereto**, notified by Ministry of Environment & Forest, Government of India vide notification which related to Collection, Segregation, Storage, Transportation, Processing and Disposal as per schedule.
3. The Municipal Council shall at its own cost get the samples of untreated and treated effluent collected and analyzed every three months and shall submit the report thereof to the Sub Regional Officer, Maharashtra Pollution Control Board, Akola with a copy to the Board Officer and the Regional Officer, Amravati.
4. A Yearly progress report in the prescribed proforma shall be submitted to the office of Sub Regional Office and the Regional Office, Amravati stating therein the progress made in respect of execution of treatment and proposal of works under this consent.
5. The Municipal Council shall not change or alter the quantity, the rate of discharge temperature and the mode of disposal of the effluent without previous written permission of the Board Office.
6. The Board reserves the right to revoke, change, or alter the terms and conditions of consent by giving one month's notice to the Municipal Council.
7. The Municipal Council shall provide facility for collection of samples to the Board staff at the terminal manhole.
8. The Municipal Council shall make an application for renewal of the consent at least 60 days before the date of expiry of the consent.



9. An inspection Book shall be opened and made available to the Board Officers during their visit to the Municipal Council.
10. The Water Consumption as follows:
- | | | | |
|------|---|------|-------------|
| i) | Domestic | | 8750.00 CMD |
| ii) | Water gets polluted & Pollutants are Biodegradable | | 0.00 CMD |
| iii) | Water gets polluted, pollutants Are not Biodegradable & Toxic | | 0.00 CMD |
| iv) | Industrial cooling, spraying ,Others | | 5.00 CMD |
11. The Municipal Council shall comply with the provisions of the **Hazardous and other wastes (Management and transboundary Movement) Rules, 2016.**
12. Penalty Clauses: If Municipal Council fails to implement consent conditions prescribed above within the prescribed time limit, it is liable for prosecution under section 44 of water (Prevention and Control of Pollution) Act, 1974 and shall on conviction be liable to penalties provided therein.

6. Non-Hazardous Solid Wastes:

Sr. No.	Type Of Waste	Quantity	UOM	Treatment	Disposal
1	STP Sludge	---	---	---	Use as Manure

7. General Conditions:

- The Municipal Council should bring minimum 33% of the available open land under green coverage /plantation. The applicant should submit a yearly statement by 30th September every year o available open plot area, no. of trees surviving as on 31st March of the year and no. of trees planted by September end.
- The Municipal Council should provide for an alternate electric power source sufficient to operate all pollution control facilities installed by the applicant and operate the same in case of power failure to maintain compliance with the terms and conditions of the consent. In the absence of same, the applicant should stop, reduce or otherwise, control production to abide by terms & conditions of this consent regarding pollution levels.
- The Municipal Council should make an application for renewal of the consent at least 60 days before the date of the expiry of the consent the applicant should not change or alter quantity, quality, the rate of discharge, temperature or the mode of the effluent/ emissions or hazardous wastes or control equipments provided for without previous written permission of the Board.
- The Municipal Council should submit MPCB, the Environmental Statement Report for the financial year ending 31st March in the prescribed Form-V as pre the provisions of Rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992 before 30th September every year.
- The Municipal Council should install a separate meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment should be maintained. The applicant should also submit a comparative statement of designed power and chemical consumptions vis-a vis actual power and chemical consumption along with Environmental statement.
- Separate drainage system should be provided for collection of trade and sewage effluents. Terminal manholes should be provided at the end of collection system with arrangement for measuring the flow. No effluent should be admitted in the pipes/ sewers down-stream of the terminal manholes. No effluent should find its way other than in designed and provided collection system. Neither storm water nor discharge from other premises should be allowed to mix with the effluents from the STP.
- The Municipal Council should provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous wastes to



the Boards staff at the terminal or designated points and should pay to the Board for the services rendered in this behalf. An inspection book should be opened and made available to the Board's officers during their visit to the applicant.

8. The Municipal Council should ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the STP premises.

9. The Municipal Council should maintain good housekeeping and take adequate measures for control of pollution from all sources so as not to cause nuisance to surrounding area / inhabitants.

10. This consent shall not be construed as any exemption from obtaining necessary No objection Certificate from other Government agencies as may be deemed fit necessary.

11. The Board reserved the right to amend or add any conditions in this consent and the same shall be binding on the action.

12. Fees structure as per for "B" Class Municipal Council.

13. The Consent to Operate (Renewal) is granted subject to the directions issued by Hon'ble NGT time to time in the matter Original Application No. 9/2017.

To,
M/s. Municipal Council Shegaon (B-Class),
Tal.-Shegaon, Dist.- Buldana.

(Sanjay D. Patil)
I/c. Regional Officer,



Received Consent fee of -

Sr. No.	Amount(Rs.)	DR. No.	Date	Drawn On
	2,50,000/-	7616361(RTGS)	15/11/2018	---

(Balance Consent Fees of Rs. 75000/- will be adjusted during next renewal of consent to operate)

Copy submitted to favor of information to:-
Member Secretary, MPCB, Mumbai.

Copy forwarded for information:-
The chief Accounts officer, MPCB, Mumbai.

Copy to:- The Sub-Regional officer, Akola.

