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**MINUTES OF MEETING FOR CP4 COMPONENT OF THE PROPOSED DESIGN OF IMPROVEMENTS TO WATER DISTRIBUTION SYSTEM FOR CHENNAI CORE CITY OF ZONE -X AT CMWSSB AND THROUGH VIDEO CONFERENCE MICROSOFT TEAMS MEETING, CONDUCTED BY THE ENGINEERING DIRECTOR (CMWSSB) ON 12.10.2021 FROM 12.00 pm TO 2.00pm**

**Venue:** 6<sup>th</sup> Floor Conference Hall, CMWSSB and Online Microsoft Teams Meeting

**Officials of CMWSSB (PIU):**

Engineering Director

Chief Engineer (Project-III)

Chief Engineer (O&M-I)

Superintending Engineer (Desal)

Superintending Engineer (South West)

Superintending Engineer (P&D)

Executive Engineer (400 MLD Desal)

Area Engineer-X

Assistant Executive Engineers (400 MLD Desal)

Assistant Executive Engineers (P&D)

Assistant Engineer (400 MLD Desal)

Deputy Area Engineers of Area-X

**PMC Services**

Dr.P.Dharmabalan, Project Manager

Mr.S.Siddappaswamy, Deputy Team Leader

Dr. Mohamed Abdelmoneim Sayed Ahmed

Mohamed, Pipeline Engineer

Mr.R.Senthil, Civil Engineer

Ms. J. Sudha, Structural Engineer

Mr. Deb Kumar Kar, Mechanical Engineer

Mr. Om Prakash Singh, Electrical Engineer

Mr. K. Prabhat, Pipeline Engineer-1

Mr. P. Thangavel, Pipeline Engineer-2

CMWSSB conducted a meeting under the chairmanship of the Engineering Director to review the proposed design of Improvements of the water distribution system in Chennai Core City of Zone-X for CP4 component on 12 October 2021. Chief Engineer (Project-III), CMWSSB welcomed all the attendees.

The following points were discussed during the meeting, and the actions to be taken are identified.

Sl. No.	Meeting points of discussion	Action by /Remarks
1	Project Manager (PMC), after the introduction and briefing of the project, mentioned that the PMC team would take through the presentation of the design of improvements to the Water Distribution System of work done so far on Zone-X of CP4 component. The project Manager requested Mr.S.Siddappaswamy (Deputy Team Leader) and the PMC team to present.	Information

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2	<p>Deputy Team Leader (PMC) presented about the design improvements to the water distribution system for Zone-X for CP4 component:</p> <ul style="list-style-type: none"> <li>▪ Data Collection</li> <li>▪ Existing system evaluation including deficiency</li> <li>▪ Parameters used for the design of the proposed system</li> <li>▪ Proposed system</li> <li>▪ Cost Estimate</li> <li>▪ Environmental Management Plan</li> <li>▪ Social Categorization of Projects etc.</li> </ul>	Information
3	<p>PMC brought out the condition of 100 mm CI mains with pipe samples which depicted more than 50% of encrustation. It was questioned that whether the samples were taken from good area, PMC responded that they have requested the samples from good area and also from affected area. Superintending Engineer (South West) questioned that how many samples were taken, PMC mentioned that they have 59 samples.</p>	Information
4	<p>Superintending Engineer (South West), CMWSSB, requested the PMC team to include the pipe material and diameter in the presentation slides on the condition of the existing water distribution system.</p>	PMC
5	<p>Area Engineer-X, CMWSSB, requested the PMC team to include the photographs of the samples from good area where there is no supply issue in the existing water distribution system to support the replacement strategy or to retain the same in the proposed water distribution system.</p> <p>The PMC requested the CMWSSB officials to provide the sample from the good area if the same has not been provided so far. Also requested to provide the sample of higher diameter Cast Iron pipes in the existing water distribution system.</p>	CMWSSB / PMC
6	<p>Engineering Director (CMWSSB) informed the PMC that the existing 675mm diameter of Cast Iron pipe (40 years old) has recently been replaced at Poonamalle High Road; the pipe sample is available at the Zone-V office of CMWSSB.</p> <p>PMC to visit Zone-V of CMWSSB Office for visual</p>	PMC

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	inspection.	
7	PMC explained that in the existing water supply distribution system, individual HSC service connections are provided on the pipe diameter up to 250mm, which is not good practice and leading to inequitable pressure in the system, which shall be avoided in the proposed water distribution system. Recommended that HSCs should be provided only on 100mm diameter.	CMWSSB
8	<p>PMC explained that in the existing water distribution system, most of the HSC are given approximately 1m below the ground level and directly connected to the underground sump which is not a good practice.</p> <p>PMC suggested to bring the service connection up to ground level near to the premise of beneficiary as explained with typical service connection sketch.</p>	CMWSSB
9	<p>PMC explained that in order to achieve the 24 X 7 supply, the system should have minimum losses and the feeder mains should be intact with minimum tapping's and also based on the pipe samples and discussion with the field staff and officials of CMWSSB, the following are the recommendation:</p> <ul style="list-style-type: none"> <li>▪ 100mm CI pipelines are proposed to replace 100% considering the present condition of the pipeline.</li> <li>▪ It is proposed to replace 150 to 250mm diameter of the existing water distribution pipe of Cast Iron and DI pipes considering that on these mains service connections were given which would affect the supply of downstream consumers.</li> <li>▪ Fire hydrants are not proposed.</li> <li>▪ 100% complete swabbing of existing pipes to be done for pipes which are to be retained/integrated into the new system.</li> </ul> <p>PMC requested the CMWSSB officials to confirm the replacement suggestion given above.</p>	PMC/ CMWSSB
10	<p>PMC briefed comparing the rectangular and circular shape of the new Overhead Tank for the proposed water distribution system.</p> <p>PMC informed that the Circular shape Overhead Tank</p>	PMC

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	<p>is feasible only to construct a smaller storage capacity upto 2.50 ML for the proposed water distribution system.</p> <p>However, based on the site availability, PMC recommends the rectangular shape Overhead Tank beyond capacity 2.50 ML.</p> <p>PMC mentioned that the proposed new Rectangular Overhead Tanks will have staging height of 17m and 20m.</p>	
11	<p>SE (P&amp;D) CMWSSB suggested to PMC to provide the new Circular Overhead Tank wherever feasible. PMC explained the constraint of land availability to build higher size circular OHTs.</p>	PMC
12	<p>PMC briefed about the proposed water supply system covering 7 nos. of new WDS by gravity (from OHT, however, pumping is required to lift the water from UGT to OHTs) and 1 no. of new WDS by pumping system in Zone-X.</p> <p>Based on the land availability in Zone-X, PMC has proposed 6 nos. of new Overhead Tanks of capacities varying from 2.00 ML to 10.00 ML. The proposed OHTs will have staging height of 17m and 20m.</p> <p>PMC requested the CMWSSB officials to confirm the land availability for construction of 6 nos. of new Overhead Tanks of various storage capacities in Zone-X for carrying out the geotechnical investigation work.</p> <p>For the construction of 6 nos. of the new Overhead Tanks, the Area Engineers informed that the land is in possession with CMWSSB.</p>	CMWSSB / PMC
13	<p>Also, the Zone-X Depot officials informed that the CMWSSB's vacant land is readily available at Depot 133 / 135 / 140 to construct a new Overhead Tank for supplying water by gravity system.</p> <p>PMC requested the CMWSSB officials to provide the details of the location of the land availability for the construction of the construction of new Overhead Tank in Depot 133 / 135 / 140 in Zone-X to carry out the geotechnical investigation work and to remodel the design of the distribution system.</p>	CMWSSB / PMC

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14	SE (Desal) CMWSSB suggested to the PMC team to include the new sluice valves and scour Valves even in the existing feeder mains considering the O&M aspect.	PMC
15	<p>PMC briefed about the following:</p> <ul style="list-style-type: none"> <li>Flow modulating Valve proposed at each DMA entry point.</li> <li>The pressure sensors are proposed one at the DMA entry point and one each at critical pressure point, and average pressure point in each DMA of the proposed water distribution system.</li> </ul>	
16	<p>PMC has briefed the proposed SCADA system for monitoring of the new water distribution system using the GPRS/GSM system.</p> <p>SE (P&amp;D) CMWSSB questioned that whether the PMC has considered the online monitoring of Chlorine in the water distribution system and for that PMC mentioned that they have considered the monitoring of Chlorine in their proposal.</p>	PMC
17	<p>PMC informed the CMWSSB officials about the basis adopted for the cost estimate as listed below:</p> <ul style="list-style-type: none"> <li>Cost Estimate was prepared based on the Current Schedule of Rates (SoR) for 2020-21. CMWSSB officials informed the PMC team to prepare the estimate as per CMWSSB new Schedule of Rates for the year 2021-22, which will be released soon. PMC agreed for the same</li> <li>Also, the cost for road restoration charges was arrived as per Greater Chennai Corporation SoR 2020-21.</li> <li>PMC briefed that they have taken road restoration charges for pipeline as well as for service connections. CMWSSB agreed for the same.</li> </ul>	PMC
18	<p>CMWSSB officials informed the PMC team as follows:</p> <ul style="list-style-type: none"> <li>To prepare the detailed estimate for the proposed water distribution system, the minimum width of excavation of trench shall be diameter plus 0.20m on both sides for the pipe diameter upto 600mm. For more than 600mm diameter, the width of excavation of trench shall be diameter plus 0.30m on both sides.</li> <li>For House Service Connection, CMWSSB</li> </ul>	PMC

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	suggested to consider the width of excavation as 0.50m for the estimate preparation.	
19	<p>The project Manager (PMC) presented the summary of design improvements to the water distribution system for Zone-X for the CP4 component:</p> <ul style="list-style-type: none"> <li>▪ Conclusion</li> <li>▪ The decision required from CMWSSB</li> <li>▪ Way Forward.</li> </ul> <p>It is requested CMWSSB to give the feedback on priority to the issues required decision and consent. With this MOM, the slides titled, Conclusion, Decision from CMWSSB and Way Forward is attached for ready reference.</p>	CMWSSB / PMC

Team Leader (PMC) thanked the CMWSSB officials and PMC team for attending the meeting. Also, The Engineering Director (CMWSSB) thanked the officials and PMC team members for attending the meeting.

Sd/-xxx 20.10.2021  
Engineering Director  
CMWSSB

Copy submitted to:

1. Engineering Director
2. CE(O&M)-I
3. CE(P)-III
4. SE(P&D)
5. SE(SW)
6. Area Engineer-X

  
22/10/21  
SE(Desal)