Consortium Partners
SMEC International Pty. Ltd. (ACN-065440619/FCRN-F01483)
NJS Engineers India Pvt Ltd, India (CIN - U74210PN2007PTC129798)
Tata Consulting Engineers Limited, India (CIN- U74210MH1999PLC123010)
SMEC (India) Pvt. Ltd. (CIN: U93000DL1997PTC088574)

Ref: SMEC/ CMWSSB / 5061185/141

Date: 17th August 2020

SUPERINTENDING ENGINEER (DESAL) 18 AUG 2020 CMWSS BOARD, CHENNAI-2

To,
The Superintending Engineer (Desalination)
6th floor, Chennai Metropolitan Water Supply and Sewerage Board,
No.1, Pumping Station Road,
Chintadripet, Chennai 600 002
Tamil Nadu, India

Sub: Consultancy for "Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 400 MLD Capacity Seawater Reverse Osmosis Desalination Plant at Perur along East Coast Road, South of Chennai, Tamil Nadu and Construction Management & Supervision for the Proposed Desalination Plant and its Product Water Conveyance Pipeline from the Plant and upto Porur and all allied works"
Action Taken Report / Reply to Queries on the Draft Concept Design Report and Draft Environmental Impact Assessment (EIA) Review Report for CP1 – Reg.

Ref:
1. Queries from CMWSSB vide your email, dated 14.08.2020
2. Your Letter no. Lr.no.CMWSSB/SE(Desal)/400 MLD Plant / PMC-014/2020, dated 13.08.2020
3. Our Letter no. Ref: SMEC/ CMWSSB / 5061185/134, dated 12.08.2020
4. Our Letter no. Ref: SMEC/ CMWSSB / 5061185/135, dated 12.08.2020
5. Queries from CMWSSB vide your email, dated 10.08.2020
6. Our Letter no. Ref: SMEC/ CMWSSB / 7061563/005, dated 20.01.2020
7. Your Letter no. Lr.no.CMWSSB/SE(Desal)/400 MLD Plant / PMC/2020, dated 13.01.2020
8. Our Contract Agreement with CMWSSB, dated 09.01.2020

Dear Sir,

With reference to the queries received through an email from CMWSSB vide our letter cited in reference no.1, dated 14.08.2020, please find below details of the action taken report / reply to queries on the Draft Concept Design Report and Draft Environmental Impact Assessment (EIA) Review Report for CP1 components for the subject project.

Sl. No.	Queries from CMWSSB vide email, dated 14.08.2020	Action Taken Report/ Reply to Queries
1.	Whether change in the length of intake & outfall pipes have any impact on shoreline erosion control.	There is possibility of some shoreline erosion due to piling of the excavated material from the trench for pipe laying. This shoreline erosion may happen at the adjoining to the proposed site. The excavated material needs proper management to avoid such erosion. Based on the experience of laying pipeline for Nemmeli plant, where Shore line erosion had happened mainly due to temporary bund was created. Following precautions and management plan recommended from the Additional studies prepared for 400LD plant by AECOM and Indomer and submitted to CZMA:

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Sl. No.	Queries from CMWSSB vide email, dated 14.08.2020	Action Taken Report/ Reply to Queries
		i. Marine work should be carried out during calm sea condition, i.e. Jan to April ii. Temporary structure, machineries and bund should not be there on the site for long time The report has concluded that since the pipeline would be buried and the shoreline is stable, erosion along the shoreline is not envisaged.
2.	Without sludge treatment, what will be the TSS in the plant wastewater to be discharged in to the sea.	The TSS level in the discharge flow to the sea will depend on the raw seawater TSS, organics and metal ion concentrations. For average seawater TSS (i.e. 75 mg/L) to max design TSS (i.e. 300 mg/L), the TSS concentration in the discharge to the sea will vary from 140 mg/L to 550mg/L.
3.	Chart Datum of the project site, the proposed finished floor level with respect to MSL and the additional earth fill required. Accordingly the Annexure II in reference 4th cited may be revised.	The chart datum of the project site has been given in the figures (Attachment II). The ground level profile varies from South side to North side of the project site. In Figure-1 - the profile is expected to be of the Northern side of the project site, where ground level is +3m. Figure 2 shows that the ground level is +2 to 3m in the Southern side while +3m in the Northern side of the project site. All data in the figures are with respect to Chart Datum. The chart datum is 0.65m at the MSL. We will make correction in the Concept Design Report, if there is any discrepancy.

Thanking you assuring our services at all times.

Yours truly,
For **Consortium of SMEC International Pty Ltd-TCE Ltd.-NJS Engineers India Pvt. Ltd.-SMEC (India) Pvt. Ltd.**

S.Srinivasa Rao
Project Coordinator

Encl: Annexure II

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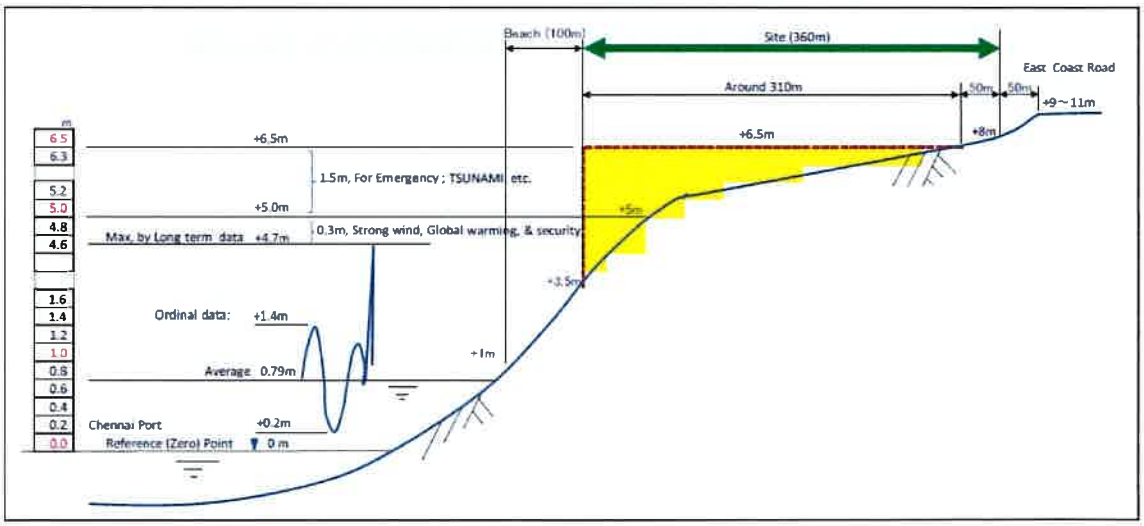
ANNEXURE – II
BASIS FOR FIXING OF FINISHED FLOOR LEVEL FOR PERUR DSP

The height of the project site varies between +2 to 3 m CD. Hence is it proposed to raise the site by additional earth fill up to 4.5 m to realize the Finished Ground Level (FGL) of CD +6.5 m. Raising of Finished ground level (FGL) upto +6.5 m CD is warranted to maintain 0.3m safety factor to protect from strong winds and global warming. Also above this 0.3 m, an additional 1.5 m has been considered for Tsunami and other emergency conditions. Please refer Fig. 1 from JICA study report indicating the recorded max wave levels at CD +4.7m plus 0.3m due to strong wind/ global warming and 1.5m due to Tsunami and planned ground level for the proposed Perur DSP at CD +6.5m.

The boundary of the Perur DSP will be on the constructed land with 3 – 4 m high retaining wall of reinforced concrete. The retaining wall is proposed with pile foundation to keep it more stable. Fig.2 presents the proposed land development plan for the proposed Perur DSP.



Source: JICA Study Team

Fig.1 Recorded Wave level and the Planned Ground Elevation for Proposed Perur DSP

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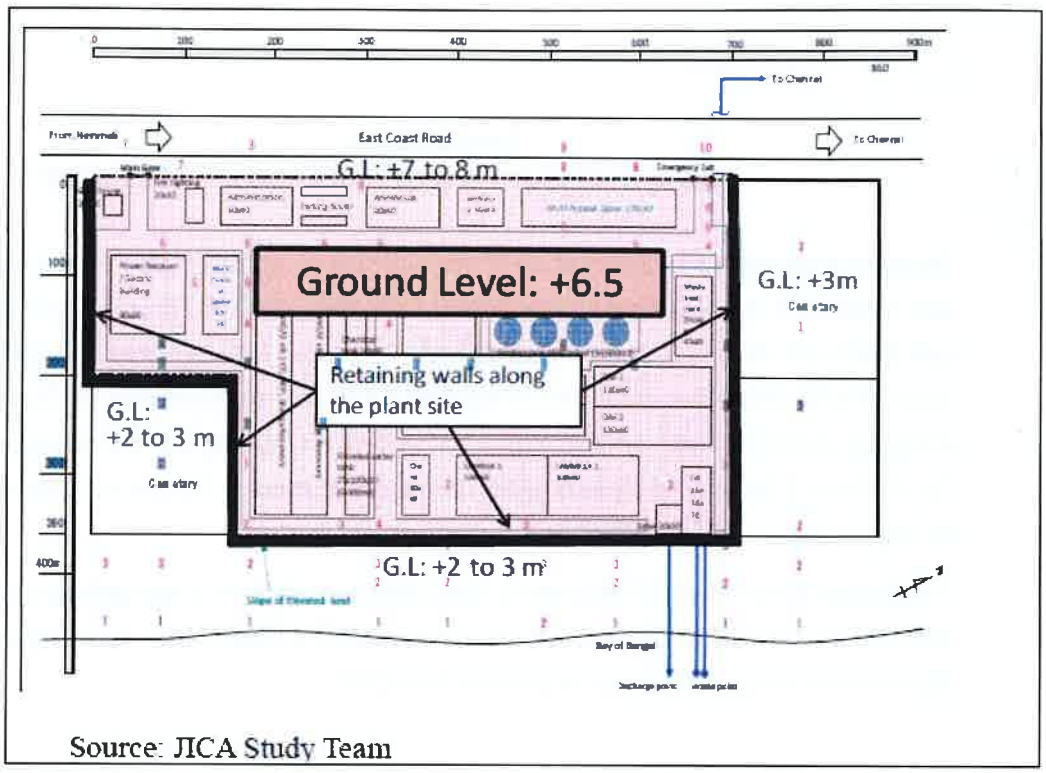

Fig.2 Proposed Land Development Plan for Perur DSP

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