



SYAMA PRASAD MOOKERJEE PORT, KOLKATA
(Formerly KOLKATA PORT TRUST)

श्यामाप्रसाद मुखर्जी पत्तन, कोलकाता (पूर्व में कोलकाता पोर्ट ट्रस्ट)
(AN AUTONOMOUS BODY UNDER THE MINISTRY OF PORTS, SHIPPING
AND WATERWAYS, GOVERNMENT OF INDIA)

(भारतसरकारके बंदरगाह, जहाजरानी और जलमार्ग मंत्रालय के तहत एक स्वायत्त निकाय)

KOLKATA DOCK SYSTEM

कोलकाताडॉकसिस्टम

Civil Engineering Department

सिविल इंजीनियरिंग विभाग

Request for Proposal (RFP)

INDEPENDENT ENGINEER (IE) FOR THE PROJECT “REJUVENATION OF KIDDERPORE DOCKS (KPD-1 WEST) THROUGH PPP MODE ON DESIGN, BUILD, FINANCE, OPERATE AND TRANSFER (DBFOT) BASIS AT SYAMA PRASAD MOOKERJEE PORT, KOLKATA”.

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Disclaimer

The information contained in this Request for Proposal document ("RFP") or subsequently provided to Applicants, whether verbally or in documentary or any other form by or on behalf of the Authority or any of its employees or advisers, is provided to Applicants on the terms and conditions set out in this RFP and such other terms and conditions subject to which such information is provided.

This RFP is not an agreement and is neither an offer nor invitation by the Authority to the prospective Applicants or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in the formulation of their Proposals pursuant to this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived at by the Authority in relation to the Consultancy. Such assumptions, assessments and statements do not purport to contain all the information that each Applicant may require. This RFP may not be appropriate for all persons, and it is not possible for the Authority, its employees or advisers to consider the objectives, technical expertise and particular needs of each party who reads or uses this RFP. The assumptions, assessments, statements and information contained in this RFP, may not be complete, accurate, adequate or correct. Each Applicant should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments and information contained in this RFP and obtain independent advice from appropriate sources.

Information provided in this RFP to the Applicants is on a wide range of matters, some of which depends upon interpretation of law. The information given is not an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The Authority accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on the law expressed herein. The Authority, its employees and advisers make no representation or warranty and shall have no liability to any person including any Applicant under any law, statute, rules or regulations or tort, principles of restitution or enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, adequacy, correctness, reliability or completeness of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in anyway in this Selection Process.

The Authority also accepts no liability of any nature whether resulting from negligence or otherwise however caused arising from reliance of any Applicant upon the statements contained in this RFP.

The Authority may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumption contained in this RFP.

The issue of this RFP does not imply that the Authority is bound to select an Applicant or to appoint the Selected Applicant, as the case may be, for the Consultancy and the Authority reserves the right to reject all or any of the Proposals without assigning any reasons whatsoever.

The Applicant shall bear all its costs associated with or relating to the preparation and submission of its Proposal including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by the Authority or any other costs incurred in connection with or relating to its Proposal. All such costs and expenses will remain with the Applicant and the Authority shall not be liable in any

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manner whatsoever for the same or for any other costs or other expenses incurred by an Applicant in preparation or submission of the Proposal, regardless of the conduct or outcome of the Selection Process.

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SYAMA PRASAD MOOKERJEE PORT, KOLKATA

(Formerly KOLKATA PORT TRUST)

Civil Engineering Department

ONLINE BID REFERENCE

Tender No: - SMPK/KDS/CIV/T/2706/65; Dated 17th October, 2022

Name of work: INDEPENDENT ENGINEER (IE) FOR THE PROJECT “**REJUVENATION OF KIDDERPORE DOCKS (KPD-1 WEST) THROUGH PPP MODE ON DESIGN, BUILD, FINANCE, OPERATE AND TRANSFER (DBFOT) BASIS AT SYAMA PRASAD MOOKERJEE PORT, KOLKATA**”.

a. TENDER NO.	SMPK/KDS/CIV/T/2706/65; Dated 17 th October, 2022
b. MODE OF TENDER	<p>e-Procurement System (Online Two-Part Techno-Commercial Bid and Price Bid through Envida Portal https://kopt.envida.in/) The intending bidders are required to submit their offers electronically through e-tendering portal.</p> <p>No physical tender is acceptable by SYAMA PRASAD MOOKERJEE PORT, KOLKATA</p>
c. i) Estimated Cost of Work / Services	Rs. 95,66,000/- (Rupees ninety-five lakhs sixty-six thousand only)
ii) Earnest Money Deposit (EMD)	Rs. 1,91,320/- (Rupees one lakh ninety-one thousand three hundred twenty only)
iii) Tender Document fee (Non-refundable)	Rs.1770/- (Rupees one thousand seven hundred and seventy only) including 18% GST) The intending bidders should submit the EMD and Tender document fee to SMPK as mentioned in this tender document.
iv) रेलटेल टेंडर प्रोसेसिंग शुल्क/ Railtel Tender Processing Fee (Non-refundable) Mode of Payment: - E-payment Only through Debit / Credit Card or Net Banking.	TPF - 0.1% of estimate cost (Minimum 750/- Maximum 7500/-+GST Registration Charges Rs.2000/- + Applicable GST per year.

d. Date of NIT available to parties to download	17.10.2022 to 07.11.2022 (up to 12:00 hrs.)
e. Pre-proposal conference- Date & Time	28.10.2022 (Friday) 15.00 hrs.
f. Last date of submission of EMD & Tender Document fee at Syama Prasad Mookerjee Port, Kolkata	11.11.2022 (Up to 15:00 hrs.)
g. Date of Starting of e-Tender for submission of online Techno-Commercial Bid and Price Bid at Enivida Portal	17.10.2022 (From 14:00 hrs. onwards)
h. Date of closing of online e-tender for submission of Techno-Commercial Bid & Price Bid.	07.11.2022 (Up to 15:00 hrs.)
i. ई-निविदा को खुलने की तिथि और समय / Date & time of opening of Techno-Commercial Bid	08.11.2022 (After 15:00 hrs.)
j. कार्य की अवधि /Duration of the Work.	24 months or 6 months from the date of commercial operations of the project by the Concessionaire, whichever is later.

ध्यान दे / **Note**: In the event of any unforeseen closure of work / holiday on any of the above days, the same will be opened / held on the next working day without any further notice.

मुख्य अभियन्ता / **Chief Engineer**

सिविल इंजीनियरिंग विभाग / **Civil Engineering Department**

श्यामा प्रसाद मुखर्जी पत्तन, कोलकाता / **SYAMA PRASAD MOOKERJEE PORT, KOLKATA**

निविदा आमंत्रण प्राधिकारी / **Tender Inviting Authority**

TENDER NO.: SMPK/KDS/CIV/T/2706/65; Dated 17th October, 2022

SYAMA PRASAD MOOKERJEE PORT, KOLKATA (Formerly KOLKATA PORT TRUST)

श्यामा प्रसाद मुखर्जी पत्तन, कोलकाता (पूर्व में कोलकाता पोर्ट ट्रस्ट)

Civil Engineering Department

सिविल इंजीनियरिंग विभाग

NOTICE INVITING ONLINE TENDER

निविदा संख्या /Tender No: SMPK/KDS/CIV/T/2706/65; Dated 17th October, 2022

INDEPENDENT ENGINEER (IE) FOR THE PROJECT “REJUVENATION OF KIDDERPORE DOCKS (KPD-1 WEST) THROUGH PPP MODE ON DESIGN, BUILD, FINANCE, OPERATE AND TRANSFER (DBFOT) BASIS AT SYAMA PRASAD MOOKERJEE PORT, KOLKATA”

- 1.1 Online tenders through e-procurement mode are invited by Syama Prasad Mookerjee Port, Kolkata (SMPK) from reputed Consultants as Independent Engineer (IE) for the project “REJUVENATION OF KIDDERPORE DOCKS (KPD-1 WEST) THROUGH PPP MODE ON DESIGN, BUILD, FINANCE, OPERATE AND TRANSFER (DBFOT) BASIS AT SYAMA PRASAD MOOKERJEE PORT, KOLKATA” under **two cover** systems. The estimated cost of the Project being taken up by the Concessionaire is **Rs. 95.66 Crores** (Rupees ninety-five crores sixty-six lakhs only) in Phase-I with a time period of 18 (eighteen) months for commercial operations.
- 1.2 The tender document through e-procurement mode can be downloaded from SMPK’s official website and through e-procurement portal link from the date indicated in Online Bid Reference.
- 1.3 One set of tender document consists of two volumes (Volumes-I & II). **Volume-I (Technical Bid)** comprise of all technical & commercial offer documents including drawings and **Volume-II (Financial Bid)** comprise of Price bid documents.
- 1.4 The complete tender document including drawings can be downloaded from SMPK website: <https://smportkolkata.shipping.gov.in/> and <https://kopt.enivida.in/> and submit as tender offer on or before the due date and time of submission.
- 1.5 The EMD of **Rs. 1,91,320/- (Rupees one lakh ninety-one thousand three hundred twenty only)** shall be paid as described in the Tender Document.
 - The proof of EMD shall be uploaded as a scanned copy of the instrument through e-procurement mode under the Tender Document – Technical Bid while submitting tender electronically in the e-procurement portal. The original EMD must reach SMPK before opening of Technical Bid as per the date and time given in this tender. Mere uploading of EMD document in the portal and non-submission of the original EMD and Integrity Pact at the address given below before the Technical Bid opening date & time will lead to rejection of bids.

The Chief Engineer,

Civil Engineering Department,

Kolkata dock system,

Syama Prasad Mookerjee Port, Kolkata

15, Strand road, Kolkata- 700001.

- The tender (offer) shall have to be submitted by the Tenderer only through e-procurement mode as explained in the Tender Document.

- 1.6 The offer (both Techno-Commercial & Price) must be valid for a minimum of **180 days** from the last date of online submission of offer; otherwise, the offer shall be rejected as non-responsive.
- 1.7 The bids will be ranked according to the **combined score** of technical and financial Proposals. The bidder whose combined score is the highest subject to the provisions in **Clause 3.2** below shall be declared as the successful bidder.
- 1.8 The prospective Tenderer shall submit queries if any to the below mentioned address, in connection with this tender well in advance, so that the queries can be clarified. The bidders queries will be clarified through e-procurement portal and notification in this regard will be issued through <https://kopt.enivida.in>.

The Chief Engineer
Civil Engineering Department,
Kolkata Dock System,
Syama Prasad Mookerjee Port, Kolkata
15, Strand road, Kolkata- 700001,
Phone No. - 033 2230-3451; Extension: 398,399,400
Fax- (033) 2230-0413
E-mail id: p.dutta@kolkataporttrust.gov.in
& ce@kolkataporttrust.gov.in

- 1.9 The due date of online submission of offers will be as indicated in the Online Bid Reference, unless otherwise notified. In the event of changes in the schedules, the SE (Contract), Civil Engineering Department, SMPK notifies the same only through e-procurement portal link.
- 1.10 If the offers are not received according to the instructions detailed here above, they shall be liable for rejection.

मुख्य अभियन्ता / **Chief Engineer**

सिविल इंजीनियरिंग विभाग / **Civil Engineering Department**

श्यामा प्रसाद मुखर्जी पत्तन, कोलकाता / **SYAMA PRASAD MOOKERJEE PORT, KOLKATA**

निविदा आमंत्रण प्राधिकारी / **Tender Inviting Authority**

TENDER NO.: SMPK/KDS/CIV/T/2706/65; Dated 17th October, 2022

SYAMA PRASAD MOOKERJEE PORT, KOLKATA (Formerly KOLKATA PORT TRUST)

श्यामा प्रसाद मुखर्जी पत्तन, कोलकाता (पूर्व में कोलकाता पोर्ट ट्रस्ट)

Civil Engineering Department

सिविल इंजीनियरिंग विभाग

NOTICE INVITING ONLINE TENDER

निविदा संख्या /Tender No: SMPK/KDS/CIV/T/2706/65; Dated 17th October, 2022

INDEPENDENT ENGINEER (IE) FOR THE PROJECT “**REJUVENATION OF KIDDERPORE DOCKS (KPD-1 WEST) THROUGH PPP MODE ON DESIGN, BUILD, FINANCE, OPERATE AND TRANSFER (DBFOT) BASIS AT SYAMA PRASAD MOOKERJEE PORT, KOLKATA**”.

I. INSTRUCTIONS FOR ONLINE BID SUBMISSION

The Proposal in the prescribed format, shall be submitted online at <https://kopt.enivida.in> as per the RFP document. No proposal will be accepted in hard copy, fax, e-mail or any other such means. The Applicant must be registered with e-tender website <https://kopt.enivida.in>. also, the intending bidders should submit the tender cost of **Rs.1770/- (Rupees one thousand seven hundred and seventy only)**, including @18% GST

And

Bid Security/ (Earnest Money):

A bid Security of **Rs. 1,91,320/- (Rupees one lakh ninety-one thousand three hundred twenty only)**

Shall be paid through DD/Banker's Cheque in favour of Syama Prasad Mookerjee Port, Kolkata on any Scheduled / Nationalised Bank payable at Kolkata

Or

Payable through **RTGS / NEFT/ Bank Transfer etc.**, to be transferred on

A/C: Syama Prasad Mookerjee Port, Kolkata

A/c No: 067502000000491

IFSC: IOBA0000675

Bank Name: Indian Overseas Bank

Branch Name: STRAND ROAD Branch

otherwise their offer will be summarily rejected.

• **Railtel Tender Processing Fee** (Non-refundable) Mode of Payment: - E-payment Only through Debit/Credit Card or Net Banking.

TPF- 0.1% of estimate cost (Minimum 750/- Maximum 7500/-+GST Registration Charges Rs.2000/- + Applicable GST Per Year).

II. COVER – I DETAILS: TECHNICAL BID

This shall contain the following:

Appendix-1

- i) Bid submission Letter (On the letter head of the bidding firm) (Form-1)
- ii) Particulars of the Applicant (Form – 2)
- iii) Statement of Legal Capacity (Form – 3)
- iv) Power of Attorney (Form-4)
- v) Financial Capacity of Applicant (Form – 5)
- vi) Abstract of Eligible Assignments of Applicant (Form – 6)
- vii) Eligible Assignments of the Applicant (Form – 6 a)
- viii) Particulars of Key Personnel (Form – 7)
- ix) Abstract of Eligible Assignments of Key Personnel (Form – 7a)
- x) Eligible Assignments of Key Personnel (Form – 7 b)
- xi) CV of Key Personnel (Form – 7 c)
- xii) Proposed Methodology and Work Plan (Form – 8)
- xiii) Deployment of Personnel (Form – 9)
- xiv) Proposal for Sub-Consultant(s) (Form -10)
- xv) Scanned copy of DD / Banker's Cheque / Pay Order / Online Receipt towards EMD shall be uploaded.

The original Demand Draft / Banker's Cheque/ Pay Order / Online Receipt towards EMD must reach SMPK in the specified form, before opening of Technical Bid as per the date and time given in this tender.

COVER – II DETAILS: FINANCIAL BID – PRICE SCHEDULE

Price should be quoted in a spread sheet file (.xls format) available in e-procurement Portal only. Any indication of 'Quoted price' in the online technical bid documents shall lead to rejection of the bid outright.

For evaluation purpose the uploaded offer documents only will be treated as authentic and final. No hard copy of the financial bid shall be submitted. **The financial bid as in Appendix-II submitted through e-procurement mode only will be considered for the purpose for evaluation.**

Bidder should not submit their own excel sheet or any other format which will not be accepted by SMPK for evaluation.

III. DETERMINATION OF RESPONSIVENESS OF BIDS:

1. A proposal shall be considered responsive if,

- a) **Online copy** of the proposal is received before the proposed Due Date and Time as in Online Bid Reference.
- b) It is Digitally Signed.
- c) It contains the information and documents as required in the Tender Document.
- d) Contains EMD for the tender.
- e) It contains information in formats specified in the Tender Document.
- f) It mentions the validity period as set out in the document.
- g) It provides the information in reasonable detail. The Port reserves the right to determine whether the information has been provided in reasonable detail.
- h) There are no significant inconsistencies between the proposal and the supporting documents.
- i) The Technical qualification conforms to as specified in the qualification criteria of General Rules and directions for the guidance of the Tenderer.
- j) A Tender that is substantially responsive in one that conforms to the preceding requirements without material deviation or reservation. A material deviation or reservation is one (1) which affects in any substantial way, the scope, quality, or performance of the Tenderer or (2) which limits in any substantial way, inconsistent with the Tender document, or (3) whose rectification would affect unfairly the competitive position of other Qualified Applicant presenting substantially responsive bids.
- k) SMPK reserves the right to reject any tender which in its opinion is non-responsive and no request for alteration, modification, substitution or withdrawal shall be entertained by the Port in respect of such Tenders.
- l) SMPK would have the right to review the Technical Qualification and seek clarifications wherever necessary.

2. Deadline for Submission of Bids

- a) Bids must be uploaded in the e-procurement portal <https://kopt.enivida.in> not later than the time and date indicated in the Online Bid Reference.
- b) The employer may extend the deadline for submission of the bid by issuing an amendment in accordance with clause 2.11, in which case all rights and obligations of the employer and the bidders previously subject to the original deadline will then be subject to the new deadline.
- c) The bid document being downloaded from web site and uploaded through e-Tender portal <https://kopt.enivida.in>, the bidder shall give an undertaking that no change have been made in document.
- d) Apart from the e-tender, additionally one copy of the completed tender shall be submitted in a separate sealed envelope superscripting as "Technical bid" for INDEPENDENT ENGINEER

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(IE) FOR THE PROJECT “REJUVENATION OF KIDDERPORE DOCKS (KPD-1 WEST) THROUGH PPP MODE ON DESIGN, BUILD, FINANCE, OPERATE AND TRANSFER (DBFOT) BASIS AT SYAMA PRASAD MOOKERJEE PORT, KOLKATA”.

e) For technical and financial bid evaluation purpose, only e-tender will be considered.

3. Modification and Withdrawal of Bids

a) The bidders may modify, substitute or withdraw their tender after submission by giving notice in writing before the deadline prescribed in clause 2.19 through e-Procurement Mode.

b) No bid shall be modified after the deadline for submission of bids.

4. Since the tender involves **selection based on pre-qualification criteria and minimum score in each of the parameters**, the Chief Engineer, SMPK or his authorized officials will examine and seek clarification if any and list out the firms, which are found technically suitable and Cover-II Price Bid of such tenders only will be opened and EMD will be returned to the disqualified tenderers.

a) The date and time will be intimated to tenderers whose offers are found suitable and Cover-II of such tenderers will be opened on the specified date and time.

b) The Fax / E-Mail offers will be treated as defective, invalid and rejected. Only detailed complete offers received through online soft copy, prior to closing time and date of the tenders will be taken as valid.

मुख्य अभियन्ता / **Chief Engineer**

सिविल इंजीनियरिंग विभाग / **Civil Engineering Department**

श्यामा प्रसाद मुखर्जी पत्तन, कोलकाता / **SYAMA PRASAD MOOKERJEE PORT, KOLKATA**

निविदा आमंत्रण प्राधिकारी / **Tender Inviting Authority**

SECTION-1

INTRODUCTION

1.1 Background

1.1.1 Syama Prasad Mookerjee Port, Kolkata (Formerly Known as Kolkata Port Trust) of Kolkata, the first Major Port in India, is a riverine port. It serves a vast hinterland comprising the States of West Bengal, Bihar, Uttar Pradesh, Madhya Pradesh, Punjab, Haryana, Rajasthan, Assam, other North Eastern States and the two neighbouring landlocked countries viz. Nepal and Bhutan. The Port has two Docks viz. Kidderpore Dock (KPD) and Netaji Subhas Dock (NSD). Kidderpore Dock (KPD) is the older one with 17 Multi-purpose berths and 1 berth for passenger-cum-cargo vessels, 6 Buoys / Moorings and 3 Dry Docks while Netaji Subhas Dock (NSD) is a relatively new one with 1 heavy lift berth, 10 berths including 4 dedicated Container Berths, 1 Liquid Cargo Berth, 4 multi-purpose berths, 2 Buoys / Moorings and 2 Dry Docks. Both the docks of Syama Prasad Mookerjee Port, Kolkata (SMP) ("the Authority") operate under lock gate system. The Kolkata Dock System (KDS) is situated at Latitude 22° 32' N, Longitude: 88° 18' E in the city of Kolkata.

Presently most of the traffic is handled at NSD and minimum traffic is handled at KPD. In order to unlock the complete potential of KPD, Authority has initiated the project of "Rejuvenation of KPD" proposed to be executed through Public-Private- Partnership (PPP) mode. KPD is split into two parts: KPD-I and KPD-II separated by a bascule bridge. KPD-I has 10 berths while KPD-II has eight berths. Authority has now decided to undertake development and operation / maintenance of the western side berths of KPD-I in two phases viz. berths 2, 4 and 6 in Phase-I and berths 8,10 and 12 in Phase-II for handling containers and other cargo (viz. pulses & fertilizer / limestone).

Syama Prasad Mookerjee Port, Kolkata (the "**Authority**") is engaged in the development of the port and as part of this endeavour, the Authority has signed Concession Agreement with a Concessionaire to undertake "Rejuvenation of Kidderpore Docks (KPD-1 WEST) through PPP mode on Design, Build, Finance, Operate and Transfer (DBFOT) Basis at Syama Prasad Mookerjee Port, Kolkata" (the "Project") in two phases. The indicative cost of the Project are Rs.95.66 Crores (Rupees Ninety-Five Crores and Sixty-Six Lakhs Only) for Phase-I and Rs. 86.15 Crores (Rupees Eighty-Six Crores and Fifteen Lakhs only) for Phase-II.

1.1.2 The Authority has decided to invite bids from reputed and experienced Engineering Consultancy firms to be engaged as Independent Engineer for providing the services specified in this RFP document. The Project was awarded on DBFOT basis to a private entity (the "**Concessionaire**") selected through a competitive bidding process. The Project would be implemented in accordance with the terms and conditions stated in the Concession Agreement between the Authority and the Concessionaire (the "**Concession Agreement**").

1.1.3 The Independent Engineer shall provide the services in accordance with the Terms of Reference specified in Section 7 of this RFP.

1.1.4 Scope of Concessionaire: -

The Concessionaire is required to implement the project "REJUVENATION OF KIDDERPORE DOCKS (KPD-1 WEST) THROUGH PPP MODE ON DESIGN, BUILD, FINANCE, OPERATE AND TRANSFER (DBFOT) BASIS AT SYAMA PRASAD MOOKERJEE PORT, KOLKATA" with all related facilities for starting commercial operation, construct his own offices and required other buildings, provide for required electrical and IT systems etc. In addition, the Concessionaire shall ensure compliance to Quality, Environmental, Safety and ISPS standards. Operation and maintenance of the facilities proposed throughout the concession period including attending to repairs and replacements of the infrastructure / facilities as may be needed during the concession period and handing over of the entire infrastructure facilities and equipment to the Concessioning authority in

satisfactory working condition at the time of handing over of the project at the end of the concession period or earlier, if so occasioned.

1.1.5 Excerpts from the Concession Agreement:

The Excerpts from the Concession Agreement regarding project site and project requirements, forming part of the Concession Agreement as entered with the concessionaire are enclosed as Annexure I & II and Section 7.

1.2 Request for Proposal

The Authority invites Proposals (the “Proposals”) for selection of an Independent Engineer (the “Consultant”) who shall provide Engineering Consultancy Services towards the implementation of the Project. The Consultant shall review designs & drawings, construction methodology and monthly progress reports furnished by Concessionaire and undertake other activities in conformity with the TOR (collectively the “Consultancy”) stipulated at Section 7 of this RFP.

The Authority intends to select the Consultant through an open competitive bidding in accordance with the procedure set out herein.

1.3 Due diligence by Applicants

Applicants are encouraged to inform themselves fully about the assignment and the local conditions before submitting the Proposal by paying a visit to the Authority and the Project site, sending written queries to the Authority, and attending a Pre-Proposal Conference on the date and time specified in the online bid reference.

1.4. Brief description of the Selection Process

The Authority has adopted a **two-stage** selection process (collectively the “**Selection Process**”) in evaluating the Proposals comprising technical and financial bids to be submitted as indicated in Notice Inviting online Tender. In the first stage, a technical evaluation will be carried out as specified in Clause 3.1. Based on technical evaluation, a list of short-listed / Technically Qualified applicants shall be prepared as specified in Clause 3.2. In the second stage, a financial evaluation will be carried out as per Clause 3.3.

1.5. Currency conversion rate and payment

1.5.1. For the purposes of technical evaluation of Applicants, **Rs. 80 per US\$** shall be considered as the applicable currency conversion rate. In case of any other currency, the same shall first be converted to US\$ as on the date **60 (sixty) days** prior to the Proposal Due Date, and the amount so derived in US\$ shall be converted into INR at the aforesaid rate. The conversion rate of such currencies shall be the daily representative exchange rates published by the International Monetary Fund for the relevant date.

1.5.2. All payments to the Consultant shall be made in INR in accordance with the provisions of this RFP. The Consultant may convert INR into any foreign currency as per Applicable Laws and the exchange risk, if any, shall be borne by the Consultant.

1.6. Pre-Proposal visit to the Site and inspection of data

Prospective applicants may visit the Site and review the available data at any time prior to Proposal Due Date. For this purpose, they will provide at least two days' notice to the nodal officer indicated below:

The Chief Engineer
Civil Engineering Department,
Kolkata dock system,
Syama Prasad Mookerjee Port, Kolkata
15, Strand road, Kolkata- 700001
Phone No. - 033 2230-3451; Extension: 398,399,400
Fax- (033) 2230-0413
E-mail id: p.dutta@kolkataporttrust.gov.in
& ce@kolkataporttrust.gov.in

1.7. Communications

All communications should be addressed to: As mentioned in clause 1.6 above

1.8. Pre-Proposal Conference

The date, time and venue of Pre-Proposal Conference shall be:

Date: 28.10.2022 (Friday)
Time: 15.00 hrs.
Venue: Conference Room,
2nd Floor,
Civil Engineering Department,
Kolkata dock system,
Syama Prasad Mookerjee Port, Kolkata
15, Strand road, Kolkata- 700001

SECTION-2

INSTRUCTIONS TO BIDDERS & GENERAL TERMS AND CONDITIONS

A. GENERAL

2.1 Scope of Proposal

2.1.1 Detailed description of the objectives, scope of services, Deliverables and other requirements relating to this Consultancy are specified in this RFP. In case an applicant firm possesses the requisite experience and capabilities required for undertaking the Consultancy, it may participate in the Selection Process either individually (the “**Sole Firm**”) or as lead member of a consortium of firms (the “**Lead Member**”) in response to this invitation. The term applicant (the “**Applicant**”) means the Sole Firm or the Lead Member, as the case may be. The manner in which the Proposal is required to be submitted, evaluated and accepted is explained in this RFP.

2.1.2 Applicants are advised that the selection of Consultant shall be on the basis of an evaluation by the Authority through the Selection Process specified in this RFP. Applicants shall be deemed to have understood and agreed that no explanation or justification for any aspect of the Selection Process will be given and that the Authority’s decisions are without any right of appeal whatsoever.

2.1.3 The Applicant shall submit its Proposal in the form and manner specified in this Part-2 of the RFP. The **Technical proposal** shall be submitted in the form at **Appendix-I** and the **Financial Proposal** shall be submitted in the form at **Appendix-II**. Upon selection, the Applicant shall be required to enter into an agreement with the Authority in the form specified at Schedule-2.

2.1.4 Key Personnel

The Consultancy Team shall consist of the following key personnel (the “**Key Personnel**”) who shall discharge their respective responsibilities as specified below:

Key Personnel	Responsibilities
1. Team Leader / Project Manager	He will lead, co-ordinate and supervise the multidisciplinary team for providing services according to the TOR.
2. Civil Engineer cum Resident Engineer	He will be responsible for the Civil / Marine works related to the Project.
3. Sr. Engineer Mechanical (Pipeline & Jetty facilities)	He will be responsible for the Mechanical works of the Project.
4. Electrical / Instrumentation Engineer	He will be responsible for the Electrical and Instrumentation part of the entire Project.
5. Environmental / Health & Safety Engineer	He will be responsible for the Safety of the entire project as per Standard Safety norms and Environmental issues related to the project.

6. Finance cum Legal Expert	He will be responsible for financial and legal issues related to the project.
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2.2 Conditions of Eligibility of Applicants

2.2.1 Applicants must read carefully the minimum conditions of eligibility (the “**Conditions of Eligibility**”) provided herein. Proposals of only those Applicants who satisfy the Conditions of Eligibility will be considered for evaluation.

2.2.2 To be eligible for evaluation of its Proposal, the Applicant shall fulfil the following:

(A) **Technical Capacity:** The Applicant shall have, over the past 5 (five) years (ending 31.03.2022) preceding the PDD, undertaken a minimum of **3 (three)** Eligible Assignments as specified in Clause 3.1.4.

(B) **Financial Capacity:** The Applicant shall have received a minimum income of **Rs. 28.70 Lakhs (Rupees twenty-eight lakhs and seventy thousand only)** per annum on an average towards professional fees during each of the **3 (three)** financial years (**2019-20, 2020-21 and 2021-22**). For the purpose of evaluation, Applicants having comparatively larger revenues from professional fees shall be given added weight age. For the avoidance of doubt, professional fees hereunder refer to fees received by the Applicant for providing advisory or consultancy services to its clients.

(C) **Availability of Key Personnel:** The Applicant shall offer and make available all Key Personnel meeting the requirements specified in sub-clause (D) below.

(D) **Conditions of Eligibility for Key Personnel:** Each of the Key Personnel must fulfil the Conditions of Eligibility specified below:

Key Personnel	Educational Qualification	Length of Professional Experience	Experience on Eligible Assignments
1. Team Leader / Project Manager	B.E. (Civil) or equivalent with experience in Structural Engineering	Minimum 20 Years	Five (5) completed port Infrastructure projects as per Clause 3.1.4 with no reference to the cost of the project.
2. Civil Engineer cum Resident Engineer	B.E (Civil) or equivalent	Minimum 15 Years	Three (3) completed port Infrastructure projects as per Clause 3.1.4 with no reference to the cost of the project.
3. Sr. Engineer (Mechanical) (Pipeline & Jetty facilities)	B.E (Mechanical) or equivalent	Minimum 10 Years	Three (3) completed projects as per Clause 3.1.4 with no reference to the cost of the project.

4. Electrical / Instrumentation Engineer	B.E(Electrical/Instrumentation) or equivalent	Minimum 7 Years	Two (2) completed projects as per Clause 3.1.4 with no reference to the cost of the project.
5. Environmental / Health & Safety Engineer	M.Sc. (Env) / M. Tech (Env) or equivalent	Minimum 7 Years	Two (2) completed projects as per Clause 3.1.4 with no reference to the cost of the project.
6. Finance cum Legal Expert	Member of Institute of Chartered Accountants of India / Cost Accountants of India / PGDBM or MBA (Finance) along with degree of LLB from an Accredited University	Minimum 10 years of which 5 years in Infrastructure / BOT / PPP projects	Should have done at least two (2) assignments in Infrastructure Sector Including Port & Shipping Sector covering topics such as Capital Projects, PPP / BOT projects etc.

2.2.3 The Applicant shall enclose with its Proposal, certificate(s) **[UDIN Mandatory]** from its Statutory Auditors¹ stating its total revenues from professional fees during each of the past three financial years and the fee received in respect of each of the Eligible Assignments specified in the Proposal. In the event that the Applicant does not have a statutory auditor, it shall provide the requisite certificate(s) from the firm of Chartered Accountants that ordinarily audits the annual accounts of the Applicant.

2.2.4 The Applicant should submit a Power of Attorney as per the format at Form-4 of Appendix-I; provided, however, that such Power of Attorney would not be required if the Application is signed by a partner of the Applicant, in case the Applicant is a partnership firm or limited liability partnership.

2.2.5 Any entity which has been barred by the Central Government, any State Government, a statutory authority or a public sector undertaking, as the case may be, from participating in any project, and the bar subsists as on the date of Proposal, would not be eligible to submit a Proposal either by itself or through its Associate.

2.2.6 An Applicant or its Associate should have, during the last three years, neither failed to perform on any agreement, as evidenced by imposition of a penalty by an arbitral or judicial authority or a judicial pronouncement or arbitration award against the Applicant or its Associate, nor been expelled from any project or agreement nor have had any agreement terminated for breach by such Applicant or its Associate.

2.2.7 While submitting a Proposal, the Applicant should attach clearly marked and referenced continuation sheets in the event that the space provided in the specified forms in the Appendices is insufficient. Alternatively, Applicants may format the specified forms making due provision for incorporation of the requested information.

2.3 Conflict of Interest

2.3.1 An Applicant shall not have a conflict of interest that may affect the Selection Process or the Consultancy (the “**Conflict of Interest**”). Any Applicant found to have a Conflict of Interest shall be disqualified. In the event of disqualification, the Authority shall forfeit and appropriate the Bid Security as mutually agreed genuine pre-estimated compensation and damages payable to the Authority for, *inter alia*, the time, cost and effort of the Authority including consideration of such Applicant's Proposal, without prejudice to any other right or remedy that may be available to the Authority hereunder or otherwise.

2.3.2 The Authority requires that the Consultant provides professional, objective, and impartial advice and at all times hold the Authority's interests paramount, avoid conflicts with other assignments or its own interests, and act without any consideration for future work. The Consultant shall not accept or engage in any assignment that would be in conflict with its prior or current obligations to other clients, or that may place it in a position of not being able to carry out the assignment in the best interests of the Authority.

2.3.3 Some guiding principles for identifying and addressing Conflicts of Interest have been illustrated in the Guidance Note at Schedule-3. Without limiting the generality of the above, an Applicant shall be deemed to have a Conflict of Interest affecting the Selection Process, if:

(a) The Applicant, its consortium member (the “**Member**”) or Associate (or any constituent thereof) and any other Applicant, its consortium member or Associate (or any constituent thereof) have common controlling shareholders or other ownership interest; provided that this disqualification shall not apply in cases where the director indirect shareholding or ownership interest of an Applicant, its Member or Associate (or any shareholder thereof having a shareholding more than 5 per cent of the paid up and subscribed share capital of such Applicant, Member or Associate, as the case may be) in the other Applicant, its consortium member or Associate is less than 5% (five per cent) of the subscribed and paid up equity share capital thereof; provided further that this disqualification shall not apply to any ownership by a bank, insurance company, pension fund or a public financial institution referred to in section 4A of the Companies Act, 1956. For the purposes of this Clause 2.3.3(a), indirect shareholding held through one or more intermediate persons shall be computed as follows: (aa) where any intermediary is controlled by a person through management control or otherwise, the entire shareholding held by such controlled intermediary in any other person (the “**Subject Person**”) shall be taken into account for computing the shareholding of such controlling person in the Subject Person; and (bb) subject always to sub-clause (aa) above, where a person does not exercise control over intermediary, which has shareholding in the Subject

Person, the computation of indirect shareholding of such person in the Subject Person shall be undertaken on a proportionate basis; provided, however, that no such shareholding shall be reckoned under this sub-clause (bb) if the shareholding of such person in the intermediary is less than **26%** (twenty six per cent) of the subscribed and paid up equity shareholding of such intermediary; or

(b) a constituent of such Applicant is also a constituent of another Applicant; or

(c) such Applicant or its Associate receives or has received any direct or indirect subsidy or grant from any other Applicant or its Associate; or

(d) such Applicant has the same legal representative for purposes of this Application as any other Applicant; or

(e) such Applicant has a relationship with another Applicant, directly or through common third parties, that puts them in a position to have access to each others' information about, or to influence the Application of either or each of the other Applicant; or

(f) there is a conflict among this and other consulting assignments of the Applicant (including its personnel and Sub-consultant) and any subsidiaries or entities controlled by such Applicant or having common controlling shareholders. The duties of the Consultant will depend on the circumstances of each case. While providing consultancy services to the Authority for this particular assignment, the Consultant shall not take up any assignment that by its nature will result in conflict with the present assignment; or

(g) a firm which has been engaged by the Authority to provide goods or works or services for a project, and its Associates, will be disqualified from providing consulting services for the same project save and except as provided in Clause 2.3.4; conversely, a firm hired to provide consulting services for the preparation or implementation of a project, and its Members or Associates, will be disqualified from subsequently providing goods or works or services related to the same project; or

(h) the Applicant, its Member or Associate (or any constituent thereof), and the bidder or Concessionaire, if any, for the Project, its contractor(s) or sub-contractor(s) (or any constituent thereof) have common controlling shareholders or other ownership interest; provided that this disqualification shall not apply in cases where the direct or indirect shareholding or ownership interest of an Applicant, its Member or Associate (or any shareholder thereof having a shareholding of **more than 5% (five per cent)** of the paid up and subscribed share capital of such Applicant, Member or Associate, as the case may be,) in the bidder or Concessionaire, if any, or its contractor(s) or sub-contractor(s) is **less than 5% (five per cent)** of the paid up and subscribed share capital of such Concessionaire or its contractor(s) or sub-contractor(s); provided further that this disqualification shall not apply to ownership by a bank, insurance company, pension fund or a Public Financial Institution referred to in section 4A of the Companies Act, 1956. For the

purposes of this sub-clause (h), indirect shareholding shall be computed in accordance with the provisions of sub-clause (a) above.

For purposes of this RFP, Associate means, in relation to the Applicant, a person who controls, is controlled by, or is under the common control with such Applicant (the “**Associate**”). As used in this definition, the expression “control” means, with respect to a person which is a company or corporation, the ownership, directly or indirectly, of **more than 50% (fifty percent)** of the voting shares of such person, and with respect to a person which is not a company or corporation, the power to direct the management and policies of such person by operation of law or by contract.

2.3.4 An Applicant eventually appointed to provide Consultancy for this Project, and its Associates, shall be disqualified from subsequently providing goods or works or services related to the construction and operation of the same Project and any breach of this obligation shall be construed as Conflict of Interest; provided that the restriction herein shall not apply after a period of **5 (five) years** from the completion of this assignment or to consulting assignments granted by banks / lenders at any time; provided further that this restriction shall not apply to consultancy / advisory services performed for the Authority in continuation of this Consultancy or to any subsequent consultancy / advisory services performed for the Authority in accordance with the rules of the Authority. For the avoidance of doubt, an entity affiliated with the Consultant shall include a partner in the Consultant’s firm or a person who holds more than 5% (five per cent) of the subscribed and paid up share capital of the Consultant, as the case may be, and any Associate thereof.

2.4 Number of Proposals

No Applicant or its Associate shall submit more than one Application for the Consultancy. An Applicant applying individually or as an Associate shall not be entitled to submit another application either individually or as a member of any consortium, as the case may be.

2.5 Cost of Proposal

The Applicants shall be responsible for all of the costs associated with the preparation of their Proposals and their participation in the Selection Process including subsequent negotiation, visits to the Authority, Project site etc. The Authority will not be responsible or in any way liable for such costs, regardless of the conduct or outcome of the Selection Process.

2.6 Site visit and verification of information

Applicants are encouraged to submit their respective Proposals after visiting the Project site and ascertaining for themselves the site conditions, location, surroundings, climate, access to the site, availability of drawings and other data with the Authority, Applicable Laws and regulations or any other matter considered relevant by them. Visits shall be organized for the benefit of prospective Applicants on dates, time and venue as specified in Clause 1.8.

2.7 Acknowledgement by Applicant

2.7.1 It shall be deemed that by submitting the Proposal, the Applicant has:

- (a) made a complete and careful examination of the RFP;
- (b) received all relevant information requested from the Authority;
- (c) acknowledged and accepted the risk of inadequacy, error or mistake in the information provided in the RFP or furnished by or on behalf of the Authority or relating to any of the matters referred to in Clause 2.6 above;
- (d) satisfied itself about all matters, things and information, including matters referred to in Clause 2.6 herein above, necessary and required for submitting an informed Application and performance of all of its obligations there under;
- (e) acknowledged that it does not have a Conflict of Interest; and
- (f) agreed to be bound by the undertaking provided by it under and in terms hereof.

2.7.2 The Authority shall not be liable for any omission, mistake or error on the part of the Applicant in respect of any of the above or on account of any matter or thing arising out of or concerning or relating to RFP or the Selection Process, including any error or mistake therein or in any information or data given by the Authority.

2.8 Right to Reject any or all Proposals

2.8.1 Notwithstanding anything contained in this RFP, the Authority reserves the right to accept or reject any Proposal and to annul the Selection Process and reject all Proposals, at any time without any liability or any obligation for such acceptance, rejection or annulment, and without assigning any reasons thereof.

2.8.2 Without prejudice to the generality of Clause 2.8.1, the Authority reserves the right to reject any Proposal if:

- (a) at any time, a material misrepresentation is made or discovered, or
- (b) the Applicant does not provide, within the time specified by the Authority, the supplemental information sought by the Authority for evaluation of the Proposal.

Misrepresentation/ improper response by the Applicant may lead to the disqualification of the Applicant. If the Applicant is the Lead Member of a consortium, then the entire consortium may be disqualified / rejected. If such disqualification / rejection occurs after the Proposals have been opened and the highest-ranking Applicant gets disqualified / rejected, then the Authority reserves the right to consider the next best Applicant, or take any other measure as may be deemed fit in the sole discretion of the Authority, including annulment of the Selection Process.

B.DOCUMENTS

2.9 Contents of the RFP

2.9.1 This RFP comprises the Disclaimer set forth hereinabove, the contents as listed below and will additionally include any Addendum / Amendment issued in accordance with Clause 2.11:

Request for Proposal

Section 1: Introduction

Section 2: Instructions to Applicants

Section 3: Criteria for Evaluation

Section 4: Fraud and corrupt practices

Section 5: Pre-Proposal Conference

Section 6: Miscellaneous

Section 7: Terms of Reference& Excerpts from MCA

Section 8: E-Payment

Section 9: Site information and Project information

Section 10: Port assets and Drawings.

Schedules

1. Form of Agreement

Annex-1: Terms of Reference

Annex-2: Deployment of Personnel

Annex-3: Estimate of Personnel Costs (deleted)

Annex-4: Approved Sub-Consultant(s)

Annex-5: Cost of Services

Annex-6: Payment Schedule

Annex-7: Bank Guarantee for Performance Security

2. Guidance Note on Conflict of Interest.

Appendices:

Appendix-I: Technical Proposal

Form 1: Bid Submission Letter

Form 2: Particulars of the Applicant

Form 3: Statement of Legal Capacity

Form 4: Power of Attorney

Form 5: Financial Capacity of Applicant

Form 6: Abstract of Eligible Assignments of Applicant

Form 6a: Eligible Assignments of Applicant

Form 7: Particulars of Key Personnel

Form 7a: Abstract of Eligible Assignments of Key Personnel

Form 7b: Eligible Assignments of Key Personnel

Form 7c: CV of Key Personnel

Form 8: Proposed Methodology and Work Plan

Form 9: Deployment of Personnel

Form 10: Proposal for Sub-Consultant(s)

Form 11: Integrity Pact

Appendix-II: Financial Proposal

Form 1: Covering Letter

Form 2: Financial Proposal

Appendix-III: General Condition of Contract (GCC)

2.10 Clarifications

2.10.1 The prospective Tenderer may submit queries if any through e-tendering portal addressed to the Chief Engineer in connection with this tender on or before the date mentioned in the Online Bid Reference, so that the queries can be clarified.

The Authority shall endeavour to respond to the queries within the period specified therein. The Authority will post the reply to all such queries on the Official Website / e-procurement portal. The bidders' queries will be clarified through e-procurement portal and notification in this regard will be issued through www.smporkolkata.shipping.gov.in and e-procurement portal link i.e. <https://kopt.enivida.in>.

2.10.2 The Authority reserves the right not to respond to any questions or provide any clarifications, in its sole discretion, and nothing in this Clause 2.10 shall be construed as obliging the Authority to respond to any question or to provide any clarification.

2.11 Amendment of RFP

2.11.1 At any time prior to the deadline for submission of Technical Proposal, the Authority may, for any reason, whether at its own initiative or in response to clarifications requested by an Applicant, modify the RFP document by the issuance of Corrigendum / Addendum / Amendment and posting it on the Official Website of SMPK / e-procurement portal and will be binding on all Applicants.

2.11.2 In order to afford the Applicants a reasonable time for taking an amendment into account, or for any other reason, the Authority may, in its sole discretion, extend the Proposal Due Date.

C. PREPARATION AND SUBMISSION OF PROPOSAL

2.12 Language

The Proposal with all accompanying documents (the “**Documents**”) and all communications in relation to or concerning the Selection Process shall be in English language and strictly on the forms provided in this RFP. No supporting document or printed literature shall be submitted with the Proposal unless specifically asked for and in case any of these Documents is in another language, it must be accompanied by an accurate translation of the relevant passages in English, in which case, for all purposes of interpretation of the proposal translation in English shall prevail.

2.13 Format and signing of Proposal

2.13.1 The Applicant shall provide all the information sought under this RFP. The Authority would evaluate only those Proposals that are received in the specified forms and complete in all respects.

2.13.2 The Proposal and its copy shall be typed or written in indelible ink and signed by the authorized signatory of the Applicant who shall initial each page, in blue ink. All the alterations, omissions, additions, or any other amendments made to the Proposal shall be initialled by the person(s) signing the Proposal. The Proposals must be properly signed by the authorized representative (the “**Authorized Representative**”) as detailed below:

- (a) By the proprietor, in case of a proprietary firm; or
- (b) By a partner, in case of a partnership firm and/or a limited liability partnership; or
- (c) By a duly authorized person holding the Power of Attorney, in case of a Limited Company or a corporation; or
- (d) By the authorized representative of the Lead Member, in case of consortium.

2.13.3 A copy of the Power of Attorney certified under the hands of a partner or director of the Applicant and notarized by a notary public in the form specified in Appendix-I (Form- 4) shall

accompany the Proposal.

2.13.4 Applicants should note the Proposal Due Date, as specified in online Bid reference, for submission of Proposals. Except as specifically provided in this RFP, no supplementary material will be entertained by the Authority, and that evaluation will be carried out only on the basis of Documents received by the closing time of Proposal Due Date as specified in Clause

2.13.5. Applicants will ordinarily not be asked to provide additional material information or documents subsequent to the date of submission, and unsolicited material if submitted will be summarily rejected. For the avoidance of doubt, the Authority reserves the right to seek clarifications under and in accordance with the provisions of Clause 2.23.

2.14 Technical Proposal

2.14.1 Applicants shall submit the technical proposal in the formats at Appendix-I (the “**Technical Proposal**”).

2.14.2 While submitting the Technical Proposal, the Applicant shall, in particular, ensure that:

- (a) The Bid Security is provided;
- (b) All forms are submitted in the prescribed formats and signed by the prescribed signatories;
- (c) Power of Attorney, if applicable, is executed as per Applicable Laws;
- (d) CVs of all Professional Personnel have been included;
- (e) Key Personnel have been proposed only if they meet the Conditions of Eligibility laid down at Clause 2.2.2 (D) of the RFP;
- (f) No alternative proposal for any Key Personnel is being made and only one CV for each position has been furnished;
- (g) The CVs have been recently signed and dated in blue ink by the respective Personnel and countersigned by the Applicant. Photocopy or unsigned / countersigned CVs shall be rejected;
- (h) The CVs shall contain an undertaking from the respective Key Personnel about his/her availability for the duration specified in the RFP;
- (i) Professional Personnel proposed have good working knowledge of English language;
- (j) Key Personnel would be available for the period indicated in the TOR;
- (k) No Key Personnel should have attained the age of **75 (seventy-five) years** at the time of submitting the proposal; and

(I) The proposal is responsive in terms of Clause 2.21.3.

2.14.3 Failure to comply with the requirements spelt out in this Clause 2.14 shall make the Proposal liable to be rejected.

2.14.4 If an individual Key Personnel makes a false averment regarding his qualification, experience or other particulars, or his commitment regarding availability for the Project is not fulfilled at any stage after signing of the Agreement, he shall be liable to be debarred for any future assignment of the Authority for a period of 5 (five) years. The award of this Consultancy to the Applicant may also be liable to cancellation in such an event.

2.14.5 The Technical Proposal **shall not include any financial information** relating to the Financial Proposal.

2.14.6 The proposed team shall be composed of experts and specialists (the “**Professional Personnel**”) in their respective areas of expertise and managerial / support staff (the “**Support Personnel**”) such that the Consultant should be able to complete the Consultancy within the specified time schedule. The Key Personnel specified in Clause 2.1.4 shall be included in the proposed team of Professional Personnel. Other competent and experienced Professional Personnel in the relevant areas of expertise must be added as required for successful completion of this Consultancy. The CV of each such Professional Personnel, if any, should also be submitted in the format at Form-12 of Appendix-I.

2.14.7 An Applicant may, if it considers necessary, propose suitable Sub-Consultants in specific areas of expertise. Credentials of such firms should be submitted in Form-14 of Appendix-I. A **Sub-Consultant, however, shall not be a substitute for any Key Personnel.**

2.14.8 The Authority reserves the right to verify all statements, information and documents, submitted by the Applicant in response to the RFP. Any such verification or the lack of such verification by the Authority to undertake such verification shall not relieve the Applicant of its obligations or liabilities hereunder nor will it affect any rights of the authority there under.

2.14.9 In case it is found during the evaluation or at any time before signing of the Agreement or after its execution and during the period of subsistence thereof, that one or more of the eligibility conditions have not been met by the Applicant or the Applicant has made material misrepresentation or has given any materially incorrect or false information, the Applicant shall be disqualified forthwith if not yet appointed as the Consultant either by issue of the LOA or entering into of the Agreement, and if the Selected Applicant has already been issued the LOA or has entered into the Agreement, as the case may be, the same shall, notwithstanding anything to the contrary contained therein or in this RFP, be liable to be terminated, by a communication in writing by the Authority without the Authority being liable in any manner whatsoever to the Applicant or Consultant, as the case may be. In such an event, the Authority shall forfeit and appropriate the Bid Security as mutually agreed pre-estimated compensation and damages payable to the Authority for, *inter alia*, time, cost and effort of the Authority,

without prejudice to any other right or remedy that may be available to the Authority.

2.14.10 The documents listed in Appendix-I shall be filled in without exception and uploaded through e-procurement on website <https://kopt.enivida.in>.

2.15 Financial Proposal

2.15.1 The financial bid as in Appendix-II (the “Financial Proposal”) submitted through e-procurement mode only will be taken up for the purpose for evaluation.

2.15.2 While submitting the Financial Proposal, the Applicant shall ensure the following:

(i) All the costs associated with the assignment shall be included in the Financial Proposal. These shall normally cover remuneration for all the Personnel (Expatriate and Resident, in the field, office etc.), accommodation, air fare, equipment, printing of documents, surveys, geo-technical investigations etc. The total amount indicated in the Financial Proposal shall be without any condition attached or subject to any assumption, and shall be final and binding. In case any assumption or condition is indicated in the Financial Proposal, it shall be considered non-responsive and liable to be rejected.

(ii) The Financial Proposal shall take into account all expenses and tax liabilities. For the avoidance of doubt, it is clarified that all taxes shall be deemed to be included in the costs shown under different items of the Financial Proposal. Further, all payments shall be subject to deduction of taxes at source as per Applicable Laws.

(iii) Costs shall be expressed in INR.

(iv) For the purpose of payment of GST, Registration certificate shall be enclosed.

2.16 Submission of Proposal

2.16.1 In case the proposal is submitted on the document down loaded from Official Website / e-procurement portal, the Applicant shall be responsible for its accuracy and correctness as per the version uploaded by the Authority and shall ensure that there are no changes caused in the content of the downloaded document. In case of any discrepancy between the downloaded or photocopied version of the RFP and the original RFP issued by the Authority, the latter shall prevail.

2.16.2 The Proposal has to be submitted as per the online tender procedure indicated in Notice Inviting **Online Tender** and Instructions for Online Bid submission, details of technical bid, details of financial bid, determination of responsiveness of bids.

2.16.3 The Proposal shall be made in the Forms specified in this RFP. Any attachment to such Forms must be provided on separate sheets of paper and only information that is directly relevant should be provided. This may include photocopies of the relevant pages of printed

documents which include copy of contracts.

2.16.4 The rates quoted shall be firm throughout the period of performance of the assignment upto and discharge of all obligations of the Consultant under the Agreement.

2.17 Proposal Due Date

2.17.1 The Proposal should be submitted before 15:00 hrs. on the Proposal Due Date for online submission as in Online Bid Reference in the manner and form as specified in Notice Inviting Online Tender.

2.17.2 The Authority may, in its sole discretion, extend the Proposal Due Date by issuing Corrigendum / Addendum in accordance with Clause 2.11 uniformly for all Applicants.

2.18 Late Proposals

Proposals received by the Authority after the specified time on Proposal Due Date shall not be eligible for consideration and shall be summarily rejected.

2.19 Modification / substitution / withdrawal of Proposals

2.19.1 The Applicant may modify, substitute, or withdraw its Proposal after submission, provided that written notice of the modification, substitution, or withdrawal is received by the Authority prior to Proposal Due Date. No Proposal shall be modified, substituted, or withdrawn by the Applicant on or after the Proposal Due Date.

2.19.2 The modification, substitution, or withdrawal notice shall be prepared, sealed, marked, and delivered in accordance with Clause 2.16, with the envelopes being additionally marked "MODIFICATION", "SUBSTITUTION" or "WITHDRAWAL", as appropriate.

2.19.3 Any alteration / modification in the Proposal or additional information or material supplied subsequent to the Proposal Due Date, unless the same has been expressly sought for by the Authority, shall be disregarded.

2.20 Bid Security

2.20.1 The Applicant shall furnish as part of its Proposal, a bid security of **Rs.1,91,320/- (Rupees One Lakh Ninety-One Thousand Three Hundred Twenty Only)** shall be paid as described in the Tender Document.

(the "**Bid Security**"), returnable not later than **180** (one hundred and eighty) **days** from PDD. The Selected Applicant's Bid Security shall be returned, upon the Applicant signing the Agreement;

Bid Security of unsuccessful applicants other than those ranked as first and second will be refunded / returned immediately after ranking of price bids. Bid Security of the applicant who has been ranked as two, will be refunded immediately after entering into agreement with KDS, SMPK and acceptance of Performance Guarantee of the selected applicant.

2.20.2 Any Bid not accompanied by the Bid Security shall be rejected by the Authority as non-responsive.

2.20.3 The Authority shall not be liable to pay any interest on the Bid Security and the same shall be interest free.

2.20.4 The Applicant, by submitting its Application pursuant to this RFP, shall be deemed to have acknowledged that without prejudice to the Authority's any other right or remedy hereunder or in law or otherwise, the Bid Security shall be forfeited and appropriated by the Authority as the mutually agreed pre-estimated compensation and damage payable to the Authority for, inter alia, the time, cost and effort of the Authority in regard to the RFP including the consideration and evaluation of the Proposal under the following conditions:

- (a) If an Applicant submits a non-responsive Proposal;
 - (b) If an Applicant engages in any of the Prohibited Practices specified in Section-4 of this RFP;
 - (c) If an Applicant withdraws its Proposal during the period of its validity as specified in this RFP and as extended by the Applicant from time to time;
 - (d) In the case of the Selected Applicant, if the Applicant fails to reconfirm its commitments during negotiations as required vide Clause 2.24.1;
 - (e) In the case of a Selected Applicant, if the Applicant fails to sign the Agreement or commence the assignment as specified in Clauses 2.28 and 2.29 respectively;
- or
- (f) If the Applicant is found to have a Conflict of Interest as specified in Clause 2.3.

D. EVALUATION PROCESS

2.21 Evaluation of Proposals

2.21.1 The Authority shall open the proposals at the scheduled time and date, mentioned in this RFP. The "Technical proposal" will be opened first and the "Financial Proposal" will be opened after completion of the evaluation of the Technical Proposal.

2.21.2 Proposals for which a notice of withdrawal has been submitted in accordance with Clause 2.19 shall not be opened.

2.21.3 Prior to evaluation of Proposals, the Authority will determine whether each Proposal is responsive to the requirements of the RFP. The Authority may, in its

sole discretion, reject any Proposal that is not responsive hereunder. A Proposal shall be considered responsive only if,

- (a) the Technical Proposal is received in the form specified at Appendix-I;
- (b) it is received by the Proposal Due Date including any extension thereof pursuant to Clause 2.17;
- (c) it is accompanied by the Bid Security as specified in Clause 2.20.1.
- (d) it is accompanied by the Power of Attorney as specified in Clause 2.2.4;
- (f) it contains all the information (complete in all respects) as requested in the RFP;
- (g) it does not contain any condition or qualification; and
- (h) it is not non-responsive in terms hereof.

2.21.4 The Authority reserves the right to reject any Proposal which is non-responsive and no request for alteration, modification, substitution or withdrawal shall be entertained by the Authority in respect of such Proposals.

2.21.5 The Authority shall subsequently examine and evaluate Technical Proposals in accordance with the Selection Process set out in Section 3 of this RFP.

2.21.6 After the technical evaluation, the Authority shall prepare a list of pre-qualified and shortlisted Applicants in terms of Clause 3.2. A date, time and venue will be notified to all Applicants for announcing the result of evaluation and opening of Financial Proposals. The opening of online Financial Proposals shall be done in presence of respective representatives of Applicants who choose to be present physically. The Authority will not entertain any query or clarification from Applicants who fail to qualify at any stage of the Selection Process. The evaluation of Financial Proposals shall be carried out in terms of Clauses 3.3.

2.21.7 Applicants are advised that Selection will be entirely at the discretion of the Authority. Applicants will be deemed to have understood and agreed that no explanation or justification on any aspect of the Selection Process or Selection will be given.

2.21.8 Any information contained in the Proposal shall not in any way be construed as binding on the Authority, its agents, successors or assigns, but shall be binding against the Applicant if the Consultancy is subsequently awarded to it.

2.22 Confidentiality

Information relating to the examination, clarification, evaluation, and recommendation for the selection of Applicants shall not be disclosed to any person who is not officially concerned with the process or is not a retained

professional adviser advising the Authority in relation to matters arising out of, or concerning the Selection Process. The Authority will treat all information, submitted as part of the Proposal, in confidence and will require all those who have access to such material to treat the same in confidence. The Authority may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or is to enforce or assert any right or privilege of the statutory entity and/or the Authority.

2.23 Clarifications

- 2.23.1 To facilitate evaluation of Proposals, the Authority may, at its sole discretion, seek clarifications from any Applicant regarding its Proposal. Such clarification(s) shall be provided within the time specified by the Authority for this purpose. Any request for clarification(s) and all clarification(s) in response thereto shall be in writing.
- 2.23.2 If an Applicant does not provide clarifications sought under Clause 2.23.1 above within the specified time, its Proposal shall be liable to be rejected. In case the Proposal is not rejected, the Authority may proceed to evaluate the Proposal by construing the particulars requiring clarification to the best of its understanding, and the Applicant shall be barred from subsequently questioning such interpretation of the Authority.

E APPOINTMENT OF CONSULTANT

2.24 Negotiations

- 2.24.1 The Selected Applicant may, if necessary, be invited for negotiations. The negotiations shall generally not be for reducing the price of the Proposal, but will be for re-confirming the obligations of the Consultant under this RFP. Issues such as deployment of Key Personnel, understanding of the RFP, methodology and quality of the work plan shall be discussed during negotiations. **A Key Personnel** who did not score **70%** (seventy per cent) marks as required under Clause 3.1.2 shall be replaced by the Applicant with a better candidate to the satisfaction of the Authority. In case the Selected Applicant fails to reconfirm its commitment, the Authority reserves the right to designate the next ranked Applicant as the Selected Applicant and invite it for negotiations.
- 2.24.2 The Authority will examine the CVs of all other Professional Personnel and those not found suitable shall be replaced by the Applicant to the satisfaction of the Authority.
- 2.24.3 The Authority will examine the credentials of all Sub-Consultants proposed for this Consultancy and those not found suitable shall be replaced by the Applicant to the satisfaction of the Authority.

2.25 Substitution of Key Personnel

- 2.25.1 The Authority will not normally consider any request of the Selected Applicant for substitution of Key Personnel as the ranking of the Applicant is based on the evaluation of Key Personnel and any change therein may upset the ranking. Substitution will, however, be permitted if the Key Personnel is not available for reasons of any incapacity or due to health, subject to equally or better qualified and experienced personnel being provided to the satisfaction of the Authority.
- 2.25.2 The Authority expects all the Key Personnel to be available during implementation of the Agreement. The Authority will not consider substitution of Key Personnel except for reasons of any incapacity or due to health. Such substitution shall ordinarily be limited to one Key Personnel subject to equally or better qualified and experienced personnel being provided to the satisfaction of the Authority. As a condition to such substitution, a sum equal to **20% (twenty per cent)** of the remuneration specified for the original Key **Personnel shall be deducted** from the payments due to the Consultant. In the case of a **second substitution** hereunder, such deduction shall be **50% (fifty per cent)** of the remuneration specified for the original Key Personnel. Any further substitution may lead to disqualification of the Applicant or termination of the Agreement.
- 2.25.3 Substitution of the Team Leader will not normally be considered and may lead to disqualification of the Applicant or termination of the Agreement.

2.26 Indemnity

The Consultant shall, subject to the provisions of the Agreement, indemnify the Authority for an amount not exceeding 3 (three) times the value of the Agreement for any direct loss or damage that is caused due to any deficiency in services.

2.27 Award of Consultancy

After selection, a Letter of Award (the “**LOA**”) shall be issued, in duplicate, by the Authority to the Selected Applicant and the Selected Applicant shall, within 7 (seven) days of the receipt of the LOA, sign and return the duplicate copy of the LOA in acknowledgement thereof. In the event the duplicate copy of the LOA duly signed by the Selected Applicant is not received by the stipulated date, the Authority may, unless it consents to extension of time for submission thereof, appropriate the Bid Security of such Applicant as mutually agreed genuine pre-estimated loss and damage suffered by the Authority on account of failure of the Selected Applicant to acknowledge the LOA, and the next highest ranking Applicant may be considered (as per clause 3.3.3).

2.28 Execution of Agreement

After acknowledgement of the LOA as aforesaid by the Selected Applicant, it shall execute the Agreement within the period specified in LOA. The Selected Applicant shall not be entitled to seek any deviation in the Agreement.

2.29 Commencement of assignment

The Consultant shall commence the Services at the Project site within 7 (seven) days of the date of the Agreement, or such other date as may be mutually agreed. If the Consultant fails to either sign the Agreement as specified in Clause 2.28 or commence the assignment as specified herein, the Authority may invite the second ranked Applicant for negotiations. In such an event, the Bid Security of the first ranked Applicant shall be forfeited and appropriated in accordance with the provisions of Clause 2.20.4.

2.30 Proprietary data

Subject to the provisions of Clause 2.22, all documents and other information provided by the Authority or submitted by an Applicant to the Authority shall remain or become the property of the Authority. Applicants and the Consultant, as the case may be, are to treat all information as strictly confidential. The Authority will not return any Proposal or any information related thereto. All information collected, analysed, processed or in whatever manner provided by the Consultant to the Authority in relation to the Consultancy shall be the property of the Authority.

SECTION - 3
CRITERIA FOR EVALUATION

3.1 Evaluation of Technical Proposals

3.1.1 In the first stage, the Technical Proposal will be evaluated on the basis of Applicant's experience, its understanding of TOR, proposed methodology and Work Plan, and the experience of Key Personnel. Only those Applicants whose Technical Proposals score 70 marks or more out of 100 shall qualify for further consideration, and shall be ranked from highest to the lowest on the basis of their technical score.

3.1.2 Each Key Personnel must score a **minimum of 70%** marks except as provided herein. A Proposal shall be rejected if the Team Leader scores less than 70% marks or any two of the remaining Key Personnel score less than 70% marks. In case the Selected Applicant has one Key Personnel, other than the Team Leader, who scores less than 70% marks, he would have to be replaced during negotiations, with a better candidate who, in the opinion of the Authority, would score 70% or above.

3.1.3 The scoring criteria to be used for evaluation shall be as follows: -

Item Code	Parameter	Maximum Marks	Criteria
1.	Relevant Experience of the Applicant * For example, if 1 additional eligible assignment with a value of Rs. 38.26 Crores is provided, it will be coming under 'a' and the mark for the same is 6.25.	25	While awarding marks for relevant experience of the applicant, no score will be awarded to an Applicant for fulfilling the minimum eligibility criteria prescribed in clause 2.2.2 (A) and only projects exceeding the eligibility criteria will be considered for the following scoring: a) 25% marks shall be awarded for each additional Eligible Assignment with a value of minimum Rs. 38.26 Crores and upto Rs. 47.83 Crores . b) 50% marks shall be awarded for each additional Eligible Assignment with a value of not less than Rs. 47.38 Crores and upto Rs. 76.52 Crores . c) 100% marks shall be awarded for each additional Eligible Assignment with a value of more than Rs. 76.52 Crores .

2.	Proposed Methodology and Work Plan	5	Evaluation will be based on the quality of submission.
3.	Relevant Experience of the Key personnel	70	<p>Key Personnel shall fulfil the experience criteria prescribed in clause 2.2.2 (D) for minimum eligibility.</p> <p>While awarding marks for relevant experience of the Key Personnel, no score will be awarded to a Key Personnel for fulfilling the minimum eligibility criteria prescribed in clause 2.2.2 (D) and only projects exceeding the eligibility criteria will be considered for the following scoring.</p> <p>25% marks shall be awarded for each additional Eligible Assignment undertaken by each Key personnel subject to a maximum of Four Eligible Assignments with no reference to the cost of the project.</p>
3a)	Team Leader/ Project Manager	20	
3b)	Civil Engineer cum Resident Engineer	10	
3c)	Sr. Engineer Mechanical (Pipeline & Jetty facilities)	10	
3d)	Electrical /Instrumentation Engineer	10	
3e)	Environmental / Health & Safety Engineer	10	
3f)	Finance cum Legal Expert	10	
Total Marks		100	

Note: While awarding marks for relevant experience of the Applicant / Key Personnel as the case may be, no score will be awarded to an Applicant / Key Personnel for fulfilling the eligibility criteria of a minimum number of Eligible Assignments prescribed in clause 2.2.2 (A) & (D) and only projects exceeding the eligibility criteria shall qualify for scoring. For the avoidance of doubt, it is clarified that if the minimum number of

Eligible Assignments for meeting the eligibility criteria is [3 (three)], then an equivalent number will be ignored for each Applicant and only the balance remaining will be considered for awarding score.

3.1.4 Eligible Assignments

For the purposes of determining Conditions of Eligibility and for evaluating the Proposals under this RFP, **engineering consultancy assignments in respect of design, monitoring and supervision of construction, for the following projects** shall be deemed as eligible assignments (the “Eligible Assignments”) of which at least one assignment should be in respect of design and the remaining in monitoring and supervision or vice versa:

Development of Port / IWT/ Marine Infrastructure having an estimated capital cost (excluding land) of at least **Rs. 38.26 crore** (Rupees thirty-eight crores and twenty-six lakhs only) in case of each project in India. Project located outside India will not be considered as Eligible Project. For the purpose of this RFP, Port Infrastructure would be deemed to include stackyard, space for machinery, railway lines etc.

Provided that the Applicant firm claiming credit for an Eligible Assignment shall have, prior to Proposal Due Date, received professional fees of at least **Rs. 29 Lakhs** (Rupees Twenty-Nine Lakhs only) for such completed assignment.

Provided further that if the Applicant firm is taking credit for an Eligible Assignment which was undertaken for a private sector entity, such assignment shall have been completed prior to Proposal Due Date and the Applicant shall have received professional fees of at least **Rs. 58 Lakhs** (Rupees Fifty-Eight Lakhs Only) and where credit is being claimed by a Key Personnel, she/he should have completed the relevant assignment prior to Proposal Due Date.

3.2 Short-listing of Applicants

3.2.1 The Applicants ranked as aforesaid shall be pre-qualified and short-listed for financial evaluation in the second stage. However, if the number of such pre-qualified Applicants is less than two, the Authority may, in its sole discretion, prequalify the Applicant(s) whose technical score is less than 70 points even if such Applicant(s) do(es) not qualify in terms of Clause 3.1.2; provided that in such an event, the total number of pre-qualified and short-listed Applicants shall not exceed two.

3.2.2. The Financial Proposal of the shortlisted applicants will be opened on the specified date and time which will be notified by the authority as per Notice inviting online tender and the instructions there on. The date, time and venue for opening of Financial Proposal will be notified by the Authority to all the remaining short-listed Applicants.

3.3 Evaluation of Financial Proposal

- 3.3.1 For Financial evaluation, the Professional fee indicated in the Financial Proposal excluding GST will be considered.
- 3.3.2 The Authority will determine whether the Financial Proposals are complete, unqualified and unconditional. The Cost indicated in the Financial Proposal shall be deemed as Final and reflecting the Total Cost of Services. Omissions, if any, in costing any item shall not entitle the Consultant to be compensated and the liability to fulfil its obligations as per the TOR within the total quoted price shall be that of the Consultant.
- 3.3.3 The bids will be finally ranked according to the combined score of technical and financial Proposals as per the computation below. The bidder whose combined score is the highest subject to the provisions in Clause 3.2 above shall be declared as the successful bidder.

After opening of Financial proposals, the lowest financial proposal (FM) will be given a financial score (FS) of 100 points. The Financial scores of other proposals will be computed as follows:

$$\text{FS} = 100 \times \text{FM}/\text{F}$$

(F = Amount of financial proposal of the other bidder)

- 3.3.4. Proposals will finally be ranked according to their combined **Technical (TS)** and **Financial scores (FS)** as follows:

$$\text{S} = \text{TS} \times 0.70 + \text{FS} \times 0.30$$

Where '**S**' is the combined score and weightages assigned to Technical Proposal and Financial Proposal shall be **0.70** and **0.30** respectively.

The qualified Bidder who secures **highest combined score would be declared as the successful Bidder**. In the event that two or more bidders secure same combined score, the Bidder who scores the highest technical score will be considered as the successful bidder.

- 3.3.5 The Bidder with second highest combined score shall be kept in reserve and may be invited in Authority's discretion for negotiation in case, the first ranked applicant withdraws, or fails to comply with the provisions specified in clauses 2.24, 2.28 and 2.29 as the case maybe.

Section-4

FRAUD AND CORRUPT PRACTICES

- 4.1 The Applicants and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Selection Process. Notwithstanding anything to the contrary contained in this RFP, the Authority shall reject a Proposal without being liable in any manner whatsoever to the Applicant, if it determines that the Applicant has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice (collectively the “**Prohibited Practices**”) in the Selection Process. In such an event, the Authority shall, without prejudice to its any other rights or remedies, forfeit and appropriate the Bid Security or Performance Security, as the case may be, as mutually agreed genuine pre-estimated compensation and damages payable to the Authority for, inter alia, time, cost and effort of the Authority, in regard to the RFP, including consideration and evaluation of such Applicant’s Proposal.
- 4.2 Without prejudice to the rights of the Authority under Clause 4.1 hereinabove and the rights and remedies which the Authority may have under the LOA or the Agreement, if an Applicant or Consultant, as the case may be, is found by the Authority to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Selection Process, or after the issue of the LOA or the execution of the Agreement, such Applicant or Consultant shall not be eligible to participate in any tender or RFP issued by the Authority during a period of 2 (two) years from the date such Applicant or Consultant, as the case may be, is found by the Authority to have directly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as the case may be.
- 4.3 For the purposes of this Section, the following terms shall have the meaning hereinafter respectively assigned to them:
- (a) “**corrupt practice**” means (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of any person connected with the Selection Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of the Authority who is or has been associated in any manner, directly or indirectly with the Selection Process or the LOA or has dealt with matters concerning the Agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the Authority, shall be deemed to constitute influencing the actions of a person connected with the Selection Process); or (ii) save as provided herein, engaging in any manner

whatsoever, whether during the Selection Process or after the issue of the LOA or after the execution of the Agreement, as the case may be, any person in respect of any matter relating to the Project or the LOA or the Agreement, who at any time has been or is a legal, financial or technical consultant/ adviser of the Authority in relation to any matter concerning the Project;

- (b) “**fraudulent practice**” means a misrepresentation or omission of facts or disclosure of incomplete facts, in order to influence the Selection Process;
- (c) “**coercive practice**” means impairing or harming or threatening to impair or harm, directly or indirectly, any persons or property to influence any person’s participation or action in the Selection Process;
- (d) “**undesirable practice**” means (i) establishing contact with any person connected with or employed or engaged by the Authority with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Selection Process; or (ii) having a Conflict of Interest; and
- (e) “**restrictive practice**” means forming a cartel or arriving at any understanding or arrangement among Applicants with the objective of restricting or manipulating a full and fair competition in the Selection Process.

Section-5

PRE-PROPOSAL CONFERENCE

- 5.1 Pre-Proposal Conference of the Applicants shall be convened at 15-00 hrs on the date indicated in the Online Bid Reference. Applicants who have downloaded the RFP document from the Official Website of the Authority can seek any clarification and participate in the Pre-Proposal Conference. A maximum of two representatives of each Applicant shall be allowed to participate on production of an authority letter from the Applicant.
- 5.2 During the course of Pre-Proposal Conference, the Applicants will be free to seek clarifications and make suggestions for consideration of the Authority. The Authority shall endeavour to provide clarifications and such further information as it may, in its sole discretion, consider appropriate for facilitating a fair, transparent and competitive Selection Process. The Authority's Response to the clarification will be uploaded in the SMPK website www.smporkolkata.shipping.gov.in including a description of the enquiry but without identifying the source, which will also form a part of the Independent Engineer agreement.

Section-6
MISCELLANEOUS

- 6.1 The Selection Process shall be governed by, and construed in accordance with, the laws of India and the Courts at Kolkata shall have exclusive jurisdiction over all disputes arising under, pursuant to and/or in connection with the Selection Process.
- 6.2 The Authority, in its sole discretion and without incurring any obligation or liability, reserves the right, at any time, to:
- (a) suspend and/or cancel the Selection Process and/or amend and/or supplement the Selection Process or modify the dates or other terms and conditions relating thereto;
 - (b) consult with any Applicant in order to receive clarification or further information;
 - (c) retain any information and/or evidence submitted to the Authority by, on behalf of and / or in relation to any Applicant; and / or
 - (d) independently verify, disqualify, reject and/or accept any and all submissions or other information and/or evidence submitted by or on behalf of any Applicant.
- 6.3 All documents and other information supplied by the Authority or submitted by an Applicant shall remain or become, as the case may be, the property of the Authority. The Authority will not return any submissions made hereunder. Applicants are required to treat all such documents and information as strictly confidential.
- 6.4 It shall be deemed that by submitting the Proposal, the Applicant agrees and releases the Authority, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/or performance of any obligations hereunder, pursuant hereto and/or in connection herewith and waives any and all rights and/or claims it may have in this respect, whether actual or contingent, whether present or future.
- 6.5 The Authority reserves the right to make inquiries with any of the clients listed by the Applicants in their previous experience record.

Section-7

TERMS OF REFERENCE FOR INDEPENDENT ENGINEER

1. Scope

1.1. These Terms of Reference for the Independent Engineer (the “**TOR**”) are being specified pursuant to the Concession Agreement dated 26th September 2022 (the “**Agreement**”), which has been entered into between the Authority and M/s Century Ports Ltd. (the “**Concessionaire**”) for the Project at on design, build, finance, operate and transfer (the “**DBFOT**”) basis, and a copy of which is annexed hereto and marked as Annex-A to form part of this TOR.

1.2 This TOR shall apply to construction, operation and maintenance of the Project.

2. Definitions and interpretation

2.1 The words and expressions beginning with or in capital letters used in this TOR and not defined herein but defined in the Agreement shall have, unless repugnant to the context, the meaning respectively assigned to them in the Agreement

2.2 References to Articles, Clauses and Appendix in this TOR shall, except where the context otherwise requires, be deemed to be references to the Articles, Clauses and Appendix of the Agreement, and references to Paragraphs shall be deemed to be references to Paragraphs of this TOR.

2.3 The rules of interpretation stated in Clauses 1.3, 1.4 and 1.5 of the Agreement shall apply, *mutatis mutandis*, to this TOR.

3. Role and functions of the Independent Engineer

3.1 The role and functions of the Independent Engineer shall include the following:

- a. review of the Designs and Drawings as set forth in Paragraph 4;
- b. review, inspection and monitoring of Construction Works as set forth in Paragraph 5;
- c. conducting Tests on completion of construction and issuing Completion / Provisional Certificate as set forth in Paragraph 5;
- d. review, inspection and monitoring of operation and maintenance as set forth in Paragraph 6;

- e. review, inspection and monitoring of Concessionaire's obligations in Clause 18.2 and as set forth in Paragraph 7;
 - f. determining, as required under the Agreement, the costs of any works or services and/or their reasonableness;
 - g. determining, as required under the Agreement, the period or any extension thereof, for performing any duty or obligation;
 - h. assisting the Parties in resolution of disputes as set forth in Paragraph 9; and
 - i. undertaking all other duties and functions in accordance with the Agreement.
- 3.2 The Independent Engineer shall discharge its duties in a fair, impartial and efficient manner, consistent with the highest standards of professional integrity and Good Industry Practice.

4. Development Period

4.1 During the Development Period, the Independent Engineer shall undertake a detailed review of the Drawings to be furnished by the Concessionaire along with supporting data, including the geo-technical and hydrological investigations, characteristics of materials from borrow areas and quarry sites, topographical surveys and traffic surveys. The Independent Engineer shall complete such review and send its comments/observations to the Concessioneing Authority and the Concessionaire within 15 (fifteen) days of receipt of such Drawings. In particular, such comments shall specify the conformity or otherwise of such Drawings with the Scope of the Project and specifications and standards.

4.2 The Independent Engineer shall review any modified Drawings or supporting documents sent to it by the Concessionaire and furnish its comments within 7 (seven) days of receiving such Drawings or Documents.

4.3 The Independent Engineer shall review the Drawings in accordance with Appendix-6 and furnish its comments thereon to the Concessioneing Authority and the Concessionaire within 7 (seven) days of receiving such Drawings.

4.4 The Independent Engineer shall review the detailed design, construction methodology, quality assurance procedures and the procurement, engineering and construction time schedule sent to it by the Concessionaire and furnish its comments

within 15 (fifteen) days of receipt thereof.

4.5 Upon reference by the Concessioneing Authority, the Independent Engineer shall review and comment on the EPC Contract or any other contract for construction, operation and maintenance of the Project, and furnish its comments within 7 (seven) days from receipt of such reference from the Concessioneing Authority.

5. Construction Period

5.1 In respect of the Drawings, Documents received by the Independent Engineer for its review and comments during the Construction Period, the provisions of Paragraph 4 shall apply, *mutatimutandis*.

5.2 The Independent Engineer shall review the monthly progress report furnished by the Concessionaire and send its comments thereon to the Concessioneing Authority and the Concessionaire within 7 (seven) days of receipt of such report.

5.3 The Independent Engineer shall inspect the Construction Works once every month, preferably after receipt of the monthly progress report from the Concessionaire, but before the 20th (twentieth) day of each month in any case, and make out a report of such inspection (the "Inspection Report") setting forth an overview of the status, progress, quality and safety of construction, including the work methodology adopted, the materials used and their sources, and conformity of Construction Works with the Scope of the Project and the specifications and standards. In a separate section of the Inspection Report, the Independent Engineer shall describe in reasonable detail the lapses, defects or deficiencies observed by it in the construction of the Project. The Independent Engineer shall send a copy of its Inspection Report to the Concessioneing Authority and the Concessionaire within 7 (seven) days of the inspection.

5.4 The Independent Engineer may inspect the project more than once in a month if any lapses, defects or deficiencies require such inspections.

5.5 For determining that the Construction Works conform to specifications and standards, the Independent Engineer shall require the Concessionaire to carry out, or cause to be carried out, tests on a sample basis, to be specified by the Independent Engineer in accordance with Good Industry Practice for quality assurance. For purposes of this Paragraph 5.5, the tests specified in the relevant Manuals specified by the

Concessioneing Authority in relation to structures, buildings and equipment (the “Quality Control Manuals”) or any modification/substitution thereof shall be deemed to be tests conforming to Good Industry Practice for quality assurance. The Independent Engineer shall issue necessary directions to the Concessionaire for ensuring that the tests are conducted in a fair and efficient manner, and shall monitor and review the results thereof.

5.6 The sample size of the tests, to be specified by the Independent Engineer under paragraph 5.5, shall comprise 10% of the quantity or number of tests prescribed for each category or type of tests in the Quality Control Manuals; provided that the Independent Engineer may, for reasons to be recorded in writing, increase the aforesaid sample size by up to 10% for certain categories or types of tests.

5.7 The timing of tests referred to in Paragraph 5.5, and the criteria for acceptance/rejection of their results shall be determined by the Independent Engineer in accordance with the Quality Control Manuals. The tests shall be undertaken on a random sample basis and shall be in addition to, and independent of, the tests that may be carried out by the Concessionaire for its own quality assurance in accordance with Good Industry Practice.

5.8 In the event that the Concessionaire carries out any remedial works for removal or rectification of any defects or deficiencies, the Independent Engineer shall require the Concessionaire to carry out, or cause to be carried out, tests to determine that such remedial works have brought the Construction Works into conformity with the specifications and standards, and the provisions of this Paragraph 5 shall apply to such tests.

5.9 In the event that the Concessionaire fails to achieve any of the Project Milestones, the Independent Engineer shall undertake a review of the progress of construction and identify potential delays, if any. If the Independent Engineer shall determine that completion of the Project is not feasible within the time specified in the Agreement, it shall require the Concessionaire to indicate within 15 (fifteen) days the steps proposed to be taken to expedite progress, and the period within which COD shall be achieved. Upon receipt of a report from the Concessionaire, the Independent Engineer shall review the same and send its comments to the Concessioneing Authority and the

Concessionaire forthwith.

5.10 If at any time during the Construction Period, the Independent Engineer determines that the Concessionaire has not made adequate arrangements for the safety of workers and Users in the zone of construction or that any work is being carried out in a manner that threatens the safety of the workers and the Users, it shall make a recommendation to the Concessioneing Authority forthwith, identifying the whole or part of the Construction Works that should be suspended for ensuring safety in respect thereof.

5.11 In the event that the Concessionaire carries out any remedial measures to secure the safety of suspended works and Users, it may, by notice in writing, require the Independent Engineer to inspect such works, and within 3 (three) days of receiving such notice, the Independent Engineer shall inspect the suspended works and make a report to the Concessioneing Authority forthwith, recommending whether or not such suspension may be revoked by the Concessioneing Authority.

5.12 If suspension of Construction Works is for reasons not attributable to the Concessionaire, the Independent Engineer shall determine the extension of dates set forth in the Project Completion Schedule, to which the Concessionaire is reasonably entitled, and shall notify the Concessioneing Authority and the Concessionaire of the same.

5.13 The Independent Engineer shall carry out, or cause to be carried out, all the Tests specified in this section and issue a Completion Certificate or Provisional Certificate, as the case may be. For carrying out its functions under this Paragraph 5.13 and all matters incidental thereto, the Independent Engineer shall act under and in accordance with the provisions of Clause 6.7 and this section.

5.14 Upon reference from the Concessioneing Authority, the Independent Engineer shall make a fair and reasonable assessment of the costs of providing information, works and services as set forth in Clause 6.8 and certify the reasonableness of such costs for payment by the Concessioneing Authority to the Concessionaire.

5.15 The Independent Engineer shall aid and advise the Concessionaire in preparing the maintenance manual.

6. Operation Period

6.1 In respect of the Drawings, Documents and Safety Standards received by the Independent Engineer for its review and comments during the Operation Period, the provisions of Paragraph 4 shall apply, *mutatis mutandis*.

6.2 The Independent Engineer shall review the monthly report on cargo traffic, unit gross output/discharge rates at berth, daily output rated per vessel, Tariff earned and collected in respect of Project Facilities and Services furnished by the Concessionaire and send its comments thereon to the Concessioneing Authority and the Concessionaire within 7 (seven) days of receipt of such report.

6.3 The Independent Engineer shall inspect the Project, once every year, before the 20th (twentieth) day of any month, and make out an operation and maintenance inspection report setting forth an overview of the status, quality and safety of operation and maintenance including its conformity with the key performance indicators, maintenance requirements and Safety Standards. In a separate section of the operation and maintenance inspection report, the Independent Engineer shall describe in reasonable detail the lapses, defects or deficiencies observed by it in operation and maintenance of the Project. The Independent Engineer shall send a copy of its operation and maintenance inspection report to the Concessioneing Authority and the Concessionaire within 7 (seven) days of the inspection.

6.4 The Independent Engineer may inspect the Project more than once in a year, if any lapses, defects or deficiencies require such inspections.

6.5 The Independent Engineer shall in its operation and maintenance inspection report specify the tests, if any, that the Concessionaire shall carry out, or cause to be carried out, for the purpose of determining that the Project is in conformity with the maintenance requirements. It shall monitor and review the results of such tests and the remedial measures, if any, taken by the Concessionaire in this behalf.

6.6 The Independent Engineer shall determine if any delay has occurred in completion of repair or remedial works in accordance with the Agreement, and shall also determine the damages, if any, payable by the Concessionaire to the Concessioneing Authority for such delay.

7. Termination

7.1 At any time, not earlier than 90 (ninety) days prior to termination but not later than 15 (fifteen) days prior to such termination, the Independent Engineer shall, in the presence of a representative of the Concessionaire, inspect the Project for determining compliance by the Concessionaire with the requirements set forth in Clause 18.2 and, if required, cause tests to be carried out at the Concessionaire's cost for determining such compliance.

8. Determination of costs and time

8.1 The Independent Engineer shall determine the costs, and/or their reasonableness, that are required to be determined by it under the Agreement.

8.2 The Independent Engineer shall determine the period, or any extension thereof, that is required to be determined by it under the Agreement.

9. Assistance in Dispute resolution

9.1. When called upon by either Party in the event of any Dispute, the Independent Engineer shall mediate and assist the Parties in arriving at an amicable settlement.

9.2. In the event of any disagreement between the Parties regarding the meaning, scope and nature of Good Industry Practice, as set forth in any provision of the Agreement, the Independent Engineer shall specify such meaning, scope and nature by issuing a reasoned written statement relying on good industry practice and authentic literature.

10. Other duties and functions

The Independent Engineer shall perform all other duties and functions specified in the Agreement.

11. Miscellaneous

The Independent Engineer shall notify its programme of inspection to the Concessioneing Authority and to the Concessionaire, who may, in their discretion, depute their respective representatives to be present during the inspection.

11.2 A copy of all communications, comments, instructions, Drawings or Documents

sent by the Independent Engineer to the Concessionaire pursuant to this TOR, and a copy of all the test results with comments of the Independent Engineer thereon shall be furnished by the Independent Engineer to the Concessioneing Authority forthwith.

11.3 The Independent Engineer shall obtain, and the Concessionaire shall furnish in 2 (two) copies thereof, all communications and reports required to be submitted, under this Agreement, by the Concessionaire to the Independent Engineer, whereupon the Independent Engineer shall send 1 (one) of the copies to the Concessioneing Authority along with its comments thereon.

11.4 The Independent Engineer shall retain at least one copy each of all Drawings and Documents received by it, including 'as-built' Drawings, and keep them in its safe custody.

11.5 Upon completion of its assignment hereunder, the Independent Engineer shall duly classify and list all Drawings, Documents, results of tests and other relevant records, and hand them over to the Concessioneing Authority or such other person as the Concessioneing Authority may specify, and obtain written receipt thereof. Two copies of the said documents shall also be furnished in their editable digital format or in such other medium or manner as may be acceptable to the Concessioneing Authority.

11.6 Wherever no period has been specified for delivery of services by the Independent Engineer, the Independent Engineer shall act with the efficiency and urgency necessary for discharging its functions in accordance with Good Industry Practice.

Annexure

Tests

- 1) All materials to be used, all methods to be adopted and all works performed shall be strictly in accordance with the relevant IS specification for the Project Requirement. The relevant specification for the safety and navigational aspects shall be referred for the type of tests and frequency of tests. For this purpose, the responsibility of the Concessionaire and their Contractor shall be as per the relevant provisions of this Agreement.
- 2) The Concessionaire shall carry out quality control tests on the material and works at the frequency stipulated in the respective IS codes. The tests on equipments and machinery shall be ensured while its manufacturing and subsequent installation at site. In case of absence of clear indication of the frequency and type of tests the Good Industry Practice shall be used for testing with the approval of the Independent Engineer.
- 3) The Concessionaire shall carry out all necessary tests on materials and works independently and keep their records for reference. The Concessionaire shall prepare a quality audit manual in consultation with the Independent Engineer to ensure better quality of work.
- 4) The provisions of type and frequency of test in relevant IS codes are minimum. The Concessionaire shall conduct all possible tests to ensure quality construction and installation of equipments and machinery.
- 5) The Independent Engineer at its discretion and consistent with the sound engineering practices shall carry out any non-destructive test on completed works, structures, equipments and machinery and any other component to ascertain the soundness of the work.

6) Schedule of Test.

- (i) The Concessionaire shall submit a detailed inventory and particulars of all works and equipment and machinery forming part of this Agreement.
- (ii) The Concessionaire shall notify the Independent Engineer for its readiness for tests to be conducted.

7) Tests.

(i) **Visual and physical test:** The Independent Engineer shall conduct a visual and physical check of the Project Requirements to determine that all works and equipment forming part thereof conform to the provisions of this Agreement.

(ii) **Test drive:** The Independent Engineer shall arrange for test drives of the movable equipment for the quality of service as per the relevant provisions of the IS codes for manufacture and testing of equipments and machinery

(iii) **Structural test:** All the equipment and machinery and structures shall be subjected to load test as the case may be for ascertaining safe working loads.

(iv) **Environmental Audit:** The Independent Engineer shall carry out a check to determine conformity of the Project Requirements with the environment requirement set forth in Applicable Laws and Applicable Permits.

(v) **Safety Review:** Safety audit of the Project Requirements shall have to be undertaken with the assistance of the relevant statutory authorities and determine conformity of the Project Requirements with the provisions of the Agreement.

(vi) **The procedures for tests:** The procedures as stipulated in the relevant IS specifications shall be adhered and the equipments for testing shall be arranged by the Concessionaire.

8) The Independent Engineer shall obtain a copy of operational and maintenance manuals of the Project Requirements from the Concessionaire and verify the contents of the manual in order to meet the following requirements: The operation and maintenance manual shall essentially comprise of general requirement of O&M, O&M plans, replacement of maintenance parts, schedule of routine maintenance, schedule of preventive maintenance and periodic maintenance. The manual shall also cover the minimum maintenance requirement to adhere to the Performance Standards as per the provisions of this Agreement. The manual shall generally cover the expected failures and

time taken for repairs and maintenance.

9) The test procedure shall be followed as per ASTM, BIS, IS.

10) Test shall also satisfy the appropriate Authority and Certification

(i) Dock safety Directorate

(ii) Environmental Authority

(iii) Director of Explosives

(iv) Fire

(v) Ground Water Authority

(vi) Customs

(vii) Indian Railways

11) Test of Handling Equipments & Electrification works The Concessionaire shall within a period of 45 (forty-five) days of Date of Award of Concession submit to Concessioneing Authority and Independent Engineer a report highlighting type of tests that would required to be carried out as per the type of the equipments for the above mentioned categories. The Independent Engineer after taking into account Concessioneing Authority's comments shall send its comments to the concessionaire within 15 (fifteen) days of receipt of report highlighting type of tests that would required to be carried out as per the type of the equipments for the above mentioned categories. The Concessionaire shall incorporate comments of the Independent Engineer and shall submit revised document within 10 (ten) days of receipt of comments.

Section-8

E-PAYMENT

E-PAYMENT – Payments of IE's bills through Banks

Payments due to the IE may, if so desired by him be made to the bank instead of direct to him, provided that the IE furnishes to the Chief Engineer, Civil Engineering Department, SMPK an authorization in the form of a legally valid document such as a power of attorney conferring authority on the bank to receive payments and (2) his own acceptance of the correctness of the account made out as being due to him by employer or his signature on the bill or other claim preferred against employer before settlement by the Chief Engineer, Civil Engineering Department, SMPK of the account or claim by payment to the Bank. While the receipt given by such banks shall constitute a full and sufficient discharge for the payment the IE should, wherever possible present his bills duly receipted and discharged through his bankers. Nothing here in contained shall operate to create in favour of the date on which e-payment to the IE by the employer will be considered as the date of payment for all purposes. Delay in making such payments by the employer due to exceptional circumstances shall not nullify or vitiate in any way or other the conditions of the contract and the IE shall have no claim on this account.

The Engineers may by any certificate make any correction or modification in any previous certificate which shall have been issued by him and shall have power to withhold any certificate if the work or any part thereof is not being carried out to his satisfaction. Balance payment will be released on completion of work to the satisfaction of Engineer's Representatives. No claim will be entertained by SMPK in this account.

The arrangements designed to work are as follows:

1. The amount due to the payee will be intimated to the port Bankers in the form of Electronic messages.
2. The Bank will arrange to credit the amount to the parties account through electronic transfer failing which by other modes as detailed further.
3. If the payee's account is with any of the computerized & net worked branches of the above named Banks, the amount due to the payee will be credited to the payee instantly without payment of Bank charges.
4. In all other cases, payment will be arranged through Banker's Cheque / DDs by the Authority through "speed post" or "courier service". For this the bank charges at the appropriate rates will be payable by the payee.

E-Payment Form

To

The Chief Engineer

Civil Engineering Department,

15, Strand road, Kolkata- 700001.

Sir,

We hereby give particulars for payment of the Works bill / Advance etc.

Sl. No	Particulars	
1	Name of the IE:	
2	Address of the IE:	
3	Name of the work for which payment is made:	
4	Agreement dated: Work order No.:	
5	Name of the bank in which IE operating account:	
6	Address of the Bank:	
7	Branch Code No.:	
8	Type of Account (Whether SB A/c or Current A/c)	
9	Account No.:	
10	PAN No.:	
11	GST Registration No.:	

Yours Sincerely

(Signature of Authorized representative of IE)

Section-9

SITE INFORMATION

Site Information and Project information

1. Syama Prasad Mookerjee Port, Kolkata, the oldest in India, is located on the east coast on the river Hooghly in the state of West Bengal. It is one of the oldest Ports and only riverine Major Port of India in the eastern coast which became operational in the year 1870. It was declared as a Major Port under the Major Port Trust Act, 1963 subsequently. Geographically, Kolkata Dock System is situated on the left bank of the river Hooghly in position Latitude of 22°32'53" North and Longitude 88°18'5" East.

Syama Prasad Mookerjee Port, Kolkata maintains two approach channels from sea and through Eastern channel, the vessels visit to Khidderpore Dock (KDS). The pilotage distance to KDS is 223km comprising 148 km of river and 75 km of sea pilotage. Remote pilotage assistance is provided through VTMS during the sea passage of the vessels in the above channels.

Phase-I

- a) Berthno-2,4,6 with a Quay length of 400m
- b) The land area comprising of **73,578** sq.m for backup area.
- c) Shedno.2 admeasuring area of 3109 sq.m

Section-10

PORT ASSETS AND DWAINGS

A. PORT ASSETS

The Port's Assets being handed over to the Concessionaire during the Concession Period for each phase on as is where is basis are as follows:

Phase-I

- a) Berth nos.: 2,4,6 with a Quay length of 400 m
- b) The land area comprising of **73,578** sq.m for backup area.
- c) Shed no.2 admeasuring area of 3109 sq.m

Phase-II

- a) Berth nos.: 8,10,12 with a Quay length of 400m
- b) The land area comprising of **60,701**sq.m for backup area.
- c) Shed no.12 admeasuring area of 4988 sq.m

Notes: The area proposed to be allotted to the Concessionaire is only indicative. However, marginal adjustments in the area will be made depending on the actual site conditions. The area to be handed over to the Concessionaire will be jointly surveyed by the representatives of the Concessioneing Authority and Concessionaire. The License fee as per Article 9 of Concession Agreement will be based on actual measured area.

B. Drawings

As per FEASIBILITY REPORT attached along with this tender document.

SCHEDULES

SCHEDULE- 1
FORM OF AGREEMENT
(See Clause 2.1.3)

AGREEMENT

FOR

**INDEPENDENT ENGINEER (IE) FOR THE PROJECT “REJUVENATION OF
KIDDERPORE DOCKS (KPD-1 WEST) THROUGH PPP MODE ON DESIGN, BUILD,
FINANCE, OPERATE AND TRANSFER (DBFOT) BASIS AT SYAMA PRASAD
MOOKERJEE PORT, KOLKATA”.**

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AGREEMENT

INDEPENDENT ENGINEER (IE) FOR THE PROJECT “**REJUVENATION OF KIDDERPORE DOCKS (KPD-1 WEST) THROUGH PPP MODE ON DESIGN, BUILD, FINANCE, OPERATE AND TRANSFER (DBFOT) BASIS AT SYAMA PRASAD MOOKERJEE PORT, KOLKATA**”.

AGREEMENT No. _____

This AGREEMENT (hereinafter called the “**Agreement**”) is made on the day of the month of ____2***, between, on the one hand, the Board of Trustees of Syamaprasad Mookerjee Port, Kolkata (hereinafter called the “**Authority**” which expression shall include their respective successors and permitted assigns, unless the context otherwise requires) and, on the other hand, _____ (hereinafter called the “**Consultant**” which expression shall include their respective successors and permitted assigns).

WHEREAS

- (A) The Authority vide its Request for Proposal for INDEPENDENT ENGINEER (IE) FOR THE PROJECT “**REJUVENATION OF KIDDERPORE DOCKS (KPD-1 WEST) THROUGH PPP MODE ON DESIGN, BUILD, FINANCE, OPERATE AND TRANSFER (DBFOT) BASIS AT SYAMA PRASAD MOOKERJEE PORT, KOLKATA**”.
- (B) the Consultant submitted its proposals for the aforesaid work, whereby the Consultant represented to the Authority that it had the required professional skills, and in the said proposals the Consultant also agreed to provide the Services to the Authority on the terms and conditions as set forth in the RFP and this Agreement; and
- (C) the Authority, on acceptance of the aforesaid proposals of the Consultant, awarded the
Consultancy to the Consultant vide its Letter of Award dated _____
“**LOA**”); and

(D) in pursuance of the LOA, the parties have agreed to enter into this Agreement. NOW, THEREFORE, the parties hereto hereby agree as follows:

1. GENERAL

1.1 Definitions and Interpretation

1.1.1 The words and expressions beginning with capital letters and defined in this Agreement shall, unless the context otherwise requires, have the meaning hereinafter respectively assigned to them:

- a) “**Additional Costs**” shall have the meaning set forth in Clause 6.1.2;
- b) “**Agreement**” means this Agreement, together with all the Annexes;
- c) “**Agreement Value**” shall have the meaning set forth in Clause 6.1.2;
- d) “**Applicable Laws**” means the laws and any other instruments having the force of law in India as they may be issued and in force from time to time;
- e) “**Confidential Information**” shall have the meaning set forth in Clause 3.3;
- f) “**Conflict of Interest**” shall have the meaning set forth in Clause 3.2 read with the provisions of RFP;
- g) “**Dispute**” shall have the meaning set forth in Clause 9.2.1;
- h) “**Effective Date**” means the date on which this Agreement comes into force and effect pursuant to Clause 2.1;
- i) “**Expatriate Personnel**” means such persons who at the time of being so hired had their domicile outside India;
- j) “**Government**” means the Government of India;
- k) “**INR, Re. or Rs.**” Means Indian Rupees;
- l) “**Member**”, in case the Consultant consists of a joint venture or consortium of more than one entity, means any of these entities, and “**Members**” means all of these entities;
- m) “**Party**” means the Authority or the Consultant, as the case may be, and Parties means both of them;
- n) “**Personnel**” means persons hired by the Consultant or by any Sub-Consultant as employees and assigned to the performance of the

Services or any part thereof;

- o) “**Resident Personnel**” means such persons who at the time of being so hired had their domicile inside India;
- p) “**RFP**” means the Request for Proposal document in response to which the Consultant’s proposal for providing Services was accepted;
- q) “**Services**” means the work to be performed by the Consultant pursuant to this Agreement, as described in the Terms of Reference hereto;
- r) “**Sub-Consultant**” means any entity to which the Consultant subcontracts any part of the Services in accordance with the provisions of Clause 4.7;
- s) “**Third Party**” means any person or entity other than the Government, the Authority, the Consultant or a Sub-Consultant.

All terms and words not defined herein shall, unless the context otherwise requires, have the meaning assigned to them in the RFP.

- 1.1.2 The following documents along with all addenda issued thereto shall be deemed to form and be read and construed as integral parts of this Agreement and in case of any contradiction between or among them the priority in which a document would prevail over another would be as laid down below beginning from the highest priority to the lowest priority:

- (a) Agreement;
- (b) Annexes of Agreement;
- (c) RFP; and
- (d) Letter of Award.

1.2 Relation between the Parties

Nothing contained herein shall be construed as establishing a relation of master and servant or of agent and principal as between the Authority and the Consultant. The Consultant shall, subject to this Agreement, have complete charge of Personnel performing the Services and shall be fully responsible for the Services performed by them or on their behalf hereunder.

1.3 Rights and obligations

The mutual rights and obligations of the Authority and the Consultant shall

be as set forth in the Agreement, in particular:

- (a) the Consultant shall carry out the Services in accordance with the provisions of the Agreement; and
- (b) the Authority shall make payments to the Consultant in accordance with the provisions of the Agreement.

1.4 Governing law and jurisdiction

This Agreement shall be construed and interpreted in accordance with and governed by the laws of India, and the courts at Kolkata shall have exclusive jurisdiction over matters arising out of or relating to this Agreement.

1.5 Language

All notices required to be given by one Party to the other Party and all other communications, documentation and proceedings which are in any way relevant to this Agreement shall be in writing and in English language.

1.6 Table of contents and headings

The table of contents, headings or sub-headings in this Agreement are for convenience of reference only and shall not be used in, and shall not affect, the construction or interpretation of this Agreement.

1.7 Notices

Any notice or other communication to be given by any Party to the other Party under or in connection with the matters contemplated by this Agreement shall be in writing and shall:

- (a) in the case of the Consultant, be given by facsimile or e-mail and by letter delivered by hand to the address given and marked for attention of the Consultant's Representative set out below in Clause 1.10 or to such other person as the Consultant may from time to time designate by notice to the Authority; provided that notices or other communications to be given to an address outside Kolkata may, if they are subsequently confirmed by sending a copy thereof by registered acknowledgement due, air mail or by courier, be sent by facsimile or e-mail to the number as the Consultant may from time to time designate by notice to the Authority;
- (b) in the case of the Authority, be given by facsimile or e-mail and by letter delivered by hand and be addressed to the Authority with a

copy delivered to the Authority Representative set out below in Clause 1.10 or to such other person as the Authority may from time to time designate by notice to the Consultant; provided that if the Consultant does not have an office in Visakhapatnam it may send such notice by facsimile or e-mail and by registered acknowledgement due, air mail or by courier; and

- (c) any notice or communication by a Party to the other Party, given in accordance herewith, shall be deemed to have been delivered when in the normal course of post it ought to have been delivered and in all other cases, it shall be deemed to have been delivered on the actual date and time of delivery; provided that in the case of facsimile or e-mail, it shall be deemed to have been delivered on the working days following the date of its delivery.

1.8 Location

The Services shall be performed at the site of the Project in accordance with the provisions of RFP and at such locations as are incidental thereto, including the offices of the Consultant.

1.9 Authority of Member-in-charge

In case the Consultant consists of a consortium of more than one entity, the Parties agree that the Lead Member shall act on behalf of the Members in exercising all the Consultant's rights and obligations towards the Authority under this Agreement, including without limitation the receiving of instructions and payments from the Authority.

1.10 Authorized Representatives

- 1.10.1 Any action required or permitted to be taken, and any document required or permitted to be executed, under this Agreement by the Authority or the Consultant, as the case may be, may be taken or executed by the officials specified in this Clause 1.10.
- 1.10.2 The Authority may, from time to time, designate one of its officials as the Authority Representative. Unless otherwise notified, the Authority Representative shall be:

Chief Engineer,
2nd Floor,
15, Strand Road, Kolkata,

Syama Prasad Mookerjee Port

Kolkata, West-Bengal, Pin -700001

Website: www.smporkolkata.shipping.gov.in

Email: ce@kolkataporttrust.gov.in

- 1.10.3 The Consultant may designate one of its employees as Consultant's Representative. Unless otherwise notified, the Consultant's Representative shall be:

Tel: _____ Mobile: _____ Fax: _____

_____ Email: _____

1.11 Taxes and duties

Unless otherwise specified in the Agreement, the Consultant shall pay all such taxes, duties, fees and other impositions (other than GST) as may be levied under the Applicable Laws and the Authority shall perform such duties in regard to the deduction of such taxes as may be lawfully imposed on it.

2. COMMENCEMENT, COMPLETION AND TERMINATION OF AGREEMENT

2.1 Effectiveness of Agreement

This Agreement shall come into force and effect on the date of this Agreement (the "**Effective Date**").

2.2 Commencement of Services

The Consultant shall commence the Services within a period of 7 (seven) days from the Effective Date, unless otherwise agreed by the Parties.

2.3 Termination of Agreement for failure to commence Services

If the Consultant does not commence the Services within the period specified in Clause 2.2 above, the Authority may, by not less than 2 (two) weeks' notice to the Consultant, declare this Agreement to be null and void, and in the event of such a declaration, the Bid Security of the Consultant shall stand forfeited.

2.4 Expiration of Agreement

Unless terminated earlier pursuant to Clauses 2.3 or 2.9 hereof, this Agreement shall, unless extended by the Parties by mutual consent, expire upon the expiry of **6 (six) months** from the date of commercial operations of the Project, by the Concessionaire. Upon Termination, the Authority shall make payments of all amounts due to the Consultant hereunder.

2.5 Entire Agreement

2.5.1 This Agreement and the Annexes together constitute a complete and exclusive statement of the terms of the agreement between the Parties on the subject hereof, and no amendment or modification hereto shall be valid and effective unless such modification or amendment is agreed to in writing by the Parties and duly executed by persons especially empowered in this behalf by the respective Parties. All prior written or oral understandings, offers or other communications of every kind pertaining to this Agreement are abrogated and withdrawn provided, however, that the obligations of the Consultant arising out of the provisions of the RFP shall continue to subsist and shall be deemed to form part of this Agreement.

2.5.2 Without prejudice to the generality of the provisions of Clause 2.5.1, on matters not covered by this Agreement, the provisions of RFP shall apply.

2.6 Modification of Agreement

Modification of the terms and conditions of this Agreement, including any modification of the scope of the Services, may only be made by written agreement between the Parties. Pursuant to Clauses 4.2.3 and 6.1.3 hereof, however, each Party shall give due consideration to any proposals for modification made by the other Party.

2.7 Force Majeure

2.7.1 Definition

(a) For the purposes of this Agreement, "**Force Majeure**" means an event which is beyond the reasonable control of a Party, and which makes a Party's performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible in the circumstances, and includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood or other adverse weather conditions, strikes, lockouts or other industrial action

(except where such strikes, lockouts or other industrial action are within the power of the Party invoking Force Majeure to prevent), confiscation or any other action by government agencies.

- (b) Force Majeure shall not include (i) any event which is caused by the negligence or intentional action of a Party or such Party's Sub-Consultant or agents or employees, nor (ii) any event which a diligent Party could reasonably have been expected to both (A) take into account at the time of the conclusion of this Agreement, and (B) avoid or overcome in the carrying out of its obligations hereunder.
- (c) Force Majeure shall not include insufficiency of funds or failure to make any payment required hereunder.

2.7.2 No breach of Agreement. The failure of a Party to fulfil any of its obligations hereunder shall not be considered to be a breach of, or default under, this Agreement insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event has taken all reasonable precautions, due care and reasonable alternative measures, all with the objective of carrying out the terms and conditions of this Agreement.

2.7.3 Measures to be taken:

- (a) A Party affected by an event of Force Majeure shall take all reasonable measures to remove such Party's inability to fulfil its obligations hereunder with a minimum of delay.
- (b) A Party affected by an event of Force Majeure shall notify the other Party of such event as soon as possible, and in any event not later than 14 (fourteen) days following the occurrence of such event, providing evidence of the nature and cause of such event, and shall similarly give notice of the restoration of normal conditions as soon as possible.
- (c) The Parties shall take all reasonable measures to minimize the consequences of any event of Force Majeure.

2.7.4 **Extension of time**

2.7.4.1. Any period within which a Party shall, pursuant to this Agreement, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

2.7.4.2. If the construction work is extended beyond the period and if the commercial operation of handling LPG could not be started, the period for IE is also to be extended on the basis of Man-months rates quoted as per the agreement.

2.7.5 Payments

During the period of its inability to perform the Services as a result of an event of Force Majeure, the Consultant shall be entitled to be reimbursed for additional costs reasonably and necessarily incurred by it during such period for the purposes of the Services and in reactivating the Services after the end of such period.

2.7.6 Consultation

Not later than **30 (thirty) days** after the Consultant has, as the result of an event of Force Majeure, become unable to perform a material portion of the Services, the Parties shall consult with each other with a view to agreeing on appropriate measures to be taken in the circumstances.

2.8 Suspension of Agreement

The Authority may, by written notice of suspension to the Consultant, suspend all payments to the Consultant hereunder if the Consultant shall be in breach of this Agreement or shall fail to perform any of its obligations under this Agreement, including the carrying out of the Services; provided that such notice of suspension (i) shall specify the nature of the breach or failure, and (ii) shall provide an opportunity to the Consultant to remedy such breach or failure within a period not exceeding 30 (thirty) days after receipt by the Consultant of such notice of suspension.

2.9 Termination of Agreement

2.9.1 By the Authority

The Authority may, by not less than 30 (thirty) days' written notice of termination to the Consultant, such notice to be given after the occurrence of any of the events specified in this Clause 2.9.1, terminate this Agreement if:

- (a) the Consultant fails to remedy any breach hereof or any failure in the performance of its obligations hereunder, as specified in a notice of suspension pursuant to Clause 2.8 hereinabove, within 30

(thirty) days of receipt of such notice of suspension or within such further period as the Authority may have subsequently granted in writing;

- (b) the Consultant becomes insolvent or bankrupt or enters into any agreement with its creditors for relief of debt or take advantage of any law for the benefit of debtors or goes into liquidation or receivership whether compulsory or voluntary;
- (c) the Consultant fails to comply with any final decision reached as a result of arbitration proceedings pursuant to Clause 9 hereof;
- (d) the Consultant submits to the Authority a statement which has a material effect on the rights, obligations or interests of the Authority and which the Consultant knows to be false;
- (e) any document, information, data or statement submitted by the Consultant in its Proposals, based on which the Consultant was considered eligible or successful, is found to be false, incorrect or misleading;
- (f) as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than 60 (sixty) days; or
- (g) the Authority, in its sole discretion and for any reason whatsoever, decides to terminate this Agreement.

2.9.2 By the Consultant

The Consultant may, by not less than 30 (thirty) days' written notice to the Authority, such notice to be given after the occurrence of any of the events specified in this Clause 2.9.2, terminate this Agreement if:

- (a) the Authority fails to pay any money due to the Consultant pursuant to this Agreement and not subject to dispute pursuant to Clause 9 hereof within 45 (forty five) days after receiving written notice from the Consultant that such payment is overdue;
- (b) the Authority is in material breach of its obligations pursuant to this Agreement and has not remedied the same within **45 (forty-five)**

days (or such longer period as the Consultant may have subsequently granted in writing) following the receipt by the Authority of the Consultant's notice specifying such breach;

- (c) as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than **60 (sixty) days**; or
- (d) the Authority fails to comply with any final decision reached as a result of arbitration pursuant to Clause 9 hereof.

2.9.3 Cessation of rights and obligations

Upon termination of this Agreement pursuant to Clauses 2.3 or 2.9 hereof, or upon expiration of this Agreement pursuant to Clause 2.4 hereof, all rights and obligations of the Parties hereunder shall cease, except (i) such rights and obligations as may have accrued on the date of termination or expiration, or which expressly survive such Termination; (ii) the obligation of confidentiality set forth in Clause 3.3 hereof; (iii) the Consultant's obligation to permit inspection, copying and auditing of such of its accounts and records set forth in Clause 3.6, as relate to the Consultant's Services provided under this Agreement; and (iv) any right or remedy which a Party may have under this Agreement or the Applicable Law.

2.9.4 Cessation of Services

Upon termination of this Agreement by notice of either Party to the other pursuant to Clauses 2.9.1 or 2.9.2 hereof, the Consultant shall, immediately upon dispatch or receipt of such notice, take all necessary steps to bring the Services to a close in a prompt and orderly manner and shall make every reasonable effort to keep expenditures for this purpose to a minimum. With respect to documents prepared by the Consultant and equipment and materials furnished by the Authority, the Consultant shall proceed as provided respectively by Clauses 3.9 or 3.10 hereof.

2.9.5 Payment upon Termination

Upon termination of this Agreement pursuant to Clauses 2.9.1 or 2.9.2 hereof, the Authority shall make the following payments to the Consultant (after offsetting against these payments any amount that may be due from the Consultant to the Authority):

- (i) remuneration pursuant to Clause 6 hereof for Services satisfactorily performed prior to the date of termination;
- (ii) reimbursable expenditures pursuant to Clause 6 hereof for expenditures actually incurred prior to the date of termination; and
- (iii) except in the case of termination pursuant to sub-clauses (a) through (e) of Clause 2.9.1 hereof, reimbursement of any reasonable cost incidental to the prompt and orderly termination of the Agreement including the cost of the return travel of the Consultant's personnel.

2.9.6 Disputes about Events of Termination

If either Party disputes whether an event specified in Clause 2.9.1 or in Clause 2.9.2 hereof has occurred, such Party may, within 30 (thirty) days after receipt of notice of termination from the other Party, refer the matter to arbitration pursuant to Clause 9 hereof, and this Agreement shall not be terminated on account of such event except in accordance with the terms of any resulting arbitral award.

3. OBLIGATIONS OF THE CONSULTANT

3.1 General

3.1.1 Standards of Performance

The Consultant shall perform the Services and carry out its obligations hereunder with all due diligence, efficiency and economy, in accordance with generally accepted professional techniques and practices, and shall observe sound management practices, and employ appropriate advanced technology and safe and effective equipment, machinery, materials and methods. The Consultant shall always act, in respect of any matter relating to this Agreement or to the Services, as a faithful adviser to the Authority, and shall at all times support and safeguard the Authority's legitimate interests in any dealings with Sub-Consultants or Third Parties.

3.1.2 Terms of Reference

The scope of services to be performed by the Consultant is specified in the Terms of Reference (the “**TOR**”) at Annex-1 of this Agreement. The Consultant shall provide the Deliverables specified therein in conformity with the time schedule stated therein.

3.1.3 Applicable Laws

The Consultant shall perform the Services in accordance with the Applicable Laws and shall take all practicable steps to ensure that any Sub-Consultant, as well as the Personnel and agents of the Consultant and any Sub-Consultant, comply with the Applicable Laws.

3.2 Conflict of Interest

3.2.1 The Consultant shall not have a Conflict of Interest and any breach hereof shall constitute a breach of the Agreement.

3.2.2 Consultant and Affiliates not to be otherwise interested in the Project The Consultant agrees that, during the term of this Agreement and after its termination, the Consultant or any Associate thereof and any entity affiliated with the Consultant, as well as any Sub-Consultant and any entity affiliated with such Sub-Consultant, shall be disqualified from providing goods, works, services, loans or equity for any project resulting from or closely related to the Services and any breach of this obligation shall amount to a Conflict of Interest; provided that the restriction herein shall not apply after a period of five years from the completion of this assignment or to consulting assignments granted by banks/ lenders at any time; provided further that this restriction shall not apply to consultancy/ advisory services provided to the Authority in continuation of this Consultancy or to any subsequent consultancy/ advisory services provided to the Authority in accordance with the rules of the Authority. For the avoidance of doubt, an entity affiliated with the Consultant shall include a partner in the Consultant's firm or a person who holds more than 5% (five per cent) of the subscribed and paid up share capital of the Consultant, as the case may be, and any Associate thereof.

3.2.3 Prohibition of conflicting activities

Neither the Consultant nor its Sub-Consultant nor the Personnel of either of them shall engage, either directly or indirectly, in any of the following activities:

- (a) during the term of this Agreement, any business or professional activities which would conflict with the activities assigned to them under this Agreement;
- (b) after the termination of this Agreement, such other activities as may be

specified in the Agreement; or

- (c) at any time, such other activities as have been specified in the RFP as Conflict of Interest.

3.2.4 Consultant not to benefit from commissions, discounts, etc.

The remuneration of the Consultant pursuant to Clause 6 hereof shall constitute the Consultant's sole remuneration in connection with this Agreement or the Services and the Consultant shall not accept for its own benefit any trade commission, discount or similar payment in connection with activities pursuant to this Agreement or to the Services or in the discharge of its obligations hereunder, and the Consultant shall use its best efforts to ensure that any Sub-Consultant, as well as the Personnel and agents of either of them, similarly shall not receive any such additional remuneration.

3.2.5 Consultant and its Personnel shall observe the highest standards of ethics and shall not have engaged in and shall not hereafter engage in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice (collectively the "**Prohibited Practices**"). Notwithstanding anything to the contrary contained in this Agreement, the Authority shall be entitled to terminate this Agreement forthwith by a communication in writing to the Consultant, without being liable in any manner whatsoever to the Consultant, if it determines that the Consultant has, directly or indirectly or through an agent, engaged in any Prohibited Practices in the Selection Process or before or after entering into of this Agreement. In such an event, the Authority shall forfeit and appropriate the performance security, if any, as mutually agreed genuine pre-estimated compensation and damages payable to the Authority towards, *inter alia*, the time, cost and effort of the Authority, without prejudice to the Authority's any other rights or remedy hereunder or in law.

3.2.6 Without prejudice to the rights of the Authority under Clause 3.2.5 above and the other rights and remedies which the Authority may have under this Agreement, if the Consultant is found by the Authority to have directly or indirectly or through an agent, engaged or indulged in any Prohibited Practices, during the Selection Process or before or after the execution of

this Agreement, the Consultant shall not be eligible to participate in any tender or RFP issued during a period of 2 (two) years from the date the Consultant is found by the Authority to have directly or indirectly or through an agent, engaged or indulged in any Prohibited Practices.

3.2.7 For the purposes of Clauses 3.2.5 and 3.2.6, the following terms shall have the meaning hereinafter respectively assigned to them:

- (a) **“corrupt practice”** means the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence the actions of any person connected with the Selection Process (for removal of doubt, offering of employment or employing or engaging in any manner whatsoever, directly or indirectly, any official of the Authority who is or has been associated in any manner, directly or indirectly with Selection Process or LOA or dealing with matters concerning the Agreement before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the Authority, shall be deemed to constitute influencing the actions of a person connected with the Selection Process); or engaging in any manner whatsoever, whether during the Selection Process or after the issue of LOA or after the execution of the Agreement, as the case may be, any person in respect of any matter relating to the Project or the LOA or the Agreement, who at any time has been or is a legal, financial or technical adviser the Authority in relation to any matter concerning the Project;
- (b) **“fraudulent practice”** means a misrepresentation or omission of facts or suppression of facts or disclosure of incomplete facts, in order to influence the Selection Process;
- (c) **“coercive practice”** means impairing or harming, or threatening to impair or harm, directly or indirectly, any person or property to influence any person's participation or action in the Selection Process or the exercise of its rights or performance of its obligations by the Authority under this Agreement;
- (d) **“undesirable practice”** means (i) establishing contact with any person connected with or employed or engaged by the Authority with

the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Selection Process; or (ii) having a Conflict of Interest; and

- (e) “**restrictive practice**” means forming a cartel or arriving at any understanding or arrangement among Applicants with the objective of restricting or manipulating a full and fair competition in the Selection Process.

3.3 Confidentiality

The Consultant, its Sub-Consultants and the Personnel of either of them shall not, either during the term or within two years after the expiration or termination of this Agreement disclose any proprietary information, including information relating to reports, data, drawings, design software or other material, whether written or oral, in electronic or magnetic format, and the contents thereof; and any reports, digests or summaries created or derived from any of the foregoing that is provided by the Authority to the Consultant, its Sub-Consultants and the Personnel; any information provided by or relating to the Authority, its technology, technical processes, business affairs or finances or any information relating to the Authority's employees, officers or other professionals or suppliers, customers, or contractors of the Authority; and any other information which the Consultant is under an obligation to keep confidential in relation to the Project, the Services or this Agreement “**Confidential Information**”), without the prior written consent of the Authority. Notwithstanding the aforesaid, the Consultant, its Sub-Consultants and the Personnel of either of them may disclose Confidential Information to the extent that such Confidential Information:

- (i) was in the public domain prior to its delivery to the Consultant, its Sub-Consultants and the Personnel of either of them or becomes a part of the public knowledge from a source other than the Consultant, its Sub-Consultants and the Personnel of either of them;
- (ii) was obtained from a third party with no known duty to maintain its confidentiality;
- (iii) is required to be disclosed by Applicable Laws or judicial or administrative or arbitral process or by any governmental instrumentalities, provided that for any such disclosure, the Consultant, its Sub-Consultants and the Personnel of either of them

shall give the Authority, prompt written notice, and use reasonable efforts to ensure that such disclosure is accorded confidential treatment; and

- (iv) is provided to the professional advisers, agents, auditors or representatives of the Consultant or its Sub-Consultants or Personnel of either of them, as is reasonable under the circumstances; provided, however, that the Consultant or its Sub-Consultants or Personnel of either of them, as the case may be, shall require their professional advisers, agents, auditors or its representatives, to undertake in writing to keep such Confidential Information, confidential and shall use its best efforts to ensure compliance with such undertaking.

3.4 Liability of the Consultant

3.4.1 The Consultant's liability under this Agreement shall be determined by the Applicable Laws and the provisions hereof.

3.4.2 Consultant's liability towards the Authority

The Consultant shall, subject to the limitation specified in Clause 3.4.3, be liable to the Authority for any direct loss or damage accrued or likely to accrue due to deficiency in Services rendered by it.

3.4.3 The Parties hereto agree that in case of negligence or wilful misconduct on the part of the Consultant or on the part of any person or firm acting on behalf of the Consultant in carrying out the Services, the Consultant, with respect to damage caused to the Authority's property, shall not be liable to the Authority:

- (i) for any indirect or consequential loss or damage; and
- (ii) for any direct loss or damage that exceeds (a) the Agreement Value set forth in Clause 6.1.2 of this Agreement, or (b) the proceeds the Consultant may be entitled to receive from any insurance maintained by the Consultant to cover such a liability in accordance with Clause 3.5.2, whichever of (a) or (b) is higher.

3.4.4 This limitation of liability specified in Clause 3.4.3 shall not affect the Consultant's liability, if any, for damage to Third Parties caused by the Consultant or any person or firm acting on behalf of the Consultant in carrying out the Services subject, however, to a limit equal to **3 (three) times** the Agreement Value.

3.5 Insurance to be taken out by the Consultant

- 3.5.1 (a) The Consultant shall, for the duration of this Agreement, take out and maintain, and shall cause any Sub-Consultant to take out and maintain, at its (or the Sub-Consultant's, as the case may be) own cost, but on terms and conditions approved by the Authority, insurance against the risks, and for the coverages, as specified in the Agreement and in accordance with good industry practice.
- (b) Within 15 (fifteen) days of receiving any insurance policy certificate in respect of insurances required to be obtained and maintained under this clause, the Consultant shall furnish to the Authority, copies of such policy certificates, copies of the insurance policies and evidence that the insurance premia have been paid in respect of such insurance. No insurance shall be cancelled, modified or allowed to expire or lapse during the term of this Agreement.
- (c) If the Consultant fails to effect and keep in force the aforesaid insurances for which it is responsible pursuant hereto, the Authority shall, apart from having other recourse available under this Agreement, have the option, without prejudice to the obligations of the Consultant, to take out the aforesaid insurance, to keep in force any such insurances, and pay such premia and recover the costs thereof from the Consultant, and the Consultant shall be liable to pay such amounts on demand by the Authority.
- (d) Except in case of Third Party liabilities, the insurance policies so procured shall mention the Authority as the beneficiary of the Consultant and the Consultant shall procure an undertaking from the insurance company to this effect; provided that in the event the

Consultant has a general insurance policy that covers the risks specified in this Agreement and the amount of insurance cover is equivalent to 3 (three) times the cover required hereunder, such insurance policy may not mention the Authority as the sole beneficiary of the Consultant or require an undertaking to that effect.

3.5.2 The Parties agree that the risks and coverage shall include but not be limited to the following:

- (a) Third Party liability insurance as required under Applicable Laws, with a minimum coverage of **Rs. 50 lakhs**
- (b) Employer's liability and workers' compensation insurance in respect of the Personnel of the Consultant and of any Sub-Consultant, in accordance with Applicable Laws; and
- (c) Professional liability insurance for an amount no less than the Agreement Value.

The indemnity limit in terms of "**Any One Accident**" (AOA) and "**Aggregate limit on the policy period**" (AOP) should not be less than the amount stated in Clause 6.1.2 of the Agreement. In case of consortium, the policy should be in the name of Lead Member and not in the name of individual Members of the consortium.

3.6 Accounting, inspection and auditing

The Consultant shall:

- (a) keep accurate and systematic accounts and records in respect of the Services provided under this Agreement, in accordance with internationally accepted accounting principles and in such form and detail as will clearly identify all relevant time charges and cost, and the basis thereof (including the basis of the Consultant's costs and charges); and
- (b) permit the Authority or its designated representative periodically, and up to one year from the expiration or termination of this Agreement, to inspect the same and make copies thereof as well as to have them audited by auditors appointed by the Authority.

3.7 Consultant's actions requiring the Authority's prior approval

The Consultant shall obtain the Authority's prior approval in

writing before taking any of the following actions:

- (a) appointing such members of the Professional Personnel as are not listed in Annex-2.
- (b) entering into a subcontract for the performance of any part of the Services, it being understood (i) that the selection of the Sub-Consultant and the terms and conditions of the subcontract shall have been approved in writing by the Authority prior to the execution of the subcontract, and (ii) that the Consultant shall remain fully liable for the performance of the Services by the Sub-Consultant and its Personnel pursuant to this Agreement; or
- (c) any other action that is specified in this Agreement.

3.8 Reporting obligations

The Consultant shall submit to the Authority the reports specified in the Agreement, in the form, in the numbers and within the time periods set forth therein.

3.9 Documents prepared by the Consultant to be property of the Authority

3.9.1 All plans, drawings, specifications, designs, reports and other documents (collectively referred to as “**Consultancy Documents**”) prepared by the Consultant (or by the Sub-Consultants or any Third Party) in performing the Services shall become and remain the property of the Authority, and all intellectual property rights in such Consultancy Documents shall vest with the Authority. Any Consultancy Document, of which the ownership or the intellectual property rights do not vest with the Authority under law, shall automatically stand assigned to the Authority as and when such Consultancy Document is created and the Consultant agrees to execute all papers and to perform such other acts as the Authority may deem necessary to secure its rights herein assigned by the Consultant.

3.9.2 The Consultant shall, not later than termination or expiration of this Agreement, deliver all Consultancy Documents to the Authority, together with a detailed inventory thereof. The Consultant may retain a copy of such Consultancy Documents. The Consultant, its Sub-Consultants or a Third Party shall not use these Consultancy Documents for purposes unrelated to this Agreement without the prior written approval of the Authority.

3.9.3 The Consultant shall hold the Authority harmless and indemnified for any losses, claims, damages, expenses (including all legal expenses), awards, penalties or injuries (collectively referred to as ‘claims’) which may arise

from or due to any unauthorized use of such Consultancy Documents, or due to any breach or failure on part of the Consultant or its Sub-Consultants or a Third Party to perform any of its duties or obligations in relation to securing the aforementioned rights of the Authority.

3.10 Equipment and materials furnished by the Authority

Equipment and materials made available to the Consultant by the Authority shall be the property of the Authority and shall be marked accordingly. Upon termination or expiration of this Agreement, the Consultant shall furnish forthwith to the Authority, an inventory of such equipment and materials and shall dispose of such equipment and materials in accordance with the instructions of the Authority. While in possession of such equipment and materials, the Consultant shall, unless otherwise instructed by the Authority in writing, insure them in an amount equal to their full replacement value.

3.11 Providing access to Project Office and Personnel

The Consultant shall ensure that the Authority, and officials of the Authority having authority from the Authority, are provided unrestricted access to the Project Office and to all Personnel during office hours. The Authority's official, who has been authorized by the Authority in this behalf, shall have the right to inspect the Services in progress, interact with Personnel of the Consultant and verify the records relating to the Services for his satisfaction.

3.12. Accuracy of Documents

The Consultant shall be responsible for accuracy of the data collected by it directly or procured from other agencies/authorities, the designs, drawings, estimates and all other details prepared by it as part of these services. Subject to the provisions of Clause 3.4, it shall indemnify the Authority against any inaccuracy in its work which might surface during implementation of the Project, if such inaccuracy is the result of any negligence or inadequate due diligence on part of the Consultant or arises out of its failure to conform to good industry practice. The Consultant shall also be responsible for promptly correcting, at its own cost and risk, the drawings including any re-survey / investigations.

4. CONSULTANT'S PERSONNEL AND SUB-CONSULTANTS

4.1 General

The Consultant shall employ and provide such qualified and experienced Personnel as may be required to carry out the Services.

4.2 Deployment of Personnel

4.2.1 The designations, names and the estimated periods of engagement in carrying out the Services by each of the Consultant's Personnel are described in Annex-2 of this Agreement.

4.2.2 Adjustments with respect to the estimated periods of engagement of Personnel set forth in the aforementioned Annex-2 may be made by the Consultant by written notice to the Authority, provided that: (i) such adjustments shall not alter the originally estimated period of engagement of any individual by more than **20% (twenty per cent) or one week, whichever is greater**, and (ii) the aggregate of such adjustments shall not cause payments under the Agreement to exceed the Agreement Value set forth in Clause 6.1.2 of this Agreement. Any other adjustments shall only be made with the written approval of the Authority.

4.2.3 If additional work is required beyond the scope of the Services specified in the Terms of Reference, the estimated periods of engagement of Personnel, set forth in the Annexes of the Agreement may be increased by agreement in writing between the Authority and the Consultant, provided that any such increase shall not, except as otherwise agreed, cause payments under this Agreement to exceed the Agreement Value set forth in Clause 6.1.2.

4.3 Approval of Personnel

4.3.1 The Professional Personnel listed in Annex-2 of the Agreement are hereby approved by the Authority. No other Professional Personnel shall be engaged without prior approval of the Authority.

4.3.2 If the Consultant hereafter proposes to engage any person as Professional Personnel, it shall submit to the Authority its proposal along with a CV of such person in the form provided at Appendix-I (Form-7c) of the RFP. The Authority may approve or reject such proposal within 14 (fourteen) days of receipt thereof. In case the proposal is rejected, the Consultant may propose an alternative person for the Authority's consideration. In the event the Authority does not reject a proposal within 14 (fourteen) days of the date of receipt thereof under this Clause 4.3, it shall be deemed to have been approved by the Authority.

4.4 Substitution of Key Personnel

The Authority expects all the Key Personnel specified in the Proposal to be available during implementation of the Agreement. The Authority will not consider any substitution of Key Personnel except under compelling circumstances beyond the control of the Consultant and the concerned Key Personnel. Such substitution shall be limited to not more than two Key Personnel subject to equally or better qualified and experienced personnel being provided to the satisfaction of the Authority. Without prejudice to the foregoing, substitution of one Key Personnel shall be permitted subject to reduction of remuneration equal to **20% (twenty per cent)** of the total remuneration specified for the Key Personnel who is proposed to be substituted. In case of a second substitution, such reduction shall be equal to **50% (fifty per cent)** of the total remuneration specified for the Key Personnel who is proposed to be substituted.

4.5 Working hours, overtime, leave, etc.

The Personnel shall not be entitled to be paid for overtime nor to take paid sick leave or vacation leave except as specified in the Agreement, and the Consultant's remuneration shall be deemed to cover these items. All leave to be allowed to the Personnel is excluded from the mandays of service set forth in Annex-2. Any taking of leave by any Personnel for a period exceeding 7 (seven) days shall be subject to the prior approval of the Authority, and the Consultant shall ensure that any absence on leave will not delay the progress and quality of the Services.

4.6 Team Leader/ Project Manager

The person designated as the Team Leader of the Consultant's Personnel shall be responsible for the coordinated, timely and efficient functioning of the Personnel. The Civil Engineer cum Resident Engineer shall be responsible for the day to day performance of the Services.

Monthly meeting will be held to review the overall progress and way forward and it is mandatory for Team Leader to attend with relevant team at the venue of SMPK, as instructed by the Engineer in charge or his representative.

4.7 Sub-Consultants

Sub-Consultants listed in Annex-4 of this Agreement are hereby approved by the Authority. The Consultant may, with prior written approval of the Authority, engage additional Sub-Consultants or substitute an existing Sub-Consultant. The hiring of Personnel by the Sub-Consultants shall be subject to the same conditions as applicable to Personnel of the Consultant under this Clause 4.

The credentials of the sub-consultant will not be considered for eligibility of applicants.

5. OBLIGATIONS OF THE AUTHORITY

5.1 Assistance in clearances etc.

Unless otherwise specified in the Agreement, the Authority shall make best efforts to ensure that the Government shall:

- (a) provide the Consultant, its Sub-Consultants and Personnel with work permits and such other documents as may be necessary to enable the Consultant, its Sub-Consultants or Personnel to perform the Services;
- (b) facilitate prompt clearance through customs of any property required for the Services; and
- (c) issue to officials, agents and representatives of the Government all such instructions as may be necessary or appropriate for the prompt and effective implementation of the Services.

5.2 Access to land and property

The Authority warrants that the Consultant shall have, free of charge, unimpeded access to the site of the project in respect of which access is required for the performance of Services; provided that if such access shall not be made available to the Consultant as and when so required, the Parties shall agree on (i) the time extension, as may be appropriate, for the performance of Services, and (ii) the additional payments, if any, to be made to the Consultant as a result thereof pursuant to Clause 6.1.3.

5.3 Change in Applicable Law

If, after the date of this Agreement, there is any change in the Applicable Laws with respect to taxes and duties which increases or decreases the cost or reimbursable expenses incurred by the Consultant in performing the Services, by an amount exceeding **2% (two per cent)** of

the Agreement Value specified in Clause 6.1.2, then the remuneration and reimbursable expenses otherwise payable to the Consultant under this Agreement shall be increased or decreased accordingly by agreement between the Parties hereto, and corresponding adjustments shall be made to the aforesaid Agreement Value.

5.4 Payment

In consideration of the Services performed by the Consultant under this Agreement, the Authority shall make to the Consultant such payments and in such manner as is provided in Clause 6 of this Agreement.

6. PAYMENT TO THE CONSULTANT

6.1 Cost estimates and Agreement Value

6.1.1 An abstract of the cost of the Services payable to the Consultant is set forth in Annex-5 of the Agreement Schedule - 1.

6.1.2 Except as may be otherwise agreed under Clause 2.6 and subject to Clause 6.1.3, the payments under this Agreement shall not exceed the agreement value specified herein (the "**Agreement Value**").

6.1.3 Notwithstanding anything to the contrary contained in Clause 6.1.2, if pursuant to the provisions of Clauses 2.6 and 2.7, the Parties agree that additional payments shall be made to the Consultant in order to cover any additional expenditures not envisaged in the cost estimates referred to in Clause 6.1.1 above, the Agreement Value set forth in Clause 6.1.2 above shall be increased by the amount or amounts, as the case may be, of any such additional payments.

6.2 Currency of payment

All payments shall be made in Indian Rupees. The Consultant shall be free to convert Rupees into any foreign currency as per Applicable Laws.

6.3 Mode of billing and payment

Billing and payments in respect of the Services shall be made as follows:

- a. No Mobilisation Advance shall be paid.
- b. The Consultant shall be paid for its services as per the Payment Schedule at Annex-6 of this Agreement, subject to the Consultant fulfilling the following conditions:
 - i) No payment shall be due for the next stage till the Consultant completes, to the satisfaction of the Authority, the work pertaining to the preceding stage.
 - ii) The Authority shall pay to the Consultant, only the undisputed amount.

- c. The Authority shall cause the payment due to the Consultant to be made within 30 (thirty) days after the receipt by the Authority of duly completed bills with necessary particulars (the “Due Date”).
- d. The final payment under this Clause shall be made only after the successful commissioning of the project facilities and certification of completion and a final statement, identified as such, shall have been submitted by the Consultant and approved as satisfactory by the Authority. The Services shall be deemed completed and finally accepted by the Authority only after the completion of operation phase of 6 (six) months on issue of completion certificate. The final bill payment shall be made within 45 days of receipt of the bill by the Authority, provided there is no dispute.
- e. Any amount which the Authority has paid or caused to be paid in excess of the amounts actually payable in accordance with the provisions of this Agreement shall be reimbursed by the Consultant to the Authority within 30 (thirty) days after receipt by the Consultant of notice thereof. Any such claim by the Authority for reimbursement must be made within 1 (one) year after receipt by the Authority of a final report and a final statement in accordance with Clause 6.3 (d).
- f. 10% (Ten per cent) of the Agreement Value will be withheld on each payment made as per Annex – 6. This has been earmarked as Final Payment to be made to the Consultant upon expiry of 6 months from the date of commercial operation of the Project, **by the Concessionaire**.
- g. All payments under this Agreement shall be made to the account of the Consultant as may be notified to the Authority by the Consultant.

7. LIQUIDATED DAMAGES AND PENALTIES

7.1 Performance Security

7.1.1 The Authority shall retain by way of performance security (the “Performance Security”), **5% (five per cent)** of all the amounts due and payable to the Consultant, to be appropriated against breach of this Agreement or for recovery of liquidated damages as specified in Clause 7.2 herein. The balance remaining out of the Performance Security shall be returned to the Consultant at the end of **3 (three) months** after the expiration of this Agreement pursuant to Clause 2.4 hereof.

7.1.2 The Consultant may, in lieu of retention of the amounts as referred to in Clause 7.1.1 above, furnish a Bank Guarantee substantially in the form specified at Annex-7 of this Agreement.

7.2 Liquidated Damages

7.2.1 Liquidated Damages for error/variation

In case any error or variation is detected in the reports submitted by the Consultant and such error or variation is the result of negligence or lack of

due diligence on the part of the Consultant, the consequential damages thereof shall be quantified by the Authority in a reasonable manner and recovered from the Consultant by way of deemed liquidated damages, subject to a maximum of **50%** (fifty per cent) of the Agreement Value and a Corporate Guarantee in this regard as per the format prescribed by KPL shall be submitted by the Selected firm.

7.2.2 Liquidated Damages for delay

In case of delay in completion of Services, liquidated damages not exceeding an amount equal to **0.5% (zero point five per cent)** of the Agreement Value per day, subject to a **maximum of 10% (ten per cent)** of the Agreement Value will be imposed and shall be recovered by appropriation from the Performance Security or otherwise. However, in case of delay due to reasons beyond the control of the Consultant, suitable extension of time shall be granted.

7.2.3 Encashment and appropriation of Performance Security

The Authority shall have the right to invoke and appropriate the proceeds of the Performance Security, in whole or in part, without notice to the Consultant in the event of breach of this Agreement or for recovery of liquidated damages specified in this Clause 7.2.

7.3 Penalty for deficiency in Services

In addition to the liquidated damages not amounting to penalty, as specified in Clause 7.2, warning may be issued to the Consultant for minor deficiencies on its part. In the case of significant deficiencies in Services causing adverse effect on the Project or on the reputation of the Authority, other penal action including debarring for a specified period may also be initiated as per policy of the Authority.

8. FAIRNESS AND GOOD FAITH

8.1 Good Faith

The Parties undertake to act in good faith with respect to each other's rights under this Agreement and to adopt all reasonable measures to ensure the realization of the objectives of this Agreement.

8.2 Operation of the Agreement

The Parties recognize that it is impractical in this Agreement to provide for every contingency which may arise during the life of the Agreement, and the Parties hereby agree that it is their intention that

this Agreement shall operate fairly as between them, and without detriment to the interest of either of them, and that, if during the term of this Agreement either Party believes that this Agreement is operating unfairly, the Parties will use their best efforts to agree on such action as may be necessary to remove the cause or causes of such unfairness, but failure to agree on any action pursuant to this Clause shall not give rise to a dispute subject to arbitration in accordance with Clause 9 hereof.

9. SETTLEMENT OF DISPUTES

9.1 Amicable settlement

The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Agreement or the interpretation thereof.

9.2 Dispute resolution

9.2.1 Any dispute, difference or controversy of whatever nature howsoever arising under or out of or in relation to this Agreement (including its interpretation) between the Parties, and so notified in writing by either Party to the other Party (the “**Dispute**”) shall, in the first instance, be attempted to be resolved amicably in accordance with the conciliation procedure set forth in Clause 9.3.

9.2.2 The Parties agree to use their best efforts for resolving all Disputes arising under or in respect of this Agreement promptly, equitably and in good faith, and further agree to provide each other with reasonable access during normal business hours to all non- privileged records, information and data pertaining to any Dispute.

9.3 Conciliation

In the event of any Dispute between the Parties, either Party may call upon Chairman of Visakhapatnam Port and the Chairman of the Board of Directors of the Consultant or a substitute thereof for amicable settlement, and upon such reference, the said persons shall meet no later than 10 (ten) days from the date of reference to discuss and attempt to amicably resolve the Dispute. If such meeting does not take place within the 10 (ten) day period or the Dispute is not amicably settled within 15 (fifteen) days of the meeting or the Dispute is not resolved as evidenced by the signing of written terms of settlement within 30 (thirty) days of the notice in writing referred to in Clause 9.2.1 or such longer period as may be mutually agreed by the Parties, either Party may refer the Dispute to arbitration in accordance with the provisions of Clause 9.4.

9.4 Arbitration

9.4.1 Any Dispute which is not resolved amicably by conciliation, as provided in

Clause 9.3, shall be finally decided by reference to arbitration by an Arbitral Tribunal appointed in accordance with Clause 9.4.2. Such arbitration shall be held in accordance with the Rules of Arbitration of the International Centre for Alternative Dispute Resolution, New Delhi (the "Rules"), or such other rules as may be mutually agreed by the Parties, and shall be subject to the provisions of the Arbitration and Conciliation Act, 1996. The venue of such arbitration shall be Kolkata and the language of arbitration proceedings shall be English.

- 9.4.2 There shall be an Arbitral Tribunal of three arbitrators, of whom each Party shall select one, and the third arbitrator shall be appointed by the two arbitrators so selected, and in the event of disagreement between the two arbitrators, the appointment shall be made in accordance with the Rules.
- 9.4.3 The arbitrators shall make a reasoned award (the "**Award**"). Any Award made in any arbitration held pursuant to this Clause 9 shall be final and binding on the Parties as from the date it is made, and the Consultant and the Authority agree and undertake to carry out such Award without delay.
- 9.4.4 The Consultant and the Authority agree that an Award may be enforced against the Consultant and/or the Authority, as the case may be, and their respective assets wherever situated.
- 9.4.5 This Agreement and the rights and obligations of the Parties shall remain in full force and effect, pending the Award in any arbitration proceedings hereunder.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be signed in their respective names as of the day and year first above written.

SIGNED, SEALED AND DELIVERED
DELIVERED For and on behalf of

Consultant:

(Signature)
(Name)
(Designation)
(Designation) (Address)
(Fax No.)

SIGNED, SEALED AND
For and on behalf of

Authority

(Signature)
(Name)

(Address)
(Fax No.)

In the presence of:

- 1.
- 2.

Annex-1
Terms of Reference
As of Section 7 of this RFP

Annex-2

Deployment of Personnel

(Reproduce as per Form-9 of Appendix-I)

Annex-3
Estimate of Personnel Costs
(Deleted)

Annex-4

Approved Sub-Consultant (s)
(Reproduce as per Form-10 of Appendix-I)

Annex-5

Cost of Services

(Reproduce as per Form-2 of Appendix-II)

Annex-6**Payment Schedule****(Refer Clause 6.3 of Agreement)****Stages of payment for the services are as under:**

Sl. No.	Description of services	Payment						
1.	Review of the Designs and drawings of the project & approval	25% of amount quoted in BOQ-1						
2.	Review of construction methodology, quality assurance procedures, procurement, and engineering and construction time schedule submitted by the concessionaire.	25% of amount quoted in BOQ-1						
3.	Review and recommendation of the Operation and Maintenance plan prepared by the Concessionaire	10% of amount quoted in BOQ-1						
4.	Verification of the Documents on Manufacture and delivery of the Handling Equipment as submitted by the Concessionaire.	10% of amount quoted in BOQ-1						
5.	After issue of completion certificate for the Project by IE to the Concessionaire.	20% of amount quoted in BOQ-1						
6.	Vetting of As-built drawings by the Independent Engineer, Completion of work and issue of completion certificate by the SMPA, Kolkata to the IE for the project.	10% of amount quoted in BOQ-1						
7.	Pro-rata monthly payment for the services of Inspection of the Construction as per TOR during Construction Phase. For the purpose of payment, the man-month rates indicated in the BOQ-2 will be considered.	<div>For the purpose of evaluation, the deployment of key personnel will be considered as follows:</div> <table><tr><th>Key Personnel</th><th>Man-Month</th></tr><tr><td>Port Engineer cum Team Leader</td><td>To be filled by the bidder</td></tr><tr><td>Mechanical Engineer</td><td>To be filled by the bidder</td></tr></table>	Key Personnel	Man-Month	Port Engineer cum Team Leader	To be filled by the bidder	Mechanical Engineer	To be filled by the bidder
Key Personnel	Man-Month							
Port Engineer cum Team Leader	To be filled by the bidder							
Mechanical Engineer	To be filled by the bidder							

		Civil Engineer	To be filled by the bidder
		Electrical Engineer	To be filled by the bidder
		Geotechnical Engineer/Dredging Expert	To be filled by the bidder
		Environmental Expert	To be filled by the bidder
		Legal and Financial expert	To be filled by the bidder

NOTE:

(i) All the payments under this contract will be made only in Indian Rupees. The fees / price may be quoted in Indian Rupees only. The IE shall be paid for the services rendered as per the TOR as per payment schedule given above.

(ii) The GST as applicable from time to time will be reimbursed on production of documentary evidence.

(iii) **10% (Ten per cent)** of the Agreement Value will be withheld on each payment. This has been earmarked as Final Payment to be made to the Consultant upon expiry of **6 months** from the date of commercial operation of the Project, by the Concessionaire as per Clause 6.3 (f) of Schedule.

Annex-7

Bank Guarantee for Performance Security

(Refer Clause 7.1.2 of Section-7)

To

Chief Engineer,

2nd Floor,

15, Strand Road, Kolkata,

Syama Prasad Mookerjee Port

Kolkata, West-Bengal, Pin -700001

In consideration of Syamaprasad Mookerjee (hereinafter referred as the “Authority”, which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators and assigns) having awarded to M/s having its office at (hereinafter referred as the “Consultant” which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns), vide the Authority’s Agreement no. Dated valued at Rs. (Rupees), (hereinafter referred to as the “Agreement”) Independent Engineer for the Project **“REJUVENATION OF KIDDERPORE DOCKS (KPD-1 WEST) THROUGH PPP MODE ON DESIGN, BUILD, FINANCE, OPERATE AND TRANSFER (DBFOT) BASIS AT SYAMA PRASAD MOOKERJEE PORT, KOLKATA”** and the Consultant having agreed to furnish a Bank Guarantee amounting to Rs. (Rupees) to the Authority for performance of the said Agreement.

1. We, (hereinafter referred to as the “Bank”) at the request of the Consultant do hereby undertake to pay to the Authority an amount not exceeding Rs. (Rupees) against any loss or damage caused to or suffered or would be caused to or suffered by the Authority by reason of any breach by the said Consultant of any of the terms or conditions contained in the said Agreement.
2. We, (indicate the name of the Bank) do hereby undertake to pay the amounts due and payable under this Guarantee without any demur,

merely on a demand from the Authority stating that the amount/claimed is due by way of loss or damage caused to or would be caused to or suffered by the Authority by reason of breach by the said Consultant of any of the terms or conditions contained in the said Agreement or by reason of the Consultant's failure to perform the said Agreement. Any such demand made on the bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs. (Rupees).

3. We, (indicate the name of Bank) undertake to pay to the Authority any money so demanded notwithstanding any dispute or disputes raised by the Consultant in any suit or proceeding pending before any court or tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment thereunder and the Consultant shall have no claim against us for making such payment.
4. We, (indicate the name of Bank) further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the Authority under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till the Authority certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Consultant and accordingly discharges this Guarantee. Unless a demand or claim under this Guarantee is made on us in writing on or before a period of one year from the date of this Guarantee, we shall be discharged from all liability under this Guarantee thereafter.
5. We, (indicate the name of Bank) further agree with the Authority that the Authority shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said Consultant from time to time or to postpone for any time or from time to time any of the powers exercisable by the Authority against the said Consultant and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our

liability by reason of any such variation, or extension being granted to the said Consultant or for any forbearance, act or omission on the part of the Authority or any indulgence by the Authority to the said Consultant or any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have the effect of so relieving us.

6. This Guarantee will not be discharged due to the change in the constitution of the Bank or the Consultant(s).
7. We, (indicate the name of Bank) lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the Authority in writing.
8. For the avoidance of doubt, the Bank's liability under this Guarantee shall be restricted to Rs. *** crore (Rupees ***** crore) only. The Bank shall be liable to pay the said amount or any part thereof only if the Authority serves a written claim on the Bank in accordance with paragraph 2 hereof, on or before [*** (indicate date falling 180 days after the date of this Guarantee)].

For

.....

Name of Bank:

Seal of the Bank:

Dated, the day of, 20

(Signature, name and designation of the authorised signatory)

NOTES:

- (i) The Bank Guarantee should contain the name, designation and code number of the officer(s) signing the Guarantee.
- (ii) The address, telephone no. and other details of the Head Office of the Bank as well as of issuing Branch should be mentioned on the covering letter of issuing Branch.

SCHEDULE- 1

(See Clause 2.3.3 of Instructions to Applicants)

Guidance Note on Conflict of Interest

1. This Note further explains and illustrates the provisions of Clause 2.3 of the RFP and shall be read together therewith in dealing with specific cases.
2. Consultants should be deemed to be in a conflict of interest situation if it can be reasonably concluded that their position in a business or their personal interest could improperly influence their judgment in the exercise of their duties. The process for selection of consultants should avoid both actual and perceived conflict of interest.
3. Conflict of interest may arise between the Authority and a consultant or between consultants and present or future concessionaries/ contractors. Some of the situations that would involve conflict of interest are identified below:
 - (a) Authority and consultants:
 - (i) Potential consultant should not be privy to information from the Authority which is not available to others; or
 - (ii) Potential consultant should not have defined the project when earlier working for the Authority; or
 - (iii) Potential consultant should not have recently worked for the Authority overseeing the project.
 - (b) Consultants and concessionaries/contractors:
 - (i) No consultant should have an ownership interest or a continuing business interest or an on-going relationship with a potential concessionaire / contractor save and except relationships restricted to project-specific and short-term assignments; or
 - (ii) no consultant should be involved in owning or operating entities resulting from the project; or
 - (iii) no consultant should bid for works arising from the project.

The participation of companies that may be involved as investors or consumers and

officials of the Authority who have current or recent connections to the companies involved, therefore, needs to be avoided.

4. The normal way to identify conflicts of interest is through self-declaration by consultants. Where a conflict exists, which has not been declared, competing companies are likely to bring this to the notice of the Authority. All conflicts must be declared as and when the consultants become aware of them.
5. Another approach towards avoiding a conflict of interest is through the use of “Chinese walls” to avoid the flow of commercially sensitive information from one part of the consultant’s company to another. This could help overcome the problem of availability of limited numbers of experts for the project. However, in reality effective operation of “Chinese walls” may be a difficult proposition. As a general rule, larger companies will be more capable of adopting Chinese walls approach than smaller companies. Although, “Chinese walls” have been relatively common for many years, they are an increasingly discredited means of avoiding conflicts of interest and should be considered with caution. As a rule, “Chinese walls” should be considered as unacceptable and may be accepted only in exceptional cases upon full disclosure by a consultant coupled with provision of safeguards to the satisfaction of the Authority.
6. Another way to avoid conflicts of interest is through the appropriate grouping of tasks. For example, conflicts may arise if consultants drawing up the terms of reference or the proposed documentation are also eligible for the consequent assignment or project.
7. Another form of conflict of interest called “scope–creep” arises when consultants advocate either an unnecessary broadening of the terms of reference or make recommendations which are not in the best interests of the Authority but which will generate further work for the consultants. Some forms of contractual arrangements are more likely to lead to scope-creep. For example, lump-sum contracts provide fewer incentives for this, while time and material contracts provide built in incentives for consultants to extend the length of their assignment.
8. Every project contains potential conflicts of interest. Consultants should not only avoid any conflict of interest, they should report any present/ potential conflict of interest to the Authority at the earliest. Officials of the Authority involved in development of a project shall be responsible for identifying and resolving any conflicts of interest. It should be ensured that safeguards are in place to preserve fair and open competition and measures should be taken to eliminate any conflict of interest arising at any stage in the process.

APPENDICES

APPENDIX-I

(See Clause 2.1.3 of Instructions to Applicants)

TECHNICAL PROPOSAL

Form-1

Bid submission Letter

(On Applicant's letter head)

Ref No. _____

Date: _____

To

Chief Engineer,

2nd Floor,

15, Strand Road, Kolkata,

Syama Prasad Mookerjee Port

Kolkata, West-Bengal, Pin -700001

Sub: Independent Engineer for engineering consultancy services for the Project
**"REJUVENATION OF KIDDERPORE DOCKS (KPD-1 WEST)
THROUGH PPP MODE ON DESIGN, BUILD, FINANCE, OPERATE
AND TRANSFER (DBFOT) BASIS AT SYAMA PRASAD MOOKERJEE
PORT, KOLKATA"** regarding

Dear Sir,

1. With reference to your RFP Document dated, I/we, having examined all relevant documents and understood their contents, hereby submit our Proposal for selection as Independent Engineer for the Project **"REJUVENATION OF KIDDERPORE DOCKS (KPD-1 WEST) THROUGH PPP MODE ON DESIGN, BUILD, FINANCE, OPERATE AND TRANSFER (DBFOT) BASIS AT SYAMA PRASAD MOOKERJEE PORT, KOLKATA"** The proposal is unconditional and unqualified.
2. All information provided in the Proposal and in the Appendices is true and correct and all documents accompanying such Proposal are true copies of their respective originals.
3. This statement is made for the express purpose of appointment as the Consultant for the aforesaid Project.

4. I/We shall make available to the Authority any additional information it may deem necessary or require for supplementing or authenticating the Proposal.
5. I/We acknowledge the right of the Authority to reject our application without assigning any reason or otherwise and hereby waive our right to challenge the same on any account whatsoever.
6. I/We certify that in the last three years, we or any of our Associates have neither failed
to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial authority or a judicial pronouncement or arbitration award against the Applicant, nor been expelled from any project or contract by any public authority nor have had any contract terminated by any public authority for breach on our part.
7. I/We declare that:
 - (a) I/We have examined and have no reservations to the RFP Documents, including any Addendum issued by the Authority;
 - (b) I/We do not have any conflict of interest in accordance with Clause 2.3 of the RFP Document;
 - (c) I/We have not directly or indirectly or through an agent engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as defined in Clause 4.3 of the RFP document, in respect of any tender or request for proposal issued by or any agreement entered into with the Authority or any other public sector enterprise or any government, Central or State; and
 - (d) I/We hereby certify that we have taken steps to ensure that in conformity with the provisions of Section 4 of the RFP, no person acting for us or on our behalf will engage in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice.
8. I/We understand that you may cancel the Selection Process at any time and that you are neither bound to accept any Proposal that you may receive nor to select the Consultant, without incurring any liability to the Applicants in accordance with Clause 2.8 of the RFP document.

9. I/We declare that we/any member of the consortium, are/is not a Member of a/any other Consortium applying for Selection as a Consultant.
10. I/We certify that in regard to matters other than security and integrity of the country, we or any of our Associates have not been convicted by a Court of Law or indicted or adverse orders passed by a regulatory authority which would cast a doubt on our ability to undertake the Consultancy for the Project or which relates to a grave offence that outrages the moral sense of the community.
11. I/We further certify that in regard to matters relating to security and integrity of the country, we have not been charge-sheeted by any agency of the Government or convicted by a Court of Law for any offence committed by us or by any of our Associates.
12. I/We further certify that no investigation by a regulatory authority is pending either against us or against our Associates or against our CEO or any of our Directors/Managers/ employees.
13. I/We hereby irrevocably waive any right or remedy which we may have at any stage at law or howsoever otherwise arising to challenge or question any decision taken by the Authority and/ or the Government of India in connection with the selection of Consultant or in connection with the Selection Process itself in respect of the above mentioned Project.
14. The Bid Security of **Rs.1,91,320/- (Rupees One Lakh Ninety-One Thousand Three Hundred Twenty Only)** in the form of a Demand Draft is attached, in accordance with the RFP document.
15. I / We agree and understand that the proposal is subject to the provisions of the RFP document. In no case, shall I/we have any claim or right of whatsoever nature if the Consultancy for the Project is not awarded to me/us or our proposal is not opened or rejected or I/We are not short-listed or invited for second stage for submission of Financial Proposal.
16. I/We agree to keep this offer valid for 180 (One Hundred Eighty) days from the Proposal Due Date specified in the RFP.
17. A Power of Attorney in favour of the authorized signatory to sign and submit this Proposal and documents is attached herewith in Form 4.
18. In the event of my/our firm/ consortium being selected as the Consultant, I/we agree to enter into an Agreement in accordance with the form at Schedule–2 of the RFP. We agree not to seek any changes in

the aforesaid form and agree to abide by the same.

19. I/We have studied RFP and all other documents carefully and also surveyed the Project site. We understand that except to the extent as expressly set forth in the Agreement, we shall have no claim, right or title arising out of any documents or information provided to us by the Authority or in respect of any matter arising out of or concerning or relating to the Selection Process including the award of Consultancy.
20. The Financial Proposal is being submitted in a separate cover. This Technical Proposal read with the Financial Proposal shall constitute the Application which shall be binding on us.
21. I/We agree and undertake to abide by all the terms and conditions of the RFP Document. In witness thereof, I/we submit this Proposal under and in accordance with the terms of the RFP Document.

Yours

Faithfully,

(Signature, name and designation of the authorized signatory) (Name and seal of the Applicant/ Lead Member)

APPENDIX – I**FORM 2****PARTICULARS OF THE APPLICANT**

SL. No.	Particulars
1.	<p>Title of Consultancy:</p> <p>INDEPENDENT ENGINEER (IE) FOR THE PROJECT “REJUVENATION OF KIDDERPORE DOCKS (KPD-1 WEST) THROUGH PPP MODE ON DESIGN, BUILD, FINANCE, OPERATE AND TRANSFER (DBFOT) BASIS AT SYAMA PRASAD MOOKERJEE PORT, KOLKATA”.</p>
2.	<p>Title of Project:</p> <p>“REJUVENATION OF KIDDERPORE DOCKS (KPD-1 WEST) THROUGH PPP MODE ON DESIGN, BUILD, FINANCE, OPERATE AND TRANSFER (DBFOT) BASIS AT SYAMA PRASAD MOOKERJEE PORT, KOLKATA”</p>
3.	<p>State whether applying as Sole Firm or Lead Member of a consortium:</p> <p>Sole Firm</p> <p>or</p> <p>Lead Member of a consortium</p>
4.	<p>State the following:</p> <p>Name of Company or Firm:</p> <p>Legal status (e.g. incorporated private company, unincorporated business, partnership etc.):</p> <p>Country of incorporation: Registered address:</p> <p>Year of Incorporation:</p> <p>Year of commencement of business:</p> <p>Principal place of business:</p> <p>GST Registration, PF and ESI registration and Professional Tax:</p> <p>Copy of PAN Card:</p> <p>Registration details:</p>

	<p>Brief description of the Company including details of its main lines of business Name, designation, address and phone numbers of authorised signatory of the Applicant:</p> <p>Name:</p> <p>Designation:</p> <p>Company:</p> <p>Address:</p> <p>Phone No.:</p> <p>Fax No.:</p> <p>E-mail address:</p>
5.	<p>If the Applicant is Lead Member of a consortium, state the following for each of the other Member Firms:</p> <p>(i) Name of Firm:</p> <p>(ii) Legal Status and country of incorporation</p> <p>(iii) Registered address and principal place of business.</p>
6.	<p>For the Applicant, (in case of a consortium, for each Member), state the following information:</p> <p>(i) In case of non-Indian Firm, does the Firm have business presence in India? Yes/No If so, provide the office address(es) in India.</p> <p>(ii) Has the Applicant or any of the Members in case of a consortium been penalized by any organization for poor quality of work or breach of contract in the last five years? Yes/No</p> <p>(iii) Has the Applicant/Member ever failed to complete any work awarded to it by any public authority/entity in last five years? Yes/No</p> <p>(iv) Has the Applicant or any member of the consortium been blacklisted by any Government department/Public Sector Undertaking in the last five years? Yes/No</p> <p>(v) Has the Applicant or any of the Members, in case of a consortium, suffered bankruptcy/insolvency in the last five years? Yes/No</p> <p>Note: If answer to any of the questions at (ii) to (v) is yes, the Applicant is not</p>

	eligible for this consultancy assignment.
7.	<p>Does the Applicant's firm/company (or any member of the consortium) combine functions as a consultant or adviser along with the functions as a contractor and/or a manufacturer? Yes/No</p> <p>If yes, does the Applicant (and other Member of the Applicant's consortium) agree to limit the Applicant's role only to that of a consultant/ adviser to the Authority and to disqualify themselves, their Associates/ affiliates, subsidiaries and/or parent organization subsequently from work on this Project in any other capacity. Yes/No</p>
8.	<p>Does the Applicant intend to borrow or hire temporarily, personnel from contractors, manufacturers or suppliers for performance of the Consulting Services? Yes/No</p> <p>If yes, does the Applicant agree that it will only be acceptable as Consultant, if those contractors, manufacturers and suppliers disqualify themselves from subsequent execution of work on this Project (including tendering relating to any goods or services for any other part of the Project) other than that of the Consultant? Yes/No</p> <p>If yes, have any undertakings been obtained (and annexed) from such contractors, manufacturers, etc. that they agree to disqualify themselves from subsequent execution of work on this Project and they agree to limit their role to that of consultant/ adviser for the Authority only? Yes / No</p>

(Signature, name and designation of the authorised signatory)

For and on behalf of

.....

APPENDIX-I

Form-3

Statement of Legal Capacity

(To be forwarded on the letter head of the Applicant)

Ref.

Date:

To,

Chief Engineer,

2nd Floor,

15, Strand Road, Kolkata,

Syama Prasad Mookerjee Port

Kolkata, West-Bengal, Pin -700001

Dear Sir,

Sub: RFP for Independent Engineer for engineering consultancy services For the Project **“REJUVENATION OF KIDDERPORE DOCKS (KPD-1 WEST) THROUGH PPP MODE ON DESIGN, BUILD, FINANCE, OPERATE AND TRANSFER (DBFOT) BASIS AT SYAMA PRASAD MOOKERJEE PORT, KOLKATA”**.

I/We hereby confirm that we, the Applicant (along with other members in case of consortium, constitution of which has been described in the Proposal*), satisfy the terms and conditions laid down in the RFP document.

I/We have agreed that (insert Applicant's name) will act as the Lead Member of our consortium.

I/We have agreed that (insert individual's name) will act as our Authorised Representative/ will act as the Authorised Representative of the consortium on our behalf and has been duly authorized to submit our Proposal. Further, the authorised signatory is vested with requisite powers to furnish such proposal and all other documents, information or communication and authenticate the same.

Yours

faithfully,

(Signature, name and designation of the authorised signatory)

TENDER NO.: SMPK/KDS/CIV/T/2706/65; Dated 17th October, 2022

For and on behalf of

**Please strike out whichever is not applicable*

APPENDIX-I

Form-4

Power of Attorney

Know all men by these presents, we, (name of Firm and address of the registered office) do hereby constitute, nominate, appoint and authorise Mr. / Ms..... son/daughter/wife and presently residing at, who is presently employed with us and holding the position of as our true and lawful attorney (hereinafter referred to as the "Authorised Representative") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our Proposal for and selection as the Independent Engineer for the Project **"REJUVENATION OF KIDDERPORE DOCKS (KPD-1 WEST) THROUGH PPP MODE ON DESIGN, BUILD, FINANCE, OPERATE AND TRANSFER (DBFOT) BASIS AT SYAMA PRASAD MOOKERJEE PORT, KOLKATA"**, proposed to be developed by Syamaprasad Mookerjee Port, Kolkata (the "Authority") including but not limited to signing and submission of all applications, proposals and other documents and writings, participating in pre-bid and other conferences and providing information/ responses to the Authority, representing us in all matters before the Authority, signing and execution of all contracts and undertakings consequent to acceptance of our proposal and generally dealing with the Authority in all matters in connection with or relating to or arising out of our Proposal for the said Project and/or upon award thereof to us till the entering into of the Agreement with the Authority.

AND, we do hereby agree to ratify and confirm all acts, deeds and things lawfully done or caused to be done by our said Authorised Representative pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Authorised Representative in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHEREOF WE, THE ABOVE NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS DAY OF,

20**

For (Signature, name, designation and address)

Witnesses:

- 1.
- 2.

Notarised

Accepted

.....

(Signature, name, designation and address of the Attorney)

Notes:

The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure. The Power of Attorney should be executed on a non-judicial stamp paper of **Rs. 100 (One Hundred)** and duly notarised by a notary public.

Wherever required, the Applicant should submit for verification the extract of the charter documents and other documents such as a resolution/power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Applicant.

For a Power of Attorney executed and issued overseas, the document will also have to be legalised by the Indian Embassy and notarised in the jurisdiction where the Power of Attorney is being issued. However, Applicants from countries that have signed the Hague Legislation Convention, 1961 need not get their Power of Attorney legalised by the Indian Embassy if it carries a conforming Apostille certificate.

APPENDIX-I

Form-5

Financial Capacity of the Applicant

(Refer Clause 2.2.2 (B))

Sl. No.	Financial Year	Annual Revenue (Rs. / US \$ in million)
1	2019-20	
2	2020-21	
3	2021-22	

Certificate from the Statutory Auditor²

This is to certify that(name of the Applicant) has received the payment shown

above against the respective years on account of professional fees.

Name of the audit firm:

Seal of the audit firm Date:

UDIN-

Note:

1. Please do not attach any printed Annual Financial Statement
2. Exchange rate should be taken as Rs.80 per US \$ for conversion to rupees.

2 - In case the Applicant does not have a statutory auditor, it shall provide the certificate from its chartered accountant that ordinarily audits the annual accounts of the Applicant. **UDIN Mandatory.**

APPENDIX-I**Form-6****Abstract of Eligible Assignments of the Applicant³**

(Refer clause 3.1)

Sl. No.	Name of Project	Name of Client	Estimated capital cost of Project (in Rs. Lakhs)	Payment ^{5a} of professional fees received by the Applicant (in Rs. Lakhs)
(1)	(2)	(3)	(4)	(5)
1.				
2.				
3.				
4.				

*The names and chronology of Eligible Projects included here should conform to the project-wise details submitted in Form-6a of Appendix-I.

Certificate from the Statutory Auditor⁴**(On the letterhead of the Statutory Auditor)**

This is to certify that the information contained in Column 5 above is correct as per the accounts of the Applicant and/or the clients.

Name of the audit firm:

Seal of the audit firm:

Date:

[Signature, name and designation of the authorized signatory]

Note: The Applicant may attach separate sheets to provide brief particulars of other relevant experience of the Applicant.

3 -The Applicant should provide details of only those projects that have been undertaken by it under its own name

5a- Exchange rate should be taken as **Rs.80 per US \$** for conversion to rupees.

4 -In case the Applicant does not have a statutory auditor, it shall provide the certificate from its chartered accountant that ordinarily audits the annual accounts of the Applicant.

APPENDIX-I

Form-6 a

Eligible Assignments of Applicant

(Refer Clause 3.1.4)

Name of the Applicant:	
Name of the Project:	
Description of services performed by the Applicant firm:	
Name of client and Address:(Indicate whether public or private entity)	
Name, telephone no. and fax no. of client's representative:	
Estimated capital cost of Project (in Rs. Lakhs):	
Payment received by the Applicant (in Rs. Lakhs):	
Start date and finish date of the services (month/ year):	
Brief description of the Project:	

Notes:

1. Use separate sheet for each Eligible Project.
2. The Applicant may attach separate sheets to provide brief particulars of other relevant experience of the Applicant.
3. Exchange rate should be taken as **Rs. 80 per US \$** for conversion to Rupees.

APPENDIX – I**Form-7****Particulars of Key Personnel**

Sl. No	Designation of Key Personnel	Name	Educational Qualification	Length of Professional Experience	Present Employment		Eligible Essential Experience Assignments ⁵ as per clause 7.7.1 of Section 7
					Name of Firm	Employed Since	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Team Leader/ Project Manager						
2.	Civil Engineer cum Resident Engineer						
3.	Sr. Engineer Mechanical (Pipeline & Jetty facilities)						
4.	Electrical /Instrumentation Engineer						
5.	Environmental / Health & Safety Engineer						
6.	Finance cum Legal Expert						

5- Refer Form 7a of Appendix 1 Experience of Key Personnel

APPENDIX-I

Form-7 a

Abstract of Eligible Assignments of Key personnel⁶

(Refer Clause 3.1)

Name of Key Personnel:

Designation:

Sl. No.	Name of Project ⁷	Name of Client	Estimated capital cost of project (in Rs. Lakhs)	Name of firm for which the Key Personnel worked	Designation of the Key Personnel on the assignment	Date of completion of the assignment	Man-Days Spent
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

Note: The Applicant may attach separate sheets to provide brief particulars of other relevant experience of Key Personnel.

6- Use separate Form for each Key Personnel

7- The names and chronology of projects included here should conform to the project-wise details submitted in Form-6 of Appendix-I)

APPENDIX-I

Form- 7b

Eligible Assignments of Key Personnel

(Refer Clause 3.1.4)

Name of the Key Personnel:	
Designation of Key Personnel:	
Name of the Project:	
Name of Consulting Firm where employed:	
Description of services performed by the Key Personnel (including designation):	
Name of client and Address: (indicate whether public or private)	
Name, telephone no. and fax no. of client's representative:	
Estimated capital cost of the Project (in Rs. Lakhs):	
Start date and finish date of the services (month/ year):	
Brief description of the Project:	
It is certified that the aforesaid information is true and correct to the best of my knowledge and belief.	
(Signature and name of Key Personnel)	

Notes:

1. Use separate sheet for each Eligible Project
2. The Applicant may attach separate sheets to provide brief particulars of other relevant experience of the Key Personnel.

APPENDIX-I

Form- 7c

Curriculum Vitae (CV of Key Personnel)

1. Proposed Position:
2. Name of Personnel:
3. Date of Birth:
4. Nationality:
5. Educational Qualifications:
6. Employment Record:
(Starting with present position, list in reverse order every employment held)
7. List of projects on which the Personnel has worked Name of project Description of responsibilities:
8. Details of the current assignment and the time duration for which services are required for the current assignment:

Certification:

- a. I am willing to work on the Project and I will be available for entire duration of the project assignment as required.
- b. I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications and my experience.

Place

(Signature and name of the Key Personnel)

(Signature and name of the authorized signatory of the Applicant)

Notes:

1. Use separate form for each Key Personnel
2. The names and chronology of assignments included here should conform to the project-wise details submitted in Form-7a of Appendix-I.
3. Each page of the CV shall be signed in ink by both the Personnel concerned and by the Authorised representative of the Applicant firm along with the seal of the firm. Photocopies will not be considered for evaluation.

APPENDIX – I

Form-8

Proposed Methodology and Work Plan

The proposed methodology and work plan shall be described as follows:

1. Understanding of TOR (not more than two pages)

The Applicant shall clearly state its understanding of the TOR and also highlight its important aspects. The Applicant may supplement various requirements of the TOR and also make precise suggestions if it considers this would bring more clarity and assist in achieving the Objectives laid down in the TOR.

2. Methodology and Work Plan (not more than three pages)

The Applicant will submit its methodology for carrying out this assignment, outlining its approach toward achieving the Objectives laid down in the TOR. The Applicant will submit a brief write up on its proposed team and organisation of personnel explaining how different areas of expertise needed for this assignment have been fully covered by its proposal. In case the Applicant is a consortium, it should specify how the expertise of each firm is proposed to be utilised for this assignment. The Applicant should specify the sequence and locations of important activities, and provide a quality assurance plan for carrying out the Consultancy Services.

Note: Marks will be deducted for writing lengthy and out of context responses.

APPENDIX-I**Form-9****Deployment of Personnel**

Sl. No	Designation	Name	Man-Days (MD) at Project Site	Week Numbers									
				1	2	3	4	5	6	7
1.	Team Leader/ Project Manager												
2.	Civil Engineer cum Resident Engineer												
3.	Sr. Engineer Mechanical (Pipeline & Jetty facilities)												
4.	Electrical /Instrumentation Engineer												
5.	Environmental / Health & Safety Engineer												
6.	Finance cum Legal Expert												
Total Man- Days													

Note: The “minimum total man-months required on site” as indicated in clause 7.7.1 and BOQ – 2 in Form -2 of Appendix II shall be taken into consideration with respect to the deployment of each Key Personnel.

APPENDIX-I

Form-10

Proposal for Sub-Consultant(s)

1. Details of the Firm				
Firm's Name, Address and Telephone				
Name and Telephone No. of the Contact Person				
Fields of Expertise				
No. of Years in business in the above Fields				
2. Services that are proposed to be sub contracted:				
3. Person who will lead the Sub-Consultant Name:				
Designation:				
Telephone No.:				
Email ID:				
4. Details of Firm's previous experience				
Name of work	Name, address And Telephone no. Of Client	Total value of services performed	Duration of services	Date of Completion of Services
1.				
2.				
3.				

(Signature and name of the authorized signatory)

Note:

1. The Proposal for Sub-consultant(s) shall be accompanied by the details specified in Forms 7c and 9 of Appendix-I.
2. Use separate form for each Sub-Consultant.

APPENDIX-I
Form-11
DRAFT INTEGRITY PACT

(As per GCC)

APPENDIX-II
FINANCIAL PROPOSAL
Form-1
Covering Letter
(On Applicant's letter head)

Reference No. _____

Date _____

To,

Chief Engineer,

2nd Floor,

15, Strand Road, Kolkata,

Syama Prasad Mookerjee Port

Kolkata, West-Bengal, Pin -700001

Dear Sir,

Sub: RFP for Independent Engineer for engineering consultancy services For the Project **"REJUVENATION OF KIDDERPORE DOCKS (KPD-1 WEST) THROUGH PPP MODE ON DESIGN, BUILD, FINANCE, OPERATE AND TRANSFER (DBFOT) BASIS AT SYAMA PRASAD MOOKERJEE PORT, KOLKATA"**.

I/We have perused the Proposal Document for subject assignment containing Terms of Reference in **Section-7** and other details and am/are willing to undertake and complete the assignments as per terms and conditions stipulated in the 'Proposal Document'.

Our price offer indicated in Form-2 of Appendix – II is inclusive of all taxes and duties **except GST** but including incidentals, overheads, traveling expenses, sundries etc., all other items involving expenditure for execution of this assignment covering scope as stipulated in "Terms of Reference" (specified in Section-7 of this RFP and as detailed in the Concession Agreement of Captive User project). This offer is valid for a period of **180 days** from the proposal due date.

I/We also noted that all the payments under this contract will be made only in Indian Rupees and that the GST as applicable from time to time will be reimbursed on production of documentary evidence.

Date:

Witness:

Signature

Signature _____

Name _____

Name

TENDER NO.: SMPK/KDS/CIV/T/2706/65; Dated 17th October, 2022

Designation_____

Designation_____

For and on behalf of_____

on behalf of_____

For and

Address

Address_____

APPENDIX-II
(See Clause 2.1.3)

Form-2

Financial Proposal

BOQ-1: Review of the Designs and drawings & approval etc. upto Issue of completion certificate by Syama Prasad Mookerjee Port, Kolkata, as detailed below:

PRICE BID FORMAT/Bill of Quantities (BOQ)

The BOQ can be downloaded from <https://kopt.enivida.in/>. This BOQ template must not be modified / replaced by the bidder and the same should be uploaded after filling the relevant columns or else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the bidder name and values only.

Note: The amount for BOQ - 1 shall not exceed 15 % of the combined total of BOQ -1 and BOQ – 2.

BOQ-2: Pro-rata monthly payment for the services of Inspection of the Construction as per TOR during Construction Phase. Remuneration for Key personnel inclusive of all taxes and duties (Except GST), incidentals, overheads, travelling expenses, consumables, sundries etc.

PRICE BID FORMAT/Bill Of Quantities (BOQ)

The BOQ can be downloaded from <https://kopt.enivida.in/>. This BOQ template must not be modified / replaced by the bidder and the same should be uploaded after filling the relevant columns or else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the bidder name and values only.

Note:

1. No escalation on any account will be payable on the above amounts during the entire contract period.
2. The payment for the above BOQs will be paid as per the Payment schedule indicated in Annexure-6 of Schedule-1 of this tender.
3. All the payments shall be made in Indian Rupees only and shall be subject to applicable Indian Laws for withholding taxes, if any.
4. Each man-month to be converted into 30 man-days.
5. In the case deployment of key personnel in man days, remuneration schedule shall be made accordingly in pro-rata basis based on Note no.4 above.
6. The GST as applicable from time to time will be reimbursed.

- 7. The total quoted amount (excluding GST) shall be equal to or less than Rs. 95.66 lakhs (ceiling amount). If any bidder quotes above this ceiling amount, their bid will be summarily rejected.**
- 8. The break up of the above said lumpsum amount quoted, shall be provided at Appendix-II Form-2 as mentioned above.**
- 9. The Breakup of the details for deployment of Key Personnels including convenience charges shall be provided as per APPENDIX-II, Form-3 (attached below). If any bidder does not provide the details sought under Form-3, their Bids will be summarily rejected.**

APPENDIX-II
Form-3
Financial Proposal
Bill of Quantities (Break up)

(Amount / Rate in INR)

Sl. No.	Designation	Name	Man- Days at				Project Site / Facilities		Total Amount
			Home- Input		Project Site- Input		No. of visits	Rate per Visit	
			Days	Rate per Month	Days	Rate per Month			
1.	Team Leader/ Project Manager								
2.	Civil Engineer cum Resident Engineer								
3.	Sr. Engineer Mechanical (Pipeline & Jetty facilities)								
4.	Electrical /Instrumentation Engineer								
5.	Environmental / Health & Safety Engineer								
6.	Finance cum Legal Expert								
*Grand Total									

*** Note: -** The Grand Total amount shall be equivalent to the Lump-Sum Amount (INR Excluding GST) of RFP- Appendix-II (Form-2) Financial Proposal.

Appendix-III

**General Condition of Contract
(GCC)**

KOLKATA PORT TRUST
KOLKATA DOCK SYSTEM
& HALDIA DOCK COMPLEX
JULY, 2014

GENERAL CONDITIONS OF CONTRACT

	CLAUSE		PAGES
1.	AMENDMENT TO GENERAL CONDITIONS OF CONTRACT	...	GC 1
2.	DEFINITION	...	GC 2 – GC 3
3.	DUTIES & POWERS OF ENGINEER & ENGINEER'S REPRESENTATIVE	...	GC 3 – GC 5
4.	THE TENDER/OFFER AND ITS PRE-REQUISITES	...	GC 5 – GC 9
5.	THE CONTRACT & GENERAL OBLIGATIONS OF CONTRACTOR	...	GC 9 – GC 14
6.	COMMENCEMENT, EXECUTION AND COMPLETION OF WORK	...	GC 14 – GC 17
7.	TERMS OF PAYMENT	...	GC 18 – GC 20
8.	VARIATION AND ITS VALUATION	...	GC 20 – GC 22
9.	DELAY/EXTENSION OF COMPLETION TIME/LIQUIDATED DAMAGE/TERMINATION OF CONTRACT	...	GC 22 – GC 24
10.	MAINTENANCE AND REFUND OF SECURITY DEPOSIT	...	GC 24 – GC 25
11.	INTERPRETATION OF CONTRACT DOCUMENTS, DISPUTES & ARBITRATION	...	GC 25 – GC 27
12	FORMS GC-1, GC-2, GC-3		

13	FORM OF AGGEMENT		
14	PROFORMA FOR B.G. FOR CONTRACT PERFORMANCE		
15	INTEGRITY PACT DOCUMENT: PROFORMA		
16	DRAFT Memorandum of Understanding between SMP, Kolkata. & Transparency International India		

GC - 1
AMENDMENT TO

GENERAL CONDITIONS OF CONTRACT

❖ **CI-3.4 THE TENDER /OFFER & ITS PRE-REQUISITES**

Table under sub-clause (a)

PREVIOUS			AS AMENDED		
Estimat ed Value of Work	Amount of Earnest Money		Estimat ed Value of Work	Amount of Earnest Money	
	For Works Contract	For Contract of Supplying Materials or Equipment only		For Works Contract	For Contract of Supplying Materials or Equipment only
Up to Rs. 1,00,000 =00	5% of the estimated value of work	1% of the estimated value of work	Up to Rs. 10 Crore	2% of the estimated value of work	1% of the estimated value of work
Over Rs. 1,00,000 .00	2% of the estimated value of work subject to a maximum of Rs. 20,000/-	½% of the estimated value of work subject to a maximum of Rs. 10,000/- and minimum of Rs. 1,000/-.	Over Rs. 10 Crore	2% on first Rs. 10 Crore + 1% on the balance	½% of the estimated value of work subject to a maximum of Rs. 10,000/- and minimum of Rs. 1,000/-.

	and minimum of Rs. 5,000/-.				
--	--------------------------------------	--	--	--	--

[AMENDMENT SANCTIONED BY THE BOARD OF TRUSTEES VIDE RESOLUTION NO 210 OF THE TRUSTEES' MEETING HELD ON 26.02.2013]

Table under sub-clause (d)

PREVIOUS			AS AMENDED		
Class of Registration	Amount Of Fixed Security	Financial Limit Of Each Tender	Class of Registration	Amount Of Fixed Security	Financial Limit Of Each Tender
A	Rs 10,000/-	Any tender priced upto Rs 2,00,000/-	A	Rs 50,000/-	Any tender priced up to Rs 10,00,000/-
B	Rs 5,000/-	Any tender priced upto Rs 1,00,000/-	B	Rs 25,000/-	Any tender priced upto Rs 5,00,000/-
C	Rs 2,500/-	Any tender priced upto Rs 50,000/-	C	Rs 15,000/-	Any tender priced upto Rs 3,00,000/-

[AMENDMENT SANCTIONED BY THE BOARD OF TRUSTEES VIDE RESOLUTION NO 82 OF THE TRUSTEES' MEETING HELD ON 12.10.2012]

GC - 2

1. DEFINITIONS

1.0 In the contract, as here in after defined, the following words and expressions shall have the meaning herein assigned to them, except where the context otherwise required.

1.1 "Employer" or "Board" or "Trustees" means of the Board Employer of Trustees for the Port of Calcutta, a body corporate

- under Section 3 of the Major Port Trusts Act, 1963, including their successors, representatives and assigns.
- 1.2 **“Chairman”** means the Chairman of the Board and includes the person appointed to act in his place under Sections 14 and 14A of the Major Port Trusts Act, 1963 **Chairman**
- 1.3 **“Contractor”** means the person or persons, Firm or Company whose tender/offer has been accepted by the Trustees and includes the Contractor’s representatives, heirs, successor and assigns, if any, permitted by the Board/Chairman. **Contractor**
- 1.4 **“Engineer”** means the Board’s official who has invited the tender on its behalf and includes the Manager (Infrastructure & Civic Facilities) or other official as may be appointed from time to time by the Employer, with written notification to the Contractor, to act as Engineer for the purpose of the Contract, in place of the “Engineer” so designated. **Engineer**
- 1.5 **“Engineer’s Representative”** means any subordinate or Assistant to the Engineer or any other official appointed from time to time by the Engineer to perform the duties set forth in Clauses 2.4 to 2.6 hereof. **Engineer’s Representative**
- 1.6 **“Work”** means the work to be executed in accordance with the Contract and includes authorised “Extra Works” and ‘Excess Works” and “Temporary Works”. **Works**
- 1.7 **“Temporary Works”** means all temporary works of every kind required in or about the execution, completion or maintenance of the works and includes (without thereby limiting the foregoing definitions) all temporary erections, scaffolding, ladders, timbering, soaking vats, site offices, cement and other godowns, platforms and bins for stacking building materials, gantries, temporary tracks and roads, temporary culverts and mixing platforms. **Temporary works**
- 1.8 **“Extra Works”** means those works required by the Engineer for completion of the Contract which were not specifically and separately included in the schedule of items of the works i.e. (Bill of Quantities) of the tender. **Extra works and Excess works**
“Excess Works” means the required quantities of work in excess of the provision made against any item of the bill of Quantities.
- 1.9 **“Specifications”** means the relevant and appropriate Bureau of Indian Standard’s specifications / International Standard’s Specifications (latest revisions) for materials and workmanship unless stated otherwise in the Tender. **Specification**

GC - 3

- | | | |
|------|--|--------------------------------------|
| 1.10 | “Drawings” means the drawings referred to in the Tender and specification and any modification of such drawings approved in writing by the Engineer and such other drawings as may from time to time be furnished or approved in writing by the Engineer. | Drawings |
| 1.11 | “Contract” means and includes the General and Special Conditions of Contract, Specifications, Drawings, priced Bill of Quantities, the Tender / Offer, the letter of acceptance of the Tender/Offer, the Contract Agreement, if separately entered into and the Schedule of Rates and Price, if any, adopted by the Trustees at their discretion. | Contract |
| 1.12 | “Constructional Plant” means all appliances or things of whatsoever nature required or about the execution, completion or maintenance of the works or temporary works and includes (without thereby limiting the foregoing definition) all machinery and tools but does not include materials or other things intended to form or forming part of the permanent works. | Construct
ional
Plant |
| 1.13 | “Site” means the land, waterways and other places, on, under, in or through which the works are to be executed by the Trustees for the purpose of the Contract. | Site |
| 1.14 | “Contract Price” means the sum named in the letter of acceptance of the Tender/Offer of the Contractor, subject to such additions thereto and deductions therefrom as may be made by the Engineer under the provisions here in after contained. | Contract
Price |
| 1.15 | “Month” means English Calendar Month. | Month |
| 1.16 | “Excepted Risks” are riot in so far as it is uninsurable, war, invasion, act of foreign enemies, hostilities) whether war be declared or not), Civil War, rebellion, revolution, insurrection or military or usurped power or use or occupation by the Trustees of any portion of the works in respect of which a certificate of completion has been issued (all of which are herein collectively referred to as the excepted risks). | Excepted
Risks |
| 1.17 | Word importing the singular only, also includes the plural and vice-versa where the context so requires. | Singular/
Plural |

1.18 The heading and marginal notes in these General Headings/ Conditions of Contract shall not be deemed to be part Marginal thereof or be taken into consideration in the interpretation Notes. or construction thereof or of the contract.

1.19 Unless otherwise stipulated the work "Cost" shall be Cost deemed to include overhead costs of the Contractor, whether on or off the site.

2.0 DUTIES & POWERS OF ENGINEER & ENGINEER'S REPRESENTATIVE.

2.1 The Contractor shall execute, compete and maintain the Engineer's works in terms of the contract to the entire satisfaction of s the Engineer and Authority Shall comply with the Engineer's direction on any matter whatsoever.

GC - 4

2.2 The Contractor shall take instructions from the Engineer and subject to limitation of Clause 2.5 hereof, from the Authority of Engineer's Representative.

2.3 *The Engineer shall have full power and authority:*

Engineer's Power

(a) to supply to the contractor from time to time during the progress of the works such further drawings and instructions as shall be necessary for the purpose of proper and adequate execution and maintenance of the works and the contractor shall carry out and be bound by the same.

(b) to alter or modify the specification of any material and workmanship and to inspect the work at any time.

(c) to order for any variation, alteration and modification of the work and for extra works.

(d) to issue certificates as per contract.

(e) to settle the claims & disputes of the Contractor and Trustees, as the first referee.

(f) To grant extension of completion time.

2.4 *The Engineer's Representative shall:*

Power of Engineer's Representative.

(i) watch and supervise the works.

(ii) test and examine any material to be used or

workmanship employed in connection with the work.

- (iii) have power to disapprove any material and workmanship not in accordance with the contract and the contractor shall comply with his direction in this regard.**
- (iv) take measurements of work done by the contractor for the purpose of payment or otherwise.**
- (v) order demolition of defectively done work for its reconstruction all by the Contractor at his own expense.**
- (vi) have powers to issue alteration order not implying modification of design and extension of completion time of the work and**
- (vii) have such other powers and authorities vested in the Engineer, which have been delegated to him in writing by the Engineer under intimation to the Contractor.**

GC - 5

2.5 *Provided always that the Engineer's Representative shall have no power:*

- (a) to order any work involving delay or any extra payment by the Trustees,**
- (b) to make variation of or in the works; and**
- (c) to relieve the Contractor of any of his duties or obligations under the Contract.**

**Limitation
of
Engineer's
Represent
ative's
Power**

2.6 Provided also as follows:

- (a) Failure of Engineer's Representative to disapprove any work or materials shall not prejudice the power of the Engineer thereafter to disapprove such work or materials and to order the pulling down, removal, breaking-up thereof and re-constructing at the contractor's cost and the contractor shall have no**

**Engineer's
Overriding
Power**

claim to compensation for the loss if any sustained by him.

- (b) If the contractor shall be dissatisfied by reason of any decision of the Engineer's Representative, he shall be entitled to refer the matter to the Engineer who shall thereupon confirm, reverse or vary such decision.
- (c) Any written instructions or written approval given by the Engineer's Representative to the contractor, within the terms of delegation of power and authority vested in the Engineer to his Representative in writing, shall bind the contractor and the Trustees as though it had been given by the Engineer, who may from time to time make such delegation.

3.0 THE TENDER/OFFER AND ITS PRE-REQUISITES

- | | |
|--|--|
| <p>3.1 The Contractor shall, before making out and submitting his tender/offer, be deemed to have inspected and examined the site, fully considered all factors, risks and contingencies, which will have direct and indirect impact on his expenses and profit from the work and shall be specifically deemed to have taken the following aspects into consideration:</p> | <p>The tender must encompass all relevant aspects/issues.</p> |
| <p>(a) The form and nature of the site and its surroundings including their sub-surface, hydrological, tidal and climatic conditions, the means of access to the site and all other local conditions, including the likely charges and costs for temporary way-leave, if any, required for the work.</p> | <p>Site & Local condition.</p> |
| <p>(b) The drawings, specifications, the nature and extent of work to be executed and the quality, quantity and availability of the required materials and labour for the work and the need to execute the work to the entire satisfaction of the Engineer, and also by complying with the General and Special Conditions of Contract.</p> | <p>Drawing/ Specification/ Nature & extent of work to be done.</p> |

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| <p>(c) The accommodation required for the workmen and site office, mobilisation/demobilisation and storage of all plant, equipment and Construction materials.</p> | <p>Accommodation for Contractor's men/materials.</p> |
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- (d) The sources and means of procurement of water for drinking, washing and execution of work, and source and availability of electrical power, all at Contractor's cost. Water for drinking etc. /Electrical power.
- (e) Payment of taxes and duties and compliance of all applicable statutes, ordinances and law together with the rules made thereunder, the rules, regulations and bye-laws of public bodies or any local or other authority by the Contractor, keeping the Trustees indemnified against penalties and liabilities of every kind arising from the Contractor's failure in such compliance. Payment of Taxes/duties and observance of all statutes.
- (f) Payment of all kinds of stamp-duty for executing the agreement or for any legal instrument including Bank Guarantees and Indemnity Bonds. Payment of Stamp Duty by the Contractor.

3.2 The Contractor's tender shall be in ink on the Tender Forms supplied by the Trustees, unless stipulated otherwise in the Notice Inviting the Tender and shall be faultless in figures and free from erasing. Corrections, if any, shall only be made by scoring out and initialling of the revised figure.

3.3 If required by the Engineer or the Trustees, the Contractors in their tender or subsequently, shall disclose the names of their owners/partners/share holders at the required points of time. The failure in this regard shall be treated as a breach and a contract, if entered into, shall be liable to be cancelled. Disclosure of Owner's name.

3.4 (a) Unless otherwise stipulated in the Notice Inviting Tender / Offer, every tender must be submitted with Earnest Money of the amount calculated as per the following scale. Earnest Money and Security Deposit.

Estimated Value of Work	Amount of Earnest Money	
	For Contract Works	For Contract of Supplying Materials or Equipment only
Up to Rs. 1,00,000=00	5% of the estimated value of work	1% of the estimated value of work

Over Rs. 1,00,000=00	2% of the estimated value of work subject to a maximum of Rs. 20,000/- and minimum of Rs. 5,000/-.	½% of the estimated value of work subject to a maximum of Rs. 10,000/- and minimum of Rs. 1,000/-.
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- (b) Earnest Money shall be deposited with the Trustees' treasurer in cash or by Banker's Cheque of any Calcutta Branch of a Nationalised Bank of India drawn in favour of Calcutta Port Trust or in the form of any "Account Payee" Draft of any Nationalised Bank of India drawn in favour of "Calcutta Port Trust" and payable at Calcutta/Haldia, as the case may be, and the receipt granted therefor be kept attached to the Tender/Offer in the Sealed Cover. **Method of Paying E.M.**
- (c) Earnest Money of unaccepted tender shall be refunded without any interest through A/c. Payee Cheque drawn on a Nationalised Bank of Calcutta / Haldia. **Refund of E.M.**
- (d) The enlisted (registered) Contractors of the Trustees who have deposited fixed Security with the Trustees' FA & CAO / Manager (Finance) according to his Class of Registration, shall be exempt from depositing the Earnest Money, as per the following scale: **Exemption from E.M. to Regd. Firms**

Class of Registration	Amount of Fixed Security	Financial Limit of Each Tender
A	Rs. 25,000/-	Any tender priced up to Rs.5,00,000/-
B	Rs. 10,000/-	Any tender priced up to Rs.2,00,000/-
C	Rs. 5,000/-	Any tender priced up to Rs.1,00,000/-

- (e) (i) Tender submitted without requisite Earnest Money **Tender with-**

may be liable to rejection.

out EM
liable to
rejection.

(ii) If before expiry of the validity period of his Tender/Offer, the tenderer amends his quoted rates or tender/offer making them unacceptable to the Trustees and/or withdraws his tender/offer, the Earnest Money deposited shall be liable to forfeiture at the option of the Trustees.

Forfeiture
of
E.M. before
Acceptanc
e of offer.

(f) The Earnest Money of accepted tender/offer shall be retained by the Trustees as part of the Security Deposit, for which a separate Treasury Receipt shall be issued to the Contractor after cancellation of the previous Receipt of Earnest Money.

E.M. to be
converted
to
part S.D.

(g) Balance security for works contract shall be recovered by deduction from all progressive Bill (including final Bill, if necessary) @ 10% of the gross value of work in each such bill, so that the total recovery may not exceed the quantum computed as per the under noted percentages of the total value of work actually done up to the stage of completion.

Mode of
recovery of
balance
S.D.

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Value of Work	% of Security Deposit for works contract.	% of Security Deposit For contract of supply-ing materials & equipment only.
For works up to Rs.10,00,000/-.	10% (Ten percent)	1% (One percent)
For works costing more than Rs.10,00,000/- and up to Rs.20,00,000/-	10% on first Rs.10,00,000/- +7½% on the balance.	1% on first Rs.10,00,000/- + ½% on the balance.

Scale of
S.D.
recovery.

	For works costing more than Rs.20,00,000/-	10% on first Rs.10,00,000/- + 7½% on the next Rs.10,00,000/- + 5% on the balance.	1% on first Rs.10,00,000/- + ½% on the next Rs.10,00,000/- + ¼% on the balance.
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- (h) Balance Security for Contract of supplying materials and equipment computed in terms of the percentages given above, shall have to be deposited with the Trustees' Treasurer in advance and within 30 days from the date of placement of supply order, either in cash or by A/c. Payee Draft of a Nationalised Bank of India drawn in favour of Calcutta Port Trust and payable at Calcutta/Haldia, as the case may be. S.D. for supply contracts to be deposited in advance.
- (i) No interest shall be paid by the Trustees to the Tenderer/Contractor on the amount of Earnest Money/Security Deposit held by the Trustees, at any stage. No interest payable on E.M. /S.D
- 3.5 (i) The Security Deposit shall be refunded to the Contractor in terms of Clause 9.3 hereinafter and subject to deduction, if any, under the provision of Sub-clause 3.5 (ii) herein below. Id, however, the Contract provides for any maintenance period. 50% of the Security Deposit may be refunded against any of the treasury Receipt for that amount on expiry of half of the maintenance period and the balance deposit on the expiry of the said maintenance period and after the Engineer has certified the final completion of work in Form G.C.2 and the Contractor has submitted his "No Claim" Certificate in Form G.C.3. Mode of refund of S.D.
- (ii) The Security Deposit/Earnest Money may be liable to forfeiture at the option of the Trustees, if the Contractor fails to carry out the work or to perform/observe any of the conditions of the Contract. The Trustees shall also be at liberty to deduct any of their dues from the Security Deposit, fixed Security, Earnest Money or from any sum due or to become due to the Contractor under any other contract. Forfeiture of S.D.
3. If stipulated in the contract as a Special Condition, the contractor shall have to submit to the Engineer a performance Bond in the form of an irrevocable guarantee from Calcutta/Haldia Branch, as the case may be, of any Nationalised Bank of India in the proforma annexed hereto and for the sum and period as mentioned in the Bank Guarantee in lieu of Cash S.D. in

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letter of acceptance of the Tender/Offer, within 15 days from the date of such letter, failing which the Contract shall be liable to be terminated and the earnest money shall be liable to forfeiture; all at the discretion of the Engineer. The cost of obtaining this or any other Bank Guarantee and/or the revalidation thereof, wherever required, has to be borne by the Contractor and it shall be his sole responsibility to arrange for timely revalidation of such Bank Guarantee, failing which and for non-fulfilment of any contractual obligation by the Contractor, the Engineer and/or the Trustees shall be at liberty to raise claim against the Guarantee and/or enforce the same unilaterally.

certain cases

3. "Every Tenderer/ Bidder shall submit, in respect of a tender value of more than Rs 5 Crore, along with their tender comprising Special Conditions of Contract, General Conditions of Contract, BOQ, Earnest Money, etc. a document called Integrity Pact Agreement duly signed by their authorized representative. The Proforma of the Integrity Pact Agreement shall be as specified in the GCC. In case of tender value more than Rs 5 Crore, the Integrity Pact Agreement is an essential part and parcel of bid document to be submitted by each tenderer, without which the tender shall not be considered."

4. THE CONTRACT & GENERAL OBLIGATIONS OF CONTRACTOR

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4. (a) The contract documents shall be drawn-up in English language.

English language to be used

- (b) The contract shall be governed by all relevant Indian Acts. As applicable only within the jurisdiction of the High Court at Calcutta, India, including the following Acts:

Applicability of laws on the contract

1. The Contract Act (India), 1872.
2. The Major Port Trusts Act, 1963.
3. The Workmen's Compensation Act, 1923.
4. The Minimum Wages Act, 1948.
5. The Contract Labour (Regulation & Abolition) Act, 1970.
6. The Dock Workers' Act, 1948.
7. The Arbitration and Conciliation Act (1996) (in the case of a definite Arbitration Agreement only).

4. After acceptance of his Tender/Offer and when called on to do so by the engineer or his representative, the contractor shall, at his own expense, enter into and execute a Contract Agreement to be prepared by him in the form annexed hereto. Until such Contract Agreement is executed, the other documents referred to in the definition of the term 'Contract' here-in-before, shall collectively be the Contract.

Contract or to Execute Contract Agreement.

4. Several documents forming the contract are to be taken as mutually explanatory of one another. Should there be any

Interpretation of

discrepancy, ambiguity, omission or error in the various contract documents, the Engineer shall have the power to correct the same and his decision shall be final and binding on the parties to the Contract.

contract documents –
Engineer's Power

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| <p>4. Two copies of the Drawings referred to in the general and special Conditions of Contract and in the Bill of Quantities, shall be furnished by the Engineer to the Contractors free of cost for his use on the work, but these shall remain the property of the Trustees and hence, the Contractor shall return them to the Engineer or his Representative on completion of the work, if not torn or mutilated on being regularly used at site.</p> | <p>All Drawings are Trustees' property.</p> |
| <p>4. The Contractor shall prove and make at his own expense any working or progress drawings required by him or necessary for the proper execution of the works and shall, when required, furnish copies of the same free of cost to the Engineer for his information and/or approval, without meaning thereby the shifting of Contractor's responsibility on the Engineer in any way whatsoever.</p> | <p>Contractor to prepare working / progress drawings</p> |
| <p>4. The Contractor shall not directly or indirectly transfer, assign or sublet the Contract or any part thereof without the written permission of the Engineer. Even if such permission be granted, the Contractor shall remain responsible (a) for the acts, defaults and neglect of any sub-contractor, his agents, servants or workmen as fully as if these were the acts, defaults or neglects of the Contractor himself or his agents, servants or workmen and (b) for his full and entire responsibility of the contract and for active superintendence of the works by him despite being sublet, provided always that the provision of labourers on a "piece rate" basis shall not be deemed to be sub-letting under this clause.</p> | <p>Contractor cannot sublet the work</p> |
| <p>4. Unless otherwise specified, the Contractor shall be deemed to have included in his Tender/Offer all his cost for supplying and providing all constructional plant, temporary work. Materials both for temporary and permanent works, labour including supervision thereof, transporting to and from the site and in and about the work, including loading, unloading, fencing, watching, lighting, payment of fees, taxes and duties</p> | <p>Contractors' price is inclusive of all costs</p> |

to the appropriate authorities and other things of every kind required for the construction, erection, completion and maintenance of the work.

4. The Contractor shall be solely responsible for the adequacy, stability and safety of all site operations and methods of construction, even if any prior approval thereto has been taken from the Engineer or his Representative. The Contractor shall not be responsible for the correctness of the design or specification of the Temporary and Permanent works formulated by the Engineer; but the Contractor shall be fully responsible for the correct implementation thereof, as also for any design and specification prepared/proposed/used by the Contractor.
4. Whenever required by the Engineer or his representative, the Contractor shall submit to him the details of his (a) programme for execution of the work, (b) proposed procedure and methods of work, (c) proposed deployment of plant, equipment, labour, materials and temporary works. The submission to and/or any approval by the Engineer or his Representative to any such programme or particulars shall not relieve the Contractor of any of his obligations under the contract.

Contractor is responsible for all construction process, except for correctness of design and specification formulated by the Engineer Contractor to submit his programme of work

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If for any reason the contractor be unable to adhere to his earlier programme, he shall submit his revised programme for completion of work within the stipulated time whenever asked to do so.

- 4.10 Necessary and adequate supervision shall be provided by the Contractor during execution of the works and as long thereafter as the Engineer or his representative shall consider necessary during the maintenance period. The Contractor or his competent and authorised agent or representative shall be constantly at site and instructions given to him by the Engineer or his representative in writing shall be binding upon the Contractor subject to limitation in Clause 2.5 hereof. The Contractor shall inform the Engineer or his representative in writing about such

Contractor to supervise the works

representative/agent of him at site.

- 4.11** The Contractor shall employ in execution of the Contract only qualified careful and experienced persons and the Engineer shall be at liberty to direct the Contractor to stop deployment of any of its staff, workmen or official at site and the Contractor shall within 48 hours comply with such instruction without any demur whenever the Engineer shall feel that the deployment of the person concerned will not be conducive to the proper and timely completion of the work.
- Contractor to deploy qualified men and Engineer's power to remove Contractor's men
- 4.12** The Contractor shall be responsible for the true and proper setting out of the works in relation to reference points/lines/levels given by the Engineer in writing. The checking of any setting-out or of any alignment or level by the Engineer or his Representative shall not in any way relieve the contractor of his responsibility for the correctness thereof and he shall fully provide protect and preserve all stakes, templates, bench marks, sight rails, pegs, level marks, profile marks and other things used in setting out the works.
- Contractor is responsible for line, level, setting out etc.
- 4.13** From the commencement of the works till issue of the completion certificate in Form G.C.1, vide Clause 5.12 hereof, the contractor shall take full responsibility for the care thereof. Save for the excepted risks, any damage, loss or injury to the work or any part thereof shall be made good by the Contractor at his own cost as per instruction and to the satisfaction of the engineer, failing which the Engineer or his Representative may cause the same to be made good by any other agency and the expenses incurred and certified by the Engineer shall deem proper. This Clause will not apply to that part of the work, which might have been taken over by the Trustees on partial completion of the work and in such case the Contractor's obligation will be limited to repairs and replacement for manufacturing or construction defects during the Maintenance period (Guarantee Period) as per the directions of the Engineer as also for defects/damages if any caused to the work by the Contractor during such repairs and replacement in the maintenance period.
- Contractor is responsible to protect the work

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| <p>4.1
4</p> | <p>The Contractor shall at his own cost protect support and take all precautions in regard to the personnel or structure or services or properties belonging to the Trustees or not which may be interfered with or affected or disturbed or endangered and shall indemnify and keep indemnified the Trustees against claim for injury, loss or damage caused by the Contractor in connection with the execution and maintenance of the work to the aforesaid properties, structures and services and/or to any person including the Contractor's workmen. Cost of Insurance Cover, if any, taken by the Contractor shall not be reimbursed by the Trustees, unless otherwise stipulated in the Contract.</p> | <p>Contractor is responsible for all damages to other structures / persons caused by him in executing the work.</p> |
| <p>4.1
5</p> | <p>The Contractor shall immediately inform the Engineer's Representatives if any fossil, coins, articles of value or antiquity and structures and other remains or things of geological or archaeological importance be discovered at site which shall remain the property of the Trustees and protect them from being damaged by his workmen and arrange for disposal of them at the Trustees' expense as per the instruction of the Engineer's Representative.</p> | <p>Fossils, Treasure travois, etc. are Trustees' property</p> |
| <p>4.1
6</p> | <p>The Contractor shall be deemed to have indemnified and shall indemnify the Trustees against all claims, demands, actions and proceedings and all costs arising therefrom on account of:</p> <ul style="list-style-type: none"> (a) Infringement of any patent right, design, trademark or name or other protected right in connection with the works or temporary work. (b) Payment of all royalties, rent, toll charges, local taxes, other payments or compensation, if any, for getting all materials and equipment required for the work. (c) Unauthorised obstruction or nuisance caused by the contractor in respect of Public or Private or Private road, railway tracks, footpaths, crane tracks, waterways, quays and other properties belonging to the Trustees or any other person. (d) Damage/injury caused to any highway and bridge on account of the movement of Contractor's plants and materials in connection with the work. (e) Pollution of waterway and damage caused to river, lock, sea-wall or other structure related to waterway, in transporting contractor's plants and materials. (f) The Contractor's default in affording all reasonable facilities and accommodation as per the direction of the Engineer or his Representative to the workmen of the Trustees and other agencies employed by or with the | <p>Contractor to Indemnify the Trustees against all claims for loss, damage, etc.</p> |

permission and/or knowledge of the Trustees on or near the site of work.

- 4.1 Debris and materials, if obtained by demolishing any property, building or structure in terms of the Contract shall remain the property of the Trustees.
- Dismantled materials Trustees' property

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- 4.18 The Contractor's quoted rates shall be deemed to have been inclusive of the following:
- Contractor's quoted rates/price must be all inclusive
- (a) Keeping the site free of unnecessary obstruction and removal from site of constructional plant wreckage, rubbish, surplus earth or temporary works no longer required.
 - (b) Cleaning and removal from site all the surplus materials of every kind to leave the site clean and tidy after completion of the work, without which payment against final bill may be liable to be withheld.
 - (c) Precautionary measures to secure efficient protection of Docks, the River Hooghly and other waterways against pollution of whatever nature during execution and maintenance of the works and to prevent rubbish, refuse and other materials from being thrown into the water by the Contractor's men or those of his agency.
 - (d) Making arrangements for deployment of all labourer and workers, local or otherwise including payment for their wages, transport, accommodation, medical and all other statutory benefits and entry permits, wherever necessary.
 - (e) Making arrangements in or around the site, as per the requirements of local authority or the Engineer or his Representative for preventing (i) spread of any infectious disease like smallpox, cholera, plague or malaria by taking effective actions for destruction of rats, mice, vermin, mosquitoes, etc. and by maintaining healthy and sanitary condition, (ii) illegal storage and distribution of Drugs, Narcotics, Alcoholic

liquor, Arms and Ammunitions, (iii) unlawful, riotous or disorderly conduct of the Contractor's or his Sub-Contractor's workmen, (iv) deployment of workmen of age less than 16 years.

- 4.19 Every direction or notice to be given to the Contractor shall be deemed to have been duly served on or received by the Contractor, if the same is posted or sent by hand to the address given in the tender or to the Contractor's Site Office or to the Registered Office of the Contractor. The time mentioned in these conditions for doing any act after direction or notice shall be reckoned from the time of such posting or despatch. Notice to Contractor.
- 4.20 The Contractor and his Sub-contractor or their agents and men and any firm supplying plant, materials and equipment shall not publish or caused to be published any photographs or description of the works without the prior authority of the Engineer in writing. Contractor not to publish photograph or particulars of work

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- 4.2 The Contractor shall at the Trustees' cost to be decided by the Engineer render all reasonable facilities and Co-operation as per direction of the Engineer or his representative to any other Contractor engaged by the Trustees and their workmen to the Trustees' own staff and to the men of other Public Body on or near the site of work and in default the Contractor shall be liable to the Trustees for any delay or expense incurred by reason of such default. Contractor to provide facilities to outsiders
- 4.2 The work has to be carried out by the Contractor causing the minimum of hindrance for any maritime traffic or surface traffic. Work to cause minimum possible hindrance to traffic movement
- 4.2 All constructional plants, temporary works and materials when brought to the site by the Contractor shall be deemed to be the property of the Trustees who will have lien on the same until the satisfactory Plant & Trustees' lien on Contractor's Plant &

completion of the work and shall only be removed from the site in part or in full with the written permission of the Engineer or his Representative. Equipment.

5.0 COMMENCEMENT, EXECUTION AND COMPLETION OF WORK.

- 5.1** The Contractor shall commence the work within 7 days of the receipt of Engineer's letter informing acceptance of the Contractor's tender/offer by the Trustees or within such preliminary time as mentioned by the Contractor in the Form of Tender or the time accepted by the Trustees. The Contractor shall then proceed with the work with due expedition and without delay, except as may be expressly sanctioned or ordered by the Engineer or his Representatives, time being deemed the essence of the contract on the part of the contractor. Preliminary time to commence work at an maintenance of steady rate of progress
- 5.2** The Contractor shall provide and maintain a suitable office at or near the site to which the Engineer's Representative may send communications and instructions for use of the Contractor. Contractor's site office
- 5.3** Unless specified otherwise in the contract or prior permission of the Engineer has been taken, the contractor shall not execute the work beyond the working hours observed by the Engineer's Representative and on Sundays and Holidays observed in the Trustees' system, except in so far as it becomes essential on account of tidal work or for safety of the work. If the progress of the work lags behind schedule or the work has been endangered by any act or neglect on the part of the contractor, then the Engineer or his Representative shall order and the contractor at his own expense shall work by day and by night and on Sundays and Public Holidays. Any failure of the Engineer or his Representative to pass such an order shall not relieve the contractor from any of his obligations. The Engineer's decision in this regard shall be final binding and conclusive. Contractor to observe Trustees' working hours

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- 5.4** Unless stipulated otherwise in the contract all materials required for the work shall be procured and supplied by the contractor with the approval of the Engineer or his Representative and subject to subsequent testing as may be required by the Engineer or his Representative. Contractor to supply all materials as per requirement

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| <p>The Engineer shall exercise his sole discretion to accept any such materials.</p> | <p>of the Engineer or his representative</p> |
| <p>5.5 Unless stipulated otherwise in the contract all materials, workmanship and method of measurement shall be in accordance with the relevant Codes (Latest Revision) of the Bureau of Indian Standards and the written instructions of the Engineer or his Representative. Where no specific reference is available in the contract, the material and workmanship shall be of the best of their respective kinds to the satisfaction of the Engineer.</p> | <p>Materials & Works</p> |
| <p>5.6 Samples shall be prepared and submitted for approval of the Engineer or his representative, whenever required to do so, all at the Contractor's cost.</p> | <p>Contractor to submit samples for approval</p> |
| <p>Unless stipulated otherwise in the contract, the cost of any test required by the Engineer or his representative in respect of materials and workmanship deployed on the work, shall be borne by the Contractor.</p> | <p>Contractor to arrange all testing at his own cost.</p> |
| <p>5.8 Regarding the supply of any materials by the Trustees to the contractor in accordance with the contract, the following conditions shall apply :</p> | |
| <p>(a) The Contractor shall, at his own expense, arrange for transporting the materials from the Trustees' Stores, watching, storing and keeping them in his safe custody, furnishing of statement of consumption thereof in the manner required by the Engineer or his representative, return of surplus and empty container to the Trustees' Stores as per the direction of the Engineer or his Representative.</p> | <p>The Contractor shall account for and look after the Trustees' materials</p> |
| <p>(b) Being the custodian of the Trustees' materials, the contractor shall remain solely responsible for any such materials issued to him and for any loss or damage thereof for any reason other than "Excepted Risks", the Contractor shall compensate the Trustees' in the manner decided by the Engineer and shall at no stage remove or cause to be removed any such material from the site without his permission in writing.</p> | <p>Contractor to compensate for loss and damage to Trustees' materials</p> |
| <p>(c) The Trustees' materials will generally be supplied in stages and in accordance with the rate of progress of</p> | <p>Delay in supply of</p> |

work but except for grant of suitable extension of completion time of work as decided by the Engineer. The Contractor shall not be entitled to any other compensation, monetary or otherwise, for any delay in the supply of Trustees' materials to him. The Contractor shall, however, communicate his requirement of such materials to the Engineer from time to time.

Trustees' materials will only entitle the Contractor for extension of completion time of work

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(d) Unless stipulated otherwise in the contract, the value of the Trustees' materials issued to the contractor shall be recovered from the contractor's bills and/or any of his other dues, progressively according to the consumption thereof on the work and/or in the manner decided by the Engineer or his representative and at the rate/s stipulated in the contract. These rates shall only be considered by the contractor in the preparation of his tender/offer and these will form the basis of escalation/variation, if in future the contractor is required to procure and provide any such material on the written order of the Engineer consequent on the Trustees' failure to effect timely supply thereof.

Recovery from Contractor for Trustees' materials under normal circumstances

(e) If the Engineer decides that due to the contractor's negligence, any of the Trustees' materials issued to the contractor has been – (i) lost or damaged, (ii) consumed in excess of requirement and (iii) wasted by the contractor in excess of normal wastage, then the value thereof shall be recovered from the contractor's bills or from any of his other dues, after adding 19 ¼% extra over the higher one of the followings -

Recovery from Contractor for Trustees' materials under other circumstances

(1) The issue rate of the materials at the Trustees' Stores and

(2) The market price of the material on the date of issue as would be determined by the Engineer.

5.9 The Engineer or his Representative shall have the power to inspect any material and work at any time and to order at any time – (i) for removal from the site of any material which in his opinion is not in accordance with the contract or the instruction of the engineer or his representative, (ii) for the substitution of the

Contractor to replace materials/work not acceptable to the

proper and suitable materials, or (iii) the removal and proper re-execution of any work which in respect of material and workmanship is not in accordance with the contract or the instructions of the Engineer. The Contractor shall comply with such order at his own expense and within the time specified in the order. If the contractor fails to comply, the Engineer shall be at liberty to dispose any such materials and re-do any work in the manner convenient to the Trustees by engaging any outside agency at the risk and expense of the contractor and after giving him a written prior notice of 7 days.

Engineer or his Representative

- 5.10 No work shall be covered up and put out of view by the contractor without approval of the Engineer or his Representative and whenever required by him, the contractor shall uncover any part or parts of the work or make openings in or through the same as may be directed by the Engineer or his representative from time to time and shall reinstate or make good those part of works thus affected to the satisfaction of the Engineer, all at the cost of the contractor.

Contractor to seek approval of Engineer or his Representative before covering up any portion of work

The Trustees shall reimburse such cost as determined by the Engineer, if the initial covering up was with prior written order of the Engineer or his Representative.

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- 5.11** On a written order of the Engineer or his Contractor
Representative, the contractor shall delay or suspend to suspend
the progress of the work till such time the written work on
order to resume the execution is received by him. Order from
During such suspension the contractor shall protect Engineer or
and secure the work to the satisfaction of the Engineer his
or his Representative. All extra expenses in giving Representati
effect to such order shall be considered by the ve
Trustees, unless such suspension is –

- (a) otherwise provided for in the contract, or
- (b) necessary by reason of some default on the part of the contractor, or
- (c) necessary by reason of climatic conditions on the site, or
- (d) necessary for proper execution of the works or for the safety of the works or any part thereof.

The Engineer shall settle and determine such extra payment and/or Extension of completion time to be allowed to the contractor, as shall, in the opinion of the Engineer be fair and reasonable, and the same shall be final and binding on the Contractor.

- 5.11** If at any time before or after commencement of the
.1 work the Trustees do not require the whole of the work
tendered for the Engineer shall notify the same to the
contractor in writing and the contractor shall stop
further works in compliance of the same. The
Contractor shall not be entitled to any claim for
compensation for underived profit or for such
premature stoppage of work or on account of
curtailment of the originally intended work by reason
of alteration made by the Engineer in the original
specifications, drawings, designs and instructions.

- 5.12** When the whole of the work has been completed to Completion

the satisfaction of the Engineer and has passed any final test prescribed in the contract, the contractor shall, within 21 days of submission of his application to the Engineer, be entitled to receive from him a certificate for completion of work in Form G.C.1, annexed hereto. If any part of the total work having been completed to the satisfaction of the Engineer, be taken over and/or used by the Trustees, the Contractor shall on application be entitled to partial completion certificate in the Form G.C.1 indicating the portion of the work covered by it, so that the Contractor's liability during maintenance period of the contract, if any, shall commence from the date mentioned in such certificate so far as the completed portion of the work is concerned.

Certificate
G.C.1.

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6.0 TERMS OF PAYMENT:

- 6.1 No sum shall be considered as earned by or due to the Contractor in respect of the work till final and satisfactory completion thereof and until a certificate of final completion in Form G.C.2 has been given by the Engineer.
- All interim payments are advances till issue of Certificate in Form G.C.2
- On account payments, if any, made prior to issue of the certificate in Form G.C.2, shall all be treated as mere advance, which shall stand recoverable in full or in part, if the Engineer so decides in the context of Contractor's unfulfilled contract condition, if any.
- 6.2 All payments shall be made to the Contractor only on the basis of measurements of actual work done, as recorded in the Trustees' measurement books and at accepted tendered or at agreed rates, as the case may be, except as otherwise provided in the contract and when the Engineer decides any other rate for change in the scope of work or omission, if any, on the part of the Contractor.
- Payment on the basis of measurements at agreed rates.
- 6.3 For work of sanctioned tender value more than Rs.50,000/- or having an initially stipulated completion period of 4 months or more, on account payments may be made at the discretion of the Engineer or his Representative at intervals deemed suitable and justified by him. Provided always that subject to execution of work of substantial value in the context
- Limitation for on account payment

of the contract price, the interval of such on-account payments shall be decided by the Engineer or his Representative, which shall ordinarily not be less than 1 month in between two payments for on account bill and/or advance.

- 6.4** Measurement for works done shall be progressively taken by the Engineer's Representative and entered in the Trustees' Measurement Book, at intervals deemed suitable and proper by him and/or the Engineer. The Contractor or his duly accredited Representative or Agent shall remain present at the time of such measurement and assist the engineer's Representative in every manner required by him. After the measurements taken have been entered in the Measurement Book, the Contractor or his Agent shall sign the Measurement Book at the end of such Measurements over the Contractor's Rubber Stamp as a token of acceptance of all such measurements, recorded above and prior to such signature. If the Contractor or his Agent fails to participate even after 3 days written notice from the Engineer's Representative, the measurement shall be taken ex-parte by the Engineer's Representative and those shall be accepted by the Contractor.
- Recording of measurement s**

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- 6.5** Based on the quantum of work and the value thereof computed in the Measurement Book, the Contractor shall type out his bill in the proforma approved by the Engineer and submit the same to the Engineer's Representative in quadruplicate, duly signed by him or his accredited Agent over his Rubber Stamp. The Engineer or his Representative may in his absolute discretion, allow advance payment against such bill to the extent of an amount not exceeding 75% of the "net payable" sum of the said bill, subject to adjustment thereof against the bill at the time of checking and auditing the bill at the Trustees' end. The measurement Book will not be handed over to the Contractor; but he will obtain the abstracts of quantities, amounts and recoveries to type out the bill.
- Contractor to prepare and submit his bills**
- 6.6** At the discretion of the Engineer or his Representative and only in respect of accepted

offers/where estimated amount put to tender would be Rs.2,00,000/- or more, advance payment may be made to the extent of 75% of the value of any material purchased and brought to the site by the Contractor. Provided always that –

Advance
payment
against Non-
perishable
materials

- (i) the materials shall, in the opinion of the Engineer or his Representative be of imperishable nature,
- (ii) the value of such materials shall be assessed by the engineer or his Representative at their own discretion,
- (iii) a formal agreement has been drawn up with the contractor, under which the Trustees secure a lien on the contractor's materials,
- (iv) the materials are safe-guarded by the contractor against losses, shortage and misuse due to the contractor postponing the execution of the work or otherwise,
- (v) in the event of storage of such materials within the Trustees' protected areas in the Docks, the contractor shall submit an Indemnity Bond in the proforma and manner acceptable to Trustees' whereby the contractor shall indemnify the Trustees against all financial loss/damage, on account of loss/damage to such materials for whatever reasons,

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- (vi) in the event of storage of such materials outside the Trustees' protected areas the Contractor shall submit to the Engineer an irrevocable Bank Guarantee favouring the Trustees and for the same sum as is being advance, in the proforma and manner acceptable to the Trustees. The Guarantee shall be of a Calcutta/Haldia Branch of any Nationalised Bank or a Schedule Commercial Bank, as the case may be, acceptable to the Trustees and shall remain

valid till the anticipated period of consumption of such materials in the work. The Bank Guarantee must bear an undertaking by the issuing Bank guaranteeing automatic payment of the guaranteed sum to the Trustees by the Bank on the date of expiry of the validity of the Guarantee, unless with the prior written approval of the Engineer on behalf of the Trustees, the Bank has extended the validity of the Guarantee.

(vii) The amount of advance shall be recoverable from the contractor's bills or any other dues, progressively with the consumption of the materials on the basis of quantity consumed. Consequent on full recovery of the advance the Indemnity Bond/Bank Guarantee, vide Sub-clause (v) & (vi) above, shall be returned to the Contractor duly discharged by the Engineer on behalf of the Trustees.

6.7	No certificate of the Engineer or his representative shall protect the Contractor against or prevent the Trustees from obtaining repayment from the Contractor, in case the Engineer or his representative should over-certify for payment or the Trustees should over-pay the Contractor on any account.	Recovery for wrong and over payment
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6.8	No claim for interest shall be admissible or payable to the Contractor at any stage and in respect of any money or balance or Bank Guarantee, which may be due to the Contractor from the Trustees, owing to dispute or otherwise or for any delay on the part of the Trustees in making interim or final payment or otherwise.	Interest not admissible to Contractor
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7.0 VARIATION AND ITS VALUATION:

7.1	The Quantities set out in the Bill of Quantities of the tender shall be treated as estimated quantities of the work and shall never be deemed as actual or correct quantities of the works to be executed by the contractor in fulfilment of his obligation under the contract.	Quantities in Bill of Quantities of Tender
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7.2	The Engineer shall have the power to order the Contractor in writing to make any variation of the quantity, quality or form of the works or any part thereof that may, in his opinion, be necessary and the Contractor upon receipt of such an order shall	Engineer's power to vary the works
-----	--	------------------------------------

act as follows:

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- 7.2 (a) Increase or decrease the quantity of any work included in the contract.**
- (b) Omit any work included in the contract.**
- (c) Change the Character or quality or kind of any work included in the contract.**
- (d) Change the levels, lines, position and dimensions of any part of the work, and**
- (e) Execute extra and additional work of any kind necessary for completion of the works**
- 7.3 No such variation shall in any way vitiate or invalidate the contract or be treated as revocation of the contract, but the value (if any) of all such variations evaluated in accordance with the Engineer's sole decision shall be taken into account and the contract price shall be varied accordingly.**
- 7.4 Provided always that written order of the Engineer shall not be required for increase or decrease in the quantity of any work upto 15% where such increase or decrease is not the result of any variation order given under this clause but is the result of the quantities exceeding or being less than those stated in the bill of quantities. Provided also that verbal order of variation from the Engineer shall be complied with by the Contractor and the Engineer" subsequent written confirmation of such verbal order shall be deemed to be an order in writing within the meaning of this clause.**
- 7.5 (a) The Contractor shall not be entitled to any claim of extra or additional work unless they have been carried out under the written orders of the Engineer.**
- (b) The Engineer shall solely determine the amount (if any) to be added to or deducted from the sum named in the tender in respect of any extra work done or work omitted by his order.**
- (c) All extra, additional or substituted work done or work omitted by order of the Engineer shall be valued on the basis of the rates and prices set out in the contract, if in the opinion of the Engineer, the same shall be applicable. If the contract does not contain any rates or prices directly applicable to the**
- Variation by engineer do not vitiate the contract**
- Where written order for variation is not needed**
- Payment for extra or additional, or omitted work or substituted work, Engineer's powers**

extra, additional or substituted work, then the Engineer may decide the suitable rates on the basis of Schedule of Rates (including surcharge in force at the time of acceptance of tender), if any, adopted by the Trustees with due regard to the accepted contractual percentage, if any thereon. In all other cases the Engineer shall solely determine suitable rates in the manner deemed by him as fair and reasonable, and his decision shall be final, binding and conclusive.

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- (d) If the nature or amount of any omission or addition relative to the nature or amount of the whole of the contract work or to any part thereof shall be such that, in the opinion of the Engineer, the rate of prices contained in the contract for any item of the works or the rate as evaluated under sub-clauses (b) and (c) of this clause, is by reason of such omission or addition rendered unreasonable or in-applicable, the Engineer shall fix such other rate or price as he deems proper and the Engineer's decision shall be final, binding and conclusive.

8.0 DELAY / EXTENSION OF COMPLETION TIME / LIQUIDATED DAMAGE / TERMINATION OF CONTRACT

- 8.1 Should the quantum of extra or additional work of any kind or delayed availability of the Trustees' materials to be supplied as per contract or exceptionally adverse climatic conditions and natural phenomenon or strikes, lock-outs, civil commotion or other special circumstances of any kind beyond the control of the Contractor, cause delay in completing the work, the contractor shall apply to the Engineer in writing for suitable extension of completion time within 7 days from the date of occurrence of the reason and the Engineer shall thereupon consider the stated reasons in the manner deemed necessary and shall either reject the application or determine and allow in writing the extension period as he would deem proper for completion of the work with or without the imposition of "Liquidated Damage" Clause (No.8.3 hereof) on the Contractor and his decision shall be final and binding on the Contractor. If an extension of completion time is granted by the Engineer without imposition of liquidated damage, from the Clause No.8.3 of the Liquidated damage shall apply from its date of expiry, if the work
- Extension of completion time

be not completed within the extended time, unless stated otherwise in the decision communicated by the Engineer, as aforesaid.

- 8.2 a) If the Contractor fails to complete the work within the stipulated dates or such extension thereof as communicated by the Engineer in writing, the Contractor shall pay as compensation (Liquidated Damage) to the Trustees and not as a penalty, ½% (half percent) of the total value of work (contract piece) as mentioned in the letter of acceptance of the tender/offer, for every week or part thereof the work remains unfinished. Provided always that the amount of such compensation shall not exceed 10% of the said value of work. The amount of Liquidated damages shall be determined by the Engineer, which shall be final and binding.
- ‘Liquidated Damage’ and other compensation due to Trustees

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- (b) Without prejudice to any of their legal rights, the Trustees shall have the power to recover the said amount of compensation/damage in Sub-clause (a) of this clause, from any money due or likely to become due to the Contractor. The payment or deduction of such compensation/damage shall not relieve the Contractor from his obligation to complete the work or from any of his other obligations/liabilities under the contract and in case of the Contractor’s failure and at the absolute discretion of the Engineer, the work may be ordered to be completed by some other agency at the risk and expense of the Contractor, after a minimum three days notice in writing has been given to the Contractor by the Engineer or his Representative.
- 8.3 Without being liable for any compensation to the Contractor, the Trustees may, in their absolute discretion, terminate the contract and enter upon the site and works and expel the Contractor there from after giving him a minimum 3 days’ notice in writing, due to occurrence of any of the following reasons and decision of the Trustees in this respect, as communicated by the Engineer shall be final and conclusive :
- Default of the Contractor’s remedies & powers/Termination of Contract.
- (i) The Contractor has abandoned the contract.
- (ii) In the opinion of the Engineer, either the progress of work is not satisfactory or the work is not likely

to be completed within the agreed period on account of Contractor's lapses.

- (iii) The Contractor has failed to commence the works or has without any lawful excuse under these conditions has kept the work suspended for at least 15 days despite receiving the Engineer" or his Representative" written notice to proceed with the work.
- (iv) The Contractor has failed to remove materials from site or to dismantle or demolish and replace work for 7 days after receiving from the Engineer or his representative the written notice stating that the said materials or work were condemned and rejected by him under these conditions.
- (v) The Contractor is not executing the works in accordance with the contract or is persistently or flagrantly neglecting to carry out his obligations under the contract.
- (vi) Any bribe, commission, gift or advantage is given, promised or offered by or on behalf of the contractor to any officer, servant or representative of the Trustees or to any person on his or their behalf in relation to the obtaining or to the execution of the contract.
- (vii) The Contractor is adjusted insolvent or enters into composition with his creditors or being a company goes into liquidation either compulsory or voluntary.

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8.3. Upon receipt of the letter of termination of work, which
1 may be issued by the Engineer on behalf of the Trustees, the Contractor shall hand over all the Trustees' tools, plant and materials issued to him at the place to be ascertained from the Engineer, within 7 days of receipt of such letter.

8.3. In all such cases of Termination of work, the Trustees
2 shall have the power to complete the work through any other agency at the Contractor's risk and expense and the Contractor shall be debited any sum or sums that may be expended in completing the work beyond the amount that would have been due to the Contractor, had he duly completed the work of the work in accordance

with the contract.

8.3. Upon termination of contract, the Contractor shall be
3 entitled to receipt payment of only 90% of the value of work actually done or materials actually supplied by him and subject to recoveries as per contract, provided the work done and materials conform to specifications at the time of taking over by the Trustees. The payment for work shall be based on measurements of actual work done and priced at approved contract rates or other rates, as decided by the Engineer. The payment for materials supplied shall be at the rates as decided by the Engineer, which shall in no case be more than market rates prevailing at the time of taking over by the Trustees. The Engineer's decision in all such case shall be final, binding and conclusive.

8.3. The Trustees shall have the power to retain all moneys
4 due to the Contractor until the work is completed by other agency and the Contractor's liabilities to the Trustees are known in all respect.

9.0 MAINTENANCE AND REFUND OF SECURITY DEPOSIT

9.1 On completion of execution of the work the Contractor shall maintain the same for a period, as may be specified in the form of a Special Condition of the Contract, from the date mentioned in the Initial Completion Certificate in Form G.C.1. Any defect/fault, which may appear in the work during aforesaid maintenance period, arising, in the sole opinion of the Engineer or his representative, from materials or workmanship not in accordance with the contract or the instruction of the Engineer or his representative, shall, upon the written notice of the Engineer or his representative, be amended and made good by the Contractor at his own cost within seven days of the date of such notice, to the satisfaction of the Engineer or his representative, failing which the Engineer or his representative shall have the defects amended and made good through other agency at the Contractor's risk and cost and all expenses, consequent thereon or incidental thereto, shall be recoverable from the Contractor in any manner deemed suitable by the Engineer.

Contractor's obligation for maintenance of work.

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9.2 The Contractor shall not be considered completed and the Certificat

- work shall not be treated as finally accepted by the Trustees, until a Final Completion Certificate in Form G.C.2 annexed hereto shall have been signed and issued by the Engineer to the contractor after all obligations under the Contract including that in the maintenance period, if any, have been fulfilled by the Contractor. Previous entry on the works or taking possession, working or using thereof by the Trustees shall not relieve the Contractor of his obligations under the contract for full and final completion of the work. e of final completion
- 9.3 On completion of the contract in the manner aforesaid, the Contractor may apply for the refund of his Security Deposit by submitting to the Engineer (I) The Treasury Receipts granted for the amount of Security held by the Trustees, and (ii) his "No further claim" Certificate in Form G.C.3 annexed hereto (in original), where upon the Engineer shall issue Certificate in Form G.C.2 and within two months of the Engineer's recommendation, the Trustees shall refund the balance due against the Security Deposit to the Contractor, after making deduction therefrom in respect of any sum due to the Trustees from the Contractor. Refund of Security Deposit
- 10.0 INTERPRETATION OF CONTRACT DOCUMENTS, DISPUTES AND ARBITRATION
- 10.1 In all disputes, matters, claims, demands or questions arising out of or connected with the interpretation of the Contract including the meaning of Specifications, drawings, designs and instructions or as to the quality of workmanship or as to the materials used in the work or the execution of the work whether during the progress of the works or after the completion and whether before or after the determination, abandonment or breach of the contract the decision of the Engineer shall be final and binding on all parties to the contract and shall forthwith be given effect to by the Contractor. Engineer's decision
- 10.2 If the Contractor be dissatisfied with any such decision of the Engineer, he shall within 15 days after receiving notice of such decision require that the matter shall be referred to Chairman, who shall thereupon consider and give a decision. Chairman's award.
- 10.3 If, however, the Contractor be still dissatisfied with the decision of the Chairman, he shall within 15 days after receiving notice of such decision require that within 60 days from his written notice, the Chairman shall refer the matter to an Arbitrator of the panel of Arbitrators to be maintained by the Trustees for the purpose and any such reference shall be deemed to be a submission to arbitration Arbitration.

within the meaning of Indian Arbitration Act, 1940 or any statutory modification thereof.

- 10.3. If the Arbitrator so appointed is unable or unwilling to act or
1. resigns his appointment or vacates his office due to any reason whatsoever, another person from panel shall be appointed as Sole Arbitrator and he shall proceed from the stage at which his predecessor left it.

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- 10.3. The Arbitrator shall be deemed to have entered on
2 reference on the date he issues notice to both the parties fixing the date of first hearing.

- 10.3. The time limit within which the Arbitrator shall submit his
3 award shall normally be 4 months as provided in Indian Arbitration Act, 1940 or any amendment thereof. The Arbitrator may, if found necessary, enlarge the time for making and publishing the award, with the consent of the parties.

- 10.3. The venue of the arbitration shall be either Calcutta or
4 Haldia as may be fixed by the Arbitrator in his sole discretion. Upon every or any such reference the cost of any incidental to the reference and award respectively shall be in the discretion of the Arbitrator who may determine, the amount thereof or by whom and to whom and in what manner the same shall be borne and paid.

- 10.3. The Award of the Arbitrator shall be final and binding on all
5 parties subject to the provisions of the Indian Arbitration Act 1940 or any amendment thereof. The Arbitrator shall give a separate award in respect of each item of disputes and respective claim referred to him by each party and give reason for the award.

- 10.3. The Arbitrator shall consider the claims of all the parties to
6 the contract – within only the parameters of scope and conditions of the contract in question.

- 10.3. Save as otherwise provided in the contract the provisions
7 of the Arbitration Act, 1940 and rules made thereunder, for the time being in force, shall apply to the arbitration proceedings under this Clause.

- 10.4 The Contractor shall not suspend or delay the work and proceed with the work with due diligence in accordance with Engineer's decision. The Engineer also shall not

withhold any payment, which, according to him, is due or payable to the Contractor, on the ground that certain disputes have cropped up and are likely to be referred to arbitration.

10.5 Provided always as follows:

- [a] Nothing of the provisions in paragraphs 10.3 to 10.3.7 hereinabove would apply in the cases of contracts, where tendered amount appearing in the letter of acceptance of the tender / offer is less than Rs.40,00,000/-.**
- [b] The Contractor shall have to raise disputes or differences of any kind whatsoever in relation to the execution of the work to the Engineer within 30 days from the date of occurrence of the cause of dispute and before the preparation of the final bill, giving detailed justifications, in the context of contract conditions.**

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- [c] Contractor's dispute if any arising only during the maintenance period, if any, stipulated in the contract, must be submitted to the Engineer, with detailed justification in the context of contract conditions, before the issuance of final completion certificate in Form G.C.-2 ibid.
No dispute or difference on any matters whatsoever, the Contractor can raise pertaining to the Contract after submission of certificate in form G.C.3 by him.**
- [d] Contractor's claim / dispute raised beyond the time limits prescribed in sub-clauses 10.5[b] and 10.5 [c] hereinabove, shall not be entertained by the Engineer and / or by any Arbitrator subsequently.**
- [e] The Chairman / Trustees shall have the right to alter the panel of Arbitrators, vide Clause 10.3 hereinabove, on their sole discretion, by adding the names of new Arbitrators and / or by deleting the names of existing Arbitrators, without making any reference to the Contractor.**

(TO BE SUBMITTED WITH COVER- I OFFER)

THE BOARD OF TRUSTEES FOR THE PORT OF KOLKATA
FORM OF TENDER (UNPRICED)

To
The Manager (I&CF),
Haldia Dock Complex.

I/We _____

—

having examined the site of work, inspected the Drawings and read the specifications, General & Special Conditions of Contract and Conditions of the Tender, hereby tender and undertake to execute and complete all the works required to be performed in accordance with the Specification, Bill of Quantities, General & Special Conditions of Contract and Drawings prepared by or on behalf of the Trustees and at the rates & prices set out in the annexed Bill of Quantities within _____ months / weeks from the date of order to commence the work and in the event of our tender being accepted in full or in part. I / We also undertake to enter into a Contract Agreement in the form hereto annexed with such alterations or additions thereto which may be necessary to give effect to the acceptance of the Tender and incorporating such Specification, Bill of Quantities, Drawing and Special & General Conditions of Contract and I / We hereby agree that until such Contract Agreement is executed the said Specification, Bill of Quantities, Conditions of Contract and the Tender, together with the acceptance thereof in writing by or on behalf of the Trustees shall be the Contract.

THE TOTAL AMOUNT OF TENDER Rs. **NOT TO BE QUOTED IN COVER I OFFER**

(Repeat in words) **NOT TO BE QUOTED IN COVER I OFFER**

TENDER NO.: SMPK/KDS/CIV/T/2706/65; Dated 17th October, 2022

I / We require _____ days / months preliminary time to arrange and procure the materials required by the work from the date of acceptance of tender before I We could commence the work.

I / We have deposited with the Trustees' Manager (Finance), HDC, vide Receipt No. _____ of _____ as Earnest Money.

I / We agree that the period for which the tender shall remain open for acceptance shall not be less than four months.

Dated:
Bidder with Seal)

(Signature of

WITNESS:

Signature:

Name of the
Bidder:

Name:

Address:

(In Block
Letters)

Address:

Occupati
on:

SYAMA PRASAD MOOKERJEE PORT, KOLKATA
HALDIA DOCK COMPLEX

FORM G.C.1

Contractor _____

Address -----

Date of completion: -

Dear sir(s),

This is to certify that the following work viz: -

Name of work: -

.....
Estimate No. E.E.0.....Dt.....

C.E.O.....Dt.....

Work Order No.....

Allocation.....

Contract No.

which was carried out by you is in the opinion of the undersigned complete in every respect on the _____ day of _____ 2000 in accordance with terms of the Contract and you are required to maintain the work as per Clause 62 of the General Conditions of Contract and under provisions of the Contract for a period of _____ weeks / months / years

from the _____ day of _____
_____ 2000 to _____ day of _____ 2000.

Yours faithfully,

Signature.....

(ENGINEER/ENGINEER'S REPRESENTATIVE)

Name.....

Designation.....

OFFICE SEAL

SYAMA PRASAD MOOKERJEE PORT, KOLKATA
HALDIA DOCK COMPLEX

FORM G.C.2.

Certificate of Final Completion.

The Financial Adviser & Chief Accounts Officer

TENDER NO.: SMPK/KDS/CIV/T/2706/65; Dated 17th October, 2022

The Manager (Finance), Haldia Dock Complex.

This is to certify that the following work viz: -

Name of work:

Estimate No. E.E.O.....dt.....
C.E.O.....dt.....

Work Order No.....

Contract No.

Resolution & Meeting No.

Allocation:

**which was carried out by Shri/Messrs..... is
now complete in every respect in accordance with the terms of the Contract and
that all obligations under the Contract have been fulfilled by the Contractor.**

Signature.....
(ENGINEER/ENGINEER'S REPRESENTATIVE)
NAME.....
DESIGNATION.....
OFFICE SEAL

**SYAMA PRASAD MOOKERJEE PORT, KOLKATA
HALDIA DOCK COMPLEX**

FORM G.C.3

(‘NO CLAIM CERTIFICATE’ FROM CONTRACTOR)

TENDER NO.: SMPK/KDS/CIV/T/2706/65; Dated 17th October, 2022

The Manager (I&CF)
Haldia Dock Complex
Calcutta Port Trust
Haldia.
(Atten:.....)

Dear Sir,

I / We do hereby declare that I / we have received full and final payment from the Calcutta Port Trust for the execution of the following work viz: -

Name _____ of _____ work: _____ -

Work Order No: - _____

Contract No. _____

Agreement No.....Dt.....

and I / we have no further claim against the Calcutta Port Trust in respect of the above-mentioned job.

Yours faithfully,

(Signature of the Contractor)

Dated _____

Name of Contractor.....

Address:.....

(OFFICIAL SEAL OF THE CONTRACTOR)

SYAMA PRASAD MOOKERJEE PORT, KOLKATA
PROFORMA OF FORM OF AGREEMENT

THIS AGREEMENT made _____ day of

_____20_____ between the "Board Of Trustees for the Port Of Calcutta , a statutory body constituted under Major Port Trust Act ,1963 under the rules there under and statutory modification thereto having Registered Office at 15, Strand Road , Calcutta -700001 (hereinafter called "EMPLOYER" which expression unless excluded by or repugnant to the context be deemed to include his successor/s in office) on the one part and _____ (hereinafter called the "CONTRACTOR" which expression shall unless excluded by or repugnant to the context he deemed to include his heirs, executors, administrators, representative, successor in officer and permitted assigns) of the other part.

WHEREAS The TRUSTEES are desirous that certain works should be executed viz _____ and have accepted a Tender/Offer by the contractor for the execution, completion and maintenance of such works.

NOW THIS CONTRACT AGREEMENT WITNESSETH as follows: -

1. In this agreement words expressions shall have the same meanings as are respectively assigned to them in General Conditions Of Contract, hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz: -
 - i.The said Tender/Offer & the acceptance of Tender/ Offer.
 - ii.The Drawings.
 - iii.The General Conditions Of Contract.
 - iv.Special Conditions Of Contract (If any).
 - v.The Conditions Of Tender.
 - vi.The Specifications.
 - vii.The Bill Of Quantities.
 - viii.All correspondences by which the contract is added, amended, varied or modified in any way by mutual consent.
3. In consideration of the payments to be made by the Trustees to the Contractor as hereinafter mentioned the contractor hereby covenant with the Trustees to execute, complete and maintain the work in conformity in all respects with the provisions of Contract.
4. The Trustees hereby covenants to pay to the contractor in consideration of such execution, completion and maintenance of the works the Contract Prices at the times and in the manner prescribed by the contractor.

IN WITNESS whereof the parties hereto have caused their respective Common Seals to be hereunto as fixed (or have set their respective hands and seals) the day and year first above written.

have executed these presents on the day and year first above written.

The _____ Seal _____ of _____

Was hereunto affixed in the presence of: -

Name: _____ -

Address: _____ -

OR

SIGNED SEALED AND DELIVERED

By _____ the _____ said _____

In the presence of: -

Name: _____ -

Address: _____ -

The Common Seal of the Trustees was hereunto affixed in the presence of: -

Name: _____ -

Address: _____ -

Proforma Of Irrevocable Bank Guarantee (PERFORMANCE BOND) in lieu of cash Security Deposit, to be issued by the Kolkata/ Haldia Branch, as the case

may be, of any nationalised Bank of India on Non-Judicial Stamp Paper worth Rs 50/- or as decided by the Engineer/ Legal Adviser of the Trustees.

Ref. _____

Bank Guarantee No.

Date

To

The Board of Trustees for the Port of Kolkata,
15, Strand Road
Kolkata – 700 001

Dear Sirs,

In consideration of the Board of Trustees For the Port of Kolkata, - (hereinafter referred to as the “EMPLOYER” which expression shall unless repugnant to the context or meaning thereof include its successors administrators and assigns) having awarded to _____, with registered office at _____ (hereinafter referred to as the “CONTRACTOR “ which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) a CONTRACT by issue of EMPLOYER’S work order dated _____ the same having been unequivocally accepted by the Contractor resulting in a ‘CONTRACT’ bearing Letter Of Award No _____ dated _____ Valued at Rs _____ for “_____” and the contractor having agreed to prove a Contract performance Guarantee for the faithful performance of the entire Contract equivalent to Rs. _____ (Rupees only) to the EMPLOYER.

We, the _____ Bank, _____, Kolkata/ Haldia having its Head Office at _____ (hereinafter referred to as the “Bank”, which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the Employer on demand any and all monies payable by the Contractor to the extent of Rs. -(_____ only) as aforesaid at any time upto _____ without any demur, reservation, contest, recourse or protest an/or without any reference to the

CONTRACTOR, Any such demand made by Employer on the Bank shall be conclusive and binding notwithstanding any difference between EMPLOYEER and CONTRACTOR or any dispute pending before any Court, tribunal, Arbitrator or any other Authority. The Bank undertakes not to revoke this guarantee during its currency without previous consent of employer and further agrees that the guarantee herein contained shall continue to be enforceable till the Employer discharges his guarantee.

EMPLOYER shall have the fullest liberty without affecting in any way the liability of the Bank under this guarantee from time to time to extend the time for performance of the CONTRACT by CONTRACTOR. Employer shall have the fullest liberty, without affecting this guarantee, to postpone from time to time the exercise of any powers vested in them or any right which they might have against Contractor, and to exercise the same at any time in any manner, and other to enforce or to forebear to enforce any covenants, contained or implied, in the CONTRACT between EMPLOYER and CONTRACTOR or any other course of remedy or security available to EMPLOYER . The Bank shall not be released of its obligations under these presents by any exercise by EMPLOYER of its liberty with reference to the matters aforesaid or any of them or by reason or any other acts of omission or commission on the part of employer or any other indulgence shown by EMPLOYER or by any other matter or thing whatsoever which under Law would, but for this provision, have the effect of reliving the bank.

The Bank also agreed that EMPLOYER at its option shall be entitled to enforce this Guarantee against the Bank as principal debtor, in the first instance without proceeding against CONTRACTOR and notwithstanding any security or other guarantee that EMPLOYER may have in relation to the CONTRACTOR'S liabilities.

Notwithstanding anything contained herein above our liability under this guarantee is restricted to Rs (rupees only) and it shall remain in force up to and including and shall be extended from time to time for such period, on whose behalf this guarantee has been given.

Dated, this day of2010
..... at

WITNESSES

(Signature)

(Signature)

--

(Name)

(Name)

(Official address)

(Designation with Bank Stamp)

+ Attorney as per power of Attorney No.

Dated

.....

Integrity Pact

Between

Syama Prasad Mookerjee Port, Kolkata (KoPT) hereinafter referred to as “**The Principal/ Employer**”.

And

..... hereinafter referred to as “**The Bidder/Contractor**”

Preamble

The Principal intends to award, under laid down organizational procedures, contract/s for The Principal values full compliances with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relations with its Bidder(s) and/or Contractor(s).

In order to achieve these goals, an Independent External Monitor (IEM) appointed by the principal, will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

NOW, THEREFORE,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:-

Enabling the PRINCIPAL/EMPLOYER to get the contractual work executed and/or to obtain/dispose the desired said stores/ equipment at a competitive price in conformity with the defined specifications/ scope of work by avoiding the high cost and the distortionary impact of corruption on such work /procurement/ disposal and Enabling BIDDERS/ CONTRACTORS to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the PRINCIPAL/EMPLOYER will commit to prevent corruption, in any form, by its officials by following transparent procedures.

Section 1 – Commitments of the Principal/ Employer.

(1) The Principal commits itself to take measures necessary to prevent corruption and to observe

the following principles:

- a. No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
- b. The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will, in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/ additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
- c. The Principal will exclude from the process all known prejudiced persons.

(2). If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal Code (IPC)/Prevention of Corruption (PC) Act, or if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officer and in addition can initiate disciplinary actions.

Section-2 –Commitments of the Bidder(s) / Contractor(s)

(1) The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

- a. The Bidder(s) /Contractor(s) will not directly or through any other person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
- b. The Bidder(s)/Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contract, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

- c. The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act; further the Bidder(s)/Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
 - d. The Bidder(s)/Contractor(s) of foreign origin shall disclose the name and address of the Agents/representatives in India, if any. Similarly the Bidder(s)/Contractor(s) of Indian Nationality shall furnish the name and address of the foreign principles, if any. Further details as mentioned in the "Guidelines on Indian Agents of Foreign Suppliers" shall be disclosed by the Bidder(s)/Contractor(s). Further, as mentioned in the Guidelines, all the payments made to the Indian agent/representative have to be in Indian Rupees only. Copy of the "Guidelines on Indian Agents of Foreign Suppliers" is annexed and marked as Annex-A.
 - e. The Bidder(s)/Contractor(s) will when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- (2). The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section-3-Disqualification from tender process and exclusion from future contracts

If the Bidder(s)/Contractor(s) before award or during execution has committed a transgression through a violation of Section 2 above, or in any other form such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/Contractor(s) from the tender process or take action as considered appropriate.

Section 4-Compensation for damages

- (1) If the Principal has disqualified the Bidder(s) from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/Bid Security.
- (2) If the Principal has terminated the contract according to Section 3 or if the Principal is entitled to terminate the contract according to Section 3, the Principal

shall be entitled to demand and recover from the Contractor liquidated damages of the contract value or the amount equivalent to Performance Bank Guarantee.

Section 5-Previous transgression

- (1) The Bidder declares that no previous transgressions occurred in the last 3 years from the date of signing the Integrity pact with any other Company in any country conforming to the anti corruption approach or with any other Public Sector Undertaking / Enterprise in India, Major Ports/ Govt. Departments of India that could justify his exclusion from the tender process.
- (2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or action can be taken as considered appropriate.

Section 6- Equal treatment of all Bidders/Contractors/Sub-Contractors

- (1) The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact, and to submit it to the Principal before contract signing.
- (2) The Principal, will enter into agreements with identical conditions as this one with all Bidders, Contractors and Sub-contractors.
- (3) The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 7- Other Legal actions against violating Bidder(s)/ Contractor(s)/ Sub Contractor(s)

The actions stipulated in this Integrity pact are without prejudice to any other legal action that may follow in accordance with provisions of the extant law in force relating to any civil or criminal proceedings. .

Section 8 – Role of Independent External Monitor(IEM):

- (a) The task of the Monitors shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this pact.
- (b) The Monitors shall not be subject to instructions by the representatives of the parties and shall perform their functions neutrally and independently.

(c) Both the parties accept that the Monitors have the right to access all the documents relating to the contract.

(d) As soon as the Monitor notices, or has reason to believe, a violation of this pact, he will so inform the authority designated by the Principal and the Chief Vigilance Officer of Kolkata Prot Trust.

(e) The BIDDER/ CONTRACTOR(s) accepts that the Monitor has the right to access without restriction to all contract documentation of the PRINCIPAL including that provided by the BIDDER/ CONTRACTOR. The BIDDER/ CONTRACTOR will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his contract documentation, if any. The same is applicable to sub-contractors. The Monitor shall be under contractual obligation to treat the information and documents of the Bidder/Contractor/ Sub-contractor(s) with confidentiality.

(f) The Principal/ Employer will provide to the Monitor sufficient information about all meetings among the parties related to the contract provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor, the option to participate in such meetings.

(g) The Monitor will submit a written report to the designated Authority of Principal/ Employer/ Chief Vigilance Officer of Syama Prasad Mookerjee Port, Kolkata within 8 to 10 weeks from the date of reference or intimation to him by the Principal/ Employer/ Bidder/ Contractor and should the occasion arise, submit proposals for correcting problematic situation. BIDDER/ CONTRACTOR can approach the Independent External Monitor (s) appointed for the purposes of this Pact.

(h) As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or to take corrective action, or to take other relevant action. The Monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.

(i) If the Monitor has reported to the Principal substantiated suspicion of an offence under the relevant IPC/PCA, and the Principal/ Employer has not, within reasonable time, taken visible action to proceed against such offence or reported to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.

(j) The word 'Monitor' would include both singular and plural.

Section 9 – Facilitation of Investigation:

In case of any allegation of violation of any provisions of this Pact or payment of commission, the PRINCIPAL/EMPLOYER or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER/CONTRACTORS

and the BIDDER/CONTRACTOR shall provide necessary information and documents **in English** and shall extend all possible help for the purpose of such examination.

Section 10 – Pact Duration:

The pact beings with when both parties have legally signed it and will extend upto 2 years or the complete execution of the contract including warranty period whichever is later. In case bidder/contractor is unsuccessful this Integrity Pact shall expire after 6 months from the date of signing of the contract.

If any claim is made/lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/determined by Chairman, KoPT.

Section 11 – Other Provisions:

- (1) This agreement is subject to Indian Law. Place of performance and jurisdiction is the Registered Office of the Principal in Kolkata.
- (2) Changes and supplements as well as termination notices need to be made in writing in English.
- (3) If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- (4) Should one or several provisions of this agreement turn out to be invalid, the reminder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

(For & on behalf of the Principal)

(For & on behalf of Bidder/Contractor).

(Office Seal)

(Office Seal)

Place :

Date :

Witness 1:

(Name & Address)

.....

.....

Witness 2:

(Name & Address)

.....

.....

ANNEXURE-A

GUIDELINES FOR INDIAN AGENTS OF FOREIGN SUPPLIERS

- 1.1 There shall be compulsory registration of Indian agents of Foreign suppliers for all Tenders. An agent who is not registered with KoPT shall apply for registration in the prescribed Application-Form.
- 1.2 Registered agents will file an authenticated Photostat copy (duly attested by a Notary Public)/Original certificate of the principal confirming the agency agreement and giving the status being enjoyed by the agent and the commission/ remuneration/salary/retainer ship being paid by the principal to the agent before the placement of order by KoPT.
- 1.3 Wherever the Indian representatives have communicated on behalf of their principals and the foreign parties have stated that they are not paying any commission to the Indian agents, and the Indian representative is working on the basis of salary or as retainer, a written declaration to this effect should be submitted by the party (i.e. Principal) before finalizing the order.

2.0 DISCLOSURE OF PARTICULARS OF AGENTS/REPRESENTATIVES IN INDIA. IF ANY.

- 2.1 Tenderers of Foreign nationality shall furnish the following details in their offer:
 - 2.1.1 The name and address of the agents/representatives in India, if any and the extent of authorization and authority given to commit the Principals. In case the agent/representative be a foreign Company, it is to be conformed whether it is real substantial Company and details of the same shall be furnished.
 - 2.1.2 The amount of commission/ remuneration included in the quoted price(s) for such agents/ representatives in India.
 - 2.1.3 Confirmation of the Tenderer that the commission/remuneration if any, payable to his agents/ representatives in India, is to be paid by KoPT in Indian Rupees only.

2.2 Tenderers of Indian Nationality shall furnish the following details in their offers:

- 2.2.1 The name and address of the foreign principals indicating their nationality as well as their status, i.e. whether manufacturer or agents of manufacturer holding the Letter of Authority of the Principal specifically authorizing the agent to make an offer in India in response to tender either directly or through the agents /representatives.
- 2.2.2 The amount of commission/remuneration included in the price(s) quoted by the Tenderer for himself.
- 2.2.3 Confirmation of the foreign principals of the Tenderer that the commission/remunerations, if any, reserved for the Tenderer in the quoted price(s), is to be paid by KoPT in India in equivalent Indian Rupees.
- 2.3 In either case, in the event of contract materializing, the terms of payment will provide for payment of the commission/remuneration, if any payable to the agents/representatives in India in Indian Rupees on expiry of 90 days after the discharge of the obligations under the contract.
- 2.4 Failure to furnish correct and detailed information as called for in paragraph-2.0 above will render the concerned tender liable for rejection or in the event of a contract materializing, the same liable to termination by KoPT. Besides this there would be a penalty of banning business dealings with KoPT or damage or payment of a named sum.



/ Final Report /

KOLKATA PORT TRUST

(An Autonomous Body under the Ministry of Shipping, Government of India)

REJUVENATION OF KIDDERPORE DOCKS ON PUBLIC PRIVATE PARTNERSHIP BASIS DETAILED FEASIBILITY REPORT



INDIAN PORTS ASSOCIATION

**1st Floor, South Tower, NBCC Place,
Lodi Road, New Delhi-110003**

May, 2020

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1. *Kolkata Port Trust (KoPT) desires that the “Rejuvenation of KPD” is to be done through PPP mode on Build, Equip, operate and Transfer for a period of 30 years. KoPT has done some preliminary assessment of the project and wants to execute it in two Phases. Phase-I of the proposed Project shall have two dedicated container berths and one multipurpose berth with a total Quay Length of 400 m. In Phase-2, three more berths in the remaining 400 m of the Quay shall be developed. The project is expected to be tendered by June 2020 and Phase-I is proposed to be commissioned within 24 months thereof.*
2. *For this purpose, KoPT engaged Indian Ports Association (IPA) to undertake the task of preparation of detailed Techno-economic Feasibility Report for Kidderpore Dock (KPD) of Kolkata Docks System (KDS) which is proposed to be developed as multipurpose cargo berth with the cargo mix viz. General cargo along with containers, and any other cargo to make the project technically and financially viable. IPA to also examine the capacity calculations as made for KPD of KDS under Phase I and II and to look into the project scope with equipment for ship shore transfer, jetty to stack yard equipment. The project site, yard, draft, berth, equipment shall be surveyed and recommendation on their upgradation or reconstruction shall be given by the resource team members, if felt necessary. The IPA team will also work out the technical and financial viability of the project considering Civil cost, Equipment cost and other costs.*
3. *IPA team visited the Port and various other places, including KPD docks to study the structural characteristics of KPD and adjoining areas in respect to entry to the docks, layout of KPD I & II docks, Quay wall structure, berths & transit sheds, soil data etc. IPA Team also had interactions with concerned senior officers of various department.*
4. *Traffic study was carried out with the help of secondary data provided by the port & various other sources, views of the officers of KoPT and other stakeholders etc., The objective of the traffic study was to identify the potential cargoes for the two KPD 1 clusters slated for rejuvenation and to assess the traffic potential of each cluster for the next 30 years, up to 2050.*

5. *The broad methodology adopted for the Traffic Study was - reviewing the traffic handled at the entire Kolkata port in the last 5 years in order to evaluate the pattern and trend of traffic handled at KDS and Haldia Dock Complex (HDC), scrutinizing HDC's traffic to explore the possibility of any part of its traffic moving to KDS examining the locations where the traffic of KDS are handled, which cargoes and how much of them are handled at each location,, analysing the traffic handled at KDS berths in the last 2 years to observe which traffic is growing, consistent, fickle or receding, applying two yard sticks and a filter to identify the final principal cargoes for Cluster 1 and Cluster 2.*

6. **ESTIMATED TRAFFIC FOR KPD 1 CLUSTERS**

Stage	Cargo	Cluster 1 (in Mn tons)	Cluster2 (in Mn tons)
1 st Decade 2021-31	Container	1.8 (1.2 L TEUs)	1.8 (1.2 L TEUs)
	Pulses	0.30	0.00
	Fert/Limestone	0.00	0.35
	Total	2.1	2.15
2nd Decade 2031-41	Container	2.48 (1.65 L TEUs)	2.48(1.65L TEUs)
	Pulses	0.30	0.00
	Fert/Limestone	0.00	0.35
	Total	2.78	2.48
3 rd Decade 2041-51	Container	2.93 (1.95 L TEUs)	2.93 (1.95L TEUs)
	Pulses	0.30	0.00
	Fert/Limestone	0.00	0.35
	Total	3.23	3.28

7. *Study has also been made to analyze the actual handling process – the ship size, average parcel size, service time etc.; ship-shore transfer; movement from berth to stackyard or storage shed; handling at the yard or shed and finally the evacuation .In these docks, containers are handled directly from container vessels. The other cargo such as pulses/peas,*

fertilizers and limestone are transloaded at anchorages from ships to barges and these barges only call at the dock berths. Some exceptionally small vessels only directly call at the berths. It is noted that while proper data have been maintained for ships calling at these berths, no such detailed data have been maintained for the barges. Hence the information furnished herein are obtained from discussions with the traffic department officials.

- 8. A broad road map for the project development has been presented which will cover the expected volumes of identified cargo; the possible vessel and parcel sizes; the allocation of berths for the cargo; the equipment for ship-shore transfer; equipment for handling at the berth; equipment for transfer from berth to the stockyard; area required for the stockyard; equipment for stockyard handling, storage facilities etc*
- 9. The port is planning to execute this project of KPD rejuvenation in two phases: in the first phase KPD I berths 2,4 & 6 will be developed to be followed by berths 8,10 & 12 in the second phase. In the first phase, the continuous berths 4 and 6 have a total length of 254 m while in the second phase, the continuous berths 8 and 10 have a total length of 289 m. Hence, these can each accommodate a container vessel of LOA 158 m.*
- 10. The skewed berths 2 and 12 are each 162 m and 143 m long respectively. These can accommodate barges carrying the other cargo – pulses, fertilisers and limestone. These barges are normally having LOA 60 m to 82 m and with beam of 10 m to 17 m. Overall, the barges carry an average parcel size of 2020 MTs*
- 11. As per the optimistic project schedule, it is expected that the time period from the start of pre-procurement activities till the signing of concession agreement will be around 15 months. This means that the Licensee will be at site only by the start of 2021-22. He is expected take another 2 years for commissioning Phase I of the project covering berths nos. 2, 4 & 6. This means that Phase I facilities will be in operation from the start of 2023-24.*
- 12. The present handling of container traffic at KPD I, which started with the trade notification on March, 2019, will continue over this period. It is hoped that within 5 years from the commissioning of Phase I facilities, the projected traffic for the first decade i.e. 1.2 lakh TEUS, will be achieved.*
- 13. This will encourage the Licensee to undertake the Phase II of the project by 2028-29 which will be completed within two years. By the start of the year 2030-31, both the facilities will be*

in operation. Assuming the 2nd Phase will take another 5 years to reach its projected traffic of another 1.2 lakh TEUs, the terminal will be handling more than 2.4 lakh TEUs by 2036-37.

- 14. Going by the past data on the number of container vessels that could enter KPD I, it has been estimated that the total volume of container traffic for KPD could be 2.96 lakh TEUs. This volume has to be handled during the 3rd decade.*
- 15. Study has also been made on identifying various aspects of projects details for handling containers & other cargo. Such details include- berthing facilities, , container parking yard & cargo storage areas, infrastructure & service facilities, cargo handling equipment , ship-shore transfers both for containers & other cargo, storage yard transfer , container parking yard equipment, electrical facilities etc.*
- 16. The total capital cost of the project is estimated at **Rs. 91.21** Crores for Phase-1 and **Rs. 82.16** crores for Phase -2. The cost estimates are based on the prevailing market rates.*
- 17. The project implementation period including detailed engineering for the above from the date of grant of concession is estimated at 24 months for each phase. The phasing of expenditure will be 40% in the first year and 60% in the second year.*
- 18. The optimum capacity of the terminal, the operating & maintenance expenditure, and the average revenue requirement is worked out in line with TAMP Guidelines.*
- 19. Replacement cost of the Outlived mechanical equipment during the license period is considered as per the life norms. The present value of the cost of equipment is escalated at 2% for working out the replacement cost in the relevant year of replacement.*
- 20. The Financial Viability is worked out based on the Capital expenditure and its phasing, Traffic available for the project, Operating & Maintenance expenditure, the revenue that can be generated with reference to the investment and traffic etc.*

21. Sensitivity analysis has been carried out to gauge the impact of increase in cost and reduction of revenue earnings on the viability of the proposal. The results of the analysis are presented below.

Sensitivity Analysis - Considering IDC as per TAMP Guidelines)

<i>S.No.</i>	<i>Pre-Tax Project IRR</i>	<i>FIRR (%)</i>	<i>NPV @ 9%</i> <i>(in Rs. cr)</i>
<i>1</i>	<i>Base case</i>	<i>16.11%</i>	<i>172.16</i>
<i>2</i>	<i>Capital Cost up by 10%</i>	<i>15.21%</i>	<i>157.65</i>
<i>3</i>	<i>Revenue down by 10%</i>	<i>13.03%</i>	<i>92.55</i>
<i>4</i>	<i>Annual O&M Cost up by 10%</i>	<i>14.12%</i>	<i>124.27</i>

22. From the above, it is evident that the FIRR of the Project at Base case is **16.11%** and in all the other cases of adversity also gives more than 13%. Hence the Project is Financially viable for taking up through PPP in view of interest rates being much lower for investment of funds. The Payback in absolute net revenues works out to be between 13 to 14 years.

23. The PPP operator is permitted to increase the Tariff up to 15% on achieving the Performance Standards from the 2nd year onwards. But the effect of increase may take place from 3rd year onwards. In such case the IRR for the base case works out to **19.36%** with a payback of 12 to 13 years.

24. The Project is not only attractive, it has great economic impact in the region there by much economic benefits for the EXIM trade of the country. The Port may increase their throughput and can earn an incremental revenue not only by Revenue share but also through increased vessel related income besides the Lease rent.

SECTION-1 INTRODUCTION

- 1.1** The Port has two Docks viz. Kidderpore Dock (KPD) and Netaji Subhas Dock (NSD). Kidderpore Dock (KPD) is the older one with 17 Multi-purpose berths and 1 berth for passenger-cum-cargo vessels, 6 Buoys/Moorings and 3 Dry Docks while Netaji Subhas Dock (NSD) is a relatively new one with 1 heavy lift berth, 10 berths including 4 dedicated Container Berths, 1 Liquid Cargo Berth, 4 multi-purpose berths, 2 Buoys/Moorings and 2 Dry Docks. Due to tidal variations in water level of Hooghly, both the docks operate under lock gate system.

The maximum dimension of vessel acceptable at NSD is 172 m LOA and 24.3 m Beam while the maximum dimension of vessel calling at KPD is 157 m LOA and 21.3 m.

Presently most of the traffic is handled at NSD and minimum traffic is handled at KPD. All the container traffic is handled at NSD while KPD handles logs, pulses wheat and fertilisers. During 2017-18, NSD handled a total of 10.12 million tonnes of which 9.79 million tonnes were through containers. During the same year KPD handled only 1.69 million tonnes.

In order to unlock the complete potential of KPD, the Port has initiated the project of “Rejuvenation of KPD” proposed to be executed through Public-Private-Partnership (PPP) mode.

- 1.2** KPD is split into two parts – KPD I and KPD II separated by a bascule bridge. KPD I has 10 berths while KPD II has eight berths. KoPT has now decided to develop the western side berths of KPD I for handling containers and other cargo under PPP mode. They have already initiated action for handling containers here. The Traffic Manager, vide his Trade Circular No. Tfc/6 KPD Cont. Terminal dt. 18th March, 2019 has informed all port users that “*an additional container handling facility has been created by KoPT for handling exim/coastal containers carried by KPD-size geared vessel coming to KDS. For this, a container yard with 100 TGS has been constructed at KPD -I West and the yard includes 6 reefer points for serving 24 reefer boxes at a time. The entire yard has been designed for handling by RST and all slots have been well marked. Container ships may be handled at any suitable berth at*

KPD West but the containers will be stored at the dedicated yard. Customs have also upgraded facilities at their end at the same place for serving the container lines/port users”

The KPD western berths with the newly developed container yard are shown in the following figures. The handling of containers is shown in figures 1.2 and 1.3.



FIGURE 1.1 – KPD I WESTERN BERTHS WITH NEW CONTAINER YARD



FIGURE 1.2 – CONTAINERS HANDLED BY SHIPS' OWN GEAR



FIGURE 1.3 – CONTAINERS STACKED BY REACH STACKER

As of now, ship-shore handling of containers would have to be managed by the feeder operator through their own stevedore/handling agent, as used to happen earlier when KPD used to handle containers. Rail-bound containers of KPD would be handled either at KPD II section (27-29 KPD) or at the present container terminal at NSD and inter-dock movement of containers would be allowed under escort of Customs' PD as per standard procedure.

- 1.3** Kolkata Port Trust desires that the “Rejuvenation of KPD” is to be done be through PPP mode on Build, Equip, operate and Transfer for a period of 30 years. KoPT has done some preliminary assessment of the project and wants to execute it in two Phases.
- Phase-1 of the proposed Project shall have two dedicated container berths and one multipurpose berth with a total Quay Length of 400 m.
 - Phase-2, three more berths in the remaining 400 m of the Quay shall be developed.

The project is expected to be tendered by May/June 2020 and Phase-1 is proposed to be commissioned within 18 months thereof.

- 1.4** In this context, KoPT has commissioned IPA to prepare a Detailed Feasibility Report for this project vide their letter No DCK/WO/18/IPA dated 11.10.2019. The scope of work is defined in Appendix I.

IPA formed a team of experts to prepare the DFR and the team visited Kolkata Port during 13th – 15th November, 2019. The team started the visit with a meeting with the Chairman, Dy. Chairman and the Heads of the Departments. This meeting gave an indication of the background of this project, the demands of the Trade, how the project profile was defined and the way forward.

Later the team held discussions with the Traffic Manager, Chief Mechanical Engineer, Harbour Master (Port) and Harbour Master (River). The team also met Bharat Kolkata Container Terminals Private Limited (BKCT) officials. The team met Jt. Director (P&R) and collected relevant statistical data about the port performance.

The team also interacted with selected stakeholders viz. SCI, CMA-CGM, J.M. Baxi Group, Ocean Network Express Line (India) Pvt. Ltd., Seahorse Ship Agencies (P) Ltd., and Tuberoose Logistics Pvt.Ltd,

The team visited both NSD and KPD. They saw the lock gate at both the dock systems and inspected the berths, yards and sheds.

At the request of the Chairman, KoPT an interim report with six sections upto the Planning Parameters was submitted to ensure that the approach to the project by IPA is in line with the thinking of the port. This interim report was submitted vide IPA letter no. IPA/CSD/353/2019 dated 17th December, 2019.

The interim report was reviewed by KoPT and they indicated, vide their letter no. Tfc/GZZY 241/Rejuvenation of KP Dock dated 20th January, 2019 that the project planning and the project development lifecycle is found to be in order. However, they had made certain observations. Further observations were also indicated through an email from Sr. ATM, KoPT.

This final report was prepared after incorporating the observations made and submitted to KoPT vide IPA email dated 4th February, 2020. At the request of the Chairman, KoPT, this

was subsequently followed by a power-point presentation by IPA team to the Chairman and port officials on 16th March, 2020 through video conferencing. Later, KoPT forwarded their comments on the draft final report through their letter no. Tfc/GZZY 24/Rejuvenation of KP Dock dated 2nd April, 2020. IPA responded to these comments vide their letter no. IPA/CSD/353/2019 dated 8th April, 2020. KoPT gave their final reply vide email from Mr. Girish Thomas dated 6th May, 2020 enabling IPA to finalise the report.

Accordingly, the final DFR has been prepared and is submitted.

SCOPE OF THE STUDY

- c) IPA will undertake detailed Technical economic Feasibility Report for Kidderpore Dock (KPD) of KPD which is presented in the envelope in order to envisage both existing and proposed layout. Current usage along with conditions, and any other change in use of the project area by use, to make it viable.
- d) IPA will also estimate the capacity calculation as per standards for KPD of KPD under Stage I and II.
- e) If the proposed project is to be made by the KPD, it will be reviewed and supported, if necessary, for conditions and other scope. The assumptions and parameters considered by KPD for the study analysis will be examined and modified by the IPA. Then and modified, if necessary, with proper reasoning.
- f) The IPA team will look into the project area with a view to the ship shore facilities, ship to ship and other points.
- g) The project area, yard, draft, berth, equipment, shall be surveyed and measured and the information is to be made available to the KPD by the IPA team members, if the necessary.
- h) IPA will also estimate the requirement of stack yard area as required for the project area.
- i) The ship to ship and other facilities, KPD will be reviewed and supported, if necessary.
- j) The IPA team will also evaluate the technical and financial viability of the project considering all costs, equipment and other factors.

SECTION 2

THE PORT – AN OVERVIEW

2.1 KOLKATA DOCK SYSTEM

Port of Kolkata, the first Major Port in India, is a riverine port. It serves a vast hinterland comprising the States of West Bengal, Bihar, Uttar Pradesh, Madhya Pradesh, Punjab, Haryana, Rajasthan, Assam, other North Eastern States and the two neighbouring landlocked countries viz. Nepal and Bhutan. The Kolkata Dock System (KDS) is situated at Latitude 22° 32' N, Longitude: 88° 18' E in the city of Kolkata,

The Port has two Docks viz. Kidderpore Dock (KPD) and Netaji Subhas Dock (NSD). In addition, there is a tanker terminal at Budge Budge. The details of these are given hereunder.

- Kidderpore Dock (KPD) with 17 Multi-purpose berths and 1 berth for passenger-cum-cargo vessels, 6 Buoys/Moorings and 3 Dry Docks
- Netaji Subhas Dock (NSD) with 1 heavy lift berth (with 200 tonnes shore-based Cantilever Crane), 10 berths including 4 dedicated Container Berths, 1 Liquid Cargo Berth, 4 multi-purpose berths, 2 Buoys/Moorings and 2 Dry Docks
- Budge Budge has 6 Petroleum Wharves
- Anchorages at Sandheads, Saugor and Diamond Harbour

The following picture shows the locations of the two dock systems:



KIDDERPORE DOCK (KPD)

The KPD comprises two dock basins separated by a bascule bridge. KPD I has 10 berths and KPD II has 8 berths as shown in the following picture. The entrance to basin is through twin locks. The available berthing facilities are listed in the Table hereunder.



DETAILS OF BERTHING FACILITIES AVAILABLE AT KPD

Sl. No.	Berth No.	Length (m)	Water Depth (m)	Commodity Handled
KPD I				
1	1	133	7.8	General Cargo
2	3	128	8.4	General Cargo
3	4	136	8.7	General Cargo
4	5/7	229	8.6	General Cargo
5	6	118	9.0	General Cargo
6	8	128	9.2	General Cargo
7	9	108	9.0	General Cargo
8	10	161	8.9	General Cargo
9	11	151	8.7	Passenger
10	12	143	8.9	General Cargo

KPD II				
1	22	151	8.6	General Cargo
2	23	147	8.8	General Cargo (Grain Silos)
3	24	152	9.1	General Cargo
4	25	169	8.8	General Cargo
5	26	185	8.4	General Cargo
6	27	195	7.7	General Cargo/Log, Heavy lift
7	28	195	8.5	General Cargo/Log, Heavy lift
8	29	183	7.4	General Cargo/Log, Heavy lift

NETAJI SUBHAS DOCK (NSD)

The NSD comprises a dock basin with a single lock entrance and has 10 berths and 2 dry docks as shown in the following picture. The available berthing facilities are listed in the Table hereunder:



DETAILS OF BERTHING FACILITIES AVAILABLE AT NSD

Sl. No.	Berth No.	Length (m)	Water Depth (m)	Commodity Handled
1	1	200	7.1	Heavy Lifts & General Cargo
2	2	187	7.8	General Cargo
3	3	183	9.0	General Cargo
4	4	181	8.6	Container
5	5	182	8.2	Container
6	7	192	8.5	Container
7	8	225	8.0	Container
8	12	152	8.1	Liquid cargo/POL
9	13	174	8.2	General Cargo
10	14	174	7.4	General Cargo

BUDGE BUDGE OIL JETTIES

Amongst the earliest handling facilities that were constructed on the River Hooghly, the Oil Jetties at Budge Budge continue to be operational. There are 6 jetties of different sizes with associated storage facilities. The available berthing facilities are listed in the Table hereunder

DETAILS OF FACILITIES AVAILABLE AT BUDGE BUDGE PETROLEUM WHARVES

Sl. No.	Berth No.	LOA (feet)	Water Depth (m)	Commodity Handled
1	1BB	620	11.5	Liquid Bulk
2	2BB	340	11.5	Liquid Bulk
3	3BB	460	11.5	Liquid Bulk
4	5BB	620	10.5	Liquid Bulk
5	7BB	460	8.5	Liquid Bulk
6	8BB	580	8.5	Liquid Bulk

ANCHORAGES AT DIAMOND HARBOUR, SAUGOR AND SANDHEADS

Round the year lighterage operation is undertaken at Sandheads, Sagar and Diamond Harbour. Whereas there is no restriction on the dimensions of the mother vessel handled at Sandheads, LOA of vessel is restricted to 275 metres at Sagar and 200 metres at Diamond Harbour. Depths at these anchorages have been stable over the years. However, lighterage operations at Sandheads is

undertaken near Eastern Channel Light Vessel during fair weather and the operation is shifted to off Kanika Sand within the extended western limit of KoPT in foul weather.

The Virtual Jetty at Sagour has been functional for loading and unloading operations in all seasons and takes care of Panamax size vessels with draft of 10.5 mtrs. Four mooring buoys have been placed in 2004 at four sides to tie-up the ship, so that the barges/small vessels can tie-up alongside for stable loading/unloading operation. The location of the mooring buoys is at a distance of about 1000m from the western bank of Saugor Island.

The main advantages of the lighterage operations are:

- Better flexibility in vessels operation,
- No more waiting for favourable tide
- No restrictions on dimension of vessels
- Variable draft depending on the location but stable over the years
- Shorter navigable distance from Sandheads
- Reduction in turn round time of vessels.

2.2 NAVIGATIONAL CHANNEL AND NAVIGATION

Kolkata Port Trust (KPT) maintains two approach channels from sea one via Eastern channel for vessels visiting to KDS and the other via Eastern channel / EDEN for vessels visiting to HDC as shown in Figure 2.1.

The pilotage distance to KDS is 223 km comprising 148 km of river and 75 km of sea pilotage. Remote pilotage assistance is provided through VTMS during the sea passage of the vessels in both the channels.

Both the KDS and HDC channels are well marked with nearly 125 light vessels / lighted buoys and 500 shore marks.

No vessel over 200 GRT is allowed to navigate without a qualified pilot of KoPT. The pilotage distance is about 126 nm. The Port maintains a Pilot Station/vessel at Saugor along with 2 pilot launches for transportation of pilots. The River Pilot embarks inbound vessels at Middleton Point and proceeds up the river. On arrival at Kolkata (Garden Reach), the River Pilot is relieved by a Harbour Pilot who takes the vessel inside the lock at KPD or NSD. From the lock, the vessel is guided to the nominated berth by a Dock Pilot. For the outbound passage, this process is reversed.



FIGURE 2.1: APPROACH CHANNELS TO KOLKATA & HALDIA

Kolkata being a riverine port, advantage is taken of the rise of tide so as to obtain the maximum draught for shipping. Variation of draught occurs between spring and neap tides and forecast of draught for inbound and outbound ships are published from Kolkata by the Harbour Master (River) about 4 to 6 weeks in advance.

Because of the sharp bends in the river, the length of the ship that can be accommodated at Kolkata is restricted to 172 m at Kolkata and 189 m at Budge Budge.

All vessels approaching Sandheads in the vicinity of Eastern Channel Light Vessel are required to contact Pilot Station situated at Saugor Island identified as Sandheads Pilot and VTMS control on channel 16 and 68 for instructions. Vessels are not allowed to proceed north of Lat $21^{\circ} 00'$ without a Pilot. On receipt of information about the vessel arrival, the pilot station intimates the vessel's entry timings and allocates a position in the convoy. The

following information is given to the vessel viz. Convoy number; number of ships in the convoy; names of preceding and succeeding vessels; Lower Gasper reporting time and Upper Gasper reporting time. The average convoy speed to be maintained is 12 knots and minimum separation of 1.5 nautical miles form up in their designated position in convoy. No overtaking is permitted.

2.3 PORT CONNECTIVITY

RAILWAY LINKAGE

Railway linkages are available to the KDS through the Sealdah station on the left bank of the river and to a couple of river side jetties including the oil terminal at Budge Budge as shown in figure 2.2. On the right bank railway connectivity is available through Oil terminal hub at Mourigram.

Container Corporation of India (CONCOR) runs Container train service to ICD Tughlakabad (TKD) from Kolkata Dock System (KDS) KoPT is also linked with ICDs at Amingaon (Assam) and Birgunj (Nepal). The service provides a hassle-free movement at a competitive rate.

CONCOR runs regular services for containers between KDS and ICD Birgunge in Nepal. This service was introduced in July 2004 and presently about 4-5 rakes per week leave for this ICD from KDS.

Regular service to Amingaon takes place only during the Tea Season with around two rakes per week. There is no regular container rail service between Jamshedpur ICD and KDS.



FIGURE 2.2 : RAILWAY NETWORK AROUND KOLKATA

ROAD ACCESS

Kolkata Dock System is contiguous with the Kolkata Municipal Corporation. The roads leading traffic into and out of KDS are crowded and narrow with major congestion and traffic jams.

The KPD & NSD are located at a distance of approximately 10 km from the junction of NH2 & NH6. The junction of NH34 and the Airport road is about 25 kms from the Dock area.

Diamond Harbour Road, Taratala Road and Garden Reach Road (peripheral roads) are 4-lane and periodically strengthened and upgraded, but due to a mix of local and cargo traffic often these are congested.



FIGURE 2.3 : REGIONAL ROAD CONNECTIVITY

INLAND WATERWAYS

Inland Water Transport assumes significance as KoPT can harness the immense potential of two of the existing water ways (National Waterway No 1 on Ganga River from Haldia to Allahabad and the National Waterway No. 2 on Meghna-Yamuna–Brahmaputra to North Eastern states as shown in Figure 2.4) to its advantage in the North-Eastern region. Operation of these two waterways was under the control of Central Inland Water Transport Corporation (CIWTC) in the recent past.

The major Inland Water (IW) traffic on the above-mentioned routes NW-1 & NW-2 plies under a renewable bilateral protocol with Bangladesh. The transit routes under the protocol are as follows (to & fro):

1. Kolkata-Haldia-Rajmangal- Chalna-Khulna-Mongla-Kaukhali-Barishal-Hizla-Chandpur-Narayanganj-Aricha-Sirajganj-Bahadurabad-Chimari-Dhubri-Pandu.
2. Kolkata-Haldia-Rajmangal-Mongla-Kaukhali-Barishal-Hizla-Chandpur-Narayanganj-Bhairavbazar-Ajmiriganj-Markuli-Sherpur-Fenchuganj-Zakiganj-Karimganj



FIGURE 2.4 : IWT ROUTE THROUGH BANGLADESH

2.4 CLIMATIC CONDITIONS & TIDAL DATA

Climate

The climate of the West Bengal is tropical having four well-marked seasons, i.e., summer (March – May); monsoon (June – September); post monsoon (October – November); winter (December – February).

Temperature

The month of May is the hottest, whereas December and January are colder months. According to the IMD data between 1961 and 1990, the highest temperature recorded in 30 years is 40.6° C. The lowest temperature was observed to be 9.7°C.

Rainfall Data

This region is mainly exposed to Southwest monsoon from June to September and an annual rainfall of more than 1700 mm were reported for the two locations. The IMD data suggests that the months of July and August are the wettest months having monthly rainfall of more than 350 mm. During northwest monsoon from November to March, monthly average rainfall of less than 50 mm is experienced.

Visibility

At times due to heavy rainfall poor visibility is reported during the southwest monsoon. On an average, fog is reported on 5-7 days in each month from November to February during morning hours.

Wind

The predominant wind direction reported at Alipur, Kolkata and Sagar Island, is from south and southwest. About 25 % of the time wind was reported to be blowing from north and northeast. The highest wind speed of 16 knots was reported in the month of May. During the months of April to August wind speed was found to be higher than 10 knots

Tidal Data

The tide levels of River Hugli at Garden Reach above KODS at Garden Reach are as follows:

Highest High Water (HHW)	: (+) 7.70 m CD
Mean High Water Spring (MHWS)	: (+) 5.62 m CD
Mean High Water (MHW)	: (+) 5.01 m CD
Mean High Water Neaps (MHWN)	: (+) 4.10 m CD
Local Mean Water Level (LMWL)	: (+) 3.19 m CD
Mean Low Water Neaps (MLWN)	: (+) 2.00 m CD
Mean Low Water (MLW)	: (+) 1.68 m CD
Mean Low Water Springs (MLWS)	: (+) 1.41 m CD
Lowest Low Water (LLW)	: (+) 0.14 m CD

Earthquake

Seismic loads are estimated according to modified clause for the interim measures for seismic provisions clause 222 of IRC:6-2000. Horizontal seismic forces to be resisted shall be computed as follows:

$$F_{eq} = A_n \times (\text{Dead Load} \pm \text{Appropriate Live Load})$$

$$A_n = \{(Z / 2) \times (S_a / g)\} / (R / I)$$

$$\text{Horizontal Seismic Co-efficient} = 0.18$$

$$Z = \text{Zone Factor} = 0.24 \text{ (Table 5)}$$

$$S_a / g = \text{Average response acceleration coefficient} = 2.50$$

$$R = \text{Response Reduction Factor} = 2.50$$

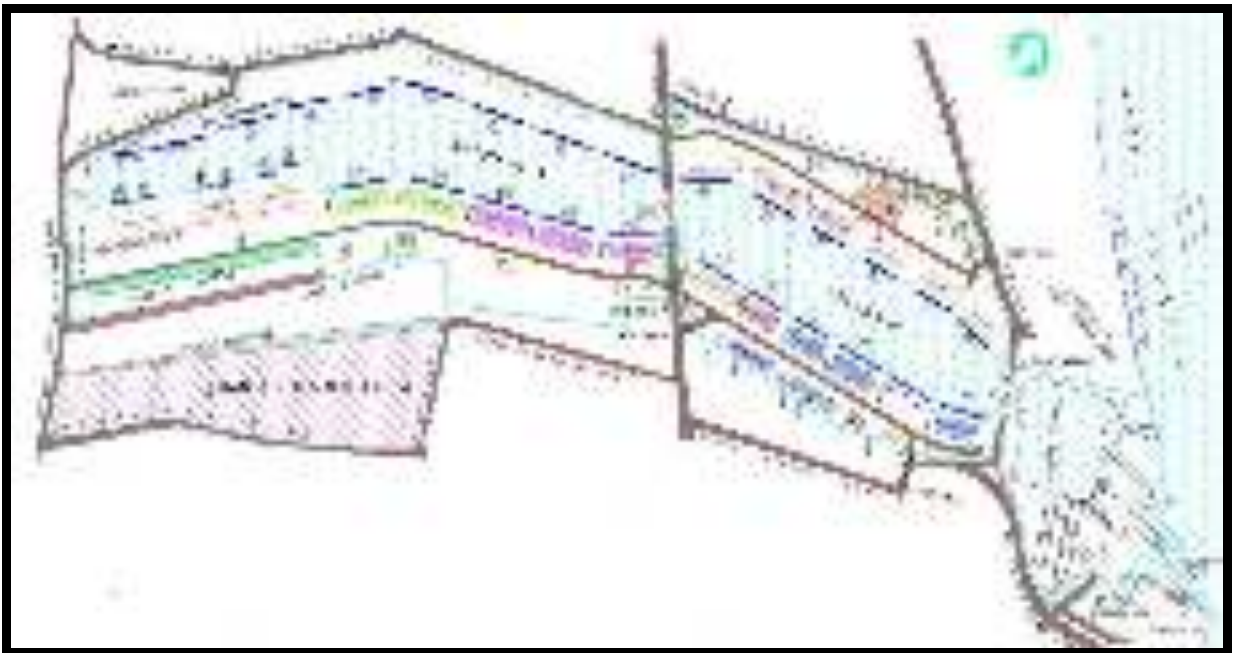
$$I = \text{Importance Factor} = 1.50$$

SECTION 3

FOCUS ON KIDDERPORE DOCK

3.1 GENERAL

Kidderpore dock is the older of the two docks in Kolkata port. It is operated through a lock gate. It is divided into two parts – KPD I and KPD II. These two are separated by a bascule bridge.



OVERALL VIEW OF KIDDERPORE DOCKS I & II

Kidderpore docks are located at about 30 nautical miles from Diamond Harbour. This stretch of Hooghly river is having a number of bends and there are about 18 bars in between. In view of this, there is no night navigation in this stretch and the vessels sail in and out only during daytime.

When the vessels reach KDS sailing along with the tide, there is an anchorage available at Nazirgunj Flat north of Garden Reach where anchorages are available for accommodating 5 vessels to wait for their turn in getting the berths.



NAZIRGUNJ FLAT WITH ANCHORAGE FOR SHIPS

3.2 ENTRY TO KIDDERPORE DOCKS

The entry to the docks is through a lock gate. The lock barrel length is 176.8m (580 ft) and the width is 24.4m (80 ft). Accordingly, the maximum LOA of vessel will be 157 m (515 ft) and the maximum beam will be 21.35 m (70 ft).

The water level inside the tidal basin and the docks is maintained at 6.2 m. If the water level outside when the ship arrives at the lock is more than 6.5 m the gate is not opened. The ship waits till the water level comes down to 6.2 m.

The ship first positions itself along the lead-in jetty. Then the front gate is opened and the ship moves inside the barrel. This movement is effected by passing the mooring ropes on to the bollards on the side wall and tightening the ropes through capstans on the ship. After it is fully inside the barrel, the front gate is closed. Then the second gate is opened and the ship gets into the tidal basin and the second gate is also closed.

Till sometime back, when the ship is inside the tidal basin, it is turned around with the use of four capstans so that the fore of the ship faces the lock gate. Over the years, with the number of ships calling coming down and the capstans getting disused, the ships are no longer turned around.

Thereafter, the swing bridge is turned around and the ship is taken inside the dock I or II with the help of tugs and berthed at the scheduled berth.

The whole operation through the lock gate normally takes around 1 to 1½ hours.

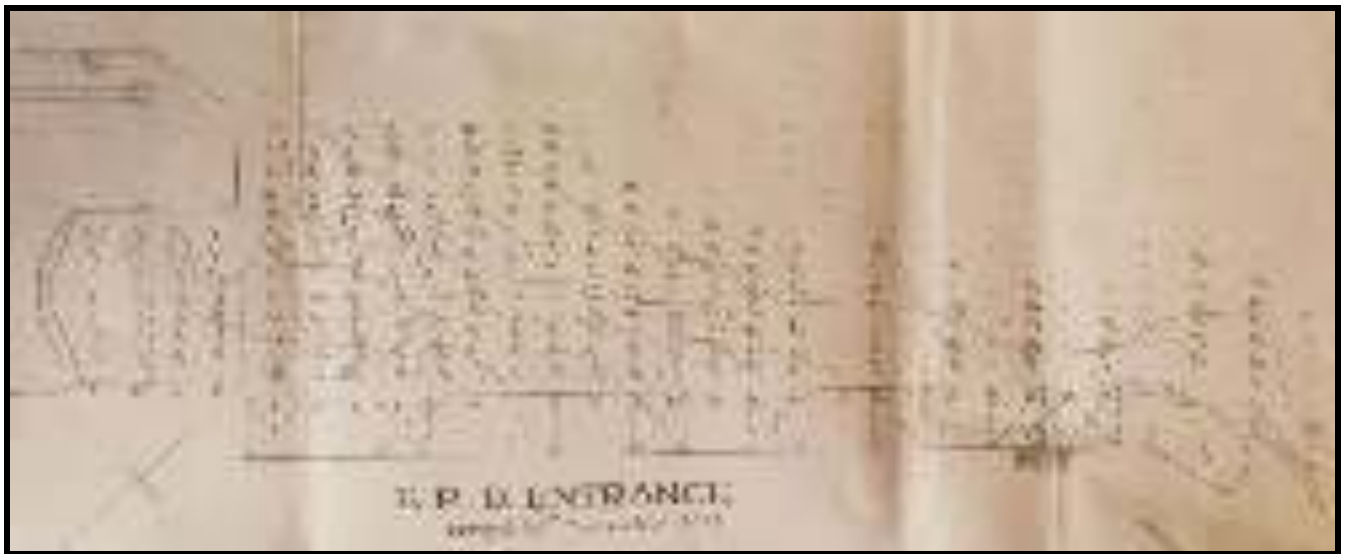
The depth in front of the lock gate is about 2.9 to 3 m. With the opening of the gate, this place gets silted up and there is a need to dredge this area daily with the help of grab dredger.



KIDDERPORE DOCKS – LOCK GATE AND TIDAL BASIN



LEAD-IN JETTY FOR ENTERING KIDDERPORE DOCKS



SOUNDINGS NEAR THE LEAD-IN JETTY



LOCK BARREL



SOUNDINGS INSIDE THE LOCK BARREL



INSIDE VIEW OF THE LOCK GATE



OUTSIDE VIEW OF THE LOCK GATE



A VESSEL INSIDE THE LOCK BARREL

3.3 KIDDERPORE DOCKS I & II

Once a ship enters the tidal basin, depending upon its scheduled berth, it proceeds to Kidderpore Dock I or Dock II. These two are separated by a bascule bridge. Since this bascule bridge is serving as a thoroughfare for city traffic, it is always congested. Hence the city authorities permit the opening of this bridge for passage of ships/barges only from midnight to 4.00 AM.

The details of these two docks are presented hereunder.



KIDDERPORE DOCK I

Dock Particulars	Barris Particulars		
	No.	Length (m)	Width (m)
KPID I - EASTERN KIDDERPORE DOCK	1	155	18.35
	4	155	18.35
	5+7	320	18.35
	9	155	18.35
	11	155	18.35
KPID I - WESTERN KIDDERPORE DOCK	1	155	18.35
	4	155	18.35
	6	155	18.35
	8	155	18.35
	20	155	18.35
	22	155	18.35



KIDDERPORE DOCK II

Dock Particulars	Barris Particulars		
	No.	Length (m)	Width (m)
KPID II DOCK II	22	155	21.5
	23	155	21.5
	24	155	21.5
	25	155	21.5
	26	155	21.5
	27	155	21.5
	28	155	21.5
	29	155	21.5



RAILWAY SYSTEM SERVING KIDDERPORE DOCK

3.4 KPD I – WESTERN BERTHS

Kidderpore docks are the oldest construction in the port which are more than 130 years old. No proper detailed drawings are available for the quay wall structure as well as the adjoining transit sheds. Immediately after the construction, there was a major disaster in the form of slippage of the eastern quay wall for about 457 m and bulging of about 137 m of southwest wall. In order to examine and for suggesting remedial measures, a GoI committee was formed and we are able to get an idea about the cross section of the quay wall and the later remedial measures taken. Taking into consideration these cross sections and relating this with the existing soil data, the civil engineering department was able to limit the possible loading on the quay wall and the back-up area.



Since the proposed project is to be located at this western portion of KPD I, this portion is examined in more details in this sub-section.

OVERALL LAYOUT OF WESTERN BERTHS

The overall layout of the western berths is shown in the following figure.

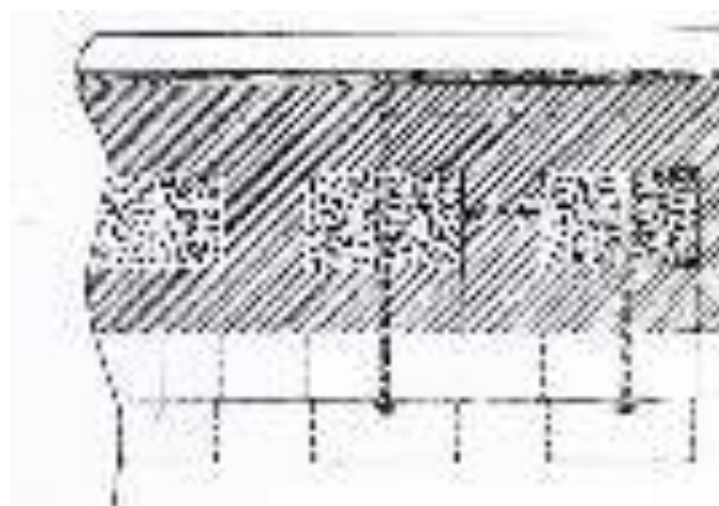
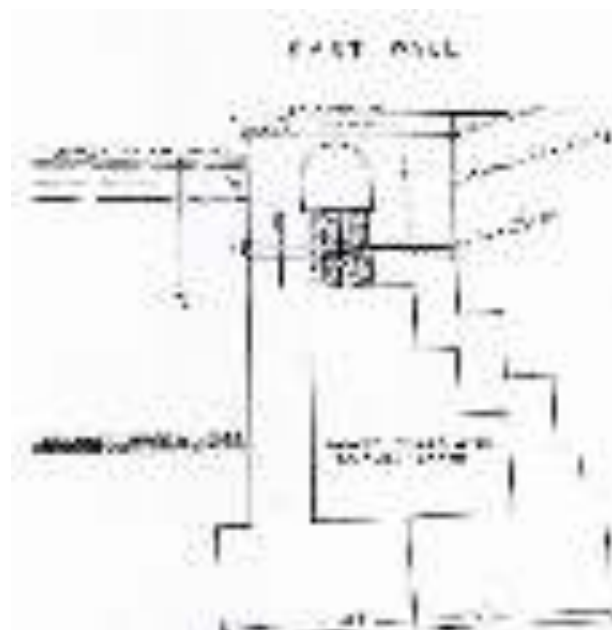


OVERALL LAYOUT OF KPD I WESTERN BERTHS

There are five berths located here viz. berths no. 2,4,6,8,10 and 12. The extreme berths Nos. 2 and 12 are laid out in a squew as compared to the other 4 berths which are in a straight line. All the berths are provided with transit sheds which are located at about 15.2 m from the berthing face. There are open spaces beyond the transit sheds as could be seen in the figure.

QUAY WALL STRUCTURE

Cross section of Eastern berths as given in the Proceedings of the GoI Committee dt.24.02.1891.



Extract from the proceedings of the Committee



1. The Committee have carefully considered the Engineer's proposal to fix the minimum level of the water in the dock at 22 above datum, together with Captain Campbell's objections to this. They are of opinion that this proposal will not affect the safety of the shipping, or materially influence the efficiency of the dock; and as they consider it to be of vital importance to afford every possible support to the walls, they recommend that the Engineer's proposal be adopted.

2. The Committee hold that the movement of the east wall has resulted in splitting it into two halves longitudinally and for nearly its entire length. They consider that steps must be taken to prevent any further separation between the front and the back of this wall, and recommend that the earth filling in the "pockets" be taken out to a depth of 16 feet below coping level and substituted by good hydraulic lime concrete. Also that a 2½-inch bolt be passed right through the wall and concrete in each pocket, a "green heart" walling being given as a horizontal weather-plate for these bolts on the dock face, and at the back a vertical channel iron will take these bolts and also a 2-inch bolt securing an upper walling of tank just below the coping.

It has been indicated that the cross section of western berths will be similar to the eastern berth except that the cement concrete under the service duct is replaced with rammed earth.

The committee report talks of a bolt passing through the wall and at the back a vertical channel iron will take these bolts.

Photos taken of the berthing face of berths 2 and 4 on the western side confirm this. Hence it is presumed that the same cross section as the eastern side.



BERTHING FACE JUNCTION OF BERTHS 2 AND 4

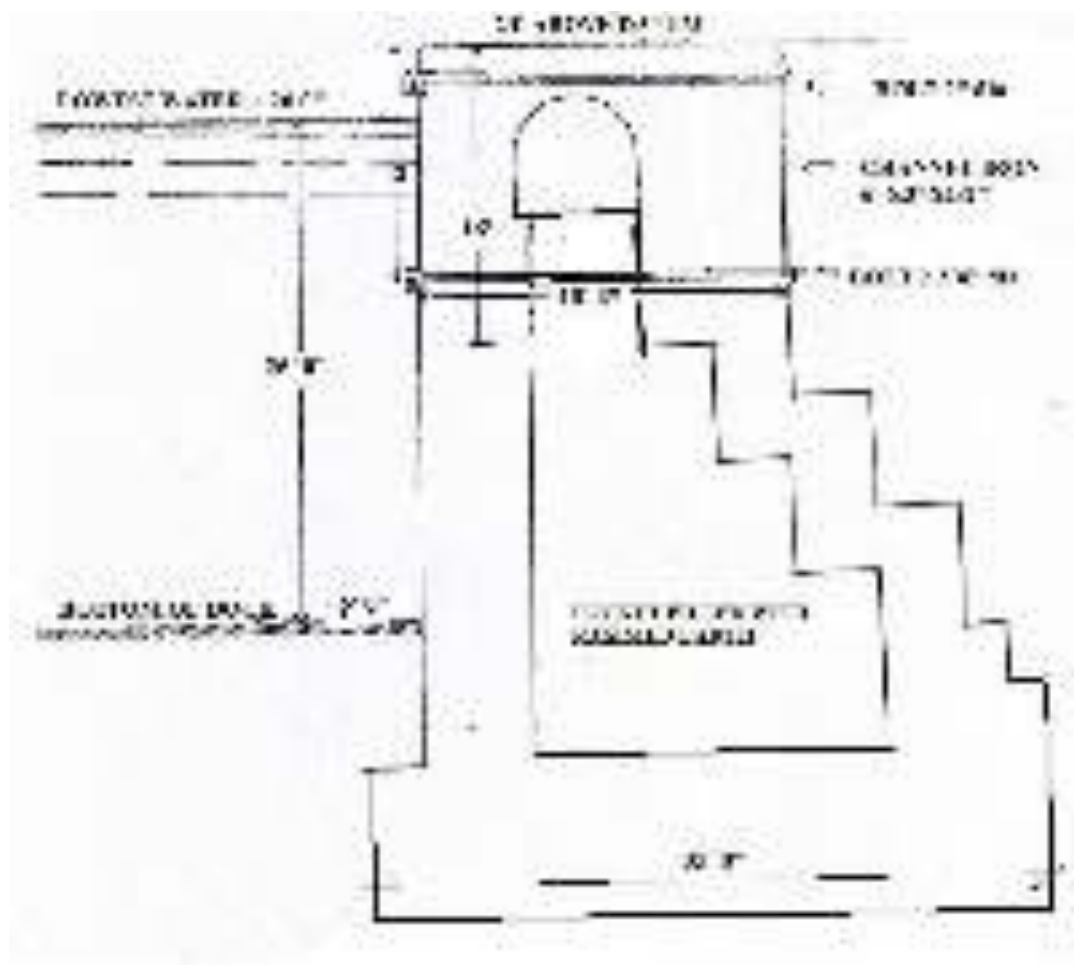


BERTHING FACE OF BERTH 4



SURFACE OF BERTH No.4

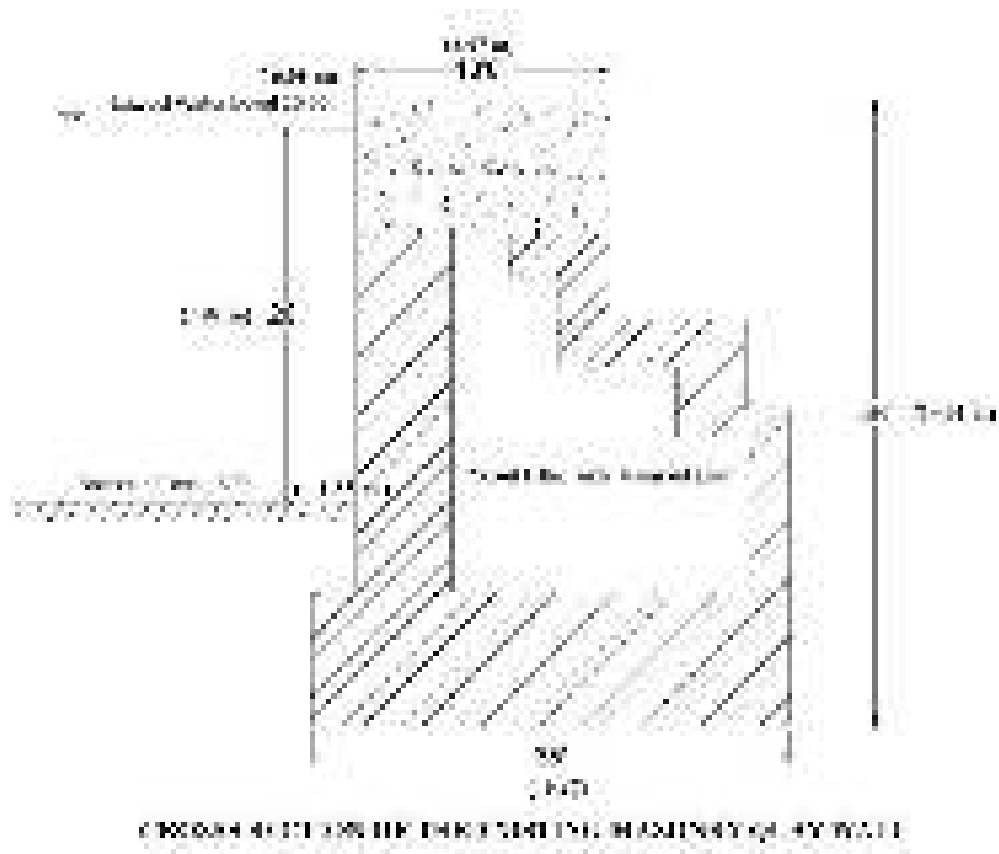
Based on these, the cross section of western berths 2 to 10 is shown as follows:



The top of the Berth surface is either laid with lime concrete or replaced with cement concrete, done during repairing of damaged top surface.

A clear width of 3.4m from quay wall should be left for the presence of service duct in the Berths. As such, the outer edge of the pad of MHC can be placed keeping a clear width of 3.4m from quay wall.

However, a quay length of 450' from the extreme end of south western corner of Berth No 12 towards North, referred as southwest wall in the committee report, has a different cross section which is shown hereunder.

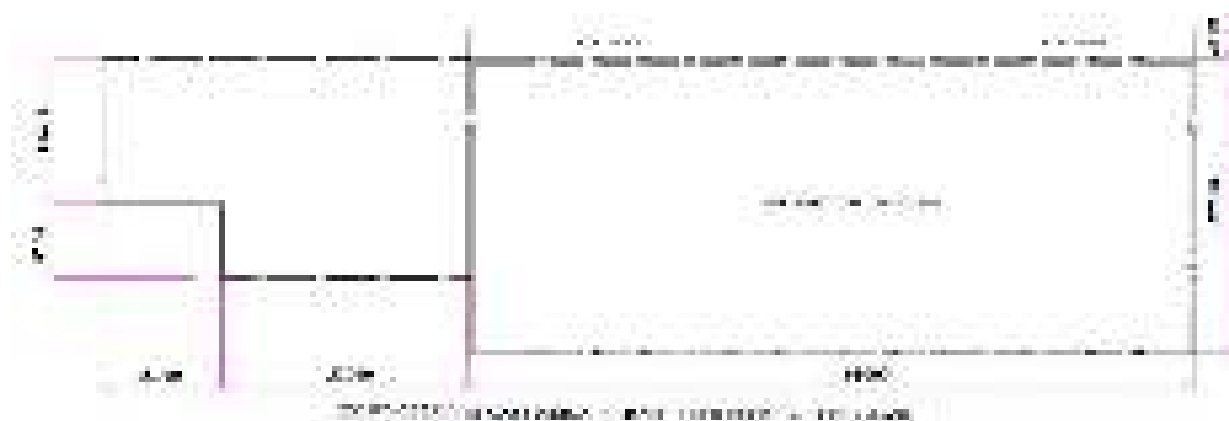


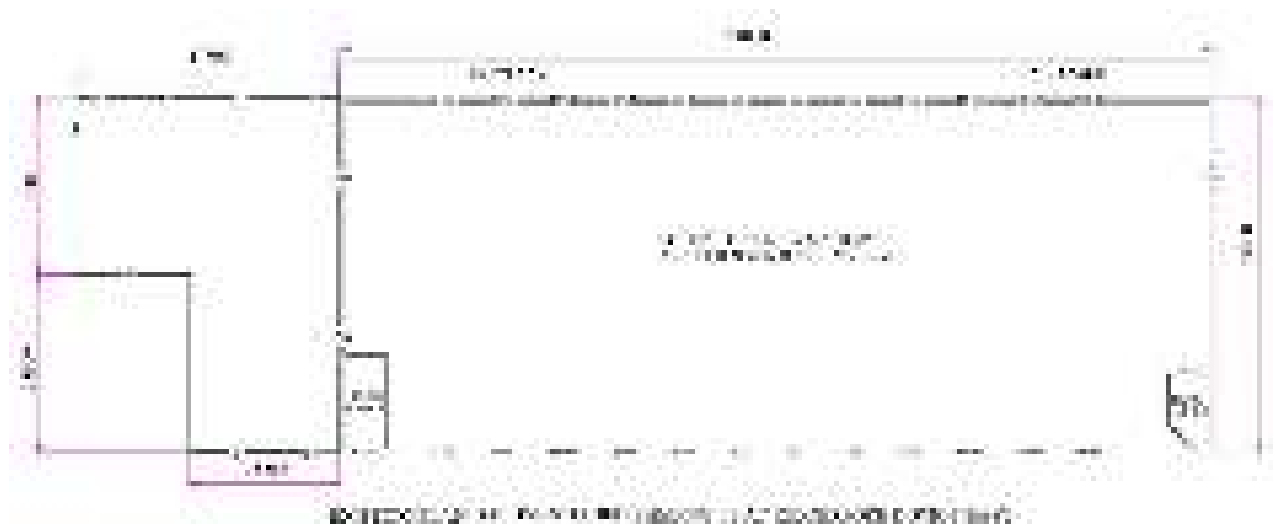
TRANSIT SHEDS AT BERTHS

As said earlier, all the berths on the western side are provided with transit sheds. These sheds are twin bayed with steel trusses supported on lattice girders and steel columns. The sheds at berths Nos. 2 and 4 are similar while the other sheds are having their own configurations.

The plan with the dimensions and area of all these sheds are presented hereunder.







LOCATION OF SHEDS RELATIVE TO THE QUAY WALL



FRONT VIEW OF SHEDS Nos 2 & 4



INSIDE VIEW OF THE SHED



ANOTHER VIEW OF SHED INSIDE



ONE MORE VIEW OF SHED INSIDE



STEEL COLUMN SUPPORTING THE LATTICE GIRDER



ROOF TRUSS SUPPORTING ARRANGEMENT

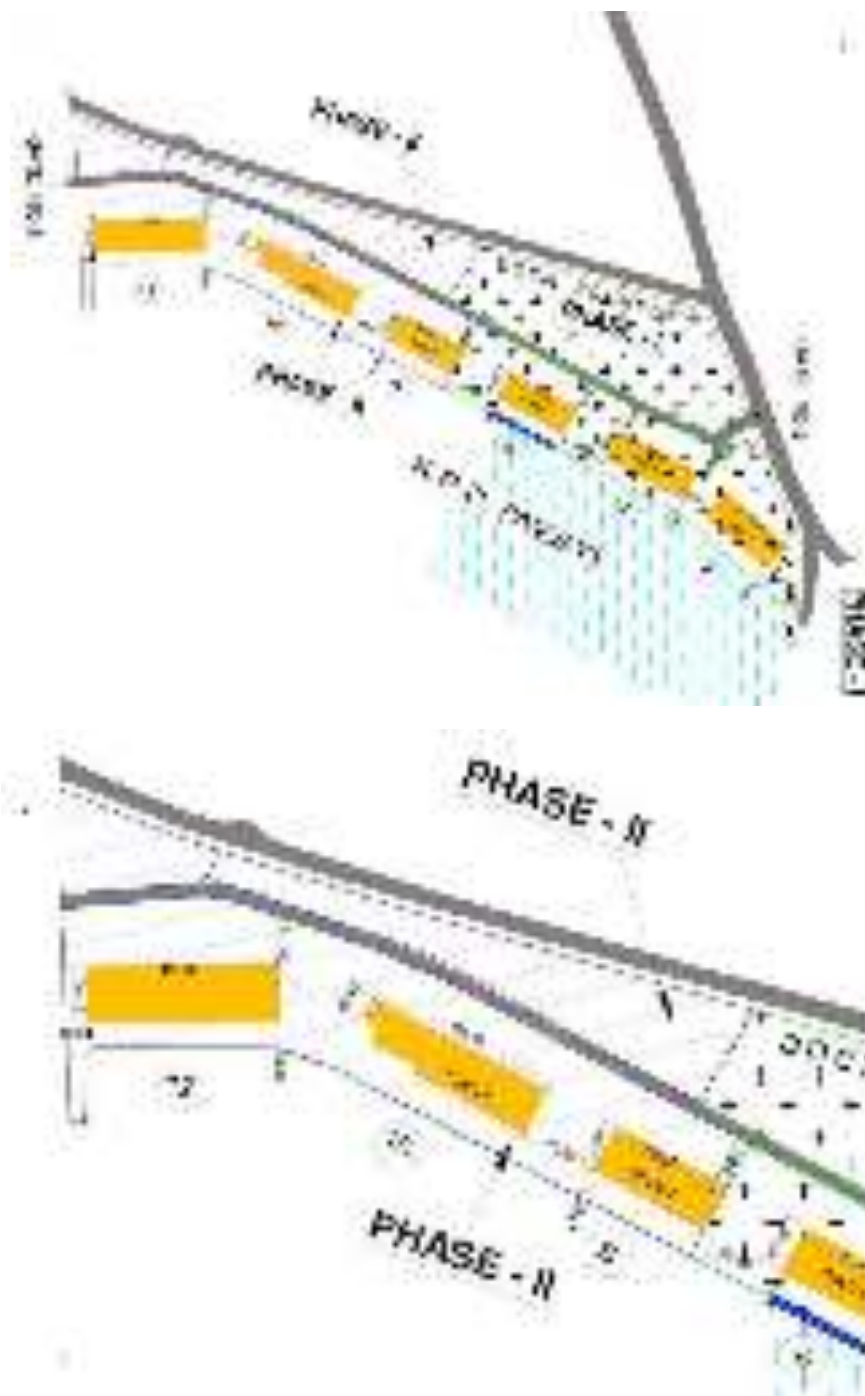
BACK UP AREA BEHIND THE BERTHS



The back-up area behind the berths on the western side is shown in the above figure. In this area, the port has recently developed a container yard with 100 TGS which includes 6 reefer points serving 24 reefer boxes at a time. The entire yard has been designed for handling by RST and all slots have been well marked.

The port has planned to execute this rejuvenation project in two phases and has tentatively earmarked back-up areas for each phase as indicated hereunder.

AREA STATEMENT, PHASE-I			AREA STATEMENT, PHASE-II		
Sl. No.	Description	Area (sq. m)	Sl. No.	Description	Area (sq. m)
1	Area I	10,000	1	Area II	10,000
2	Area II	10,000	2	Area III	10,000
3	Area III	10,000	3	Area IV	10,000
4	Area IV	10,000	4	Area V	10,000



SOIL DATA

No recent soil data of the western side is available. The only data available is when soil investigations were carried out during January – February 1978 by K.N. Dadina in connection with the proposal to replace the swing bridge.

The boreholes nearer to the western side are shown in the following figure. Key excerpts from the report are reproduced hereunder.

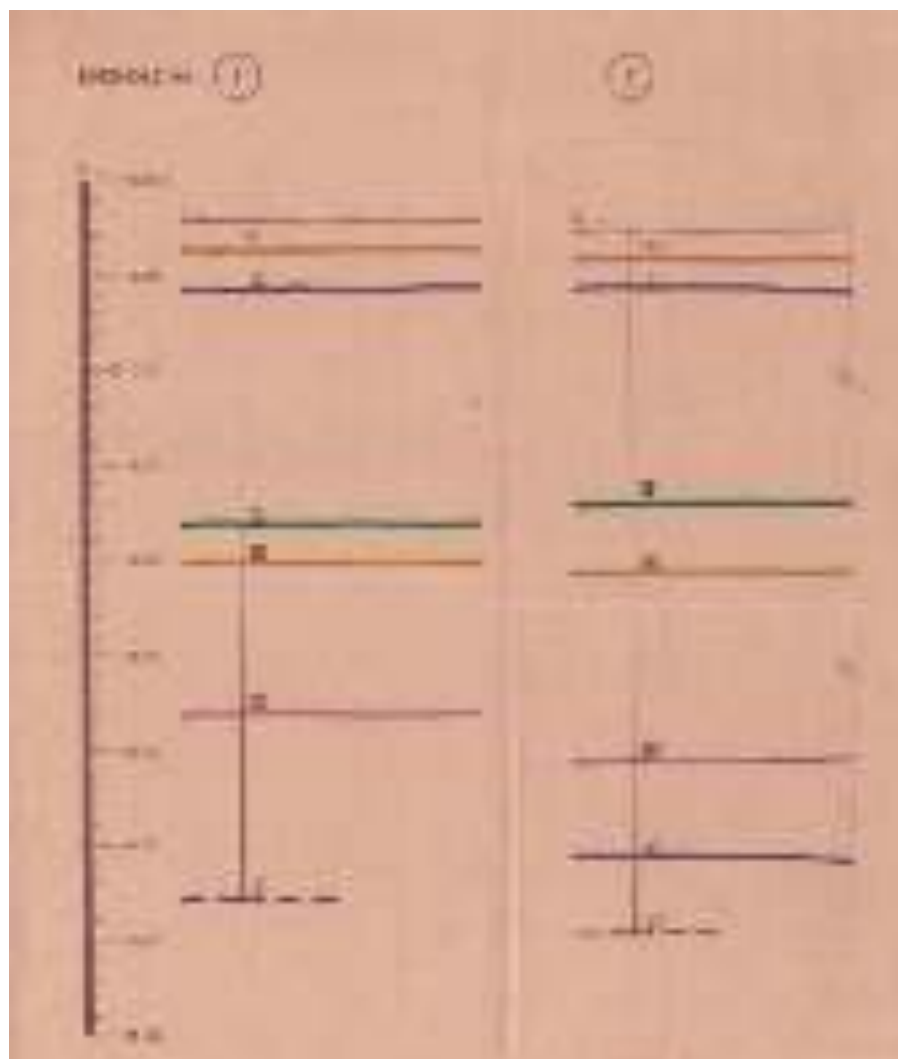


The object of this investigation was to study the geology and characteristics of the underlying deposits and to determine the bearing capacity of soil for construction of structures.

TABLE 1 - REPORT OF BORINGS WITH REMARKS

Borehole No.	Depth (ft)	Bearing Capacity (lb/sq ft)		Remarks
		From	To	
1.	4.61	+ 0.35	+ 1.70	In Dock (Western side)
2.	22.71	+ 1.21	+ 17.04	In Dock (Western side)
3.	27.05	+ 1.26	+ 26.52	In Dock (Western side)

rock wall. The rock wall is in good condition and the quantity was estimated as in Section 1, 2, 3, 4 & 5. It is to be noted that the structure is made up of brick masonry with lime mortar. The following records and subsequent remarks of survey party reveal that the brick masonry is in good condition and the following remarks of survey samples collected from top to bottom are found to vary from 75.6 kg/cm² to 94.8 kg/cm².



[illegible][illegible]

Deposit is absent in localities 1 & 2 and is found in the remains of the bridge the debris were put down through soil. It is colored mainly white and contains fine-grained iron particles. In locality 4 this deposit exists as clayey silt containing traces of fine-grained minerals sand. The thickness of this strata at localities 1, 2, 5 & 7 is observed to be 1.5m. In 3 and 6 the deposit vary. Due to its limited thickness not much soil may have not collected and only particles of clay and silt may be carried out in this deposit.

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colours. Dying in the water by rain. Found in a soft to medium sand and is dark bluish-grey in colour. It grows prostrate or semi-erect with sparse and delayed vegetation. As already indicated earlier, due to extensive thickness of PILL (which is 10-15 cm) the growth of PILL is a slow process. It is found in the water (6-8) and in the sand (10-12). The colour of the water is brown to very dark brown.

Strata V₁ - loam to very coarse fine-grained SAND SILT
with little cohesion (M) :- This deposit is
predominantly silty and contains fine-grained siliceous sand par-
ticles to increasing percentage with depth. It exhibits little
cohesion even early in its upper part. In situ density of
the deposit generally increases with depth. As all borings at
site were commenced in this deposit, the range of thickness of
this strata has not been ascertained.

For further classification and properties, full report is available with the Civil Engineering Department.

4.1. INTRODUCTION

For the rejuvenation of KPD 1, the Port has chosen the 6 berths on the west arm and grouped them in two clusters. The first cluster comprises berths 2, 4, 6 and the second 8, 10 and 12. The Port wants to implement the rejuvenation in 2 phases. In the first phase it will redevelop the first cluster and in the second phase the second cluster.

The Port proposes to use the PPP mode to revitalize KPD. Under the plan the PPP operator will handle all dry cargoes at both the clusters but dedicate 2 of the 3 berths in each cluster for container, and handle container and other cargoes with appropriate and specialized equipment like harbour mobile cranes, reach stackers, payloaders, dumpers, etc.

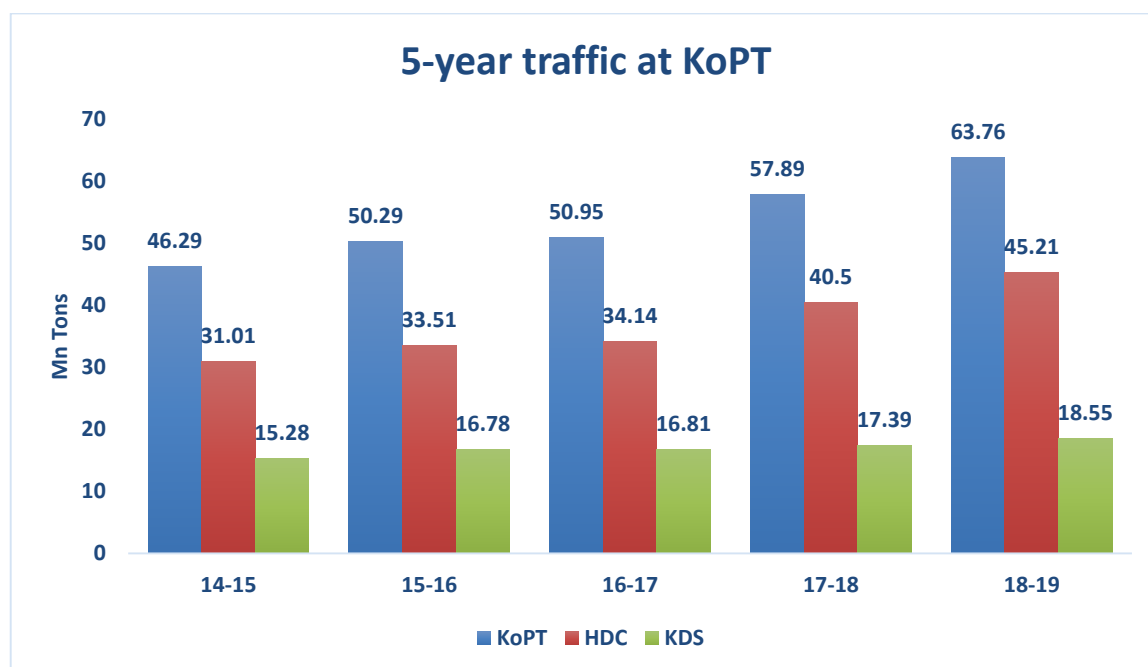
The objective of the traffic study is to identify the potential cargoes for the two KPD 1 clusters slated for rejuvenation and to assess the traffic potential of each cluster for the next 30 years, up to 2050,

4.2 METHODOLOGY

- reviewing the traffic handled at the entire Kolkata port in the last 5 years in order to evaluate the pattern and trend of traffic handled at Kolkata Dock System and Haldia Dock Complex
- scrutinizing HDC's traffic to explore the possibility of any part of its traffic moving to KDS
- examining the locations where the traffic of KDS are handled, which cargoes and how much of them are handled at each location, in order to determine which commodities have the prospect to come to KPD 1 Clusters
- analysing the traffic handled at KDS berths in the last 2 years to observe which traffic is growing, consistent, fickle or receding
- applying two yard sticks and a filter to identify the final principal cargoes for Cluster 1 and Cluster 2

4.3 REVIEW OF OVERALL TRAFFIC

The following chart shows the traffic handled at the entire Kolkata Port including Kolkata Dock System (KDS) and Haldia Dock Complex (HDC) in the last 5 years, up to 2018-19.



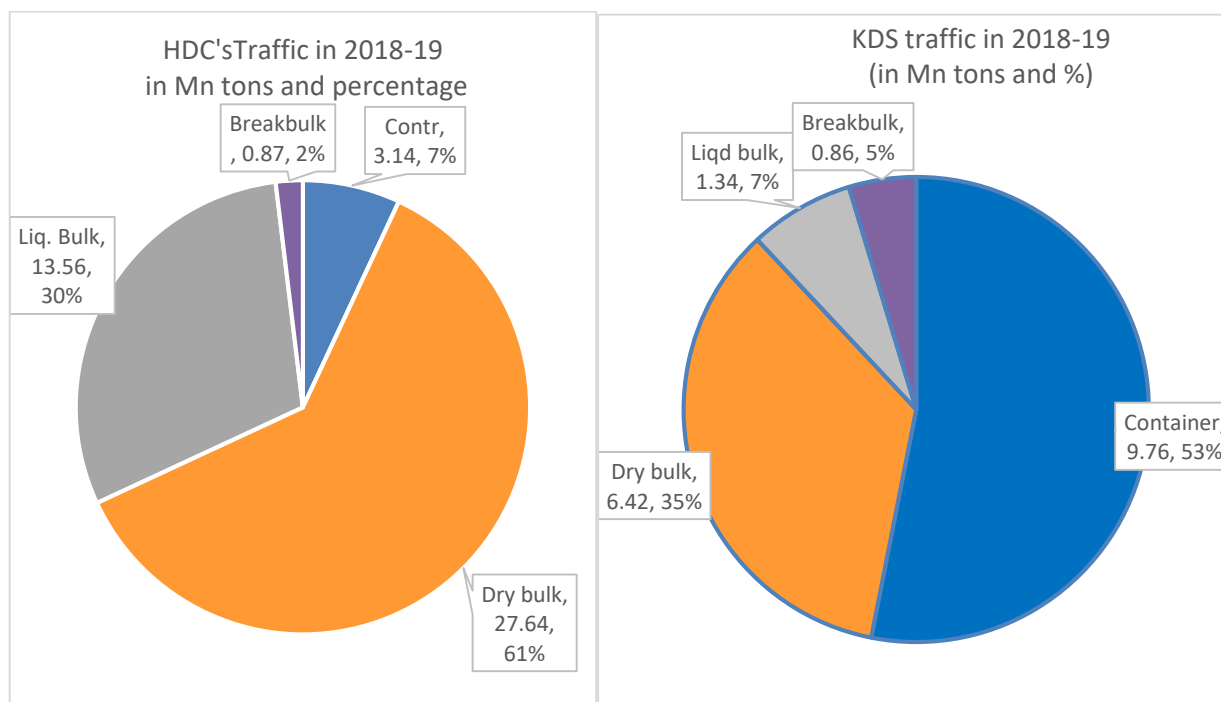
Observations on the Traffic

While the traffic at the whole of Kolkata Port grew at 6.61% CAGR in the above period, it was muted at KDS at a CAGR of 3.95%, and sharp at HDC at 7.83 % CAGR.

- HDC's traffic, both in volume and growth, has been consistently higher because it predominantly handles bulk cargoes, both dry and liquid (90%)
- KDS traffic on the other hand is largely driven by general cargo, container and breakbulk (60%), and so it tends to be subdued both in quantity and growth

Comparison of KDS's traffic with HDC's

The following pie chart shows category-wise split-up of KoPT's and HDC's traffic



Observations

- It can be seen from the chart while general cargo – container and breakbulk- constitutes only 9% of HDC's traffic, it contributes 58% to KDS's traffic
- Dry bulk and liquid bulk items constitute 91% of HDC's traffic while they form 42% of KDS's traffic
- This pattern will not change because
 - HDC has in its hinterlands a host of large and heavy industries like power, steel, oil, refinery, fertilizer and petrochemicals and it also is close to two mineral- and ore-rich states, Orissa and Chattisgarh, which will continue to pump up volume and growth at HDC.
 - KDS on the other hand has in its hinterland no major industries that would require bulk materials like coal, iron ore, etc in large quantities. KDS draws its traffic mostly from consumer items, finished or semi-finished products, or materials that are required by small and medium scale industries. These items largely come or go in container or breakbulk form and these cargoes give neither volume or velocity
 - Possibility of some traffic shifting to KDS from HDC

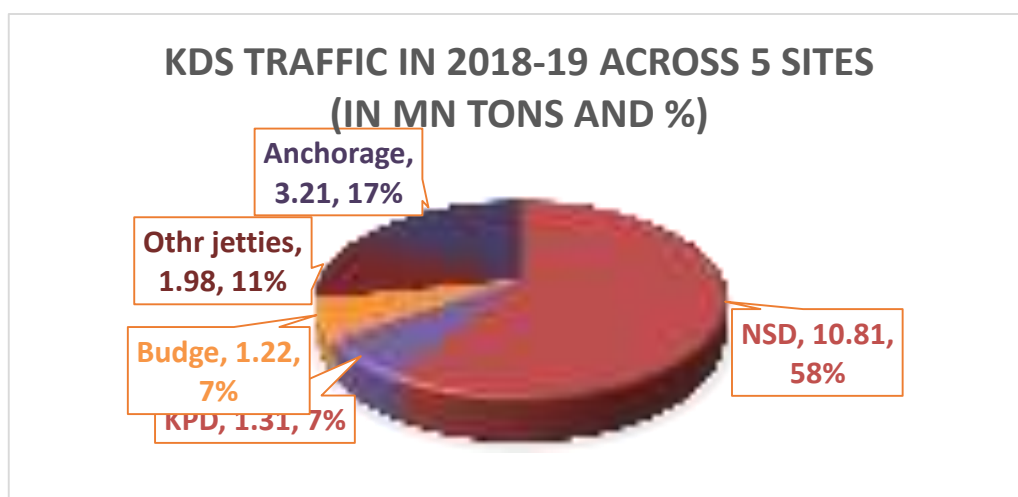
- Almost all the bulk materials handled at HDC are consumed or generated by the industries and mines located in the immediate hinterlands of HDC. Hence, there is little chance that these cargoes will move to KDS, especially given the road traffic issues in Kolkata city
- Most of the container and breakbulk cargoes handled at HDC also are consumed or generated by the industries or businesses located in its immediate and intermediate hinterlands and hence by and large these cargoes, too, may not shift to KDS.
- However, capacity constraint at HDC may drive some traffic to KDS. HDC's capacity is 45 million tons whereas it already has exceeded it in 2018-19. The traffic handled in that year was 45.21 million tons and it will continue to rise. Therefore, there is some possibility that some of the overflowing cargoes might end up in KDS. Especially cargoes whose destinations or origins are in the distant hinterlands of HDC or in the common hinterlands with KDS.
- For example, HDC handles a variety of cargoes for Nepal. Three main cargoes handled at HDC for Nepal are container, fertilizer and breakbulk items like iron and steel materials. These are handled by KDS as well. Therefore, a portion of these traffic (handled at HDC) could come to KDS, especially during periods when there is rake shortage or any other rail evacuation problem at HDC
- Limestone is another commodity that has some potential to move to KDS, for the same reason of rake shortage at HDC. In 2018-19, KDS handled 4 lakh tons of limestone, which was over 500% more than what it handled in 2017-18. It is understood that this spurt was mainly due to rail evacuation hiccups at HDC.
- Hence, if KDS improves its rail infrastructure, it may attract some part of HDC's traffic including Nepal's container, fertilizer and breakbulk traffic, and also minor bulk items like limestone, gypsum, etc imported for the industries located in the immediate or intermediate hinterlands of HDC. This also may reduce pressure on overstretched resources of HDC

4.4 OPERATIONAL AREAS OF KDS

KDS's traffic is handled at 5 sites:

- NSD comprising 10 berths out of which 5 berths, 2,3,5,7 and 8 dedicated for container. Out of the balance 5, four for dry cargoes and one for liquid bulk.
- KPD containing 18 berths handling all categories and kinds of cargoes and traffic including coastal cargo, and passenger
- Budge Budge including 7 jetties handling bulk liquids including POL, chemicals and vegetable oil
- A cluster of 7 outside jetties handling fly ash and sand
- 3 anchorages at Sandheads, Saugor Road and Diamond harbour transloading all categories and types of cargoes that come in bigger, deeper-drafted vessels

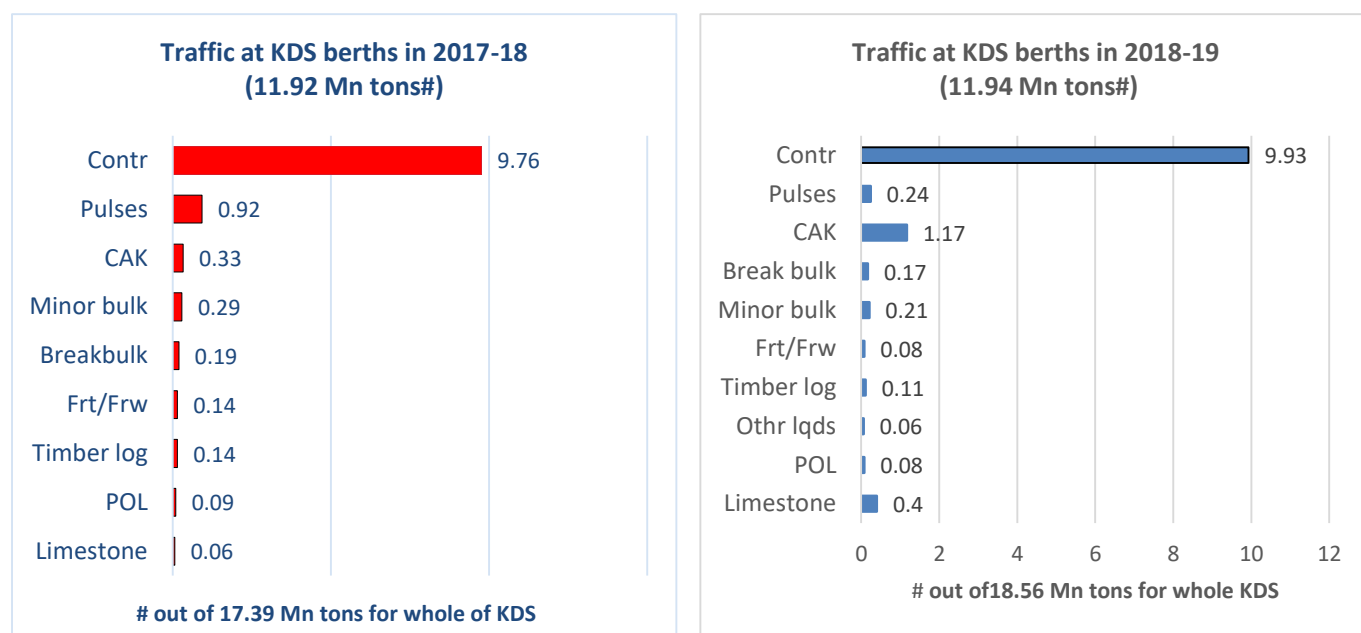
The traffic handled at KDS in 2018-19 across its 5 sites is shown below



Observations on KDS's traffic in the context of KPD's rejuvenation

- 35% of KDS's traffic is handled outside NSD and KPD
- The 35% include cargoes handled at Budge Budge, anchorages, sea and outside jetties
- Cargoes handled at Budge Budge and Outside jetties' will not come to KPD
- Traffic handled at anchorages/sea subsequently come to NSD/KPD and hence that traffic cannot be counted again for KPD
- Hence, for KPD clusters 1 and 2 what will count is the traffic that is solely handled at NSD-KPD berths proper

4.5 TRAFFIC AT NSD-KPD BERTHS



The following juxtaposed charts and the accompanying table compare the traffic handled in 2017-18 with 2018-19 at NSD-KPD berths

Year	Overall	At berths	Contr	Pulses	CAK	B.Bulk	Minor bulk	Frt/Frw	Log	POL	Lime stone
2018-19	18.56	11.94	9.93	0.24	1.17	0.17	0.21	0.08	0.11	0.08	0.4
2017-18	17.39	11.92	9.76	0.92	0.33	0.19	0.29	0.14	0.14	0.09	0.06
% variation	6.73	0.17	1.74	(-) 74	255	(-) 11	(-) 28	(-) 43	(-) 21	(-) 11	567

The comparison of the two years' traffic reveals the following:

- Overall traffic has remained more or less the same
- Container traffic grew slightly at about 2%
- CAK and Limestone have shown appreciable increase @ 250% and 575% respectively
- Pulses plunged by 70% and timber by 20%
- All other cargoes including fertilizer, minor bulk and breakbulk have declined

4.6 IDENTIFICATION OF CARGO FOR KPD CLUSTERS 1 AND 2

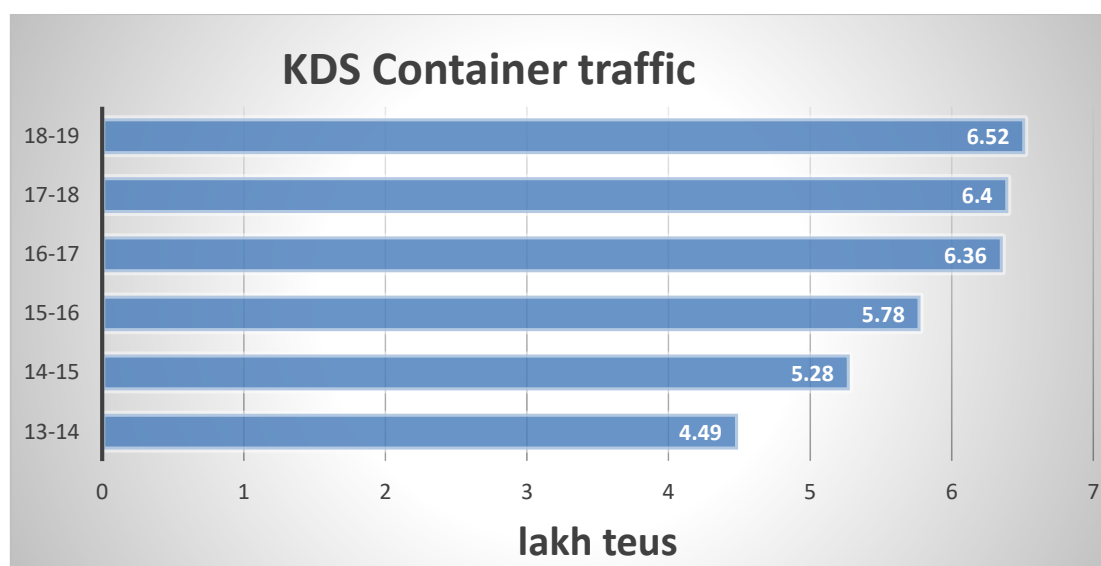
Based on the foregoing analysis and on the performance of key cargoes in the past, cargoes that have better prospects at the two clusters have been identified using the following yardsticks and filter.

Yardstick 1: consistent or increasing traffic

Container:

Container is the dominant and preeminent cargo at KDS, which grew at a blistering pace of 9% CAGR per year for 9 years up to 2015-16. However, it lost its momentum since then as the rate dropped to less than 1% CAGR in the 3-year period after that.

The following chart shows the progression of container traffic at KDS from 2015-16 to 2018-19



Though the growth has slackened of late container traffic's preeminent position in KDS will never diminish.

Coal All Kinds or CAK

CAK has shown a phenomenal increase at KDS berths in 2018-19. Though its volume has been low in the prior past, because of its steep increase in 2018-19 it is worth considering it for the two clusters

Limstone:

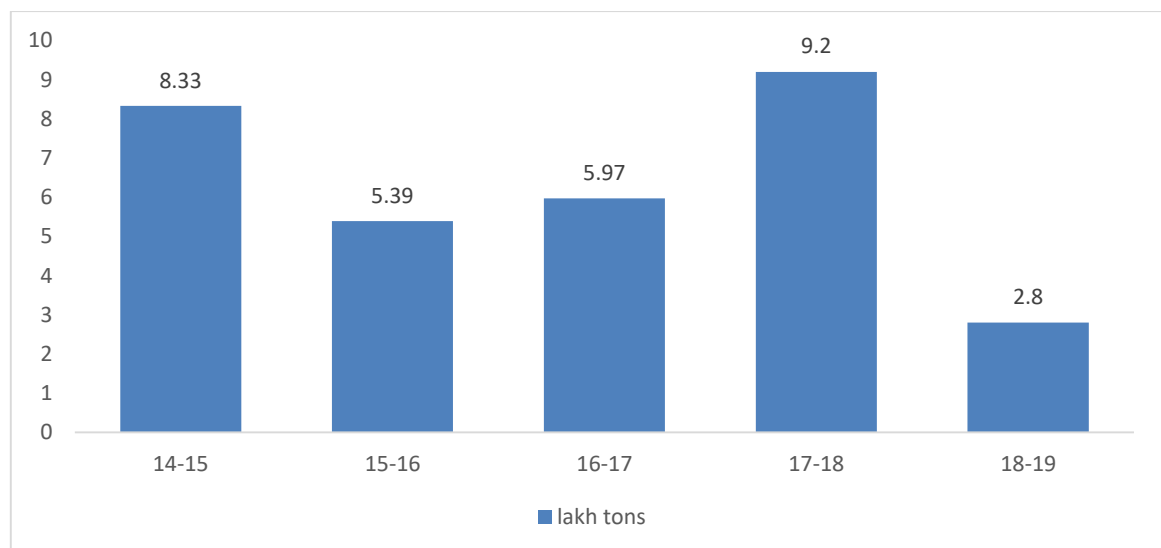
Limestone traffic at KDS in 2018-19 rose even higher than CAK . So, it also qualifies for consideration for the two clusters

Yardstick 2: cargoes in decline but with good track record

Pulses:

Next to container, pulses was the most voluminous cargo at KDS. Its traffic had been relentlessly ascending up to 2017-18, when it hit a record traffic of almost a million tons. But, it plunged to about 3 lakh tons in 2018-19 (see chart below) and the portents are it will further go down in 2018-19. The upside, however, is this may be a temporary setback and the traffic may bounce back sooner or later. Hence, considering its consistent past performanc and its likely revival in the not too distant future, it also can be regonized as a possible cargo for the twoclusters

Pulses/peas traffic at KDS



Fertilizer:

On avergae KDS handle per year about 1.5-2.0 lakh tons of fertilizer like urea and DAP, mainly for Nepal. However, this volume came down sharply in 2018-19, possibly because KPD was closed for about 4 months in the year, which coincided with the peak fertilizer import season. In the current fiscal, up to 2019-20, it already has handled 1.5 lakh tons and so may end up at 3 lakh tons by the end of the year. So, fertizer also can be accounted for KPD clusters

Fillers:

There are certain breakbulk commodities like steel, timber log, etc and minor bulk items like gypsum, sand and food grains whose volume widely fluctuates. Hence, they were not identified as primary cargoes for the 2 clusters. However, these cargoes may together add up to about 3 lakh tons a year on average. So, they can be considered as alternative or supplementary cargoes for the clusters whenever the traffic of their key cargoes go down in any year.

Filter: Cargoes that will not be compatible

Though CAK was handled in sizeable quantity at KDS in 2018-19, it is advisable not to handle them at berths where container traffic is handled on a regular basis and in good volume. So, we should rule out CAK for KPD 1 clusters.

Final principal cargoes for KPD 1 clusters

After the above exercise the items that are finally identified as potential cargoes are:

1. Container ; 2. Pulses ; 3. Fertilizer ; 4. Limestone

4.7 PROSPECTS & ESTIMATED TRAFFIC FOR PRINCIPAL CARGOES FOR KDS AS A WHOLE

Methodology

- Evaluating the prospects for each identified cargo for the whole of KDS
- Estimating the rate of growth and the volume of traffic for the identified cargoes for the whole of KDS over the next 30 years
- Forecasting how much of each identified cargo KPD1 Clusters can expect over the next 30 years

(A) Containers

Opportunities

- KDS is the exim gateway to 7 northern states and eastern UP, Chattisgarh and Jharkand. They are the most populous and underdeveloped regions with a potential for 1 million teus per year
- Eastern Freight Corridor : Passes through 6 states ; Start/end point: Dankuni, just 30 kms from KDS
- ADKIC or Amritsar Delhi Kolkata Industrial Corridor : Spread across 20 cities in 20 states
- A shelf of projects planned in and around Kolkata including Multimodal logistic park at Dankuni ; Kolkata biotech park at Rajarhat in Kolkata ; Chemical Innovation Hub in Kolkata and its surroundings
- Nepal containers bottlenecked at Haldia because of rake shortage

Threats

- Competition from Dhamra and Paradip international container terminals
- Competition from Vishakapatnam for Nepal containers
- Maturing of demand in the hinterlands
- Likely development of deep sea port at Tajpur
- Possibility of container terminal coming at Kulpi

Estimated Container traffic for KDS

Taking into account the opportunities and the threats mentioned above, and the weak growth KDS has been witnessing in in the last 2 years, the rate of growth and the volume of container traffic KDS can expect over the next 30 years upto 2050 is projected below:

Base: 2018-19 traffic

(in million teus)

Zero year 2020-21	1 st decade 2021-31	2 nd decade 2031-41	3 rd decade 2041-2051
0.7	0.94	1.03	1.09
@ 4 % CAGR	@3% CAGR	@1% CAGR	@0.5

(B) Pulses

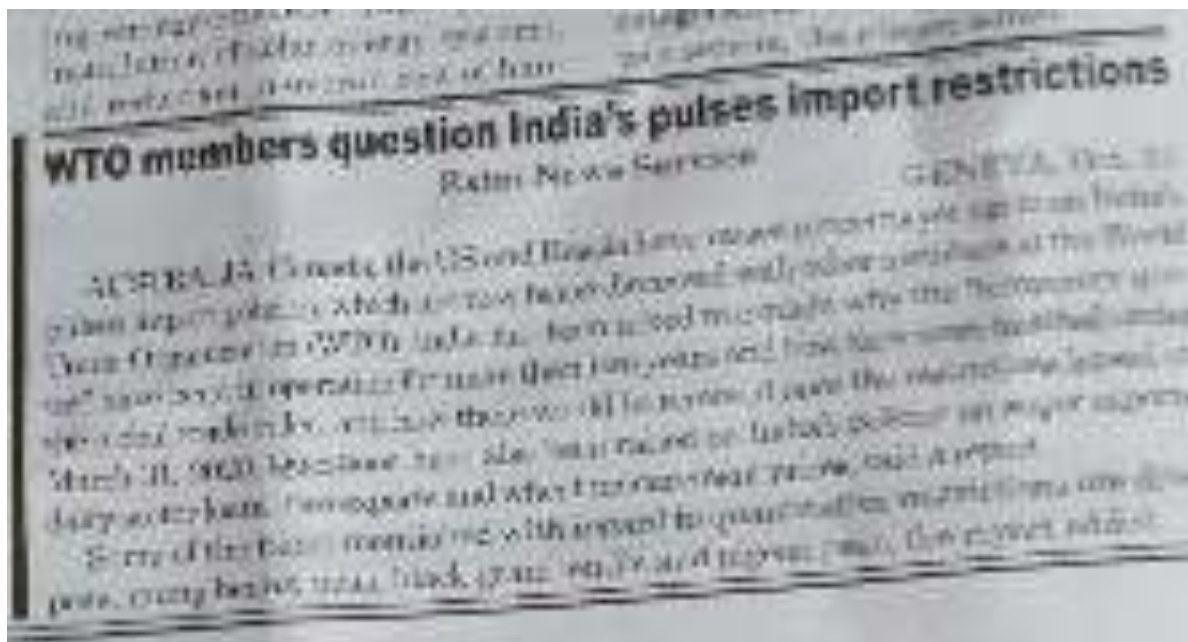
Prospects

- Pulses import is an unpredictable traffic because it depends on the weather, size of harvest in India and government's policy from time to time.
- Up till 2017-18 pulses/peas import had been robust and rising. However, it started declining from 2018-19 due to surfeit of pulses in domestic market as a result of normal to good monsoon in the previous 2 years
- The volume is expected to hit rock bottom this year, 2019-20. Glut in the local market has forced the government to restrict import this year to about 1 million tons, and the government also has raised the duty from zero to 50%
- Following table shows the pulses import into India over the years

Year	Quantity in Mn tons
2013-14	3.2
2014-15	4.6
2015-16	5.8
2016-17	6.6
2017-18	5.6
2018-19	2.4

- However, like any other agricultural products/products like vegetable oil, etc, that are dependent on weather, production of pulses, too, fluctuates in the country from year to year. For example, the severe El nino in 2014 and its aftermath caused import of pulses to soar consecutively for the next 3 years and as the weather improved in the following years import started falling.
- Further, there is a pressure from pulses/peas-growing countries on the Indian government for restricting import and raising duty. Some of the countries like Canada are growing peas almost solely for India. So, they won't put up with the curb. For the ongoing

curtailment of import, countries have already complained to World Trade Organization, WTO, vide the newspaper item placed below.



- Further, the restrictions are operative only up to the end of this financial year
- It is therefore certain that pulses import will revive, though it may not reach the record level of 6.6 million tons it hit in 2016-17.
- A guestimate is it, after surging again, will stabilize at around 3 million tons per annum, on average

Estimated pulses traffic for KDS

- KDS handles per year about 10-15% of the total pulses imported into the country. So, we can reckon for it a pulses traffic of 3 lakh tons per annum for the next 30 years. This is only an average and it may go up and down this level depending on vagaries of weather and other factors
- Estimated pulses/peas traffic at KDS,

In million tons

Zero year 2020-21	1 st decade 2021-31	2 nd decade 2031-41	3 rd decade 2041-51
0.3	0.3	0.3	0.3

(C) Fertilizer

Prospects

- Fertilizer handled at KDS is primarily for Nepal
- Nepal's current requirement for fertilizers is about 7 lakh tons per annum out of which 30% comes through official import, that is about 2.0 lakh tons per annum. Out of which both KDS and HDC on average handles 50 % or 1 lakh tons each.
- Nepal's demand for fertilizer is predicted to increase to about 1.5 million tons over the next 2 to 3 decades
- Because a large proportion of fertilizer goes into Nepal through unofficial sources, it is difficult to predict how much quantity will come through KDS in the future
- However, going by the past volume, we can presume a traffic of 1 to 3 lakh tons per annum over the next 30 years.
- Further, whenever, HDC faces rail evacuation problems for despatch of its Nepal fertilizer cargo by rail, we can expect some part of it to detour to KDS

Estimated Fertilizer traffic for KDS

- Taking into account all these factors, the fertilizer traffic projected for KDS is:

In million tons

Zero year 2020-21	1 st decade 2021-31	2 nd decade 2031-41	3 rd decade 2041-51
0.1	0.15	0.2	0.3

(D) Limestone

Prospects

- Limestone is almost a monopoly cargo of Haldia Dock Complex because limestone is a key ingredient in steel and cement industries which abound around Haldia
- Haldia handles on average 2 million tons of limestone per annum
- Compared to that, limestone handled at KDS is less than a lakh ton per annum
- However, the volume spurted to 4 lakh tons at KDS in 2018-19
- The reason for the surge, it is understood, was shortage of rakes in HDC

- This raises a hope for increased limestone traffic at KDS
- In 2018-19 HDC handled 2.64 million tons of limestone, which is the highest so far. In the same year, KDS also handled a record 0.4 million tons. This means that when the volume goes up in HDC, some of the traffic will flow into KDS

Estimated Limestone traffic for KDS

- Limestone is an occasional and fringe traffic at KDS. It is a second hand traffic from Haldia, which may rise from time to time due to the reason mentioned above
- So, we cannot expect it to maintain the high level it reached in 2018-19 at KDS.
- Given this reality, the traffic projected for limestone at KDS is as below

In Million tons			
Zero year 2020-21	1 st decade 2021-31	2 nd decade 2031-41	3 rd decade 2041-51
0.1	0.2	0.25	0.3

4.8. Prospects and Estimated traffic for KDP 1 clusters

(A) Container

Prospects

Present optimum yard capacity at NSD

- Total number of TEU ground slots as indicated by Traffic Department: 4600
- Average stacking height: 2.5
- Weighted average dwell time: 6 days (turnover: 61)
- Optimum capacity: $46000 \times 2.5 \times 61 = 701500$ TEUs, say **7.0 lakh TEUs**
- The traffic is set to go beyond 9 lakh teus from the first decade
- So, some of the excess traffic can move to the rejuvenated KPD1
- On that basis, the container traffic estimated for KPD1 is shown below

Estimated Container traffic for KPD1 clusters

Stage	Overflow from NSD (in lakh teus)	Cluster 1 (in lakh teus)	Cluster 2 (in lakh teus)
1 st decade 2021-31	2.4	1.2	1.2
2 nd decade 2031-41	3.3	1.65	1.65
3 rd decade 2041-51	3.9	1.95	1.95

(B) Pulses**Prospects for KPD 1 clusters**

- The quantity of pulses/peas estimated for whole of KPD is 0.3 million tons for all the 3 stages
- The entire quantity can come to KPD cluster 1. That means no pulses for Cluster 2
- Alternative/supplementary cargoes for Cluster 1: in case there is a shortfall in pulses/peas, cluster 1 may handle timber log and other breakbulk cargoes like iron and steel materials

Estimated Puses/peas traffic for KPD1 clusters

Stage	Cluster 1 (in lakh tons)	Cluster 2 (in lakh tons)
1 st decade 2021-31	3	Nil
2 nd decade 2031-41	3	Nil
3 rd decade 2041-51	3	Nil

(C) Fertilizer/Limestone

Prospects

- Only Cluster 2 will handle fertilizer and limestone as entire pulses traffic has been allocated to Cluster 1
- KDS handles fertilizer primarily for Nepal. In addition, it may get to handle seconhand traffic from HDC when it faces problem for despatch of the cargo by rail to Nepal
- As for as limestone is concerned, as already mentioned, limestone volume goes up in KDS only when HDC struggles to despatch its cargo by rail as a result of shortage of rakes. Almost the entire quantity of limestone HDC handles goes by rail and this puts a tremendous pressure on its rail infrastructure, creating an opportunity for KDS. For example, in 2018-19, HDC handled a record 2.64 million tons of limestone. In addition to that KDS handled 4 lakh tons, which is a record for it.
- So, prospects for limestone and fertilizer at KPD looks almost equipoised. If fertilizer traffic comes down, limestone can pick up the slack or vice versa
- Alternative cargoes for Cluster 2: if the limestone/fertilizer traffic falls below the expected level in any year, the other cargoes Cluster 2 can handle are minor bulk items like gypsum, dolomite, manganese ore, etc.

Estimated Fertilizer/Limestone traffic for KPD1 Clusters

Stage	Cluster 1 (in lakh tons)	Cluster 2 (in lakh tons)
1st decade 2021- 31	nil	3.5
2nd decade 2031-41	nil	3.5
3rd decade 2041-51	nil	3.5

4.9 SUMMARY OF ESTIMATED TRAFFIC FOR KPD 1 CLUSTERS

Stage	Cargo	Cluster 1 (in Mn tons)	Cluster2 (in Mn tons)
1 st Decade 2021-31	Container	1.8 (1.2 L TEUs)	1.8 (1.2 L TEUs)
	Pulses	0.30	0.00
	Fert/Limestone	0.00	0.35
	Total	2.1	2.15
2nd Decade 2031-41	Container	2.48 (1.65 L TEUs)	2.48(1.65L TEUs)
	Pulses	0.30	0.00
	Fert/Limestone	0.00	0.35
	Total	2.78	2.48
3 rd Decade 2041-51	Container	2.93 (1.95 L TEUs)	2.93 (1.95L TEUs)
	Pulses	0.30	0.00
	Fert/Limestone	0.00	0.35
	Total	3.23	3.28

5.1 TRAFFIC IN IDENTIFIED CARGO

Having identified the probable cargo that could be handled at KPD I clusters, i.e. Containers, Pulses/Peas, Fertilisers and Limestone, an attempt has been made to examine the traffic pattern of these cargo at both NSD and KPD during the past two years. These are provided in the following tables.

These tables give the volumes in each cargo handled by each berth in NSD, KPD I and KPD 2. It can be seen that almost all the container traffic is handled at NSD berths only. As regards the other cargo viz. pulses/peas, fertilisers and limestone are mostly handled in KPD I and KPD II.

Having observed these data, the next step is to dive deep into the actual handling process – the ship size, average parcel size, service time etc.; ship-shore transfer; movement from berth to stackyard or storage shed; handling at the yard or shed and finally the evacuation.

In these docks, containers are handled directly from container vessels. The other cargo such as pulses/peas, fertilisers and limestone are transloaded at anchorages from ships to barges and these barges only call at the dock berths. Some exceptionally small vessels only directly call at the berths.

As regards the barge traffic at Kidderpore docks, data for the past two years ie. 2018 – 19 and 2019 – 20 were collected and are being analysed in detail.

2018 - 19				
DOCK	BERTH	Pulses /Peas	Container	
		(Imp)	(Imp)	(Exp)
NETAJI SUBHAS DOCK	1	3,972	1,622	8,646
	2	0	539	1,135
	3	0	6,67,454	5,32,237
	4	0	12,92,400	11,61,066
	5	0	12,11,473	11,40,207
	7	0	7,13,793	5,97,723
	8	0	12,43,759	12,86,957
	12	0	0	
	13	0	0	14,551
	14	0	0	13,748
Sub Total for NSD		3,972	51,31,040	47,56,270

2018 - 19					
DOCK	BERTH	Pulses /Peas	Fertiliser	Limestone	Container
		(Imp)	(Imp)	(Imp)	(Exp)
KIDDERPORE DOCK I	1	9,247	0	0	0
	2	8,267	0	18,990	0
	3	0	0	0	0
	4	6,394	0	6,000	0
	5/7	42,017	0	13,148	1,339
	6	12,239	0	0	200
	8	7,852	0	0	33,967
	9	24,615	0	0	0
	10	5,837	0	0	716
	11	0	0	0	2,551
	12	13,327	0	12,460	0
Sub Total		1,29,795	0	50,598	38,773
KIDDERPORE DOCK II	19	0	0	0	0
	22	8,279	0	0	0
	23	0	2,951	0	0
	24	0	0	2,400	0
	25	0	0	0	0
	26	4,655	0	4,591	0
	27	4,529	66,242	43,580	0
	28	84,356	0	1,35,139	0
	29	2,499	2,971	58,600	0
Sub Total		1,04,318	72,164	2,44,310	0
Total for KPD I & II		2,34,113	72,164	2,94,908	38,773
The highest traffic handled by a single berth was KPD II No.28 : 2.5 lakh tonnes					

2017 - 18						
DOCK	BERTH	Pulses /Peas	Fertiliser	Limestone	Container	
		(Imp)	(Imp)	(Imp)	(Imp)	(Exp)
NETAJI SUBASH DOCK	1	11,067	0	0	6	0
	2	26,383	0	0	176	0
	3	1,940	0	0	7,46,948	5,09,671
	4	0	0	0	13,29,878	10,69,287
	5	0	0	0	20,55,211	16,83,312
	6	0	0	0	0	0
	7	0	0	0	0	0
	8	0	0	0	11,16,816	11,46,567
	12	0	0	0	0	0
	13	0	0	16,500	106	10,568
	14	20,578	0	0	2,940	26,442
Sub Total for NSD		59,968	0	16,500	52,52,081	44,45,847

2017 - 18						
DOCK	BERTH	Pulses /Peas	Fertiliser	Limestone	Container	
		(Imp)	(Imp)	(Imp)	(Imp)	(Exp)
KIDDERPORE DOCK I	1	31,289	0	0	0	0
	2	35,324	0	0	0	0
	3	1,889	0	0	0	0
	4	26,884	0	0	0	0
	5/7	1,02,995	0	0	0	0
	6	42,164	0	0	83	0
	8	15,351	0	0	9,591	48,173
	9	41,372	0	0	170	1,027
	10	38,286	0	0	293	0
	11	0	0	0	443	2,151
	12	43,074	0	0	0	0
Sub Total		3,78,628	0	0	10,580	51,351
KIDDERPORE DOCK II	13	0	0	0	0	0
	14	0	0	0	0	0
	19	0	0	0	0	0
	22	36,111	4,719	0	0	0
	23	32,149	412	0	0	0
	24	63,609	2,288	0	0	0
	0	55,258	0	0	0	0
	26	73,218	2,365	0	0	0
	27	55,673	33,821	26,750	0	0
	28	1,49,894	60,182	9,350	0	0
	29	15,504	36,977	8,550	0	0
Sub Total		4,81,416	1,40,764	44,650	0	0
TOTAL FOR KPD I & II		8,60,044	1,40,764	44,650	10,580	51,351
The highest traffic handled by a single berth was KPD II No.28 : 2.4 lakh tonnes						

5.2 CONTAINER HANDLING AT NSD

The port run container terminal was first commissioned at Berth No. 7 at NSD on 18th February, 1992. Since then about 90% container traffic is handled at the berths Nos. 7, 8, 4 and 5 NSD and remaining 10% at other berths of NSD and KPD. All the reputed container operators are operating at Kolkata Port.

The stacking area is 1,10,000 sq. m with 6,000 sq.m. behind berths 7 & 8 and 5,000 sq.m. behind berths 4 & 5. There is also a CFS measuring 9,000 sq.m. away from berths nos. 7 & 8. There are about 3,000 TEU ground slots with 3 x 48 reefer points.

The layout of these berths along with the back-up area are shown in the following figures.





Later KoPT decided to outsource the container handling operations and for this purpose invited global tenders for “Supply, Operation and Maintenance of equipment for container handling operations”. Through this process the port selected Bharat Kolkata Container Terminals Private Limited (BKCT), a special purpose vehicle (SPV) held by PSA International Pte Limited of Singapore (PSA) through its subsidiaries. The SPV was incorporated on April 1, 2014. The contract was awarded on 17th February, 2014 with a contract period of 10 years. The contract provided for integrated ship-to-shore services including back-up operations at berths 3, 4, 5, 7 & 8 NSD. The project was commissioned on 23.12.2014.

Under the contract, BKCT had to deploy 4 nos. Mobile Harbour Cranes, 4 nos. Rubber Tyred Gantry Cranes, 9 nos. Reach Stackers and 30 nos. Tractor-trailers. It has been clarified that at any point of time 3 MHCs should be made available and there will be no penalty for non-availability of the 4th MHC. Berths Nos, 4, 5 & 8 will be MHC operated berths and berths Nos. 3 & 7 will be non-MHC operated berths.

The scope of work includes supply, operation and maintenance of these equipment at their cost with manpower and management. The onboard operations will be carried out by KoPT acting as stevedores. BKCT has to unload/load containers from/to the ships; transport between quay and yards and vice versa using tractor trailers; stacking/un stacking at the yards using RTGs or Reach Stackers; loading/unloading to/from trucks/rail wagons at the yards using RTGs or RSTs and handling of break-bulk cargo of damaged containers separately or together.

The minimum productivity has been fixed as 20 moves per hour per MHC and for non-MHC operations, 8 moves per hook per hour.

As agreed, BKCT provided 3 MHCs at berths 4, 5 & 8. Recently during September, 2019, they have provided the fourth MHC at berth no. 3.

The performance of BKCT over these five berths during the past 5 years are brought out in the following tables. The details covered bring out the difference in the performance of the berths with MHC and without MHC.

DETAILS OF CONTAINER HANDLING AT NETAJI SUBHAS DOCK						
Sl.No	Details	Berth NSD 3 without MHC				
		2018-19	2017-18	2016-17	2015-16	2014-15
1	Number of container vessels	102	113	108	116	103
2	Total number of containers handled in TEUs	79,996	88,345	75,030	67,317	62,846
3	Av. Number of import containers per ship in TEUs	412	404	358	294	300
4	Av. Number of export containers per ship in TEUs	372	378	337	286	310
5	Av. Number of containers handled per ship in TEUs	784	782	695	580	610
6	Av. Working time per ship in days	2.17	2.12	1.88	1.48	1.43
7	Productivity per day in TEUs	361	369	370	392	427

DETAILS OF CONTAINER HANDLING AT NETAJI SUBHAS DOCK						
Sl.No	Details	Berth NSD7 without MHC				
		2018-19	2017-18	2016-17	2015-16	2014-15
1	Number of container vessels	104	108	106	114	84
2	Total number of containers handled in TEUs	82,851	93,317	72,759	70,155	54,668
3	Av. Number of import containers per ship in TEUs	404	437	383	307	327
4	Av. Number of export containers per ship in TEUs	390	418	303	308	324
5	Av. Number of containers handled per ship in TEUs	794	855	686	615	651
6	Av. Working time per ship in days	2.11	2.23	1.71	1.42	1.58
7	Productivity per day in TEUs	376	383	401	433	412

DETAILS OF CONTAINER HANDLING AT NETAJI SUBHAS DOCK						
Sl.No	Details	Berth NSD 4 with MHC				
		2018-19	2017-18	2016-17	2015-16	2014-15
1	Number of container vessels	195	186	190	195	175
2	Total number of containers handled in TEUs	1,60,725	1,58,608	1,54,255	1,54,300	1,48,958
3	Av. Number of import containers per ship in TEUs	416	452	424	409	454
4	Av. Number of export containers per ship in TEUs	408	401	388	382	397
5	Av. Number of containers handled per ship in TEUs	824	853	812	791	851
6	Av. Working time per ship in days	1.50	1.53	1.40	1.20	1.28
7	Productivity per day in TEUs	549	558	580	659	665

DETAILS OF CONTAINER HANDLING AT NETAJI SUBHAS DOCK						
Sl.No	Details	Berth NSD 5 with MHC				
		2018-19	2017-18	2016-17	2015-16	2014-15
1	Number of container vessels	190	182	184	185	114
2	Total number of containers handled in TEUs	1,53,963	1,51,185	1,57,013	1,39,082	85,909
3	Av. Number of import containers per ship in TEUs	407	432	446	390	385
4	Av. Number of export containers per ship in TEUs	403	399	407	362	368
5	Av. Number of containers handled per ship in TEUs	810	831	853	752	753
6	Av. Working time per ship in days	1.46	1.53	1.48	1.18	1.29
7	Productivity per day in TEUs	555	543	576	637	584

DETAILS OF CONTAINER HANDLING AT NETAJI SUBHAS DOCK						
Sl.No	Details	Berth NSD 8 with MHC				
		2018-19	2017-18	2016-17	2015-16	2014-15
1	Number of container vessels	182	169	188	183	154
2	Total number of containers handled in TEUs	1,53,427	1,36,067	1,60,091	1,40,132	1,31,165
3	Av. Number of import containers per ship in TEUs	423	407	426	399	442
4	Av. Number of export containers per ship in TEUs	420	398	430	367	410
5	Av. Number of containers handled per ship in TEUs	843	805	856	766	852
6	Av. Working time per ship in days	1.38	1.40	1.44	1.17	1.42
7	Productivity per day in TEUs	611	575	594	655	600

In addition, an analysis of the details of the container vessels calling at NSD and KPD for the past five years were analysed for their LOA and Beam. These are presented in the following table.

DETAILS OF CONTAINER SHIPS CALLING AT NSD AND KPD						
Sl.No	Particulars	2018-19	2017-18	2016-17	2015-16	2014-15
1	Number of container vessels called	662	687	777	791	673
2	Number of vessels with LOA less than 157 m	532	538	650	696	617
3	Number of vessels with LOA ≤ 157 m & Beam ≤ 21.5 m	322	309	390	445	396
4	Average of beam of such vessels as in no. 3	20.86 m	20.29 m	20.86 m	20.86 m	20.89 m

DETAILS OF CONTAINER DWELL TIME AT NETAJI SUBHAS DOCK			
(Wighted average of dwell time in days)			
Sl.No	Details	2018-19	2019-20 (6 months)
1	All empty containers by Road	3.0	3.2
2	All loaded containers by Road	5.2	4.9
3	All empty containers by Rail	7.5	6.9
4	All loaded containers by Rail	10.5	8.6
5	With 92 % moving by road and 8% moving by rail, weighted average dwell time for loaded containers for all	5.9	5.5

A scrutiny of these data indicates that

- every year, on an average, 370 container vessels calling at the KDS are capable of entering KPD.
- On an average the container exchange per vessel could be around 700 TEU for geared vessels (based on vessels calling at NSD berths without MHC) or 800 TEU for gearless vessels (based on vessels calling at NSD berths with MHC).
- Average productivity per day is 400 TEU for geared vessels and 600 TEU for vessels operated through MHC.
- The average dwell time of containers could be taken as 6 days.

5.3 CARGO HANDLING AT KPD

In recent times, Kidderpore Docks I & II have been handling only barges. Only from early 2019 container vessels have started calling at KPD I.

The data on cargo handled through barges were collected for the past two years, viz. 2018-19 and 2019-20. These were analysed and the details are presented hereunder.

BARGE TRAFFIC IN KIDDERPORE DOCKS							
Sl.No.	Name of Cargo	2018 - 19			2019 - 20		
		Number of barge calls	Total volume handled	Av. Parcel size	Number of barge calls	Total volume handled	Av. Parcel size
1	Cement, clinkers	6	13,632	2,272	21	51,249	2,440
2	DAP	9	20,105	2,234	43	85,110	1,979
3	General dry bulk (unspecified)	1	983	983	0	0	0
4	Gypsum	12	28,000	2,333	4	7,500	1,875
5	Iron & Steel	6	5,581	930	24	38,145	1,589
6	Limesone	116	2,96,716	2,558	60	1,50,111	2,502
7	Logs, timber, veneer	69	81,242	1,177	29	36,571	1,261
8	Machinery	0	0	0	1	490	490
9	Maize	0	0	0	26	47,766	1,837
10	Manganese Ore	0	0	0	3	8,501	2,834
11	Metallurgical coke	64	1,06,711	1,667	50	88,547	1,771
12	Other coal	5	7,956	1,591	0	0	0
13	Petroleum coke	0	0	0	12	25,890	2,158
14	Project cargo, materials	0	0	0	3	1,724	575
15	Pulses	6	14,331	2,389	35	77,809	2,223
16	Peas	126	2,33,754	1,855	0	0	0
17	Pyroxinite	0	0	0	4	10,550	2,638
18	Rapseed	2	2,720	1,360	0	0	0
19	Rice	2	2,570	1,285	0	0	0
20	Steam coal	119	2,85,451	2,399	166	4,30,942	2,596
21	Thermal coal	0	0	0	5	11,000	2,200
22	Urea	27	52,059	1,928	151	2,88,397	1,910
		570	11,51,811	2,021	637	13,60,302	2,135

5.4 DETAILED ANALYSIS OF BARGE HANDLING OF PULSES & FERTILISERS

Having got an idea of barges bringing in different cargoes to KPD berths, it is now proposed to get into the details of barges bringing in the proposed cargo viz. Pulses/Peas and fertilisers. These are presented hereunder.

It is understood that, presently, the pulses are handled in three different ways:

- The bulk pulses are bagged in the barge itself and the bags are discharged on the berth and moved to the sheds for storing.
- The bulk pulses are unloaded in bulk onto hopper on the berth and are bagged at the hopper and moved to the sheds for storing.
- One agency has set up a factory at berth no. 22 in KPD II and the bulk pulses are sucked from the barge and pumped directly to the factory.

In the earlier two cases, pulses are stored in the shed in bagged form only.

Fertilisers handled at KPD are mainly DAP and Urea. While DAP is normally shipped in bagged form, urea is received in bulk and bagged at the berth.

These are moved from the berth to the sheds and stored in bagged form.

PULSES TRAFFIC DURING 2019-20									
Sl.No.	Name of Barge	Dimensions in metres				Number of trips	Total no. of days at berth	Total volume handled	Av. Parcel size
		DWT	LOA	Beam	Draught				
1	AKSHATA	2,420	69.80	13.40	4.35	2	7	3,269	1,635
2	ASHRAF I	2,700	75.00	14.00	3.50	1	3	1,034	1,034
3	AVI	2,876	80.00	14.00	2.50	3	17	8,326	2,775
4	ITIP I	2,700	75.00	14.00	3.60	5	23	12,585	2,517
5	MAHADEV	2,491	75.00	14.00	4.75	2	11	4,147	2,074
6	MONI					2	9	1,181	591
7	NITYA	2,147	72.00	14.00	4.25	1	3	2,146	2,146
8	PRABAL	2,500	73.40	13.40	3.60	3	12	6,444	2,148
9	SEAHORSE VIII	2,850	76.00	15.00	4.60	1	3	2,347	2,347
10	SHAMBHAVI	2,500	78.00	13.00	5.80	1	6	2,231	2,231
11	SOHOM II	2,849	82.00	13.50	3.40	2	11	4,192	2,096
12	SOHOM III	2,700	72.50	14.50	3.46	1	3	2,050	2,050
13	SUPREME	2,165	69.80	13.40	4.35	1	7	1,751	1,751
14	TIPISHIP I	3,101	74.75	14.00	4.90	1	8	2,263	2,263
15	TIPISHIP II	3,892	70.06	14.00	5.35	3	15	9,209	3,070
16	TIPISHIP III	3,208	71.00	16.00	5.35	3	20	9,204	3,068
17	TIPISHIP IV	3,897	71.00	16.00	4.60	1	1	405	405
18	WATERWAYS I	3,182	74.75	14.00	4.90	2	4	5,024	2,512
						35	163	77,808	2,223

PULSES & PEAS TRAFFIC DURING 2018-19									
Sl.No.	Name of Barge	Dimensions in metres				Number of trips	Total no. of days at berth	Total volume handled	Av. Parcel size
		DWT	LOA	Beam	Draught				
1	AHSHATA	2,420	69.80	13.40	4.35	6	23	10,674	1,779
2	ASHRAF I	2,700	75.00	14.00	3.50	6	23	15,428	2,571
3	ASHRAF II	2,700	75.00	14.00	3.50	2	7	5,499	2,750
4	AVI	2,876	80.00	14.00	2.50	3	10	6,912	2,304
5	BHABYA	2,142	72.00	14.00	4.25	3	12	7,404	2,468
6	BARGE NO 8	2,177	69.80	13.40	4.35	6	19	13,723	2,287
7	BDS SP III	2,200	70.00	14.00	4.50	1	3	2,198	2,198
8	DEVSENA	2,150	72.00	14.00	4.25	2	10	2,828	1,414
9	DRISHTI	2,110	71.00	14.20	4.35	3	11	7,191	2,397
10	GOOD EARTH I	2,000	67.40	12.50	4.25	3	11	5,781	1,927
11	ITPL I	2,700	75.00	14.00	3.60	6	23	15,178	2,530
12	JAY MAHAGAJANT LAXMI	2,208	69.80	13.40	4.35	3	11	6,398	2,133
13	JOY BASUDEB	1,470	60.00	12.50	3.18	2	5	1,600	800
14	JUBILEE VI	2,300	70.00	14.00	3.20	1	3	2,070	2,070
15	MOHAN BHAGAN IV	2,100	69.12	12.00	3.40	2	5	3,045	1,523
16	MOHAN BHAGAN VII	5,100	81.18	17.40	4.50	1	12	4,985	4,985
17	MOHAN BHAGAN IX	2,200	70.00	14.00	3.30	1	7	2,100	2,100
18	MAHESHWAR	2,185	72.00	14.00	4.25	2	7	4,810	2,405
19	MAHESHWARI	2,186	72.00	14.00	4.25	2	11	4,841	2,421
20	MEDHA	2,157	72.00	14.00	4.25	4	17	9,389	2,347
21	MONI					2	4	1,112	556
22	NIDHISHWARI	2,198	72.00	14.00	4.25	1	7	2,111	2,111
23	PASHYANTI	2,170	72.00	14.00	4.25	2	9	4,637	2,319
24	PACIFIC	1,539	68.90	10.60	1.70	1	1	700	700
25	PRABAL	2,500	73.40	13.40	3.60	2	9	4,412	2,206
26	PRADYUN	2,400	69.75	13.40	4.65	1	4	2,157	2,157
27	PRAKRITI					3	6	2,219	740
28	PRUTHVI	2,700	75.00	14.00	4.75	2	18	5,595	2,798
29	ROYAL SHARYU	2,538	74.90	14.30	4.20	2	6	5,173	2,587
30	ROHI					3	18	6,489	2,163
31	S-867					1	1	127	127
32	S-907					1	1	48	48
33	SAI SAURABH	1,980	66.50	12.80	4.20	3	7	4,593	1,531
34	SAISHREY	2,200	69.80	13.40	4.35	4	15	8,595	2,149
35	SANGHI III	2,090	68.50	13.00	4.20	4	13	6,567	1,642
36	SANGHI IV	2,213	69.70	13.40	4.35	1	3	1,656	1,656
37	SEAHORSE VIII	2,850	76.00	15.00	4.60	1	2	2,410	2,410
38	SHAMBHAVI	2,500	78.00	13.00	5.80	3	16	7,205	2,402
39	SOHOM I	2,849	82.00	13.50	4.50	2	6	5,729	2,865
40	SOHOM II	2,849	82.00	13.50	3.40	1	1	750	750
41	SRIJOY I	2,516	72.50	14.50	4.50	3	13	8,018	2,673
42	TIPISHIP I	3,101	74.75	14.00	4.90	1	3	2,975	2,975
43	TIPISHIP II	3,892	70.60	14.00	5.35	1	3	2,960	2,960
44	TIPISHIP III	3,847	71.00	16.00	5.35	2	6	6,643	3,322
45	VARUNI	2,148	72.00	14.00	4.25	1	4	2,129	2,129
46	VISHAMBAR	2,191	72.00	14.00	4.25	1	7	2,300	2,300
47	WATERWAYS I	3,182	74.75	14.00	4.90	2	6	5,800	2,900
48	WELZEA I	2,700	75.00	14.00	4.75	1	4	2,806	2,806
49	WB I- 5109					1	1	115	115
						112	424	2,38,085	2,126

UREA TRAFFIC DURING 2019-20									
Sl.No.	Name of Barge	Dimensions in metres				Number of trips	Total no. of days at berth	Total volume handled	Av. Parcel size
		DWT	LOA	Beam	Draught				
1	AARTI	2,081	68.50	13.00	4.20	9	43	16,019	1,780
2	AKSHATA	2,420	69.80	13.40	4.35	4	13	5,444	1,361
3	ASHRAF I	2,700	75.00	14.00	3.50	7	37	18,072	2,582
4	ASHRAF II	2,700	75.00	14.00	3.30	8	35	20,534	2,567
5	AVI	2,876	80.00	14.00	2.50	6	23	13,364	2,227
6	BDS SP III	2,200	70.00	14.00	4.50	2	8	3,759	1,880
7	BULKER I	1,911	67.10	12.00	3.30	5	16	7,749	1,550
8	GANESHWAR	2,189	72.00	14.00	4.25	2	11	4,101	2,051
9	GARUDAWAHANA	2,162	72.00	14.00	4.25	2	13	3,460	1,730
10	GOOD EARTH I	2,000	67.40	12.50	4.25	4	13	5,640	1,410
11	ITPL I	2,700	75.00	14.00	3.60	10	42	21,999	2,200
12	MAHADEV	2,491	75.00	14.00	4.75	10	49	21,175	2,118
13	MAHESHWAR	2,185	72.00	14.00	4.25	1	6	1,860	1,860
14	MEDHA	2,157	72.00	14.00	4.25	10	42	19,415	1,942
15	MESSISSIPPI I	2,600	69.70	13.40	4.25	1	9	2,009	2,009
16	MONI					7	17	2,582	369
17	NIDHISHWARI	2,198	72.00	14.00	4.25	1	3	1,284	1,284
18	NITYA	2,147	72.00	14.00	4.25	10	46	20,290	2,029
19	PASHYANTI	2,170	72.00	14.00	4.25	1	5	1,658	1,658
20	PRABAL	2,500	73.40	13.40	3.60	8	38	16,501	2,063
21	SAI SAURABH	1,402	66.50	12.80	4.20	2	5	2,636	1,318
22	SAISHREY	2,200	69.80	13.40	4.35	3	14	4,927	1,642
23	SANGHI III	2,090	68.50	13.00	4.20	2	6	2,027	1,014
24	SEAHORSE IV	2,950	70.00	14.00	3.20	5	19	8,357	1,671
25	SEAHORSE VIII	2,850	76.00	15.00	4.60	1	6	1,997	1,997
26	SOHOM II	2,849	82.00	13.50	3.40	2	12	4,617	2,309
27	SOHOM III	2,700	72.50	14.50	3.46	1	5	1,762	1,762
28	SUPREME	2,165	69.80	13.40	4.35	15	56	28,396	1,893
29	TIPISHIP I	3,101	74.75	14.00	4.90	1	4	2,357	2,357
30	VARUNI	2,148	72.00	14.00	4.25	1	5	2,089	2,089
31	VISHAMBAR	2,191	72.00	14.00	4.25	1	5	2,132	2,132
32	WELEZA I	2,700	75.00	14.00	4.75	10	38	22,263	2,226
						152	644	2,90,475	1,846

UREA TRAFFIC DURING 2018-19									
Sl.No.	Name of Barge	Dimensions in metres				Number of trips	Total no. of days at berth	Total volume handled	Av. Parcel size
		DWT	LOA	Beam	Draught				
1	AADYA	2,600	75.00	14.00	3.38	1	5	2,048	2,048
2	AKSHATA	2,420	69.80	13.40	4.35	1	5	847	847
3	ASHRAF I	2,700	75.00	14.00	3.50	3	39	7,296	2,432
4	ASHRAF II	2,700	75.00	14.00	3.30	1	12	2,697	2,697
5	AVI	2,876	80.00	14.00	2.50	1	12	2,459	2,459
6	BHABYA	2,142	72.00	14.00	4.25	1	4	1,872	1,872
7	BDS SP III	2,200	70.00	14.00	4.50	1	5	2,130	2,130
8	DEVSENA	2,150	72.00	14.00	4.25	1	5	1,836	1,836
9	JOY BASUDEB	1,470	60.00	12.50	3.18	2	7	2,629	1,315
10	GANESHWAR	2,189	72.00	14.00	4.25	1	9	2,405	2,405
11	ITPL I	2,700	75.00	14.00	3.60	2	12	4,770	2,385
12	MAHESHWARI	2,186	72.00	14.00	4.25	1	13	1,001	1,001
13	MOHAN BAGAN IV	2,100	69.12	12.00	3.40	1	2	903	903
14	NITYA	2,147	72.00	14.00	4.25	1	8	2,090	2,090
15	PASHYANTI	2,170	72.00	14.00	4.25	2	10	4,537	2,269
16	PRABAL	2,500	73.40	13.40	3.60	2	17	4,430	2,215
17	SANGHI IV	2,213	69.70	13.40	4.35	1	9	1,101	1,101
18	SEAHORSE IV	2,950	70.00	14.00	3.20	1	2	711	711
19	SOHOM II	2,849	82.00	13.50	3.40	1	6	2,570	2,570
20	VARUNI	2,148	72.00	14.00	4.25	2	13	3,727	1,864
						27	195	52,059	1,928

A scrutiny of these data indicates the following:

- Size of the barges is less than 3000 DWT with LOA varying from 60 m to 82 m
- The average parcel sizes vary from a minimum 700 T to a maximum of 2750 T with the overall average at around **2020 T**.
- Each barge stays at the berth from a minimum period of two days to a maximum of 16 days. The overall average stay at the berth is **just over 4 days**.

SECTION 6 PLANNING PARAMETERS

6.1 GENERAL

In this section a broad road map for the project development will be presented. The project development is planned in two phases with two clusters of berths viz. Berths 2,4 & 6 in the first phase and berths 8,10 & 12 in the second phase.

This section will cover the expected volumes of identified cargo; the possible vessel and parcel sizes; the allocation of berths for the cargo; the equipment for ship-shore transfer; equipment for handling at the berth; equipment for transfer from berth to the stockyard; area required for the stockyard; equipment for stockyard handling etc. The operational aspects, layout of stockyards, number and specification of the equipment will all be detailed in the next section on Project Details.

6.2 ESTIMATED POSSIBLE TRAFFIC

Under Traffic Study, having evaluated the present scenario in the volumes of selected cargo and examined the reasons for increase or decrease, the future volumes have been estimated taking into consideration possible changes in the scenario with the rationale therefor. The possible traffic volumes for selected cargo over the years have been indicated and these are presented hereunder. The cargo and volumes have been assessed for the two berth clusters.

Stage	Cargo	Cluster 1 (in Mn tons)	Cluster2 (in Mn tons)
1 st Decade 2021-31	Container	1.8 (1.2 L TEUs)	1.8 (1.2 L TEUs)
	Pulses	0.30	0.00
	Fert/Limestone	0.00	0.35
	Total	2.1	2.15
2nd Decade 2031-41	Container	2.48 (1.65 L TEUs)	2.48(1.65L TEUs)
	Pulses	0.30	0.00
	Fert/Limestone	0.00	0.35
	Total	2.78	2.48

3 rd Decade 2041-51	Container	2.93 (1.95 L TEUs)	2.93 (1.95L TEUs)
	Pulses	0.30	0.00
	Fert/Limestone	0.00	0.35
	Total	3.23	3.28

In this optimistic scenario during the first decade i.e. 2021-31 2.4 lakh TEUs of containers, 3 lakh tons of pulses and 3.5 lakh tons of limestone will be available for KPD. During the second decade i.e. 2031-41 an incremental volume of 90,000 TEUs of containers will be added. During the third decade the container volume will increase by 35,000 TEU.

It has to be noted that since the port decided to handle containers at KPD and issued relevant trade notice in March, 2019, KPD has handled about 6,000 TEUs till recently.

However, based on the data for the last five years as presented in the earlier section, on an average **370 container vessels** can pass through KPD lock gate. Taking the average container handling per vessel as 800 TEUs, KPD can access **2.96 lakh TEUs** of the total container traffic at KDS.

As regards the other cargo, the traffic in pulses and fertilisers depend on the change in Government policy. It is hoped that the present situation will improve and the volumes will increase as expected.

6.3 BERTH ALLOCATION

The port is planning to execute this project of KPD rejuvenation in two phases: in the first phase KPD I berths 2,4 & 6 will be developed to be followed by berths 8,10 & 12 in the second phase.

As could be seen in the layout of KPD I western berths, berths nos. 2 and 12 are not in line with the other berths and are slightly skewed.

In the first phase, the continuous berths 4 and 6 have a total length of 254 m while in the second phase, the continuous berths 8 and 10 have a total length of 289 m. Hence these can each accommodate a container vessel of LOA 158 m.

The skewed berths 2 and 12 are each 162 m and 143 m long respectively. These can accommodate barges carrying the other cargo – pulses, fertilisers and limestone. These barges are of size less than 3,000 DWT and having LOA varying from 60m to 82 m and with beam varying from 10 m to 17 m. Overall, the barges carry an average parcel of 2,020 T.

Referring to the past five-year data at NSD, a single berth with MHC can handle, on an average, 145,000 TEUs per annum. Hence, in the two phases the two proposed combined lengths of berths 4 & 6 as well as berths 8 & 10 will be able to handle the total container traffic that could be assessed by KPD.

As regards the other cargo, the daily productivity of the barge berths could be 2,000 T per day. With 70% occupancy of either berth no. 2 or berth no. 12 will have about 255 working days which can give a throughput of 5.1 lakh tons per annum which is more than the projected traffic.

6.4 SHIP – SHORE CARGO TRANSFER

CONTAINERS

For ship-shore transfer of containers a mobile harbour crane has to be provided for better productivity. The container vessels that can call at KPD berths should have LOA of 157 m and beam of 21.5 m. These vessels can carry containers 8 across. As has been done by BKCT at NSD berths, LHM 425 of Liebherr or IMHC 2120 of Italgru could be provided.

As indicated earlier, the port plans to execute the rejuvenation project in two phases through PPP mode. The port can continue to handle the existing container traffic at KPD through berths 8 and 10 while the licensee is carrying out the developments at the berths 4 and 6. During this period, no shore crane will be available and the present system of using ships' gear will continue.

By the time the first phase developments are finished and the traffic has sufficiently picked up, the licensee can deploy the MHC at this berth. Depending on the rate of growth of container traffic, he can time the start of phase two execution.

Based on data available from the operation of BKCT at NSD berths, it can be concluded that each MHC can handle about 145,000 TEUs per annum. So, one MHC each for the two phases will be able to meet the projected traffic demands.



TYPICAL MHC FOR SHIP-SHORE CONTAINER HANDLING

OTHER CARGO – PULSES, FERTILISERS AND LIMESTONE

As indicated earlier, it is difficult to specify at this juncture what other cargo will have to be handled at KPD berths by the time the first phase is commissioned. However, the scenario may change over the next few years and hopefully the traffic in pulses and fertilisers will pick up. Hence the equipment selected for ship-shore transfer should have the flexibility to handle any of the designated cargo.

Accordingly, Liebherr grab unloader LH 150 or similar equipment is selected. Since all the designated cargo are to be received in bulk in barges, this grab can handle all of them.

Depending on the requirement, the cargo could be discharged into a hopper for bagging or into a dumper to be taken to the stockyard.



TYPICAL BARGE UNLOADER FOR BARGES



UNLOADER DISCHARGING INTO A HOPPER



UNLOADER DISCHARGING INTO A DUMPER

It has been indicated that the other cargo will be handled at berths 2 or 12 and each berth will accommodate one barge at a time with an average parcel of 2,020 T which could be discharged within a day with a single grab unloader. Considering that presently each barge, on an average spends more than 4 days at the berth, clearing it within a day will enhance the productive utilisation of the barges.

6.5 CARGO HANDLING ON THE QUAY

CONTAINERS

The containers off loaded from the ship by the MHC have to be loaded on to trailers and moved on to the parking yard. The minimum productivity of MHC has been fixed as 20 moves per hour. Hence there will be a move once in 3 minutes. In this case, the container parking yard is in close proximity to the berth. Assuming a tractor-trailer unit takes 25 minutes to reach the farthest slot in the parking yard and return to the berth, there is a need for 8 tractor trailer units per MHC. Providing extra for breakdowns and repair, 10 TT units are required per MHC.

PULSES & FERTILISERS

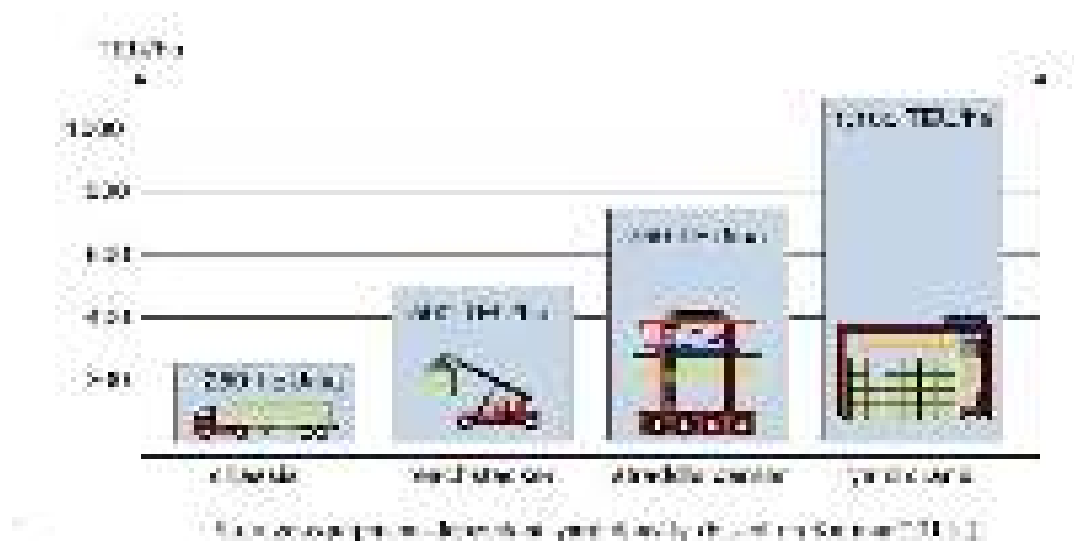
These two will be unloaded from the barges in bulk into hoppers on the berth and bagged there. The bagged cargo will thereafter be moved to the storage shed. Each bag will weigh 50 kg. The bags have to be moved on to the storage shed through Forklift Trucks. Normally these FLT's cannot take more than 20 bags per trip which means one ton of cargo can be transported per trip. Taking the cycle time for the FLT's as 5 minutes per trip, each FLT can make 12 trips per hour. Considering 20 hrs working per FLT, one equipment can handle 240 Tons. For handling a barge parcel of 2,000 tons, nine FLT's will be needed. One additional FLT will be needed for evacuation. Hence a minimum of 10 trucks will be needed. In order to avoid bottleneck in bagging, two hoppers are preferred.

Accordingly for each berth, for each grab unloader, two hoppers with a fleet of 10 FLT trucks will be needed.

6.6 CONTAINER PARKING YARD & CARGO STORAGE AREA

CONTAINER PARKING YARD

Depending upon the equipment to be used in the parking yard, the layout and requirement of the container parking yard will vary. The yard could be based on chassis, reach stackers, straddle carriers or rubber-tyred gantry cranes. The yard density for these different types of equipment is presented hereunder.



Generally, these equipment are selected based on the size of the terminal i.e. depending on the annual traffic volumes. It has been maintained in the industry that Reach Stackers are ideally suited for terminals with an annual throughput of 2 lakh TEUs even though occasionally they have handled throughput of about 4.5 lakh TEUs per annum. It has to be noted here that the BKCT terminal is handling more than 6 lakh TEUS per annum, of course, in association with two RTGs.

The main advantages of RS are their flexibility and low capital and operating costs. The major disadvantages are they need more space because of wide turning circle and have low handling rates of about 12 to 15 lifts per hour. Since space is not a constraint at KPD and the traffic volumes are also low, Reach Stackers have been selected.

Typical container parking yard operating with Reach Stackers are presented hereunder





The yard density of 500 TEUs /Ha is based on 4 deep and 4 high stacks. If the stack height is reduced to 3, the density comes down to 350 TEUs/Ha.



CONTAINER STACKS AT KPD I



CONTAINER STACKS AT NSD



Looking at the way the containers are stacked presently at both NSD and KPD as seen in the pictures above, we can easily assume a yard density of 500 TEUs/Ha. But as a prudent measure, it has been proposed to adopt 350 TEUs/Ha.

Considering an average stack height of 2.5 and an average dwell time of 6 days as considered by the port, the requirement of ground slots during the first phase is worked out as hereunder:

Throughput	145,000 TEUs
Average Stack height	2.5
Average dwell time	6 days
No. of TEU ground slots required	$(145,000/2.5 \times 6) = 951$
Area of the parking yard	$951 \times 30 = 28,525. \text{ m}$ or 2.9 Ha

As regards the number of Reach Stackers, 2 numbers will be required for serving the MHC and one more will be required for receipt and despatch of containers. On the whole 3 Reach Stackers will be required for the first phase.

The same yard area requirement and the number of Reach Stackers will have to be repeated for the second phase of development.

As regards the area available for the parking yard, those marked by the port as available keeping the transit sheds in place are all odd shaped. This will not allow optimal and efficient usage of the yard equipment. Hence it is recommended that the sheds at berth nos. 4,6 ,8 & 10 be removed and a proper rectangular shaped parking yard. It is to be noted that all these sheds are presently not much in use. A possible demarcation of the area is shown hatched in the figure hereunder.

However, it has to be noted that such proper demarcation results in reduced utilisable area. The hatched area works out to only 6.42 Ha as against the required area of 9.6 Ha for both the phases of development. This is still sufficient as the required area is only 5.8 Ha.

It is suggested that initially the sheds at berth nos. 4 & 6 are removed during the first phase and a proper parking yard made and operated. Based on its performance, the planning for the second phase could be decided.



RECOMMENDED SHAPE FOR CONTAINER PARKING YARD

STORAGE AREA FOR PULSES & FERTILISERS

As indicated earlier, pulses and fertilisers will be handled and stored in bags. These bags will be stored in the shed in stacks. One stack of size 6 m x 6 m and 1.5 m high will have 3,600 bags (estimated size of a 50 Kg bag is 50 cm x 30 cm x 10cm), i.e. 180 tons. This gives a ground pressure of 5 tons/sq.m which is the permissible limit.

In this case also the dwell time is taken as 15 days and the traffic volume is taken as 3 lakh tons per annum. Therefore, at a time the volume to be stored will be 12,330 tons. As per the earlier calculation, 180 tons of bags will require 36 sq. m area. Accordingly, the total storage area required will be $(12,300 / 180) \times 36 = 2,460$ sq.m. Allowing 20% additional area for circulation, the total area will be 2,952 sq.m. This could be easily accommodated in shed at berth no. 2 whose floor area is 3,386 sq.m.

The shed at berth no. 12 has an extension with an area of 795 sq.m. This will be able to accommodate another 0.5 lakh tons making the total capacity to 3.5 lakh tons.

7.1 PROJECT SCHEDULE

It is expected that the time period from the start of pre-procurement activities till the signing of concession agreement will be around 15 months. This means that the Licensee will be at site only by the start of 2021-22. He is expected take another 2 years for commissioning Phase I of the project covering berths nos. 2, 4 & 6. This means that Phase I facilities will be in operation from the start of 2023-24.

After handing over the berths 2,4 &6 to the Licensee, the port will have berths 8,10 & 12 under its control. The present handling of container traffic by the Port at KPD I, which started with the trade notification on March, 2019, will continue over this period at these berths. The Port will also retain the parking yard developed by it for this purpose.

Once the Licensee commissions its first phase by 2023-24, the container operations handled by the Port will be taken over by the Licensee. However, the Port can continue to handle other cargo at berths 8,10 & 12 till the Licensee starts the second phase.

It is hoped that within 5 years from the commissioning of Phase I facilities, the projected traffic for the first decade i.e. 1.2 lakh TEUS, will be achieved. This will encourage the Licensee to undertake the Phase II of the project by 2029-30 which will be completed within two years.

By the start of the 2nd decade, i.e. 2031-32, both the facilities will be in operation. Assuming the 2nd Phase will take another 5 years to reach its projected traffic of another 1.2 lakh TEUs, the terminal will be handling 2.4 lakh TEUs by 2036-37.

Going by the past data on the number of container vessels that could enter KPD I, it has been estimated that the total volume of container traffic for KPD could be 2.96 lakh TEUs. This volume has to be handled during the 3rd decade. It may be possible that over the years the number of container vessels that could enter KPD could increase over

and above that estimated and the volume of container traffic that could be handled will increase.

7.2 ENABLING WORKS TO BE DONE BY THE PORT

- The existing transit sheds at berths 4&6 as well those at berths 8&10 have to be removed before handing over the sites to the Licensee during the first and second phases. Considering the columns and roofing with old structural steel, the Port can auction these sheds in “as is where is” condition. In this way, the Port can get these sheds removed as well earn some revenue out of them.
- Earlier the Tidal Basin used to have four capstans for turning the ship around after entering, so that it will always fore forward. Sometimes, the ship can be berthed either port side along or starboard side along depending on the requirement of the agent. This was abandoned later with the decrease in the number of ships calling at KPD. Now with the proposed rejuvenation plan, these four capstans are recommended to be re-established.
- With the increased number of ships calling at the dock and the regular opening and closing of the lock gates, there is a need for an exclusive grab dredger to dredge the accumulated silt at the lock entrance. This dredger could be taken on a five-year charter as is being done now.
- As desired by the port, the existing Gate No. 2 has to be re-located as shown hereunder for ensure ease of vehicular movements.



7.3 BERTHING FACILITIES

KPD I	3	157	157
	4	157	157
	6	157	157
	8	157	157
	10	157	157

CONTAINERS

As indicated earlier, the Licensee will commence his operations under Phase I by 2023-24. Till that time, the present container traffic at KPD I will continue to be handled but at berth nos. 8 & 10.

During the first phase of the operations, container vessels will be handled at the combined berths 4 & 6. They have a total length of 254 M. This can easily accommodate a container vessel of LOA 157 M which will require a total length of 157 m + 2x15 m for mooring = 187 M. Taking a daily productivity of 600 TEU with one MHC, the berth will require 200 operational days to handle the projected annual traffic of 1.2 lakh TEU during the first phase. Assuming 25% extra time, (as derived from the past performance at NSD), for peripheral activities including waiting for the tide, the berth will be occupied for 250 days which works out to 68% berth occupancy. This will be the status at the later part of the first phase.

When the second phase of development is commissioned by 2031-32, berths nos. 8 & 10 will also be available. They have a total length of 289 M. Taking this in isolation, this can also accommodate one container vessel of LOA 157 M. Like the berth in phase one, this can also handle the projected annual traffic of 1.2 lakh TEU per annum with 68% berth occupancy. But in reality, the combined length of the four berths viz. 4, 6, 8 & 9 works out to 543 M which can accommodate 3 vessels of LOA 157M. This means that when both the phases of development are completed, there will be three berths available. With these three berths, the terminal will be able to handle the projected final traffic of 2.96 lakh TEUs per annum.

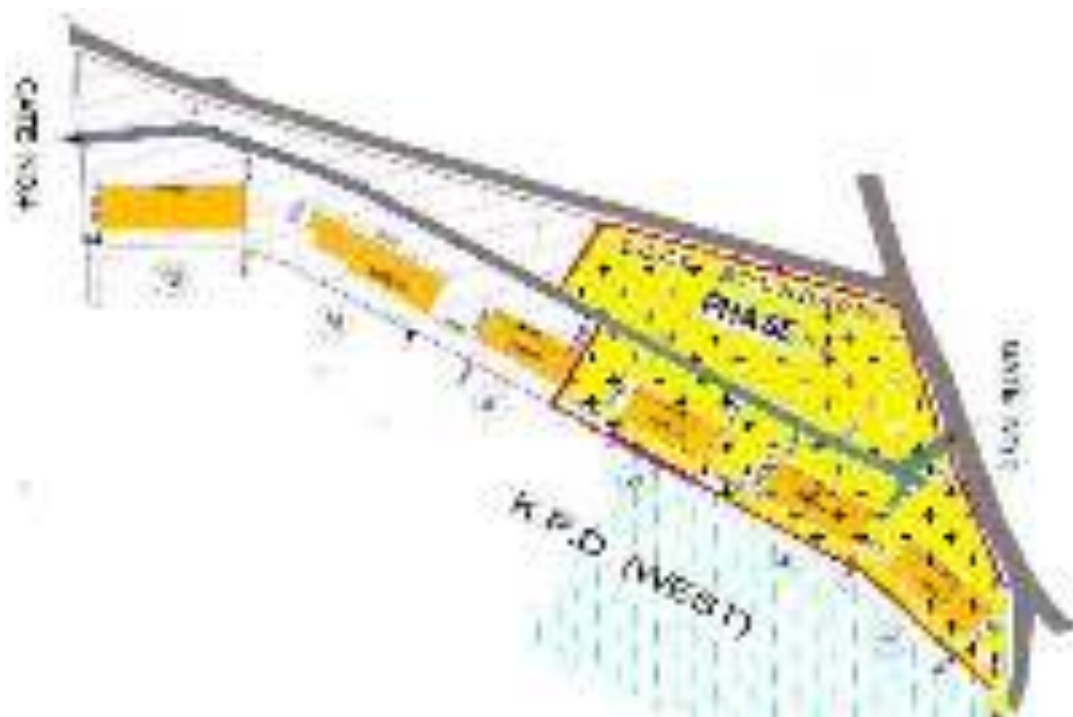
OTHER CARGO

During the first phase, berth no. 2 will be available for other cargo. This berth is 162 M long. It has been indicated that the other cargo will be moved only through barges of size LOA between 60 M to 82 M and with beam of 10M to 17 M. Since the average parcel size is about 2,000 T, it is sufficient that a single barge is berthed which could be cleared in a single day. At this rate, with a berth occupancy of just over 41% the projected traffic of 3 lakh tons could be handled.

During the second phase, berth no. 12 will also be available. This berth is 143 m long. This berth also needs to berth a single barge which could be cleared in a single day. It should be possible to handle the project traffic of 3.5 lakh tons with about 48% berth occupancy.

7.4 CONTAINER PARKING YARD & CARGO STORAGE AREA

It has been proposed by the port that for the first phase of development, the area demarcated hereunder will be handed over to the Licensee.



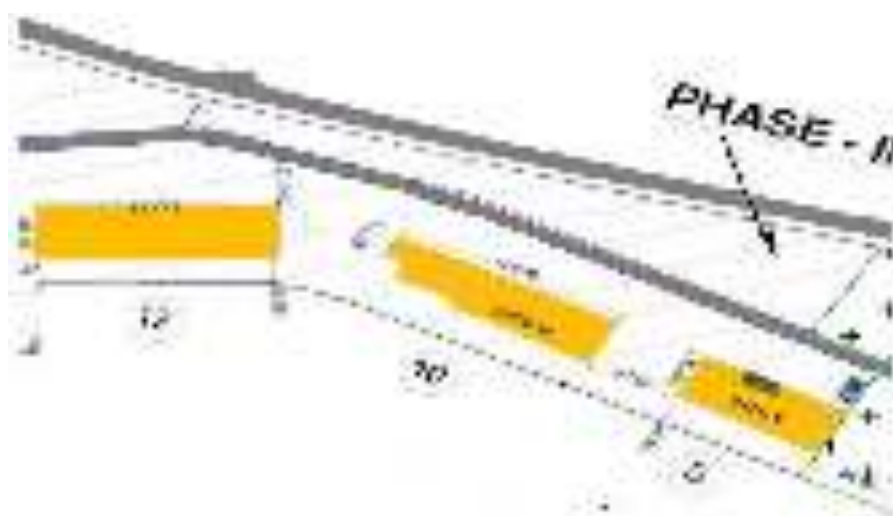
AREA TO BE HANDED OVER FOR THE FIRST PHASE DEVELOPMENT

AREA STATEMENT : PHASE-I			
SRL NO.	DESCRIPTION	AREA (IN Sqm)	
1	Phase - I	+	27,761.00
a	SHED-2 (Indl.)		5,100.00
b	SHED-4 (Indl.)		5,100.00
c	SHED-6 (Indl.)		2,661.00



SATELLITE PICTURE OF THE FIRST PHASE AREA

During the second phase of development, the following demarcated area will be handed over to the Licensee.





SATELLITE PICTURE OF THE SECOND PHASE AREA

AREA STATEMENT, PHASE-II		
SER. NO.	DESCRIPTION	AREA IN SQ. M.
1	Plot area (1)	51,725.00
2	SHEDS (2 nos.)	2,475.00
3	SHEDS (10 nos.)	2,125.00
4	SHEDS (10 nos.)	4,300.00

CONTAINER PARKING YARD

It could be seen that during the first phase the existing container yard has been proposed to be handed over in full. This will ensure that the present container handling at KPD will continue till the first phase facilities are commissioned.

However, with the transit sheds at the berths in place, the available area is in odd shape and is not conducive for efficient operation of the terminal equipment. With the fact that almost all the sheds are presently not in use, it is suggested that the sheds at the berths nos. 4,6,8 & 10 be removed and the entire area developed in modular shape to ensure efficient operation. Such an option is marked in the figure hereunder.

The transit sheds at berths nos. 2 and 12 are retained for handling other cargo through barges such as pulses and fertilisers.



DEVELOPMENT OF INTEGRATED MODULAR PARKING YARD

A typical modular yard block for Reach Stacker operations is given hereunder. The block will contain three rows of containers on either side of a central passage which comprises a trailer passage and an aisle for a reach stacker handling a 40' container. The three rows of containers are 4 high on the last row, 3 high on the second row and two high on the first row.



Such developed yard will, in reality, look like this.



TYPICAL REACH STACKER CONTAINER PARKING YARD

If we take the length of one TEU ground slot of 6.1 M, the area of the block works out to 202.15 sq.m. In this area 6 TEU ground slots are available which gives the area requirement of one TEU ground slot as 33.14 sq.m. rounded to 34 sq.m.

The total area to be handed over during both the phases, excluding the area of sheds at berths 2 & 12 works out to $(67,761+3,198+2,619+54,705+2,475+3,521) = 134,279$

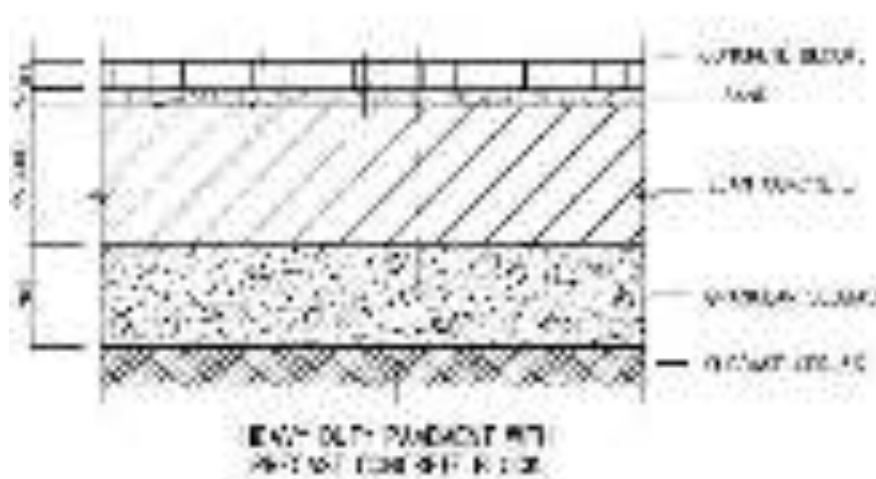
sq.m. Taking only 70% of this area for operational purposes, the available area works out to 93,995 sq. m which will be able to accommodate 2,764 TEU ground slots.

Assuming an average stack height of 2.5 and a dwell time of 6 days, this can handle an annual container traffic of 4.52 lakh TEUs which is much more than the projected traffic.

Hence it may be sufficient to develop only 50% of the available total area for the container parking yard i.e. 67,140 sq.m only. This will accommodate 1,974 TEU ground slots. With an average height of 2.5 and a dwell time of 6 days this can handle an annual container traffic of 3.00 lakh TEUs.

During the first phase of development, an area of 33,570 sq.m will be developed which will be able to handle the first phase traffic of 1.2 lakh TEUs of containers per annum.

A typical cross section of the heavy-duty pavement for the container parking yard is given hereunder.



STORAGE AREA FOR OTHER CARGO

As of the current year, the traffic in the traditional cargo of pulses and fertilisers has been has undergone a drastic reduction. However, there has been a sudden spurt in the traffic of limestone. As indicated under Traffic Study, there is every possibility for the reversal of traffic growth in pulses and fertilisers in the years to come. This implies that the facilities to handle and store such cargo should be flexible to accommodate all types.

As indicated in the earlier section on Planning Parameters, the existing transit sheds at berths nos. 2 & 12 will be able to handle Pulses or Fertilisers in bagged condition for the projected traffic of 3.0 lakh tons and 3.5 lakh tons.

7.5 CARGO HANDLING EQUIPMENT

7.5.1 SHIP-SHORE TRANSFER – CONTAINERS

There is a requirement of one MHC for each of the two phases of development.

It has been indicated that KPD will be able to receive ships of size LOA: 157 M and beam 21.3 M. A typical vessel of this size which calls at KDS is presented hereunder.



MV MASTERY D INSIDE NSD LOCK BARREL

MASTERY D (SHIP NO. 1021) is a Container Ship registered in Liberia under the flag of Liberia. The gross tonnage is 10,000 and the length is 157.00 M. The ship is owned by MASTERY D SHIP MANAGEMENT LTD, Liberia. The ship is currently operating as a container ship for the company MASTERY D SHIP MANAGEMENT LTD, Liberia. The ship is currently operating as a container ship for the company MASTERY D SHIP MANAGEMENT LTD, Liberia.

Such vessels will carry 8 containers across the beam. It has been indicated by the Civil Engineering Department of the port that a clear width of 3.4m from quay wall should be left for the presence of service duct in the Berths. As such, the outer edge of the pad of MHC can be placed keeping a clear width of 3.4m from quay wall.

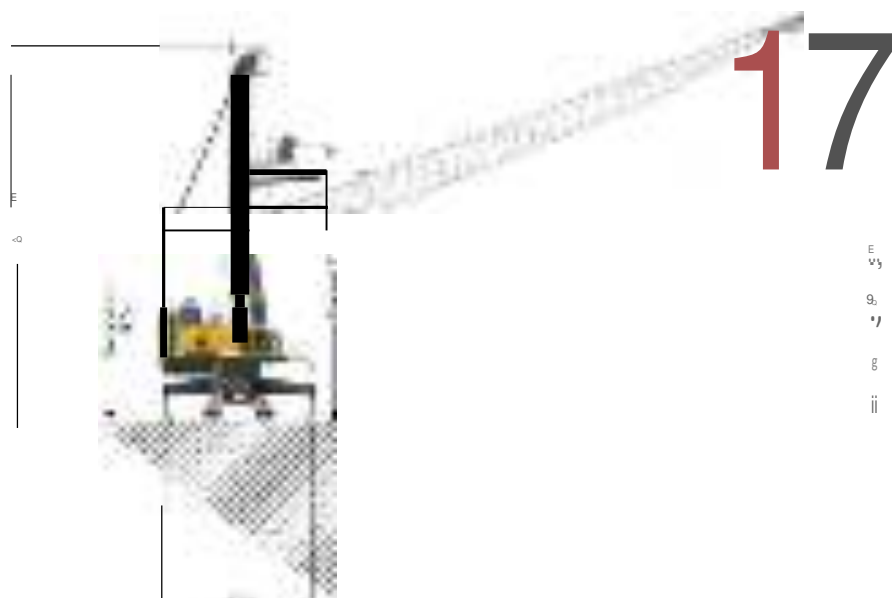
The placement of a MHC as per this requirement is shown in the figure hereunder.



**OUTREACH OF THE MHC SHOULD BE 30.05 M FROM CRANE CENTRE (19.3 M + 4.5
M + 6.25 M)**

Two cranes, one Liebherr LHM 425 and another Italgru IMHC 2120 E are considered.

Key Technical details of Liebherr LHM 425 are given hereunder.



Technical Data

Abstract

[illegible]

2010 10 10 10:10:10

1000 units of Item A	1000	10.00	10000.00
500 units of Item B	500	20.00	10000.00
250 units of Item C	250	40.00	10000.00
125 units of Item D	125	80.00	10000.00
62.5 units of Item E	62.5	160.00	10000.00
31.25 units of Item F	31.25	320.00	10000.00
15.625 units of Item G	15.625	640.00	10000.00
7.8125 units of Item H	7.8125	1280.00	10000.00
3.90625 units of Item I	3.90625	2560.00	10000.00
1.953125 units of Item J	1.953125	5120.00	10000.00
0.9765625 units of Item K	0.9765625	10240.00	10000.00
0.48828125 units of Item L	0.48828125	20480.00	10000.00
0.244140625 units of Item M	0.244140625	40960.00	10000.00
0.1220703125 units of Item N	0.1220703125	81920.00	10000.00
0.06103515625 units of Item O	0.06103515625	163840.00	10000.00
0.030517578125 units of Item P	0.030517578125	327680.00	10000.00
0.0152587890625 units of Item Q	0.0152587890625	655360.00	10000.00
0.00762939453125 units of Item R	0.00762939453125	1310720.00	10000.00
0.003814697265625 units of Item S	0.003814697265625	2621440.00	10000.00
0.0019073486328125 units of Item T	0.0019073486328125	5242880.00	10000.00
0.00095367431640625 units of Item U	0.00095367431640625	10485760.00	10000.00
0.000476837158203125 units of Item V	0.000476837158203125	20971520.00	10000.00
0.0002384185791015625 units of Item W	0.0002384185791015625	41943040.00	10000.00
0.00011920928955078125 units of Item X	0.00011920928955078125	83886080.00	10000.00
0.000059604644775390625 units of Item Y	0.000059604644775390625	167772160.00	10000.00
0.0000298023223876953125 units of Item Z	0.0000298023223876953125	335544320.00	10000.00
0.00001490116119384765625 units of Item AA	0.00001490116119384765625	671088640.00	10000.00
0.000007450580596923828125 units of Item AB	0.000007450580596923828125	1342177280.00	10000.00
0.0000037252902984619140625 units of Item AC	0.0000037252902984619140625	2684354560.00	10000.00
0.00000186264514923095703125 units of Item AD	0.00000186264514923095703125	5368709120.00	10000.00
0.000000931322574615478515625 units of Item AE	0.000000931322574615478515625	10737418240.00	10000.00
0.0000004656612873077392578125 units of Item AF	0.0000004656612873077392578125	21474836480.00	10000.00
0.00000023283064365386962890625 units of Item AG	0.00000023283064365386962890625	42949672960.00	10000.00
0.000000116415321826934814453125 units of Item AH	0.000000116415321826934814453125	85899345920.00	10000.00
0.0000000582076609134674072265625 units of Item AI	0.0000000582076609134674072265625	171798691840.00	10000.00
0.00000002910383045673370361328125 units of Item AJ	0.00000002910383045673370361328125	343597383680.00	10000.00
0.000000014551915228366851806640625 units of Item AK	0.000000014551915228366851806640625	687194767360.00	10000.00
0.0000000072759576141834259033203125 units of Item AL	0.0000000072759576141834259033203125	1374389534720.00	10000.00
0.00000000363797880709171295166015625 units of Item AM	0.00000000363797880709171295166015625	2748779069440.00	10000.00
0.000000001818989403545856475830078125 units of Item AN	0.000000001818989403545856475830078125	5497558138880.00	10000.00
0.0000000009094947017729282379150390625 units of Item AO	0.0000000009094947017729282379150390625	10995116277760.00	10000.00
0.00000000045474735088646411895751953125 units of Item AP	0.00000000045474735088646411895751953125	21990232555520.00	10000.00

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1. What is the main purpose of the study?	1. To investigate the effects of...
2. What are the research objectives?	2. To determine the impact of...
3. What is the significance of the study?	3. The study is important because...
4. What are the limitations of the study?	4. The study has some limitations...

References

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 Graduate Program Graduate Program

Energy Level & Temperature

	1988	1990
non-employment rate	5.6%	7.4%
non-employment ₁₀₀	0.27	0.35

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100%	100%
100%	100%
100%	100%

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LIFTING CAPACITIES
For container operations

Maximum crane capacity 30t

Container	Maximum permissible weight		Maximum height for the tower
	Crane I	Crane II	
10'	5	5	5
11'	7.5	7.5	7.5
12'	10	10	10
13'	11.4	11.4	11.4
14'	13	13	13
15'	14.5	14.5	14.5
16'	16	16	16
17'	17.5	17.5	17.5
18'	19	19	19
19'	20.5	20.5	20.5
20'	22	22	22
21'	23.5	23.5	23.5
22'	25	25	25
23'	26.5	26.5	26.5
24'	28	28	28
25'	29.5	29.5	29.5
26'	31	31	31
27'	32.5	32.5	32.5
28'	34	34	34
29'	35.5	35.5	35.5
30'	37	37	37

Height under 2-41
Height only for crane I operation
Height only for crane II operation

ITALGRU IMHC 2120 E

LIFTING CAPACITIES
For container operations

CONTAINER DATA		CAPACITIES FOR DIFFERENT MODES		
Height	Weight	Crane I Max Lift	Crane II Max Lift	Crane III Max Lift
10'	5	5	5	5
11'	7.5	7.5	7.5	7.5
12'	10	10	10	10
13'	11.4	11.4	11.4	11.4
14'	13	13	13	13
15'	14.5	14.5	14.5	14.5
16'	16	16	16	16
17'	17.5	17.5	17.5	17.5
18'	19	19	19	19
19'	20.5	20.5	20.5	20.5
20'	22	22	22	22
21'	23.5	23.5	23.5	23.5
22'	25	25	25	25
23'	26.5	26.5	26.5	26.5
24'	28	28	28	28
25'	29.5	29.5	29.5	29.5
26'	31	31	31	31
27'	32.5	32.5	32.5	32.5
28'	34	34	34	34
29'	35.5	35.5	35.5	35.5
30'	37	37	37	37

NOTES

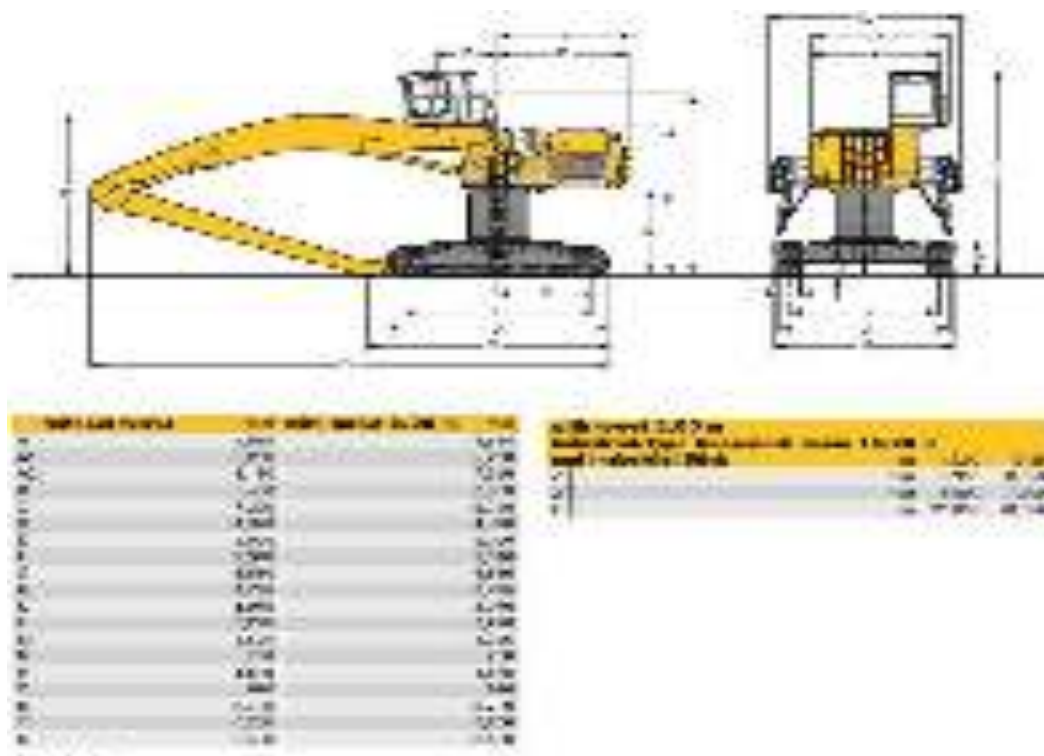
- Height 11' is for crane I operation, height 12' is for crane II operation, height 13' is for crane III operation.
- Maximum permissible weight is for crane I operation, maximum weight is for crane II operation.
- The crane is operated only for the crane I operation, height 13' is for crane II operation.
- The crane is operated only for the crane II operation, height 13' is for crane III operation.

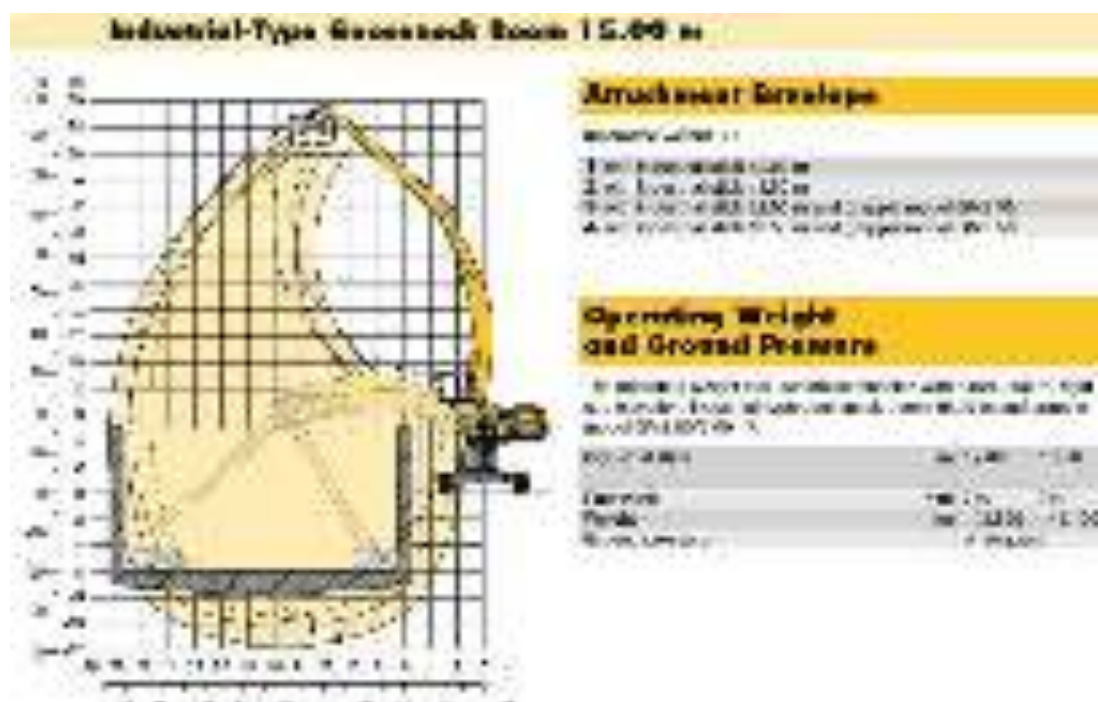
7.5.2 SHIP-SHORE TRANSFER – OTHER CARGO

For ship-shore transfer of other cargo, it has been indicated under Planning Parameters that one grab unloader with two hoppers will be required for each of the two phases of development.



Key technical features are presented hereunder.





APRON IN FRONT OF THE SHED

The minimum apron width at berths nos. 2 and 12 is 15.24 M.

As in the case of MHCs, here also the outer edge of the pad shall be placed keeping a clear width of 3.4m from quay wall. Keeping this in view, the grab unloader will be placed. Considering the dimensions given earlier, its disposition on the apron is given hereunder.

Farthest edge of grab from berthing face = Quay wall clearance 3.4 M + G/2: 3.4 M + E: 5 M = 11.8 M. This means there will be a clearance of 3.44 M from the wall of the transit shed.

7.5.3 STORAGE YARD TRANSFER – CONTAINERS

Under the section on Planning Parameters, it has been indicated that a fleet of 10 tractor trailer units will be required for transferring the containers unloaded from the ship for each MHC. This means that for each phase of development, there will be requirement of 10 tractor trailer units.

The tractor head shall be capable of hauling a container trailer with a fully loaded 40 ft. container. It shall be fitted with a fifth wheel for attaching the trailer. It shall be powered by diesel engine and provided with automatic power transmission. The engine shall conform to the pollution norms of the relevant Euro standards.

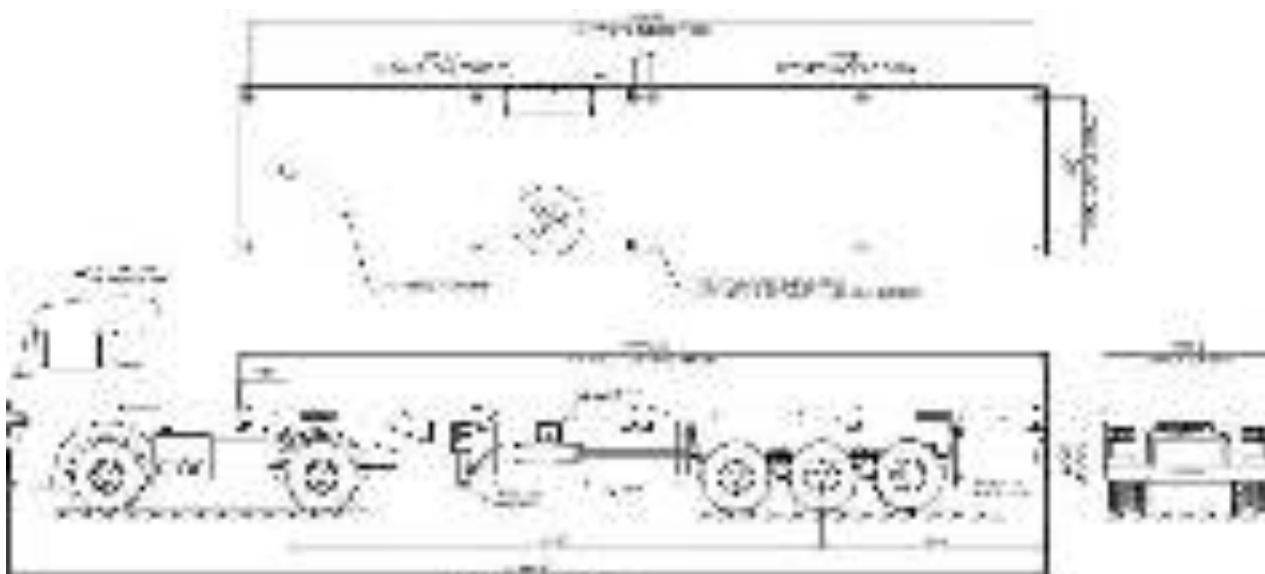
Key technical features of a typical 40' flatbed tridem axle semi-trailer are presented hereunder.

Overall dimensions: Length: 12250 mm x Width: 2500 mm x Height: 1530 mm.

Weight: ~ 7500 kg

Chassis is constructed using two numbers fabricated beam of appropriate size, running along the full length of the trailer with cross members of folded sections. 4 mm thick MS chequered platform. 12 numbers twist locks (2 nos. 20' container/ 1 no. 20' container application/ 1 no. 40' container application)

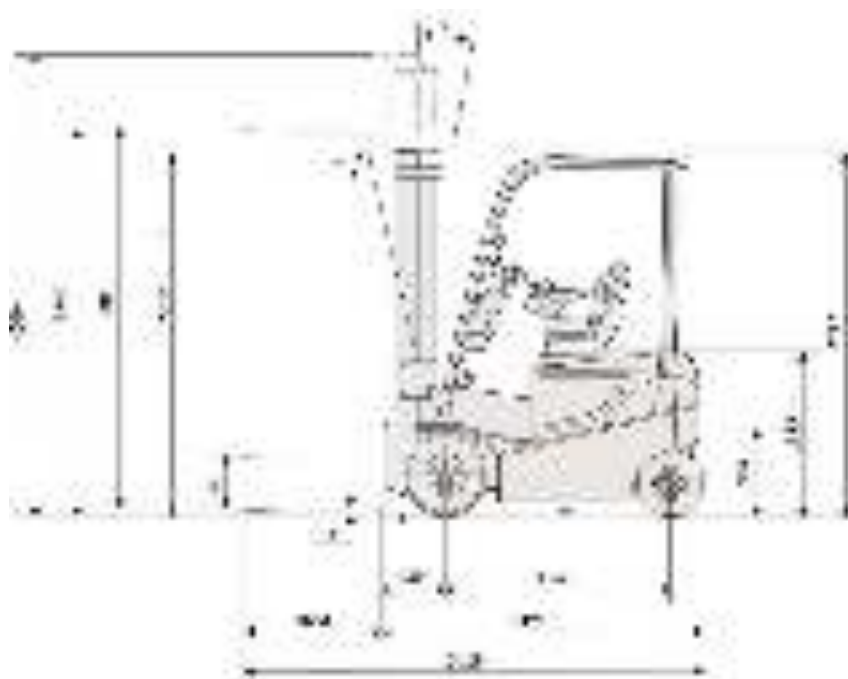
Axle assembly: 3 nos. 13 T capacity heavy duty axles.

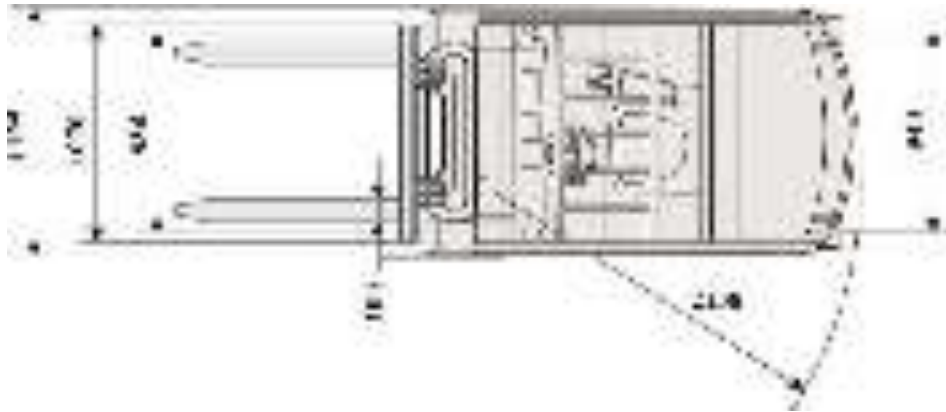


7.5.4 STORAGE YARD TRANSFER – PULSES / FERTILISERS

Under the section on Planning Parameters, it has been indicated that a fleet of 9 forklift trucks will be required for transferring the bagged pulses / fertilisers unloaded from the barges for each unloader during each phase.

Key features of a typical electric powered forklift truck of 2.5-ton capacity are presented hereunder.



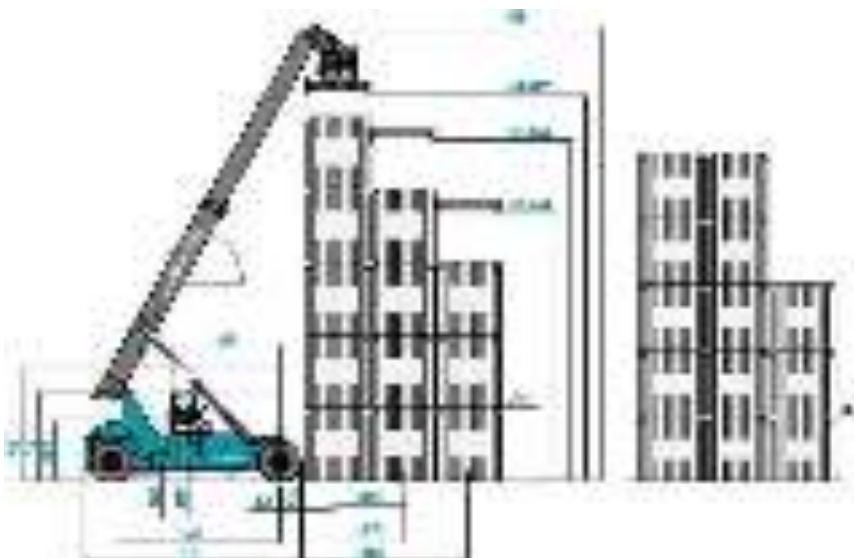


Travel speed: 19 kmph with load and 20 kmph without load.

Drive motor rating: 20 kW

7.5.5 CONTAINER PARKING YARD EQUIPMENT

As indicated under section Planning Parameters, the container parking yard will be served by Reach Stackers and 2 numbers will be required for serving one MHC and one more will be required for receipt and despatch of containers. On the whole 3 Reach Stackers will be required for the first phase. The same number of Reach Stackers will have to be repeated for the second phase of development.



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Rejuvenation of Kidderpore Docks on PPP Mode – Kolkata Port Trust

7.6 ELECTRICAL FACILITIES

The berths and the yards at KPD I are already in operation, of course, to a limited extent. With the proposed development in two phases, the yards will be expanded to provide additional operational area. Hence the lighting in the area has to be upgraded by providing additional Flood light masts. This may need augmenting with transformers and additional cables.

7.7 PROJECT IMPLEMENTATION SCHEDULE

The Project Implementation Schedule has been for both the phases of development has been prepared and is presented hereunder. It is expected that the Licensee will be selected by September, 2020. Thereafter the Port will complete its enabling works within the next 6 months. The Licensee is expected to take another 6 months for preparatory works such as preparation of DPR, soil investigation, formalities such as submission of BGs, arranging funds for the project and the Financial closure and fulfilling Conditions Precedent as per Concession Agreement.

The actual physical project execution is expected to take 18 months.

IMPLEMENTATION SCHEDULE FOR REJUVENATION OF KIDDERPORE DOCKS I																																						
PHASE I DEVELOPMENT																																						
S.No.	Item of work																																					
		2020											2021											2022											2023			
		A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	
PORT ACTIVITIES																																						
1	Application to SFC, RFQ, RFP till the signing of Concession Agreement																																					
2	Dismantling of transit sheds at berths 4 & 6																																					
3	Installation of capstans in Tidal Basin																																					
4	Shifting of Gate No. 2																																					
5	New peripheral road																																					
ACTIVITIES OF LICENSEE																																						
6	Field investigations and preparation of DPR																																					
7	Development of Container Parking Yard																																					
8	Control building, workshop, canteen etc.																																					
9	Mobile Harbour Cranes																																					
10	Grab unloaders with hoppers																																					
11	Reach Stackers																																					
12	Tractor - Trailer units																																					
13	Forklift Trucks																																					
14	Upgrading electrical facilities																																					
	Fixing up agency for execution																																					
	Field execution / Fabrication and supply																																					
	Testing and commissioning																																					

IMPLEMENTATION SCHEDULE FOR REJUVENATION OF KIDDERPORE DOCKS I

PHASE II DEVELOPMENT

S.No.	Item of work																								
		2028												2029											
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
	ACTIVITIES OF LICENSEE																								
5	Field investigations and preparation of DPR																								
6	Development of Container Parking Yard																								
7	Control building, workshop, canteen etc.																								
8	New peripheral road																								
9	Mobile Harbour Cranes																								
10	Grab unloaders with hoppers																								
11	Reach Stackers																								
12	Tractor - Trailer units																								
13	Forklift Trucks																								
14	Upgrading electrical facilities																								
	Fixing up agency for execution																								
	Field execution / Fabrication and supply																								
	Testing and commissioning																								

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SECTION 8

CAPITAL COST ESTIMATION & IMPLEMENTATION SCHEDULE

8.1 Capital Cost

The total capital cost of the project is estimated at Rs. 91.21 Crores for Phase-1 and Rs. 82.16 crores for Phase -2. The cost estimates are based on the prevailing market rates. The detailed estimates are attached as **Annexure 8.01 & 8.02**. The summary break-up of the estimate is given as under:

First Phase

(Rs. in crores)

S.No	Particulars	Estimated Capital Cost
1	Civil Works	23.50
2	Mechanical Equipment	54.20
3	Electrical Works	1.00
	Sub Total	78.70
4	Detailed Engineering & Project Supervision @ 2%	1.57
5	Contingencies @ 3%	2.37
6	TOTAL CAP-EX	82.64
7	GST @ 18% (on Civil Cost)	4.44
8	Miscellaneous Cost @ 5% of project cost as per TAMP	4.13
9	GRAND TOTAL	91.21

Second Phase

(Rs. in crores)

S.No	Particulars	Estimated Capital Cost
1	Civil Works	17.35
2	Mechanical Equipment	54.20
	Sub Total	71.55
3	Detailed Engineering & Project Supervision @ 2%	1.43
4	Contingencies @ 3%	2.15
5	TOTAL CAP-EX	75.13
6	GST @ 18% (on Civil Cost)	3.27
7	Miscellaneous Cost @ 5% of project cost as per TAMP	3.76
8	GRAND TOTAL	82.16

8.2 Implementation Schedule

The project implementation period including detailed engineering for the above from the date of grant of concession is estimated at 24 months for each phase. The phasing of expenditure is given as under:

First Phase

(Rs. In Cr)

Year	Percent of Expenditure	Amount
1	40 %	36.48
2	60 %	54.73
TOTAL	100 %	91.21

Second Phase

(Rs. In Cr)

Year	Percent of Expenditure	Amount
8	40 %	32.86
9	60 %	49.30
TOTAL	100 %	82.16

8.3 Interest During Construction

The Total Cap-ex is going to be spent in 24 months' time for each phase as indicated above and is proposed to be entirely from PPP operator. The Interest During Construction (IDC) is calculated to arrive at the impact of it on the cash flows considering the cost of capital as 10% and the amounts are going to be spent uniformly over the period. Accordingly, the IDC works out to Rs. 8.59 crores for Phase-1 and Rs. 7.74 crores for Phase-2. However as per TAMP Guidelines, IDC is calculated at 5% of Cap-ex at Rs. 4.13 cr and Rs. 3.76cr for Phase-1 and Phase-2 respectively. Hence the balance of Rs. 4.46 cr and Rs. 3.98cr is additionally to be added to the Cap-ex. Accordingly, the Cap-ex together with the actual IDC totals to **Rs. 95.66** crores for Phase-1 and **Rs. 86.15** crores for Phase-2.

Annexure 8.01**Detailed Capital Expenditure of the Project (Phase-1)
(Civil works)**

S.No	Description	Amount (Rs. Crore)
A. Civil Works		
1	Pre-Project Activities - site survey, Soil investigations, Preparation of Detailed Project Reports etc	1.50
2	Providing hard standing for container parking yard of total area of 33, 570 m2	20.00
3	New office building with control center & IT infrastructure	1.00
4	Maintenance workshop with canteen	1.00
	Civil Works Cost (Total A)	23.50

B. Mechanical equipment				
S.No	Description	Nos.	Rate (Rs. In Cr)	Amount (Rs. in Crores)
1	Mobile Harbour Cranes	1	33.00	33.00
2	Reach Stackers	3	4.00	12.00
3	Tractor Trailer units	10	0.40	4.00
4	Grab Unloaders	1	2.00	2.00
5	Hoppers	2	0.75	1.50
6	Fork Lift Trucks	10	0.17	1.70
	Mechanical Equipment Cost (Total B)			54.20

B. Electrical Works		
1	Electrical facilities for illuminating the berth area & Sheds	1.00
	Electrical Works Cost (Total C)	1.00
	Total Capital Cost (A + B+C)	78.70

Annexure 8.02**Detailed Capital Expenditure of the Project (Phase-2)
(Civil works)**

S.No	Description	Amount (Rs. Crore)
A. Civil Works		
1	Pre-Project Activities - site survey, Soil investigations, Preparation of Detailed Project Reports etc	1.00
2	Providing hard standing for container parking yard of total area of 27400 (33570-6170)	16.35
	Civil Works Cost (Total A)	17.35

Note :The area of 6170 m2 developed by the port will be handed over to Licensee.

B. Mechanical equipment				
S.No	Description	Nos.	Rate (Rs. In Cr)	Amount (Rs. in Crores)
1	Mobile Harbour Cranes	1	33.00	33.00
2	Reach Stackers	3	4.00	12.00
3	Tractor Trailer units	10	0.40	4.00
4	Grab Unloaders	1	2.00	2.00
5	Hoppers	2	0.75	1.50
6	Fork Lift Trucks	10	0.17	1.70
	Mechanical Equipment Cost (Total B)			54.20
	Total Capital Cost (A + B)			71.55

SECTION 9

FINANCIAL VIABILITY

The Financial Viability is worked out based on the Capital expenditure, its phasing, Traffic available for the project, Operating & Maintenance expenditure, the revenue that can be generated with reference to the investment and traffic etc.

9.1 Capital Cost

The total capital cost of the project as estimated in Section 8, i.e. Rs. 91.21 Crores for Phase-1 and Rs. 82.16 crores for Phase -2 is considered for further analysis. The Total cost estimate of Rs. 173.37 cr is further apportioned to the respective cargo handling heads to work out the O&M expenses and to derive the approximate tariff that can be charged to get the ROCE of 16% as prescribed by TAMP in the Guidelines.

Apportionment of Cap-ex

S.No	Particulars	Amount (Rs. in crore)
A	Phase-1	
1	Container Handling	85.48
2	Other cargo Handling (Pulses)	5.73
	Total	91.21
B	Phase-2	
1	Container Handling	76.43
2	Other cargo Handling (Fertiliser etc)	5.73
	Total	82.16
C	Grand Total	173.37

The Phase-1 is assumed to start from the FY 2021-22 and the commercial operations start in the year 2023-24. Similarly, the phase-2 development is assumed to take effect from the FY 2028-29 and the commercial operations will start in the year 2030-31.

The detailed breakup is given in **Annexure 9.01**

9.2 Traffic Projections

The Traffic projections given in Section -4 are considered for evaluation. However the same are pegged to the optimum capacity of the terminal calculated as under.

Optimal Capacity of the Container Terminal as per TAMP guidelines :

a) Optimal Quay Capacity	
1. Number of HMCs deployed	2
2. Number of working hours per crane in a year (365 days x 24 hrs)	8760
3. Average number of moves per crane	20
4. TEU ratio	1.3
5. Maximum operable capacity	70%
6. Optimal quay capacity = (1x2x3x4x5) in TEUs	3,18,864
b) Optimal Yard Capacity	
1. Total area allotted in hectares	13.4279
2. Area available for operations = 70%	9.3995 Ha
3. Total ground slots (TEUs) per Hectare	350
4. Average Stack height ratio	2.5
5. Period in Number of days	365
6. Surge factor ratio	1.3
7. Average Dwell time in days	6
8. Optimal Yard Capacity = (2x3x4x5x70%)/6x7) in TEUs	3,84,888

Therefore, the Optimal capacity of the Terminal is limited to 3,18,864 TEUS

In view of above, the Traffic projections of the Container terminal are frozen at 3,30,000 TEUs (considering marginal possible increase). However, if the operator desires to invest in the 3rd HMC and the stream of equipments, the traffic as given in the Section-4 to the tune of 3.65 lakh TEUs can be handled in view of the availability of the Ground Slots.

In view of restricting cargo to the optimum capacity and the fact that the storage area is available for other cargoes, the pulses traffic of 3.0 Lakh Tons is considered for all the years of project life of phase-1 and the Fertiliser/other traffic of 3.5 Lakhs during the entire Phase-2.

The year wise Traffic considered is given at **Annexure- 9.02**

9.3. Operation & Maintenance Cost

For calculation of Operation and maintenance cost, the TAMP guidelines for fixation of upfront Tariff are considered as far as possible. The Broad assumptions for calculating O&M costs are as under.

9.3.1 Repairs & Maintenance Cost:

As per norms specified in Upfront Tariff guidelines 2008, the Repairs & Maintenance cost is estimated at 1% of Civil assets, 2% for Container handling equipment and 5% for other cargo handling equipment.

9.3.2. Insurance

As per Upfront Tariff guidelines, Insurance cost is estimated @ 1% of the gross value of assets.

9.3.3 Other Expenses

As per norms specified in Upfront Tariff guidelines, other expenses are to be estimated at the rate of 15% of Gross value of assets for container operations and at 5% for other cargo operations Multipurpose Terminal which include the following:

- a. Salaries and wages of operating and maintenance staff including welfare and other expenses towards them.
- b. Management and general overheads and other miscellaneous cost.

9.3.4. License Fee

The License fee for the area proposed to be allotted in each Phase is considered in the respective years.

Phase-1

The area proposed to be allotted to the operator for Phase-1 is 67761 m² of open area, 3109 m² of Shed2, 3198 m² of Shed 4 and 2619 m² of shed 6. The Sheds 4 and 6 are proposed to be demolished for creating stack yard. Hence the total open area works out to 73578 m². The Present License fee for open area is 48.38 per sq. meter notified on 31st May 2017. Since the area is going to be allotted in 2021, escalation @ 2% for 4 years is considered to arrive at the LF at the time of handing over. Since Shed No.2 is proposed to be retained for storing pulses etc. the LF of Rs. 104.37 per sq meter for the covered sheds as on 31st May 2017, escalated at 2% for 4 years is considered.

Phase-2

The area proposed to be allotted to the operator for Phase-2 is 48535 m² of open area, 6170 m² of Paved area, 2475 m² of Shed 8, 3521 m² of Shed 10 and 4988 m² of shed 12. The Sheds 8 and 10 are proposed to be demolished for creating stack yard. Hence the total open/paved area works out to 60701 m². The Present License fee for open area is Rs. 48.38 per sq. meter and Rs. 63.88 per sq. meter for paved area notified on 31st May 2017. Since the area is going to be allotted in 2028-29, escalation @ 2% for 12 years is considered to arrive at the LF at the time of handing over. Since Shed No.12 is proposed to be retained for storing pulses etc. the LF of Rs. 104.37 per sq meter for the covered sheds as on 31st May 2017, escalated at 2% for 12 years is considered for the purpose of IRR.

9.3.5. Depreciation

As per Upfront Tariff guidelines, Depreciation is calculated at 3.17% on Civil Assets and at 6.33% for Mechanical assets and at 9.50% for Electrical on Straight line method as per the Companies Act 2013. However, the same is not considered in the cash flows being non-cash expenditure for calculating IRR.

9.3.6. Power cost for Illumination of berth area:

As per norms specified in Upfront Tariff guidelines, the power consumption for illumination of the Liquid Terminal is considered in the absence of any other guidelines for the area illumination. Accordingly, 2.4 lakh units per annum per hectare consumption is considered for the illumination purpose for the entire area of operation. The cost per unit is taken as Rs. 10/- which includes fixed demand charges etc.

9.3.7. Variable operating expenditure

Cost of Fuel etc.

The fuel consumption varies from equipment to equipment based on the usage etc. The fuel consumption of various equipment proposed to be installed is assumed as under.

i)	Mobile Harbour Crane (100T)	- 70 Ltrs per hour
ii)	Reach Stacker	- 14 Ltrs per hour
iii)	Tractor Trailers	- 4 Ltrs per hour
iv)	Grab Unloader	- 15 Ltrs per hour
v)	Fork Lift Trucks (2.5 T)	- 3 Ltrs Per hour

Diesel rate at Rs. 65.62 per litre as per IOCL website on 20th May 2020 prevailing in Kolkata is considered for working out the cost.

The following assumptions are considered for calculating the per TEU cost or Per Ton of cargo handling cost of fuel.

i) Mobile Harbour crane (100 T)

20 Moves per hour with a TEU ratio of 1.3, the TEUs that can be handled per hour are 26 Nos. The Fuel cost per hour is divided by the Number of TEUs to arrive at per TEU cost of fuel.

ii) Reach Stacker

3 Numbers of Reach Stackers are considered to support one MHC operation. Thus one reach stacker can handle 8.67 TEUs (both stacking and delivery). Accordingly, the Fuel cost per hour is divided by the Number of TEUs to arrive at per TEU cost of Fuel.

iii) Tractor Trailers

Each tractor trailer is expected to take 25 minutes per trip to make a round movement and with waiting assumed at 5 mts per trip can handle 2 moves per hour. With the TEU ratio of 1.3, the TEUs that can be transported by a Tractor Trailer per hour works out to 2.60. The Fuel cost per hour is divided by the Number of TEUs to arrive at per TEU cost of fuel.

iv) Grab Unloader

Each Grab unloader is expected to unload 100 tph. An extra time of 20% is assumed for positioning etc. It means in 1.20 hrs, the estimated cargo handling is 100 tons. Accordingly, the Fuel cost per hour is divided by the Number of Tons to arrive at fuel cost per ton.

v) Fork Lift Trucks

Each FLT is expected to handle 12 tph. An extra time of 20% is assumed for positioning etc. It means in 1.20 hrs, the estimated cargo handling is 12 tons. Accordingly, the Fuel cost per hour is divided by the Number of Tons to arrive at fuel cost per ton.

9.3.8. Escalation

The operating expenditure given above is escalated at 2% p.a (compounded) to account for the increase in costs for all the components except at 1% for Insurance. This is due to the fact that the insurance as per market practice is less on Civil assets and more on Mechanical / Electrical assets.

The above assumptions are tabulated below.

Operation & Maintenance Cost

Sl. No.	Particulars	Assumption	Basis
1.	Repairs & Maintenance Cost		
a)	Civil Works	1% of Capital Cost	TAMP Guidelines
b)	Mechanical Works	2% for Container Equipment 5% for other cargo Equipment	TAMP Guidelines
c)	Electrical Works	2% of Capital Cost	TAMP Guidelines
2.	Insurance	1% of Gross value of assets	TAMP Guidelines
3.	Other Expenses This caters to the Salaries & wages and other overheads)	15% of Gross value of assets for container 5% of Gross value of assets – other cargo	TAMP Guidelines
4.	Lease rentals	Rs. 48.38/m2 for Open area Rs. 63.88/m2 for Paved area Rs. 104.37 / m2 for Sheds escalated @ 2% p.a.	As per KoPT SOR as on 31-5-2017 escalated up to 2021 for Ph-1 & 2028 for Ph-2 (handing yr)
5.	Depreciation (SLM)		
a)	Civil Works	3.17% of Capital Cost	TAMP Guidelines
b)	Mechanical Works	6.33% of Capital Cost	TAMP Guidelines
c)	Electrical Works	9.50% of Capital Cost	TAMP Guidelines

6.	Power and Fuel cost		
	Power for illuminating berth and immediate back up area	2.4 lakh units per hectare per annum x Rs.10 per unit	TAMP Guidelines Unit rate as at KoPT
7.	Fuel Cost	Rs. 65.62 per Ltr	(Diesel rate on 20-5-20 from IOC at Kolkata)
a)	Mobile Harbour Crane	70 Ltr / hr	TAMP Guidelines Unit rate at Kolkata
b)	Reach Stacker	14 Ltr / hr	Market Practice
c)	Tractor Trailer	4 Ltr / hr	Market Practice
d)	Grab Unloader	15 Ltr / hr	Market Practice
e)	FLT (2.5 ton)	3 Ltr / hr	Market Practice
8.	Escalation	1% p.a on Insurance & 2% p.a on other costs	
9.	Berth Hire	Not considered	The Berth continues to be with KoPT

The detailed operating cost is given for each phase in *Annexure 9.03 (a) and 9.03 (b)*. Total Operating and Maintenance cost based on Fixed Cost and Variable cost (for the Fuel) concept for the respective years considering the traffic projections for each year and escalated at 2% p.a is summarized and given at *Annexure-9.03 (c)*

9.4. Revenue Estimates

9.4.1. The Project is planned to be taken up through PPP mode for Cargo handling operations only. Since the Berth is already constructed by the Port and is going to be maintained by the port, the Vessel related income is going to be earned by the Port. The PPP operator has to invest in constructing the storage yard and procuring the equipment for Container and other cargo operations. Hence the operator can earn Cargo related Charges only at the notified Tariff. The

Upfront Tariff / Reference Tariff needs to be approved by TAMP based on the proposal sent by the port. In order to work out the Feasibility of the Project, the approximate Revenue requirement per TEU or per Ton is worked out based on the TAMP guidelines and the restrictions of Traffic. The key factors considered are :

- a) Operating cost + ROCE @ 16% of Capital Cost / Optimal Capacity for Containers
- b) Operating cost + ROCE @ 16% of Capital Cost / Possible traffic handling for Other cargo.

The Tariff is escalated at 3% p.a. based on the average Escalation factor notified by TAMP during the past 3 years. The Container traffic is frozen at 3.30 MMT.

9.4.2. The tentative Tariff arrived at based on the Annual Revenue Requirement as per the TAMP guidelines is as under.

- i) Container - Rs. 2733.27 per TEU
- ii) Pulses - Rs. 112.30 per ton
- iii) Fertiliser - Rs. 106.07 per ton

The above tariff together with the applicable escalation is applied to the Projected Traffic of respective years to arrive at the cargo related income of that year. The year wise cargo related income calculated is given in Annexure 9.04.

9.5. Financial Viability and Sensitive Analysis

9.5.1. The Financial viability of the project is analyzed considering 30 years' life period from the date of starting of the construction. For arriving at FIRR, the Current Tariff is increased by 3% every year as stated above and all the O&M expenses are escalated at 2% (except insurance cost at 1%). The Operating income and the O&M expenditure are calculated based on the Cargo handled in the respective years till it reaches the optimal capacity of 3.30 Lakh TEUs in the case of Containers, 3.00 Lakh tons of Pulses and 3.50 lakh tons of Fertilizer etc..

9.5.2. Replacement cost of the Outlived mechanical equipment during the license period is considered as per the life norms below. The present value of the cost of equipment is escalated at 2% for working out the replacement cost in the relevant year of replacement.

The life of various mechanical equipments is considered based on the market practice and the DPR for Balagarh prepared by Tata Consulting Engineers.

- | | | |
|------|-----------------------------|------------|
| i) | Mobile Harbour Crane (100T) | - 20 years |
| ii) | Reach Stacker | - 15 years |
| iii) | Tractor Trailers | - 10 years |
| iv) | Grab Unloader | - 20 years |
| v) | Fork Lift Trucks (2.5 T) | - 10 years |
| vi) | Hoppers | - 10 years |

9.5.3. Scrap Value of Assets sold within the 30 yrs period is taken as credit and the Realizable value of the asset at the end of Concession Period of 30 years is considered as the obligation to transfer to port account for the purpose of calculating the IRR etc.

Sensitivity analysis has been carried out to gauge the impact of increase in cost and reduction of revenue earnings on the viability of the proposal. The results of the analysis are presented below. The detailed Cash flow statement is given at **Annexure-9.05 (a) below.**

Table 9.5 (a) (Considering IDC as per TAMP Guidelines)

S.No.	Pre-Tax Project IRR	IRR (%)	NPV @ 9% (in Rs. cr)
1	Base case	16.11%	172.16
2	Capital Cost up by 10%	15.21%	157.65
3	Revenue down by 10%	13.03%	92.55
4	Annual O&M Cost up by 10%	14.12%	124.27

9.5.4 From the above, it is evident that the FIRR of the Project at Base case is 16.13% and in all the other cases of adversity also gives more than 13%. Hence the Project is Financially viable for taking up through PPP in view of interest rates being much lower for investment of funds. The Payback in absolute net revenues works out to be between 13 to 14 years.

9.5.5. TAMP recognizes IDC by permitting 5% as Miscellaneous cost irrespective of the implementation schedule and the market rate of interest. The above IRR calculations are accordingly worked out. *However, Ministry of Shipping vide their letter dated 1st Feb 2017 issued directions to provide second set of numbers calculating the IDC as per prevalent interest rate, implementation schedule etc while arriving at the cost of project along with IRR and project cost in case of PPP projects. Since this project is on PPP, the IDC is calculated at 10% (Cost of Capital including processing charges etc). Thus, IDC at current cap-ex estimate for both the phases works out to Rs. 16.33 crores based on the implementation schedule given in section 8. However, the Cap-ex already includes Rs. 7.89 cr by way of 5% Misc cost. Hence the net IDC to be considered extra is Rs. 8.44 crores and hence the total project cost including additional IDC works out to Rs.181.81 crores (95.66 cr Ph-1 and Rs. 86.15 cr ph-2). With the same assumptions given in paras above, the Financial viability and Sensitivity analysis are as under. However escalated cost applicable for the year 8 and 9 is taken in the IRR calculation. The detailed Cash flow statement is given **Annexure-9.05 (b) below.***

Table 9.5 (b) (Considering IDC as per Market Practice)

S.No.	Pre-Tax Project IRR	IRR (%)	NPV @ 9% (in Rs. cr)
1	Base case	15.69%	166.09
2	Capital Cost up by 10%	14.80%	150.97
3	Revenue down by 10%	12.68%	86.48
4	Annual O&M Cost up by 10%	13.75%	118.21

9.5.6. From the above, it is evident that the FIRR of the Project at Base case is 15.69% and in all the other cases of adversity also gives more than 12.60%. Hence the Project is Financially viable for taking up through PPP in view of interest rates are being much lower for investment of funds. The Payback in absolute net revenues works out to be between 13 to 14 years.

9.5.7 The PPP operator is permitted to increase the Tariff upto 15% on achieving the Performance Standards from the 2nd year onwards. But the effect of increase may take place from 3rd year onwards. In such case the IRR for the base case works out to 19.36% with a payback of 12 to 13 years.

9.5.8. The Project is not only attractive it has great economic impact in the region there by much economic benefits for the EXIM trade of the country. The Port may increase their throughput and can earn an incremental revenue not only by Revenue share but also through increased vessel related income besides the Lease rent.

Annexure - 9.01

Apportioned Capital estimates							
Phase-1							Rs.Cr
S.No	Item of work	Container operation				Pulses	G.Total
		Civil	Mech	Elect	Total	Mech	
1	Cost estimate	23.50	49.00	1.00	73.50	5.20	78.70
2	Detailed Engineering@2%	0.47	0.98	0.02	1.47	0.10	1.57
3	Contingencies @ 3%	0.71	1.47	0.03	2.21	0.16	2.36
	Sub Total	24.68	51.45	1.05	77.18	5.46	82.64
4	GST at 18% (Excl on Mech/Elec	4.44			4.44		4.44
5	Misc cost @ 5% of Project cost	1.23	2.57	0.05	3.86	0.27	4.13
	Total Cost	30.35	54.02	1.10	85.48	5.73	91.21
Phase-2							Rs.Cr
S.No	Item of work	Container operation				Fert	G.Total
		Civil	Mech	Elect	Total	Mech	
1	Cost estimate	17.35	49.00		66.35	5.20	71.55
2	Detailed Engineering@2%	0.35	0.98	-	1.33	0.10	1.43
3	Contingencies @ 3%	0.52	1.47	-	1.99	0.16	2.15
	Sub Total	18.22	51.45	-	69.67	5.46	75.13
4	GST at 18% (Excl on Mech/Elec	3.28			3.28		3.28
5	Misc cost @ 5% of Project cost	0.91	2.57	-	3.48	0.27	3.76
	Total Cost	22.41	54.02	-	76.43	5.73	82.16
		52.76	108.05	1.10	161.91	11.47	173.37

Traffic Projections considered for Financial Calculations - KPD-1

Year of Opn	F Y			A G R	Container TEUs Ph-1	A G R	Container TEUs Ph-2	Container Total	Pulses MTs Ph-1	Fertilizer etc Ph-2
1	2				3		4	5	6	7
1	2021	-	2022		1,00,000					
2	2022	-	2023	2.0%	1,02,000					
3	2023	-	2024	2.0%	1,04,040			1,04,040	3,00,000	
4	2024	-	2025	2.0%	1,06,121			1,06,121	3,00,000	
5	2025	-	2026	2.0%	1,08,243			1,08,243	3,00,000	
6	2026	-	2027	2.0%	1,10,408			1,10,408	3,00,000	
7	2027	-	2028	2.0%	1,12,616			1,12,616	3,00,000	
8	2028	-	2029	2.0%	1,14,869			1,14,869	3,00,000	
9	2029	-	2030	2.0%	1,17,166			1,17,166	3,00,000	
10	2030	-	2031	2.5%	1,20,095	2.5%	1,20,000	2,40,095	3,00,000	3,50,000
11	2031	-	2032	2.5%	1,23,097	2.5%	1,23,000	2,46,097	3,00,000	3,50,000
12	2032	-	2033	3.0%	1,26,790	3.0%	1,26,690	2,53,480	3,00,000	3,50,000
13	2033	-	2034	3.0%	1,30,594	3.0%	1,30,491	2,61,085	3,00,000	3,50,000
14	2034	-	2035	3.0%	1,34,512	3.5%	1,35,058	2,69,570	3,00,000	3,50,000
15	2035	-	2036	3.5%	1,39,220	3.5%	1,39,785	2,79,005	3,00,000	3,50,000
16	2036	-	2037	3.5%	1,44,093	4.00%	1,45,376	2,89,469	3,00,000	3,50,000
17	2037	-	2038	3.5%	1,49,136	4.0%	1,51,191	3,00,327	3,00,000	3,50,000
18	2038	-	2039	3.5%	1,54,356	4.0%	1,57,239	3,11,595	3,00,000	3,50,000
19	2039	-	2040	3.5%	1,59,758	4.0%	1,63,529	3,23,287	3,00,000	3,50,000
20	2040	-	2041	3.5%	1,65,000		1,65,000	3,30,000	3,00,000	3,50,000
21	2041	-	2042	3.5%	1,65,000		1,65,000	3,30,000	3,00,000	3,50,000
22	2042	-	2043	3.5%	1,65,000		1,65,000	3,30,000	3,00,000	3,50,000
23	2043	-	2044	3.5%	1,65,000		1,65,000	3,30,000	3,00,000	3,50,000
24	2044	-	2045	3.5%	1,65,000		1,65,000	3,30,000	3,00,000	3,50,000
25	2045	-	2046	3.5%	1,65,000		1,65,000	3,30,000	3,00,000	3,50,000
26	2046	-	2047		1,65,000		1,65,000	3,30,000	3,00,000	3,50,000
27	2047	-	2048		1,65,000		1,65,000	3,30,000	3,00,000	3,50,000
28	2048	-	2049		1,65,000		1,65,000	3,30,000	3,00,000	3,50,000
29	2049	-	2050		1,65,000		1,65,000	3,30,000	3,00,000	3,50,000
30	2050	-	2051		1,65,000		1,65,000	3,30,000	3,00,000	3,50,000

Rejuvenation of KPD 1						
OPERATING COST						
S.No	Particulars	Phase-1				
			Rate	Container	Pulses etc	Total Rs lakh
A	Fixed Cost					
1	Repairs & Maintenance Cost					
a	Civil works	3,035.03	1%	30.35		30.35
b	Mechanical Equipment for CT	5,402.25	2%	108.05		108.05
c	Mechanical Equipment for Other cargo	573.30	5%		28.67	28.67
d	Electrical works	110.25	2%	2.21		2.21
	Sub Total	9,120.83		140.60	28.67	169.27
2	Insurance for CT equipment	8,547.53	1%	85.48		85.48
	Insurance for other equipment	573.30	1%		5.73	5.73
	Sub Total	9,120.83		85.48	5.73	91.21
3	Other expenses					
a	For terminals having capacity less than 5 Laksh TEUs @ 15% of Gross F Assets	8,547.53	15%	1,282.13		1,282.13
b	5% of GFA for Other cargo	573.30	5%		28.67	28.67
	Sub Total	9,120.83		1,282.13	28.67	1,310.79
4	Licence fee					
	Since the berth is owned by the port, no LF for the area to be handed over					
	Ph-1 = 67761+3198+2619= 73578 m2	73578	52.37	462.38		462.38
	Transit Shed 2 = 3109 m2	3109	112.97		42.15	42.15
	(48.38 /m2 as on 31-5-2017)	52.37				
	(104.37 /m2 as on 31-5-2017)	112.97				
	Sub Total			462.38	42.15	504.52
5	Depreciation					
a	Civil works	3,035.03	3.17%	96.21		96.21
b	Mechanical Equipjment for CT	5,402.25	6.33%	341.96		341.96
	Mechanical Equipjment for other cargo	573.30	6.33%		36.29	36.29
c	Electrical works	110.25	9.50%	10.47		10.47
	Sub Total	9,120.83		448.65	36.29	484.94
6	Power cost					
a	For illumination of the entire area					
	LF for the area to be handed over	per sq m	24			
	Ph-1 = 67761+3198+2619 sq m	73578	10	176.59		176.59
	Transit Shed 2 = 3109 m2	3109			7.46	7.46
	Total Area in Sq Mtrs (At 2.4 lakh units p.a per hectare)					
	Sub Total			176.59	7.46	184.05
	Total Fixed Cost			2,595.81	148.96	2,744.78
B	VARIABLE COST					
1	Fuel Cost	Cons /Hr	Rate/Lt	Moves	TEU/hr	Rs/TEU
a	Mobile Harbour cranes - 1 Nos	70	65.62	20	26.00	176.67
b	Reach stackers 3 Nos	14	65.62		8.67	106.00
c	Tractor - Trailers 10 Nos	4	65.62	2	2.60	100.95
	Total Cost of Fuel per TEU					383.62
				Ton/Hr	Factor for Moven	Rs/Ton
d	Grab Unloader 1 No for Pulses Handling	15	65.62	100.00	1.20	11.81
e	FLTs 2.5 ton - 10 Nos for Pulses Handling	3	65.62	12.00	1.20	19.69
	Total Cost per Ton Pulses Handling					31.50

Rejuvenation of KPD 1						
OPERATING COST						
S.No	Particulars		Rate	Phase-2		
				Container	Fert Cargo	Total Rs lakh
A	Fixed Cost					
1	Repairs & Maintenance Cost					
a	Civil works	2,240.75	1%	22.41		22.41
b	Mechanical Equipment for CT	5,402.25	2%	108.05		108.05
c	Mechanical Equipment for Fertiliser	573.30	5%		28.67	28.67
d	Electrical works		2%	-		-
	Sub Total	8,216.30		130.45	28.67	159.12
2	Insurance for CT equipment	7,643.00	1%	76.43		76.43
a	Insurance for equipment-Fertiliser	573.30	1%		5.73	5.73
b	Sub Total	8,216.30		76.43	5.73	82.16
3	Other expenses					
a	For terminals having capacity less than 5 Laksh TEUs @ 15% of Gross F Assets	7,643.00	15%	1,146.45		1,146.45
b	5% of GFA for Fertiliser cargo	573.30	5%		28.67	28.67
	Sub Total	8,216.30		1,146.45	28.67	1,175.12
4	Licence fee					
	Since the berth is owned by the port, no LF					
	LF for the area to be handed over					
	Ph-2 = 48535+2475+3521	54531	52.37	342.68		393.88
	Paved area = 6170 m2	6170	69.15	51.20		
	Transit Shed 12 = 4988 m2	4988	112.97		67.62	67.62
	(48.38 /m2 as on 31-5-2017)	52.37				-
	(63.88 /m2 as on 31-5-2017)	69.15				-
	(104.37 /m2 as on 31-5-2017)	112.97				-
	Sub Total			393.88	67.62	461.50
5	Depreciation					
a	Civil works	2,240.75	3.17%	71.03		71.03
b	Mechanical Equipment for CT	5,402.25	6.33%	341.96		341.96
c	Mechanical Equipment for Fertiliser	573.30	6.33%		36.29	36.29
d	Electrical works	-	9.50%	-		-
	Sub Total	8,216.30		412.99	36.29	449.28
6	Power cost					
a	For illumination of the entire area					
	LF for the area to be handed over		24			
	Ph-2 = 54705+2475+3521-6170	54531	10	130.87		145.68
	6170 m2 of developed area	6170		14.81		
	Transit Shed 12 = 4988 m2	4988			11.97	11.97
	Total Area in Sq Mtrs					-
	(At 2.4 lakh units p.a per hectare)					-
	Sub Total			145.68	11.97	157.65
	Total Fixed Cost			2,305.89	178.95	2,484.83
B	VARIABLE COST					
1	Fuel Cost	Cons /Hr	Rate/Lt	Moves	TEU/hr	Rs/TEU
a	Mobile Harbour cranes - 1 Nos	70	65.62	20	26.00	176.67
b	Reach stackers 3 Nos	14	65.62		8.67	106.00
c	Tractor - Trailers 10 Nos	4	65.62	2.00	2.60	100.95
	Total Cost of Fuel per TEU					383.62
				Ton/Hr	Factor for movement	Rs/Ton
f	Grab Unloader 1 Nos for Fertiliser etc	15	65.62	100.00	1.20	11.81
g	FLTs 2.5 ton - 10 Nos for Fertiliser etc	3	65.62	12.00	1.20	19.69
	(Diesel rate as per IOCL website on 20th May 20)					
	Total Cost per ton of Fertiliser Handling					31.50

REJUVINATION OF KPD 1												
Operating Expenses												
												Rs. Cr
Yr of Opn	F Y			R&M	Insu- rance	Other Exps	LF	Power	Fuel	Total Cash Cost P.a	Depn	Total O&M Exps
				Esc 2%	Esc 1%	Esc 2%	Esc 2%	Esc 2%	Esc 2%			
	Escn											
1	2			3	4	5	6	7	8	9	10	11
1	2021	-	2022				5.05	1.84		6.89		6.89
2	2022	-	2023				5.15	1.88		7.02		7.02
3	2023	-	2024	1.76	0.93	13.64	5.25	1.91	5.14	28.63	9.34	37.97
4	2024	-	2025	1.80	0.94	13.91	5.35	1.95	5.32	29.28	9.34	38.62
5	2025	-	2026	1.83	0.95	14.19	5.46	1.99	5.52	29.94	9.34	39.28
6	2026	-	2027	1.87	0.96	14.47	5.57	2.03	5.72	30.62	9.34	39.96
7	2027	-	2028	1.91	0.97	14.76	5.68	2.07	5.93	31.32	9.34	40.66
8	2028	-	2029	1.94	0.98	15.06	11.10	3.93	6.15	39.15	9.34	48.49
9	2029	-	2030	1.98	0.99	15.36	11.32	4.00	6.37	40.02	9.34	49.37
10	2030	-	2031	3.92	1.90	29.71	11.54	4.08	13.45	64.61	9.34	73.95
11	2031	-	2032	4.00	1.92	30.30	11.78	4.17	14.00	66.17	9.34	75.51
12	2032	-	2033	4.08	1.93	30.91	12.01	4.25	14.64	67.82	9.34	77.16
13	2033	-	2034	4.16	1.95	31.53	12.25	4.33	15.30	69.53	9.34	78.87
14	2034	-	2035	4.25	1.97	32.16	12.50	4.42	16.03	71.32	9.34	80.66
15	2035	-	2036	4.33	1.99	32.80	12.75	4.51	16.82	73.21	9.34	82.55
16	2036	-	2037	4.42	2.01	33.46	13.00	4.60	17.70	75.19	9.34	84.53
17	2037	-	2038	4.51	2.03	34.13	13.26	4.69	18.63	77.25	9.34	86.59
18	2038	-	2039	4.60	2.05	34.81	13.53	4.78	19.60	79.38	9.34	88.72
19	2039	-	2040	4.69	2.07	35.50	13.80	4.88	20.64	81.58	9.34	90.93
20	2040	-	2041	4.78	2.09	36.22	14.07	4.98	21.43	83.57	9.34	92.91
21	2041	-	2042	4.88	2.12	36.94	14.35	5.08	21.85	85.22	9.34	94.56
22	2042	-	2043	4.98	2.14	37.68	14.64	5.18	22.29	86.90	9.34	96.25
23	2043	-	2044	5.08	2.16	38.43	14.93	5.28	22.74	88.62	9.34	97.96
24	2044	-	2045	5.18	2.18	39.20	15.23	5.39	23.19	90.37	9.34	99.71
25	2045	-	2046	5.28	2.20	39.98	15.54	5.50	23.66	92.16	9.34	101.50
26	2046	-	2047	5.39	2.22	40.78	15.85	5.61	24.13	93.98	9.34	103.32
27	2047	-	2048	5.50	2.25	41.60	16.17	5.72	24.61	95.84	9.34	105.18
28	2048	-	2049	5.61	2.27	42.43	16.49	5.83	25.10	97.73	9.34	107.07
29	2049	-	2050	5.72	2.29	43.28	16.82	5.95	25.61	99.66	9.34	109.00
30	2050	-	2051	5.83	2.31	44.15	17.16	6.07	26.12	101.63	9.34	110.97
	Total			114.28	50.78	867.38	357.59	126.90	467.68	1,984.60	261.58	2,246.18

Annexure - 9.04

Cargo related revenue based on Traffic Projections - KPD 1										
										Rs. Crores
Year of Opn	F Y		Containers			Pulses	Fertiliser	Total	Total	Grand
			Ph-1	Ph-2	Total	Ph-1	Ph-2	Ph-1	Ph-2	Total
1	2		3	4	5	6	7	8	9	10
	Rate		2,733.27	2,733.27		112.30	106.07			
	Esc	3%								
1	2021	- 2022	-	-	-	-	-	-	-	-
2	2022	- 2023	-	-	-	-	-	-	-	-
3	2023	- 2024	31.07	-	31.07	3.68	-	34.76	-	34.76
4	2024	- 2025	32.65	-	32.65	3.79	-	36.44	-	36.44
5	2025	- 2026	34.30	-	34.30	3.91	-	38.20	-	38.20
6	2026	- 2027	36.03	-	36.03	4.02	-	40.06	-	40.06
7	2027	- 2028	37.86	-	37.86	4.14	-	42.00	-	42.00
8	2028	- 2029	39.77	-	39.77	4.27	-	44.04	-	44.04
9	2029	- 2030	41.78	-	41.78	4.40	-	46.18	-	46.18
10	2030	- 2031	44.11	44.08	88.19	4.53	4.99	48.64	49.07	97.71
11	2031	- 2032	46.57	46.54	93.11	4.66	5.14	51.24	51.68	102.91
12	2032	- 2033	49.41	49.37	98.78	4.80	5.29	54.21	54.66	108.88
13	2033	- 2034	52.42	52.38	104.80	4.95	5.45	57.37	57.83	115.20
14	2034	- 2035	55.61	55.84	111.45	5.10	5.62	60.71	61.45	122.16
15	2035	- 2036	59.28	59.53	118.81	5.25	5.78	64.53	65.31	129.84
16	2036	- 2037	63.20	63.76	126.96	5.41	5.96	68.61	69.72	138.33
17	2037	- 2038	67.37	68.30	135.68	5.57	6.14	72.94	74.44	147.38
18	2038	- 2039	71.82	73.17	144.99	5.74	6.32	77.56	79.49	157.05
19	2039	- 2040	76.57	78.38	154.94	5.91	6.51	82.48	84.89	167.36
20	2040	- 2041	81.45	81.45	162.91	6.08	6.71	87.54	88.16	175.70
21	2041	- 2042	83.90	83.90	167.79	6.27	6.91	90.16	90.80	180.97
22	2042	- 2043	86.41	86.41	172.83	6.46	7.11	92.87	93.53	186.40
23	2043	- 2044	89.01	89.01	178.01	6.65	7.33	95.66	96.33	191.99
24	2044	- 2045	91.68	91.68	183.35	6.85	7.55	98.53	99.22	197.75
25	2045	- 2046	94.43	94.43	188.85	7.05	7.77	101.48	102.20	203.68
26	2046	- 2047	97.26	97.26	194.52	7.27	8.01	104.53	105.27	209.79
27	2047	- 2048	100.18	100.18	200.36	7.48	8.25	107.66	108.42	216.09
28	2048	- 2049	103.18	103.18	206.37	7.71	8.49	110.89	111.68	222.57
29	2049	- 2050	106.28	106.28	212.56	7.94	8.75	114.22	115.03	229.25
30	2050	- 2051	109.47	109.47	218.93	8.18	9.01	117.64	118.48	236.12
			1,883.09	1,634.58	3,517.67	158.05	143.07	2,041.14	1,777.65	3,818.79

Annexure - 9.05 (a)

REJUVINATION OF KPD-1										
FINANCIAL FEASIBILITY - PROJECT IRR (Considering IDC as per TAMP Guidelines)										
						Rs. Cr	16.11%	15.21%	13.03%	14.12%
Year of Opn	F Y		Cap-ex	Total Revenue	O&M	Net	Sensitivity Analysis			
					Exps	Operation	Cap-ex	Revenue	O&M	
					Excl depn	Cashflows	+10%	-10%	+10%	
1	2		3	4	5	6	7	8	9	
1	2021	-	2022	36.48	-	6.89	-43.37	-47.01	-43.37	-44.05
2	2022	-	2023	54.72	-	7.02	-61.74	-67.22	-61.74	-62.45
3	2023	-	2024		34.76	28.63	6.13	6.13	2.65	3.26
4	2024	-	2025		36.44	29.28	7.16	7.16	3.52	4.23
5	2025	-	2026		38.20	29.94	8.26	8.26	4.44	5.27
6	2026	-	2027		40.06	30.62	9.43	9.43	5.43	6.37
7	2027	-	2028		42.00	31.32	10.68	10.68	6.48	7.55
8	2028	-	2029	37.75	44.04	39.15	-32.86	-36.63	-37.26	-36.77
9	2029	-	2030	56.63	46.18	40.02	-50.47	-56.14	-55.09	-54.48
10	2030	-	2031		97.71	64.61	33.10	33.10	23.33	26.64
11	2031	-	2032		102.91	66.17	36.75	36.75	26.46	30.13
12	2032	-	2033	8.95	108.88	67.82	32.10	31.21	21.21	25.32
13	2033	-	2034	-0.45	115.20	69.53	46.12	46.16	34.60	39.16
14	2034	-	2035		122.16	71.32	50.84	50.84	38.62	43.71
15	2035	-	2036		129.84	73.21	56.64	56.64	43.65	49.32
16	2036	-	2037		138.33	75.19	63.14	63.14	49.30	55.62
17	2037	-	2038	16.47	147.38	77.25	53.66	52.02	38.92	45.94
18	2038	-	2039		157.05	79.38	77.67	77.67	61.97	69.73
19	2039	-	2040		167.36	81.58	85.78	85.78	69.04	77.62
20	2040	-	2041	10.49	175.70	83.57	81.64	80.59	64.07	73.28
21	2041	-	2042		180.97	85.22	95.75	95.75	77.65	87.23
22	2042	-	2043	63.96	186.40	86.90	35.53	29.14	16.89	26.84
23	2043	-	2044	-	191.99	88.62	103.37	103.37	84.17	94.51
24	2044	-	2045		197.75	90.37	107.38	107.38	87.60	98.34
25	2045	-	2046	19.30	203.68	92.16	92.22	90.29	71.86	83.01
26	2046	-	2047		209.79	93.98	115.81	115.81	94.83	106.42
27	2047	-	2048		216.09	95.84	120.25	120.25	98.64	110.67
28	2048	-	2049		222.57	97.73	124.84	124.84	102.58	115.07
29	2049	-	2050		229.25	99.66	129.58	129.58	106.66	119.62
30	2050	-	2051		236.12	101.63	134.49	134.49	110.88	124.33
	Total			304.31	3,818.79	1,984.60	1,529.88	1,499.45	1,148.00	1,331.42
Note: Capex escalated at 2% p.a.										
Scrap value of equipement sold is taken in year 12. Reaslisable value of equpt at the end of 30 yrs is to port										
						FIRR	16.11%	15.21%	13.03%	14.12%
						NPV@9%	₹ 172.16	₹ 157.65	₹ 92.55	₹ 124.27

Annexure - 9.05 (b)

REJUVINATION OF KPD-1										
FINANCIAL FEASIBILITY - PROJECT IRR considering IDC as per market practice										
						Rs. Cr	15.69%	14.80%	12.68%	13.75%
Year of Opn	F Y		Cap-ex	Total Revenue	O&M	Net	Sensitivity Analysis			
					Exps	Operation	Cap-ex	Revenue	O&M	
	Excl depn	Cashflows			+10%	-10%	+10%			
1	2		3	4	5	6	7	8	9	
1	2021	-	2022	38.26	-	6.89	-45.15	-48.97	-45.15	-45.84
2	2022	-	2023	57.39	-	7.02	-64.42	-70.16	-64.42	-65.12
3	2023	-	2024		34.76	28.63	6.13	6.13	2.65	3.26
4	2024	-	2025		36.44	29.28	7.16	7.16	3.52	4.23
5	2025	-	2026		38.20	29.94	8.26	8.26	4.44	5.27
6	2026	-	2027		40.06	30.62	9.43	9.43	5.43	6.37
7	2027	-	2028		42.00	31.32	10.68	10.68	6.48	7.55
8	2028	-	2029	39.58	44.04	39.15	-34.69	-38.65	-39.09	-38.60
9	2029	-	2030	59.37	46.18	40.02	-53.22	-59.15	-57.83	-57.22
10	2030	-	2031		97.71	64.61	33.10	33.10	23.33	26.64
11	2031	-	2032		102.91	66.17	36.75	36.75	26.46	30.13
12	2032	-	2033	8.95	108.88	67.82	32.10	31.21	21.21	25.32
13	2033	-	2034	-0.45	115.20	69.53	46.11	46.16	34.59	39.16
14	2034	-	2035		122.16	71.32	50.84	50.84	38.62	43.71
15	2035	-	2036		129.84	73.21	56.64	56.64	43.65	49.32
16	2036	-	2037		138.33	75.19	63.14	63.14	49.30	55.62
17	2037	-	2038	16.47	147.38	77.25	53.66	52.02	38.92	45.94
18	2038	-	2039		157.05	79.38	77.67	77.67	61.97	69.73
19	2039	-	2040		167.36	81.58	85.78	85.78	69.04	77.62
20	2040	-	2041	10.49	175.70	83.57	81.64	80.59	64.07	73.28
21	2041	-	2042		180.97	85.22	95.75	95.75	77.65	87.23
22	2042	-	2043	63.96	186.40	86.90	35.53	29.14	16.89	26.84
23	2043	-	2044	-	191.99	88.62	103.37	103.37	84.17	94.51
24	2044	-	2045		197.75	90.37	107.38	107.38	87.60	98.34
25	2045	-	2046	19.30	203.68	92.16	92.22	90.29	71.86	83.01
26	2046	-	2047		209.79	93.98	115.81	115.81	94.83	106.42
27	2047	-	2048		216.09	95.84	120.25	120.25	98.64	110.67
28	2048	-	2049		222.57	97.73	124.84	124.84	102.58	115.07
29	2049	-	2050		229.25	99.66	129.58	129.58	106.66	119.62
30	2050	-	2051		236.12	101.63	134.49	134.49	110.88	124.33
	Total			313.34	3,818.79	1,984.60	1,520.85	1,489.52	1,138.97	1,322.39
Note: Capex escalated at 2% p.a. for the phase-2										
Scrap value of equipment sold is taken in year 12. Reaslisable value of equpt at the end of 30 yrs is to port										
						FIRR	15.69%	14.80%	12.68%	13.75%
						NPV@9%	₹ 166.09	₹ 150.97	₹ 86.48	₹ 118.21