

ODISHA FOREST DEVELOPMENT CORPORATION LIMITED (OFDC)

Rourkela-CKL Division, Rourkela, Odisha.

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No: OFDC/ROU/3970/2020-21

Date :02/11/2020

TENDER NOTIFICATION

Divisional Manger Odisha Forest Development Corporation Limited (OFDC), CKL Division, Rourkela, Odisha invites Development of Recreational Park at Koel Nagar, Sector 20, Rourkela from eligible tenderer for the works intends to do Integrated Development of Recreational Park.

Interested firms are requested to buy tender paper from officer in charge OFDC, Rourkela-CKL Division, Rourkela or download from https://www.odishafdc.com/tender_ofdc.php

1. Name of Work: -Integrated Development of Recreational Park at Koelnagar, Sector 20, Rourkela mentioned in DTCN
2. Estimated Cost: 10.23 Crore
3. Period of Completion: - 12 months
4. Availability of RFP Documents on 04/11/2020 onwards
5. Last Date of Submission of Tender Documents: - on and before 18/11/2020 at 4 Pm
6. Technical Bid will be opened in the office of Divisional Manger, Rourkela on 20/11/2020 at 11.00 am

Further details may be obtained from the above office during office hours on working days.

Sd/-

Divisional Manger OFDC (Rourkela)

BID DOCUMENT

For

**Development of Recreational Park at Koel Nagar, Sector 20,
Rourkela on Percentage Rate Basis under Quality cum Cost-
Based Selection (QCBS) – Evaluation based on the cost
committed by the bidder and the technical qualification of the
bidder.**

2020-2021

November, 2020

Executant

ODISHA FOREST

DEVELOPMENT CORPORATION LIMITED (OFDC)

Rourkela

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INVITATION FOR BIDS (IFB)

NATIONAL COMPETITIVE BIDDING

Bid Id. No. OSCL/...../2020 /Dated 03/11/2020

(LANDSCAPE & ARCHITECTURAL MANAGEMENT)

Name of work	Design, Development, Construction of Recreational Park consisting of Civil works, Architectural works and Electrical works including decorative lights at Koel Nagar Rourkela
Date of Invitation of Bid	04/11/2020
Last date and time for receipt of bids	18/11/2020
Last date of Physical Submission of Bid	19/11/2020
Time and date of opening of technical bids	20/11/2020
Technical Presentation Date	23/11/2020
Place of sale/receiving of bids	Odisha forest development corporation limited (OFDC), Rourkela
Officer inviting bids	Divisional Manager OFDC – Rourkela
Officer of Accepting bids	Divisional Manager OFDC – Rourkela

CONTRACT DATA

A. GENERAL INFORMATIONS

Sl. No	Item	Details
1.	Name of the Work	Design, Development, Construction of Recreational Park consisting of Civil works, Architectural works and Electrical works including decorative lights at Koel Nagar Rourkela
2.	Employer	Odisha forestdevelopment corporation limited (OFDC), Rourkela
3.	Employer's Representative	Divisional Manager OFDC – Rourkela
4.	Estimated Cost	10,23,62,750/- INR(Ten Crore Ninety Twenty Three Lakh Sixty Two Thousand Seven Hundred Fifty Only

B. BID INFORMATION

Sl. No	Item	Details
5.	Intended completion Period/Time Period assigned for Completion	Twelve (12) Calendar Months
6.	Last Date & time for Submission of Bid	18/11/2020, Time 16.00 HRS
7.	I. Cost of Bid Document II. In favor of III. Payable at	Bank draft amount Rs. 10,000/- + Rs. 1,200/-(GST) i.e. Rs. (11,200/-) Divisional Manager OFDC Rourkela
8.	Project Estimated Cot	10,23,62,750/- INR(Ten Crore Ninety Twenty Three Lakh Sixty Two Thousand Seven Hundred Fifty Only

Bid for Development of Recreational Park at Koel Nagar, Sector 20, Rourkela

9.	Earnest Money Deposited I. Amount II. In Favour of III. Payable at	10,00,000/-+ GST Divisional Manager OFDC Rourkela
10.	Type of instrument	As mentioned in Bid Documents

11.	Period of submission of original Bidsecurity and Demand draft towards cost of Biddocuments in the office of the Divisional Manager OFDC – Rourkela	04/11/2020 to 18/11/2020
12.	Bid validity period	90 Days
13.	Currency of Contract	India Rupee (INR)
14.	Language of Contract	English
15.	Retention Money	5 (Five) % for six month from date of completion

Instruction to Bidders (ITB)
(Relevant clauses in the DTCN/Bid document shall be superseded)

1. NOTICE INVITING BID AND OBTAINING BID DOCUMENTS:

1.1. The authority belonging to the major discipline is competent to invite tender of composite bids. He will also nominate the **Divisional Manager OFDC – Rourkela**, who will deal with all matters relating to the bids in the invitation of bids.

1.2. For composite tender, estimated cost of each component should be clearly indicated in addition to combined estimated cost put to tender. The eligibility of bidders will correspond to the combined estimated cost of different components put to tender.

1.3. The contractor shall comply with the provisions of the Apprentices Act 1961, and the rules / amendments issued there under from time to time. If he fails to do so, it will be considered a breach of the contract and **Divisional Manager OFDC – Rourkela** may at his discretion without prejudice to any other right or remedy available under law, cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation of the provisions of the said Act by him.

1.4. The contractor shall be deemed to have satisfied himself as to the correctness and sufficiency of the Tender and of the rates and prices quoted in the Bill of Quantities, all of which shall, except in so far as it is otherwise provided in the Contract, cover all his obligations under the Contract (including those in respect of the supply of goods, materials, plant & services or of contingencies for which there is a Provisional Sum) and all matters and things necessary for the proper execution and completion of the work and the remedying of any defects therein.

1.5. The successful bidder shall complete the works by the intended completion date specified in the Contract data.

1.6. Throughout these bidding documents, the terms “bid and tender” EMD and Bid Security and their derivatives (bidder / tenderer, bidding / tendering, etc.) are synonymous.

1.7. In case the tender for composite work includes in addition to main work / building work all other ancillary works such as sanitary and water supply installations,

drainage installation, electrical work, horticulture work, roads, paths, sculpture and mural paintings etc., the bidder apart from being a registered civil Contractor of appropriate class must associate himself with agencies of appropriate class those who is eligible to tender for sanitary and water supply drainage, electrical, horticulture works, artistic & sculpture works in the composite tender. Intending Employers are not required to produce any documents viz. copy of Registration, PAN at the time of purchase of tender documents but will be required for verification purpose at later stage.

1.8. Participating in The Bid: The Contractor/ Bidder intending to participate in the bid is required to purchase BID documents from the office of Divisional Manager OFDC Rourkela with some information about the firm/Contractor.

1.8.1. The tender documents will be available in hard copy by the Tender Inviting Officer in the at mentioned office address and will appear in notice board in the section of "Upcoming Tender" before the due date of tender sale. Only a small notification will be published in the newspaper specifying the work details along with mention of the specific dates for details. The publication of the tender will be for specific period of time till the last date of submission of bids as mentioned in the 'Invitation for Bid' after which the same will be removed from the list of Active tenders. Any bidder can purchase the bid documents from the office.

1.8.2. Contractor exempted from payment of EMD will be able to participate in the tender directly by providing documentary evidences towards his eligibility for such exemption.

1.9. The bidder intending to participate in the bid shall prepare the bid security and demand draft towards cost of bid as per IFB (except for exempted contractors) .

2. ELIGIBLE BIDDERS:

2.1. This Bid is open to all Special Class & A class contractors as per OPWD Code/Company, registered with the State Governments and Contractors of Equivalent Grade/ Class Registered with Central Government/ MSME/ Railways with minimum turnover of 10 crores for execution of civil works/ Electrical Works/ and project management units. The Bidders are required to enclose the proof of registration from the registering authority along with the Bid subject.

Bid for Development of Recreational Park at Koel Nagar, Sector 20, Rourkela

- 2.1.1 The Bidder must have completed/Substantial completed minimum 3 similar nature of work (Not less than 1 Crore of Each Project Value)i.e Development and Construction of Parking/Parks/ Gardens/ Residential Building/ Commercial Building consisting of Civil works, architectural works and electrical works and the bidder must have done at least 20,000/- Sqft of Park Development / Recreational works within last five financial years.
- 2.1.2 Contractors not registered with Govt. of Odisha can participate in the tender after necessary enrolment in the OFDC office but have to subsequently register themselves with the appropriate registering authority of the state Govt. before award of the work as per prevalent registration norms of the state.
- 2.2. All bidders shall provide a statement that the bidder is neither associated, nor has been associated, directly or indirectly, with the Consultant or any other entity that has prepared the design, specifications, and other documents for the Project or being proposed as Project Manager for the Contract. A firm that has been engaged by the Engineer-in-Charge to provide consulting services for the preparation or supervision of the works, and any of its affiliates are also eligible to bid.
- 2.3. If the bidder has a relative employed as an Officer in the rank of an Assistant Engineer/Under Secretary and above in the Government of Odisha in the concerned Department, he shall inform the same in Schedule-G of the bid document mentioning the exact details in a covering letter along with the tender, failing which his bid will not be considered. Also, if the fact of relationship subsequently comes to light, his contract will be rescinded. The bid security or the performance security will be forfeited, and he shall be liable to make good any loss or damage resulting from such cancellation. In case the bidder has no relationship with any of the officers mentioned above he shall have to furnish with his bid an undertaking to that effect.
- 2.4. He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any gazetted officer in the concerned Department. Any breach of this condition by the contractor would render him liable for penal action for suppression of facts.

2.5. No Engineer of gazetted rank or other gazetted officer employed in Engineering or Administrative duties in an Engineering Department of the Government of Odisha is allowed to work for contractor for a period of two years after his retirement from Government service, without prior permission of the Government of Odisha in writing. Such a contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of Odisha as aforesaid before submission of the tender for engagement in the contractor's service

3. **QUALIFICATION CRITERIA:**

3.1. For submission of Bids the bidder will provide copy/copies of documents listed under clause 3.2 in prescribed format wherever warranted in support of eligibility criteria and qualification information. Technically Qualified Bidder has to give presentation on his approach and methodology of work along with details of Human Recourses and Technical Know How and Expertise in Similar Nature of work executed prior to this assignment on (The Highest Score Bidder) shall have to produce the original documents in support of the copies and statements submitted during bidding within 5 days of opening of price bid. Bids from Joint ventures are not acceptable.

3.2. The bid shall include following information and documents.

- (a) Copy of valid contractor's registration certificate, PAN card, GST Registration should accompany the technical bid.
- (b) Copies of original documents defining the constitution or legal status, place of registration, and principal place of business; written power of attorney of the signatory.
- (c) The contractor shall furnish ownership documents for those machineries which he is planning to deploy for the tendered work.
- (d) Copy of sub-contract agreement (MOU) with eligible Registered Electrical Contractors having valid M.V. license (Associated with the sub-contractor).
- (e) Details of work under progress as per tender documents.

- (f) Copy of Last Three Year Audited Balance sheet along with Certificate of Net Worth
- (g) Copy of Registration certificate with MSME/NSIC if any
- (h) Details of works executed during the last five years and works in hand (list of on-going works) as per bid documents.

3.3. The Bidders are subject to be disqualified if they have:

- a. Made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and/or
- b. Record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.; and/or
- c. Indulged in unlawful & corrupt means in obtaining bids.
- d. Been black listed/their registrations by the competent authority.

4. ONE BID PER BIDDER:

- 4.1. Each bidder shall submit only one bid. A bid is said to be responsive if accompanied by cost of bid document and appropriate bid security.

5. COST OF BIDDING:

- 5.1. The bidder shall bear all costs associated with the preparation and submission of his bid and the Officer-in-Charge will in no case be responsible and liable for those costs.
- 5.2. All the rates and prices in the bid shall cover all taxes, viz. or any other local taxes, ferry, tollage charges and royalties and any other charges except GST.
- 5.3. The rate of royalties and taxes prevailing on the date of measurement shall be considered while making deductions in the bills.
- 5.4. The successful bidder shall make his own arrangement for all materials unless otherwise specified in the conditions of contract.

6. SITE VISIT:

- 6.1. Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders as to the nature of the ground and sub-soil (so far as practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A Bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed. The Bidder shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a bid by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which tools and plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of work.
- 6.2. The bidder, in preparing the bid, shall go through the site Investigation Reports provided in the Contract Data before filling up the Bid document.
- 6.3. The Officer inviting the bid will clarify queries on the ContractData on requisition by the intending Bidder.

B. BIDDING DOCUMENTS

7. GENERAL INSTRUCTIONS:

- 7.1. The description of the work is as mentioned under Invitation for Bid.
- 7.2. The bids submitted by the Tenderer inviting officer may consist of general arrangements drawings or typical sections of the project. Bidder may collect these drawings and take out the print for detail study. Any other drawings and documents pertaining to the works available with the officer inviting the Bid as well as in the office of the OFDC Rourkela) has mentioned in the contract data will be open for inspection during working hours on all working days by the bidders. The bidder is required to purchase tender paper including the drawings for preparation of his bid. It is not necessary on the part of the Bidder to submit the drawings other Bid documents (after signing) while submission of his bid. He is required to submit documents related to his qualification information and Bill of Quantities duly filled in. It is assumed that while participating in the bid, the bidder has referred to all the drawings and documents provided by the Officer Inviting the Bids. Seeking any revision of rates or backing out of the bid claiming for not having referred to any or all documents provided in the Bid document by the Officer Inviting the Bids will be construed as plea to disrupt the bidding process and in such cases the bid security shall be forfeited.
- 7.3. The bidder is expected to examine carefully all instructions, conditions of contract, contract data, forms, terms, scope of work, technical specifications, bill of quantities, forms, Annexes and drawings in the Bid Document. Failure to comply with the requirements of Bid Documents shall be at the bidder's own risk.

8. CLARIFICATION OF BIDDING DOCUMENTS:

- 8.1. Bid documents consisting of drawings, plans, specifications, the schedule of quantities of the various items of work to be done and the set of terms & conditions of contract to be complied with by the contractor who intends to bid and other necessary Documents can be seen in the office of the officer inviting the Bid during office hours every day except on Sundays & Public Holidays till last date of sale of tender paper.
- 8.2. The Contract Data to bid shall be filled and completed in the office of Officer inviting bid before issue of bid documents. If the documents are issued to the intending bidder without having been so filled in & completed, he shall request the officer inviting the bid to have this done before he completes and delivers his bid.
- 8.3. The bidder can seek clarification on the bids which he received earlier than 2days' prior to the deadline for submission of bids.

9. AMENDMENT OF BIDDING DOCUMENTS:

- 9.1. Before the deadline for submission of bids, the officer inviting the Bid may modify the bidding documents by issuing addenda.
- 9.2. Any addendum thus issued shall be part of the bidding documents and shall be notified in notice board and through paper publication.
- 9.3. To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Officer inviting the Bid if also happens to be the Office-in-Charge with the permission of the higher authority may, at his discretion, extend as necessary the dead line for submission of bids.

C.PREPARATION OF BIDS

10. LANGUAGE OF THE BID:

10.1. All documents relating to the Bid shall be in the English language. Bids submitted in any other language shall be summarily rejected.

11. DOCUMENTS COMPRISING THE BID:

11.1. Following documents will be deemed to be part of the bid even if not submitted with the bid.

- (i) Invitation for Bids (IFB)
- (ii) Instructions to bidders (ITB)
- (iii) Conditions of Contract
- (iv) Contract Data
- (v) Specifications
- (vi) Drawings

11.2. All the volumes/documents shall be provided by the Officer inviting the bid. The bidder shall carefully go through the document and prepare the required documents and submit the documents in Sealed Document Format to the officer in charge in the designated locations of Technical Bid. He will fill up the percentage rate in the BOQ for the work in designated Cell and up-load the same in designated locations of Financial Bid. Submission of document shall be effected by using Sign and Seal of appropriate class.

A. Cost of "Bid document" & "Bid Security" shall comprise

- (i) Cost of Bid Document
- (ii) Bid Security in prescribed shape.

B. "Technical Bid" shall comprise.

- (i) Declaration under the Official Secret Act, 1923
 - (ii) Qualification Information and supporting documents,
 - (iii) Certificates, undertakings, affidavits,
- C. "Financial Bid "shall comprise.
- (i) Priced Bill of Quantities

12. PROPOSAL BY THE BIDDER:

- 12.1. An intelligent Bill of Quantity in Microsoft Excel format shall be made available to the bidder.
- 12.2. In case of percentage rate tender, the bidder will only fill in the designated cell and activate "less" or "excess" to indicate how much his price offer is excess or less (Up to two decimal Place) than the estimated amount.
- 12.3. The bidder shall bid for the whole works as described in the Bill of Quantities.
- 12.4. Bidders shall submit offers that fully comply with the requirements of the bidding documents, Including the Conditions of Contract basic technical design as indicated in the drawing and specification. Conditional offer or alternative offers will not be considered in the process of bid evaluation.
- 12.5. All duties, taxes, excluding GST and other levies including Building and other Construction Workers Welfare Cess @ 1% payable by the contractor under the contract, or for any other cause shall be included in the rates, prices submitted by the bidder. GST, purchase tax, turnover tax or any other tax on material in respect of this contract shall be payable by the Contractor and Government will not entertain any claim whatsoever in respect of the same.
- 12.6. The contractor shall be deemed to have satisfied himself as to the correctness and sufficiency of the Tender and of the rates and prices stated in the Bill of Quantities, all of which shall, except in so far as it is otherwise provided in the Contract, cover all his obligations under the Contract (including those in respect of the supply of goods, materials, plant & services or of contingencies for which there is a

Provisional Sum) and all matters and things necessary for the proper execution and completion of the work and the remedying of any defects therein.

12.7. The contractor shall conform in all respects, by giving all notices and paying all fees, with the provisions of:

- i) Any national or State Statute, Ordinance, or other Law, or any regulation, or bye-law of any local or other duly constituted authority in relation to the execution and completion of the works and remedying of any defects therein, and
- ii) The rules and regulations of all public bodies and companies whose property rights are affected or may be affected in any way by the works.

13. CURRENCIES OF BID AND PAYMENT:

13.1. The estimated unit rates and the prices are in Indian Rupees.

14. VALIDITY:

14.1. Bids shall remain valid for a period not less than 90 days or the period mentioned in the Contract Data, after the deadline date for submission of bid as specified in the notice inviting the Bids. A Bid valid for a shorter period shall be rejected by the Officer-in-charge as non-responsive.

14.2. In exceptional circumstances, prior to expiry of the original time limit, the Officer inviting the Bid may request the bidders to extend the period of validity for a specified additional period. The request and the bidders' responses shall be made in writing or by cable or by e-mail.

15. BID SECURITY:

15.1. The Bidder shall furnish, as part of his Bid, a Bid security for the amount mentioned under Contract Data. The successful Qualified bidder (Highest Mark) will produce the original of all submitted documents for verification within 5 days of opening of the tender (Price Bid). In the eventuality of failure on the part of the lowest successful bidder to produce the original documents, he will be debarred in future from participating in tender for three years and will be blacklisted by the competent authority. In such a situation, successful (Second Highest Marks) bidder

will be required to produce his original documents for consideration of his/her tender at the negotiated rate equal to Highest Mark bidder.

- 15.1.1. Fixed deposit receipt of any scheduled bank approved by the Reserve bank of India/ Indian Post Office Time deposit/ National Savings Certificate / KisanVikasPatraduly pledged in favour of **Divisional Manager OFDC, Rourkela** / /Bank Guarantee of Nationalised bank/Scheduled Bank of India counter guaranteed by local branch at Rourkela with six-month validity as per notice inviting bid by the Department.

Note: All Bank Instruments must be issued as per Govt. of Odisha Finance Department Letter No.24705 /F dated 20.07.2019 or any amendment.

- 15.2. The Bid shall be declared non-responsive and shall be rejected if submitted without an acceptable Bid Security and not secured as indicated in Sub-Clauses 15.1.
- 15.3. Combined bid security for more than one work is not acceptable.
- 15.4. In the case of Government Undertakings, Co-operatives Societies, Degree holders in Engineering who are registered with the Government of Odisha, the rules framed by government from time to time about Cost of Bid documents, bid security, performance security will apply.
- 15.5. The bid Security of unsuccessful bidders will be returned within 28 days of the end of the validity period specified in Sub-Clause 14.1.
- 15.6. The Bid Security of the successful bidder will be discharged when the bidder has signed the Agreement and furnished the required Performance Security and Additional Performance security if any
- 15.7. The Bid Security may be forfeited
- 15.7.1. If the bidder withdraws the bid after opening of the bid but within the period of validity.
- 15.7.2. If the Bidder seeks any revision of rates or backs out of the bid claiming for not having referred to any or all documents provided in the Bid by the Officer Inviting the Bids.

15.7.3. In the case of a successful bidder, if the bidder fails within the specified time limit to Sign the Agreement; or Furnish the required Performance Security including additional performance security if any.

16. FORMAT AND SIGNING OF BID:

16.1. The Bidder shall go through the Bid carefully and list the documents those are asked for submission. He shall prepare all documents including cost of Bid Document, Bid Security, Declaration form, price bid etc and submit two sets of Hard Copy

16.2. Tender cannot be pre-opened and cannot be submitted after due date and time. Therefore, only after satisfying that all the documents have been submitted.

D. SUBMISSION OF BIDS

17. DEADLINE FOR SUBMISSION OF THE BIDS:

17.1. The bidding will remain active till the last date and time of the bid submission. Once the date and time is over, the bidder will not be able to submit the bid. The date & time of bid submission shall remain unaltered even if the specified date for the submission of bids declared a holiday for the Officer inviting the Bid.

17.2. The officer inviting the bid may extend the deadline for submission of bids by issuing an amendment in accordance with Sub-Clause 9.3, in which case all rights and obligations of the officer inviting the bid & Engineer-in-Charge and the bidders previously subject to the original deadline will then be subject to the new deadline.

18. LATE BIDS:

18.1. The Officer in Charge shall reject submission of any bid after closure of the receipt time.

E. OPENING AND EVALUATION

19. OPENING OF THE BID:

- 19.1. Bid opening dates are specified during tender creation or can be extended vide corrigendum. These dates are available in IFB, tender document.
- 19.2. In the event of the specified date of bid opening being declared a holiday for the Officer inviting the Bid/Officer-in-Charge, the bids will be opened at the appointed time on the next working day.
- 19.3. In case bids are invited for more than one package, the order for opening of the "Bid" shall be that in which they appear in the "Invitation for Bid".
- 19.4. During bid opening, the covers containing original demand draft towards Cost of bid in the form specified in the Invitation for Bid, received after last date of receipt of bid and before opening of the bids shall be opened and declared. The original copy of the Bid Security in the form, amount and period of validity in conformity with clause 15 shall be checked and announced. The list of bidders who have submitted the original copy of the cost of Bid and Bid Security shall be prepared and announced.
 - 19.4.1. Combined bid security for more than one work is not acceptable. If the bid security furnished does not conform to the amount and validity period as specified in clause 15 and has not been furnished in the form specified in Clause 15, the bid will be declared non-responsive and rejected.

- 19.5.1. The Opening Officers will systematically check the demand draft towards cost of the bid document and the scanned document of Bid security with that of the original submitted. If found in order, they will continue opening of all other documents in the system provided under Technical Bid.
- 19.5.2. Subject to confirmation of the bid security by the issuing institutions, the bids accompanied with appropriate bid cost and valid bid security will be taken up for evaluation with respect to the qualification Information and other information furnished in Part - I pursuant to Clause 3.
- 19.5.3. After receipt of confirmation of the bid security, the bidder will be asked in writing to clarify his technical bid, if necessary.
- 19.5.4. The bidders will respond in not more than 7 days of issue of the clarification letter, which will also indicate the date, time and venue of opening of the Financial Bid.
- 19.5.5. Immediately on receipt of these clarifications, the Evaluating Officers; predefined in the system for the bid, will finalize the list of responsive bidders.
- 19.6. The Technical evaluation of all the bids will be taken up as per the information furnished by the Bidders. If any of the information/statements/documents/certificates furnished by the bidder is found to be false/fabricated/bogus, his EMD/Bid Security shall stand forfeited and his registration in the portal shall be blocked and the bidder is liable to be blacklisted.
- 19.7. After technical evaluation of the bidders and selection of the qualified bidders, the financial bids of the technically qualified bidders shall be opened on the due date of opening. Members of the bid opening committee will call for detailed presentation in sequence and open the financial bids for the technically qualified bidders.
- 19.7.1. Opening of price bid and evaluation of Highest Marks bidder is subject to satisfaction of other qualification information asked for in the bid pursuant to Clause-3.

19.7.2. The Officer inviting Bid shall ensure that all the Bidders are individually intimated about the date, time & venue of opening of the financial bid along with the responsiveness of the Technical Bid and Presentation.

19.7.3. The Financial Bid will be opened on the notified date & time in the presence of bidders or their authorized representative who wish to be present.

19.7.4. At the time of opening of "Financial Bid", the names of the bidders whose bids were found responsive in accordance with Sub-Clause 22.1 will be announced.

The bids of only those bidders will be opened. The remaining bids will be rejected.

19.7.5. The responsive bidder's names, percentage rates, any discounts and withdrawals, and such other details as the officer inviting the tender may consider appropriate, will be announced by him or his authorized representatives at the opening.

19.7.6. Special conditions and/or rebate/discount offer if any shall be declared and recorded first.

19.7.7. The Financial bid of the bidders shall be opened one by one by the designated officers. Officer in Charge will generate the Comparative statement.

19.7.8. The Bidder can witness the principal activities and view the documents/summary reports for that particular work.

20. PROCESS TO BE CONFIDENTIAL:

20.1. Information relating to the examination, clarification, evaluation, and comparison of bids and recommendations for the award of a contract shall not be disclosed to bidders or any other persons not officially concerned with such process until the award to the successful bidder has been announced. Any effort by a bidder to influence the officer inviting the bid, processing of bids or award decisions may result in the rejection of his bid.

21. CLARIFICATION OF BIDS:

21.1. To assist in the examination, evaluation, and comparison of bids, the officer inviting the bid may, at his discretion, ask any bidder for clarification of his rates

including breakdowns of unit rates. The request for clarification and the response shall be in writing or by e-mail, but no change in the bid price or substance of the bid shall be sought, offered.

21.2. Subject to sub-clause 21.1, no bidder shall contact the officer inviting the bid on any matter relating to his bid from the time of the opening to the time the contract is awarded. If the bidder wishes to bring additional information to the notice of the officer inviting the bid, it should do so in writing.

22. EXAMINATION OF BIDS AND DETERMINATION OF RESPONSIVENESS:

22.1. During the detailed evaluation of "Technical Bids", the officer inviting the bid will determine whether each bid: -

22.1.1. Whether the Bid security is confirmed by issuing institution/bank.

22.1.2. Has submitted legible documents for evaluation

22.1.3. Meets the eligibility criteria defined in Clause 3 and;

22.1.4. Is substantially responsive to the requirements of the bidding documents.

22.2. During the detailed evaluation of the "Financial Bid", the responsiveness of the bids will be further determined with respect to the remaining bid conditions, i.e., priced bill of quantities, technical specifications and drawings.

22.3. A substantially responsive "Financial Bids" is one, which conforms to all the terms, conditions, and specifications of the bidding documents, without material deviation or reservation. A material deviation or reservation is one

22.3.1. Which affects in any substantial way the scope, quality, or performance of the works.

22.3.2. Which limits in any substantial way, inconsistent with the bidding documents, the right of the officer inviting the bid or the bidder's obligations under the contract or

22.3.3. Whose rectification would affect unfairly the competitive position of other bidders presenting substantially responsive bids.

- 22.4. If a “Financial Bid” is not substantially responsive, it will be rejected by the officer inviting the bid, and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.
- 22.5. On opening of the price bid the system shall arrange the financial bids in order of their value (L1 first, followed by L2, L3) for subsequent evaluation. The evaluation status (Sheet) will be visible to all the participating bidders after opening on their respective logins. Each activity is recorded in the system with date and time stamping.

23. EVALUATION OF BIDS: Evaluation for Bid will be done on Quality cum Cost-Based Selection (QCBS) method

23.1 Financial Proposals (only for QBS)

23.1.1 Following the ranking of Technical Proposals, and after receiving a “no objection” from OFDC (if applicable), when selection is based on quality only (QBS), the first ranked Contractor will be invited to negotiate its Technical and Financial Proposals and the Contract in accordance with the instructions given under DNIT.

23.1.2 Following completion of the evaluation of Technical Proposals, and after receiving a “no objection” from OFDC (if applicable), the tenderer shall inform the bidder who have submitted Proposals of the technical points (total score only) assigned to each Bidder. The tenderer shall simultaneously notify the bidder that have secured at least the minimum qualifying mark of the date, time, and place set for opening the Financial Proposals and notify them that their attendance at the opening of the Financial Proposals is not mandatory. The Financial Proposal opening shall take place at the location indicated in the DNIT. The Tenderer shall promptly respond in writing to any bidder who, after receiving notification of the procurement results, makes a written request for a briefing as provided in the OFDC Procurement Handbook. The notification shall also advise those bidders whose

Technical Proposals did not meet the minimum qualifying mark, or which were considered non-responsive, that their Financial Proposals will be returned unopened after the Client has completed the selection process at the cost and request of the bidder.

- 23.1.3. The Tenderer shall open the Financial Proposals in a public meeting at the address, date and time specified in the notification described in DNIT. All Financial Proposals will first be inspected to confirm that they have remained sealed and unopened. Only the Financial Proposals of those bidder who met the minimum qualifying mark following the Technical Evaluation stage will be opened. The Technical Score (St) and only the Total Proposal Price, as stated in the Financial Proposal Submission Form (Form FIN-1) shall be read out aloud and recorded.
- 23.1.4. The Tenderer will correct any computational errors, and in cases of a discrepancy between a partial amount and the total amount, or between words and figures the former will prevail. In addition to the above corrections, activities and items described in the Technical Proposal but not priced, shall be assumed to be included in the prices of other activities or items. In cases where an activity or line item is quantified differently in the Financial Proposal from the Technical Proposal, no corrections will be applied to the Financial Proposal in this respect.
- 23.1.5. For **Quality and Cost Based Selection (QCBS)**, the lowest evaluated Financial Proposal (Fm) will be given the maximum financial score (Sf) of 100 points. The financial scores (Sf) of the other Financial Proposals will be computed as indicated in Section IV: Evaluation Criteria. Proposals will be ranked according to their combined technical (St) and financial (Sf) scores using the weights (T = the weight given to the Technical Proposal; F = the weight given to the Financial Proposal; T + F = 1) indicated in the PDS. $S = St \times T\% + Sf \times F\%$. The Bidder achieving the highest combined technical and financial score will be invited for negotiations.
- 23.1.6. Prior to execution of a contract, the tenderer shall conduct a verification of the market-reasonableness of the prices offered. A negative determination (either

unreasonably high or unreasonably low) could be a reason for rejection of the proposal at the discretion of the tenderer. The Bidder shall not be permitted to revise its submission after a determination that its offered price is unreasonable. In addition, the Tenderer may also verify any information provided on the TECH Forms submitted in the bid. A negative determination in the post qualification could lead to the rejection of the Bid and the Client may, at its discretion, move to invite the next-ranked Bidder for negotiation.

24. PAST PERFORMANCE AND REFERENCE CHECK

24.1. The Tenderer reserves the right to check the performance references provided by the bidder or to use any other source at the tenderer's discretion. A negative determination by the tenderer on the Bidder's record of performance in prior contracts may be a reason for disqualification of the Bidder, or lowered evaluation scores, at the discretion of the tenderer.

F. AWARD OF CONTRACT

25. NOTICE OF INTENT TO AWARD:

25.1. After the completion of the evaluation report and having obtained all the necessary approvals per the OFDC Tender Handbook, the Tenderer shall send the Notice of Intent to Award to the successful Bidder. The Notice of Intent to Award shall include a statement that the tenderer shall issue a formal Notification of Award and draft Contract Agreement after expiration of the period for filing a Bid protest and the resolution of any Bid protest that are submitted. Delivery of the Notice of Intent to Award shall not constitute the formation of a contract between the tenderer and the successful Bidder and no legal or equitable rights will be created through the delivery of the Notice of Intent to Award

26.0 NEGOTIATIONS

Negotiations will be held on the date and at the address indicated in the DNIT. The invited bidder (who is invited via the Notification of Award) will, as a prerequisite for attendance at the negotiations, confirm the availability of all the Key Professional Personnel listed in the Technical Proposal. Failure to confirm such Personnel may result in the tenderer proceeding to negotiate with the next-ranked Bidder. Representatives conducting negotiations on behalf of the Bidder must have written authority to negotiate and conclude the Contract on behalf of the Bidder.

27.0 TECHNICAL NEGOTIATIONS

27.1 Negotiations will commence with a discussion of the Technical Proposal, including (a) proposed technical approach and methodology, (b) workplan, (c) organization and staffing, and (d) any suggestions made by the Bidder to improve the Terms of Reference.

27.2 The Tenderer and the Bidder will then finalize the Terms of Reference, staffing schedule, work schedule, logistics, and reporting. These documents will then be incorporated in the Contract under "Description of Services." Special attention will be paid to clearly defining the inputs and facilities required from the Tenderer to ensure satisfactory implementation of the assignment. The Bidder shall prepare minutes of negotiations which will be signed by the Tenderer and the Bidder.

28.0 FINANCIAL NEGOTIATIONS

28.1 It is the responsibility of the Bidder, before starting financial negotiations, to determine the relevant local Tax amount to be paid by the Bidder under the Contract. In no event shall the tenderer be responsible for the payment or reimbursement of any Taxes. Unless there are exceptional reasons, the financial

negotiations will involve neither the remuneration rates for staff nor other proposed unit rates

28.2. Availability of Professional Staff/Experts

28.2.1 Having selected the Bidder on the basis of, among other things, an evaluation of proposed Key Professional Personnel, the Tenderer expects to negotiate a Contract on the basis of those Personnel named in the Technical Proposal.

28.2.2. During Contract negotiations, the Tenderer will not consider substitution of any Key Professional Personnel unless both parties agree that undue delay in the selection process makes such substitution unavoidable or for reasons such as death or medical incapacity of one of the Personnel. If this is not the case and if it is established that any Key Professional Personnel were offered in the Proposal without confirming their availability, the bidder may be disqualified. Any proposed substitutes shall have equivalent or better qualifications and experience than the original candidate.

28.3 Conclusion of The Negotiations

28.3.1 Negotiations will conclude with a review of the draft Contract and Annexes, following which the tenderer and the Bidder will initial the agreed Contract. If negotiations fail, the Tenderer will invite the Bidder whose Proposal received the second highest score to negotiate a Contract. If negotiations are successful, Tenderer will issue a Notice of Award of Contract.

28.3.2 Competent Authority reserves to himself the right of accepting the whole or any part of the bid and the bidder shall be bound to perform the same at the rate quoted.

28.3.3 The successful bidder registered under other State Government / MES / Railways / CPWD in equivalent rank has to register under state PWD before signing of the agreement.

28.4. Following Documents Shall Form Part of the Agreement.

28.4.1 The notice inviting bid, all the documents including additional conditions, specifications and drawings, if any, forming the bid as issued at the time of

invitation of bid and acceptance thereof together with any correspondence & documents leading thereto & required amount of performance security including additional performance security as per sub clause 28.4.2 hereof.

28.4.2. Standard Bid Document P.W.D. Form P-1

28.4.3. The letter to proceed with the work shall be issued by officer-in-charge only after signing of the agreement. The notification of award will constitute the formation of the contract subject only to the furnishing of performance security and additional performance security in accordance with the provisions of the agreement.

28.5. On acceptance of the composite bids by the competent authority the letter of award will be issued by the Officer-in-Charge of the major component of the work.

28.6. Upon signing of the agreement by the successful bidder, the Officer-in-Charge will promptly notify the other bidders that their bids have been unsuccessful.

29. OPTIONS IF THE BIDDER BACKS OUT FROM BIDDING PROCESS:

29.1. In case the Selected Bidder or even the next Bidder withdraw in series one by one, thereby facilitating a particular Bidder for award, then they shall be penalized with adequate disincentives with forfeiture of EMD/Bid Security unless adequate justification for such back out is furnished. Appropriate action for blacklisting the bidder shall also be taken apart from dis-incentivising the bidder.

29.2. The bidding process shall be deemed to be complete after the issue of letter of acceptance. If the bidder fails to sign the agreement within the stipulated period mentioned under clause his bid security shall stand forfeited.

30. RIGHT TO ACCEPT OR REJECT ANY OR ALL BIDS:

30.1. The competent authority on behalf of OFDC Rourkela, does not bind him to accept the lowest or any other tender and reserves to him the authority to reject any or all the tenders received without assigning any reason.

30.2. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidder shall be summarily rejected.

31. CORRUPT OR FRAUDULENT PRACTICES:

31.1. The Officer-in-Charge will reject a proposal for award if he determines that the bidder recommended for award has been engaged in corrupt or fraudulent practices in competing for the contract in question. He will report to the Officer Inviting Bid / next higher authority.

31.2. Canvassing whether directly or indirectly, in connection with tenders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable for rejection.

Annexure (Enclosed with DTCN)

Scope of Works & Technical Specification

DETAILED TENDER CALL NOTICE

1. Sealed percentage rate bids are invited in double cover system from the Class of eligible contractors/ Agency/ Organization registered with the State Government and contractors of equivalent Grade / class registered with Central Government / MSME / Railways having registration for Civil, Electrical and P.H. works for execution of Civil / E.I. / P.H. works on production of definite proof from the appropriate authority in prescribed form to be eventually drawn in P.W.D. FORM P-1 for the work: **“Design, Development, Construction of Recreational Park consisting of Civil works, Architectural works and Electrical works including decorative lights at Koel Nagar Rourkela”** on Percentage Rate Basis.at an estimated cost of 10,23,62,750/- INR (Ten Crore

Ninety Twenty-Three Lakh Sixty-Two Thousand Seven Hundred Fifty Only.)

Contractors not registered with Govt. of Odisha can participate in the tender but have to subsequently register themselves with the appropriate registering authority of the state Govt. before award of the work as per prevalent registration norms of the state.

- a) This tender is of composite nature and consisting of Landscape & Architectural Management including design of themes of Park, Civil, Electrical and PH works.
 - b) This detailed Tender Call Notice along with the scope of work, clauses mentioned herein shall form a part of the contract and agreement.
2. The cost of Bid documents in shape of demand draft issued from any Nationalized Scheduled bank may be prepared in the name of Divisional Manager OFDC and payable at Rourkela for Rs. 11,200/- towards tender paper cost.
3. The bid is to be submitted in two covers.
- i) Cover-I is to contain scanned copy of EMD and Cost of bid document, Registration Certificate, PAN, Profit Loss statement, GST Registration Certificate, List of similar nature of works, work in hand, affidavit, turn over certificate and all other documents required as per the relevant clauses of this DTCN. Before award of final contract, such bidders will have to produce the GST clearance certificate.
 - ii) The similar nature of work is of following types:
Development and Construction of any park, landscaping and gardening, redevelopment work any museum, pathway development within last Five financial years i.e. from year 2016 -17 to year 2020-2021
 - iii) Cover-II is to contain the PRICE BID duly filled in and signed by the bidder.
4. The Civil Contractor/ Organization in order to take part in the composite tender should enter into an M.O.U. (Memorandum of Understanding duly notarized) with eligible registered electrical contractor having valid M.V license; for execution of electrical installation and other electrical works and a copy of such M.O.U. should be attached with the tender as per the proforma at Schedule- J which shall form a part of tender. A copy of electrical license should also be enclosed with the tender papers, the original of which need to be furnished during verification. The above M.O.U. is not required in case of the civil contractor having valid registration in M.V. electrical license with the same name & style.

Bid for Development of Recreational Park at Koel Nagar, Sector 20, Rourkela

5. (i) The contract will be drawn in P.W.D. P-1 contract form and will constitute 3 parts as follows.
- a. Part – I : For Architecture Land scape works
 - b. Part – II : For Electrical items& Lighting of works
 - c. Part- III For Civil items of works

The contract shall be drawn & signed by Divisional Manager on behalf of OFDC.

(ii)The Civil items of works as per Part-I of Schedule of quantities, Electrical items of works (both internal &external) as per part-II of Schedules of quantities and P.H. items of works (both internal & external) as per Part-III of the Scheduled of quantities of the Agreement shall be supervised measured and check measured by the Officer in Charge.

6. If an individual makes the application, the individual should sign above his full type written name and current address.
7. If the application is made by proprietary firm, it shall be signed by the proprietor & furnish full type written name and the full name of his firm with its current address in a forwarding letter.
8. If the application is made by a firm in partnership, it shall be signed by a partner holding power of attorney for the firm in which case a certified copy of the power of attorney shall accompany the application. A certified copy of the partnership deedand current address of all partners of the firm shall also accompany the application.
9. If the application is made by a limited company or a corporation, it shall be signed by a duly authorized person holding power of attorney for signing the application in which case a certified copy of the power of attorney shall accompany the application. Such limited company or corporation will be required to furnish satisfactory evidence of its existence along with the technical bid.
10. The tender should be strictly in accordance with the provisions as mentioned in the tender schedule. Any change in the wordings will not be accepted.
11. The work is to be completed in all respects within Nine (9) calendar months from the date of issue of work order. Before acceptance of tender, the successful bidder will be required to submit a work programme and milestone basing on the financial achievement so as to

complete the work within the stipulated time and in case of failure on the part of the agency to achieve the milestone liquidated damage will be imposed

(Amendment to Para-3.5.18 Note-VIII of OPWD Code Vol.-I).

12. All tenders received will remain valid for a period of 90 days from the last date prescribed for receipt of tenders and validity of tenders can also be extended if agreed by the tenderers and the Department.
13. The tenderer shall carefully study the tentative drawings and specifications applicable to the contract and all the documents, which will form a part of the agreement to be entered in to, by the accepted tenderer and detailed specifications for Odisha, and other relevant specifications and drawings, which are available. Complaint at a future date that the tenderers have not seen plans and specifications cannot be entertained.
14. The drawings furnished with the tender are tentative and subject to revision or modification as tendered during the execution as per actual necessity and detail test conducted. But the tendered rates quoted by the tenderer will hold good in case of such modification of drawings during the time of execution and shall in no way invalidate the contract and no extra monetary compensation will be entertained. The work shall however be executed as per final approved drawing to be issued by the Officer-in-Charge as and when required.
15. By admission of a tender for the work, a tenderer will be deemed to have satisfied himself by actual inspection of the site and locality of the work, about the quality and availability of the required quantity of material, and that rates quoted by him in the tender will be adequate to complete the work according to the specifications attached there to and that he had taken in to account all conditions and difficulties that may be encountered during its progress and to have quoted rates including labour and materials with taxes, octroi, other duties, lead, lifts, loading and unloading, freight for all materials and all other charges necessary for the completion of the work, to the entire satisfaction of the Officer-in Charge of the work and his authorized subordinates. After acceptance of the contract rate

Government will not pay any extra charges for any reason in case the contractor claims later on to have misjudged as regard availability of materials, labour and other factors.

For the purpose of estimate, the approved quarry lead is to be provided judiciously. Officer in charge would be responsible for ensuring the quality of the materials supplied. The contractors would, however, be responsible for procurement of material from authorized sources and voluntarily disclose the source of procurement for the purpose of billing. Besides, the bidder would be required to submit the details of quarry for procurement while submitting the bids.

(Amendment to Para-3.4.16 (a) (vii) of OPWD Code Vol.-I by substitution). Design,

16. The bid must be accompanied by security of the amount @ 1% (One per cent) of the estimated cost put to tender i.e. **“Design, Development, Construction of Recreational Park consisting of Civil works, Architectural works and Electrical works including decorative lights at Koel Nagar Rourkela”**), an estimated Cost of **10,23,62,750/- INR (Ten Crore Ninety Twenty-Three Lakh Sixty-Two Thousand Seven Hundred Fifty Only)** along with tender in the form of Fixed Deposit Receipt of Nationalized /Scheduled Bank /KissanVikashPatra/ Post Office Savings Bank Account / National Savings Certificate / PostalOffice TimeDepositAccount/Bank Guarantee of Nationalisedbank/Scheduled Bank of India counter guaranteed by local branch at Rourkela with 90 days validity duly pledged in favour of the **Divisional Manager OFDC** and payable at Rourkela as per the terms and conditions laid down in OGFR and in no other form. Tenders not accompanied with E.M.D. as specified above will not be considered. No adjustment of E.M.D. from one work, to another will be entertained. Tenders not accompanied with scanned copy of E.M.D. as specified above shall be declared as non-responsive and thus liable for rejection. The bid security should remain valid minimum of 45 (Forty-five) days beyond the bid validity period.

(N.B.:- Bank Draft / Pay orders or Bankers cheque from any nationalized banks shall be considered as E.M.D)

17. The tender containing extraneous conditions not covered by the tender notice are liable for rejection and quotations should be strictly in accordance with the items mentioned in the Tender Call Notices. Any change in the wording will not be accepted.
18. The department reserves the right of authority to reject any or all tenders received without assigning any reason whatsoever.
19. The earnest money of the successful bidder will be retained and will be dealt with as per terms and condition of O.P.W.D. Code. The retention of E.M.D. with the Department will carry no interest.
20. The Officer-in-charge will notify the bidder / tenderer whose bid has been accepted of the award prior to expiration of the validity period by cable, telex or facsimile confirmed by registered letter. This letter (hereinafter and in the conditions of Contract called the "Letter of Acceptance") will state the sum that the Engineer-in-charge will pay the contractor in consideration of the execution, completion and maintenance of the Works by the contractor as prescribed by the contract (Hereinafter and in the contract called the "Contract Price"). The Notification of award will constitute the formation of the contract, subject only to the furnishing of a performance security (Initial Security Deposit) in form of Deposit receipt of Schedule Bank / Kisan Vikash Patra / Post Office Savings Bank Account/National Savings Certificate/ Post Office Time Deposit Account/Bank Guarantee of Nationalised Bank /Schedule Bank of India counter guaranteed by local Branch at Rourkela with validity of One year / duly pledged in favour of the **Divisional Manager OFDC**, Rourkela & payable at Rourkela and in no other form, which including the amount already deposited as bid security (earnest money) shall be 2% of the value of the tendered amount and sign the agreement in the P.W.D. form No. P-1 (Schedule XLV No. 61) for the fulfilment of the contract in the office of the **Divisional Manager OFDC** and payable at Rourkela or as directed. The security deposit together with the earnest money and the amount withheld according to the provision of P-1 agreement shall be retained as security for the due fulfilment of this contract and additional performance security in accordance with the provisions of the agreement. The agreement will incorporate all agreements between the officer inviting the bid and the successful bidder within 15 days following the notification of award along with the Letter of Acceptance. The successful bidder will sign the agreement and deliver it to the Officer-in Charge. Following documents shall form part of the agreement.
 - a) The notice-inviting bid, all the documents including additional conditions, specifications and drawings, if any, forming the bid as issued at the time of invitation of bid and acceptance thereof together with any correspondence leading thereto & required amount of performance security including additional performance security.

- b) Standard P.W.D. Form P-1 with latest amendments. Failure to enter in to the required agreement and to make the security deposit as above shall entail forfeiture of the Bid Security (earnest money). No contract (tender) shall be finally accepted until the required amount of initial security money is deposited. The security will be refunded after 12 (Twelve) months of completion of the work and payment of the final bill and will not carry any interest. As concurred by Law Department & Finance Department In their U.O.R. No 848, dt.21.05.97 J.O.R.No.202 W.F.D. dtd.06.03.98 respectively the E.M.D. will be forfeited in case, where tenderers back out from the offer before acceptance of tender by the competent authority.
21. The contractor should be liable to fully indemnify the Department for payment of compensation under workmen compensation act. VIII of 1923 on account of the workmen employed by the contractor and full amount of compensation paid will be recovered from the contractor.
22. Tenderers are required to liable by fair wages clause as introduced by Govt. of Odisha, Works Department letter No.VII (R&B) 5225, dt.26.2.55 and No.II, M-56/61-28842 (5), dt.27.9.61.
23. The contractor shall bear cost of various incidentals, sundries and contingencies necessitated by work in full within the following or similar category.
- a) Rent, royalties, cess and other charges of materials, Octroi and all other taxes except prevailing GST from time to time. Ferry tolls, conveyance charges and other cost on account of land buildings including temporary building required by the tenderer for collection of materials, storage, housing of staff or other purpose of the work are to be borne by the contractor at his own cost. No rent will be payable to Govt. for temporary occupation of land owned by govt. at the site of the work for bonafide use of the land for work and all such construction of temporary nature by the contractor shall be done after obtaining written permission from the Engineer-in-Charge of Civil portion of the work and all such construction shall have to be demolished and debris removed and ground made good and cleared after completion of the work at no extra cost.

- b) Royalty will be recovered from each bill as notified by Govt. from time to time unless K Forms are enclosed. Refund of royalty at later date after passing of the bills cannot be entertained as the recovery of royalty is being credited to revenue.
 - c) Labour camps or huts necessary to a suitable scale including conservancy and sanitary arrangements therein to the satisfaction of the local labour laws and health authorities shall have to be provided by the Contractor.
 - d) Arrangement of suitable water supply including pipe water supply where available for the staff and labour as well as for the execution of the work is sole responsibility of the Contractor and no extra cost for carriage of water will be entertained. e) All fees and dues levied by Municipal, Canal or Water Supply Authorities are to be borne by the Contractor.
 - f) Suitable safety equipments and dresses, gloves, life belts etc. for the labour engaged in risky operations are to be supplied by the contractor at his own cost.
 - g) Suitable fencing barriers, signals including paraffin and electric signals where necessary at work and approaches in order in project the public and employees from accident has to be provided by the Contractor at his own cost.
 - h) Compensation including cost of any legal suit for injury to persons or property arising out of execution of the work and also any sum, which may become payable due to operation of the workmen compensation act, shall have to be borne by the contractor.
 - i) The contractor has to arrange adequate lighting arrangements for the work wherever necessary at his own cost.
24. No payment will be made for layout, benchmark, level pillars, profiles and benching and leveling the ground required, which has to be carried out by the contractor at his own cost. The rates to be quoted should be for finished items of work inclusive of carriage of all materials and all incidental items of work.
25. After the work is finished all surplus materials should be removed from the site of work, preliminary work such as vats, mixing platforms, etc. should be dismantled and all

- materials removed from the site and premises left neat and his should be inclusive in the rates. No extra payment will be made to the Contractor in this account.
26. It should be understood clearly that no claim what-so-ever will be entertained to extra items of works quantity of any item besides estimate amount unless written order is obtained from the competent authority and rate settled before the extra items of work or extra quantity of any items of work is taken up.
27. The tenderers shall have to abide by the C.P.W.D. safety code rules introduced by the Govt.of India, Ministry of Works and Housing & Supply in their standing order No.44150, dt.25.11.57.
28. No part of the contract shall be sublet without written permission to the concerned Engineer In Charge or transfer to be made by the power of attorney authorizing others to receive payment on contractor's behalf.
29. Bid documents consisting of plans, specifications, the schedule of quantities and the set of terms and conditions of contract and other necessary documents can be seen in all the offices issuing the documents and office of the under signed during office hours every day except on Sundays and Public Holidays till last date of sale and receipt of tender papers. Interested bidders may obtain further information at the same address. But it must be clearly understood that tenders must be received in order and according to instructions in complete shape. Incomplete tender is liable for rejection.
30. **No Relation certificates.**
The contractor shall furnish a certificate along with the tender to the effect that he is not related to any officer in the rank of an Assistant Engineer & above OFDC or Assistant/Under Secretary & above in the Department. If the fact subsequently proved to be false, the contract is liable to be rescinded. The earnest money & the total security will be forfeited & he shall be liable of make good to damages the loss or damages resulting for such cancellations. The proforma for no relationship certificate is contained in a separate sheet vide Schedule-A.

31. Payment for variation in price –No price variation is allowed
32. If any advance / Secured advance is granted by the Department the same will bear interest at the rate of 18% P.A.
33. All items of work as per schedule of quantities of this tender should confirm to Odisha Detailed Standard Specification. I.R.C. & I.S.I. Codes & Bridge code section I, II, III, IV & VII & latest design criteria for pre-stressed concrete bridge specially for Roads & Bridges issued by MoRT&H, Government of India, Compacting shall have to be carried out with help of mechanical vibrators from the range of I.S.:2505, I.S.:2006, I.S.:2514. I.S.:4656.
34. Centring & Shuttering shall be with suitable steel shutters in side of which shall be lined with suitable sheeting and made leak proof and watertight. All joints in formwork shall be properly sealed preferably with P.V.C. joints sealing tapes & compounds.
35. Form work including complete false work shall be designed by the Contractor without any extra cost to employer and the Department will have the right to inspect the scaffolding, centering and shuttering made for the work and can reject partly or fully such structures, if found defective in their opinion. Any eventually such as loss of lives or property due to failure of centering and shuttering shall be the responsibility of the Contractor regarding compensation of all claims thereof.
36. Cement shall be used by bags and weight of one bag of Cement should be 50 (fifty) Kg. net & the Officer-in-Charge or his representative shall have the right to test the weight & quality from time to time.
37. The tenderers shall make all arrangements for proper storage of materials but no cost for raising shed for store and pay of security guard etc. will be borne by the Department. The department is not responsible for any theft or loss of materials at site. It is contractor's risk. Under any such plea, if the tenderer stops the work he shall have to pay the full penalty as per clauses of the contract.
38. Approach road to site of work for transport of materials to site of work is sole responsibility of the Contractor. Statutory traffic restriction in the town area for transport of construction material to site of work is to be taken in to consideration before tendering and no consideration for extra time or compensation thereof shall be considered.

39. The contractor should at his own cost arrange necessary tools and plants required for efficient execution of work and the rates quoted should be inclusive of transportation, hire and running charges of such plant and cost of consumables.
40. The contractor shall properly co-ordinate with the execution of P.H. and Electrical works and take care of the safety of workers.
41. The machineries if available, with the department may be supplied on hire as per charges noted in the enclosed statement and may be changed from time to time subject to the condition that the contractor will execute in advance an agreement with the Officer-in-Charge.
42. No claim whatsoever will be entertained for supply of machineries. No extension of time will be granted to the contractor under this ground under any circumstances
43. The tenderer should furnish along with their tender a list of works executed during the last five years duly certified by the concerned Engineer-in-charge indicating the satisfactory completion for Civil, P.H. & Electrical works as per the Performa enclosed in a separate sheet of Schedule-C.
44. The tenderer or any of its constituent partners of whose contract for any work has been rescinded or who has abandoned any work in the last five years prior to the date of Bid shall be debarred from qualification. The tenderer is to furnish an affidavit at the time of submission of tender paper about the authentication of tender documents. An affidavit to this effect is to be furnished in Schedule-E and information in Schedule-D
45. It should be clearly understood that:
 - a) The joints of the bars are to be provided with lapping, welds or bolts nuts as well be directed by the Officer-in-charge.
 - b) Concrete test specimens 150mm × 150mm × 150mm in size (whether plain or reinforced concrete) for the testing shall be taken for each structural member by a representative of the contractor in the presence of responsible officer of therank not lower than that of an Assistant Engineer or sub-Divisional Officer. The contractor

shall bear the cost so involved in testing. The test specimen in cube should be carried out in the Departmental Control and Research Laboratory of Cuttack or Rourkela. Test should be carried out in accordance with the stipulation in Bridges code section-III.

- c) Test specimens shall be formed carefully in accordance with the standard method of taking test specimen and no plea shall be entertained later on the grounds that the casting of the test specimen was faulty and that the result of the specimen did not give a correct indication of the actual quality of concrete.
 - d) Plain concrete and reinforced concrete specimens will be tested in Quality Control and Research Laboratory as per direction of Officer-in-charge. Cost of testing of all specimens and samples will be borne by the Contractor.
46. The rates quoted should be inclusive of carriage of water required in connection with execution of the work. No claim for carriage of water whatsoever will be entertained.
47. The contractor shall employ one or more Engineering Graduate as apprentice at his cost if the work as shown in the tender exceeds Rs.2,50,000.00. The apprentices may be selected by the Divisional Manager OFDC. The period of employment will commence within one month after the date of work order and would last till the date, when 90% of the work is completed. The fair wage to be paid to the apprentices should not be less than the emolument of personnel of equivalent qualification employed under Government.
48. List of tool & plants in running condition in possession of contractor is to be furnished in a separate sheet.
49. It is the responsibility of the contractor to procure and store explosive required for blasting operation if necessary. Department may render necessary possible help for procuring license.
50. For submission of a tender for the work, the tenderer will be deemed to have satisfied himself by actual inspection of the site and locality of the work about the quality and availability of the required quantity of materials, Medical aid, labour and Flood stuff etc. and that the rates quoted by him in the tender will be adequate to complete the work

according to the specifications attached thereto and that he had taken in to account all conditions and difficulties that may be encountered during its progress and to have quoted labour rates and materials with taxes, Octroi and other duties lead, lifts, loading and unloading freight for materials and all other charges necessary for the completion of the work to the entire satisfaction of the Engineer-in-charge of the work and his authorized subordinates. After acceptance of the contract rates OFDC will not pay any extra charges for any reason in case the contractor finds later on to have misjudged the conditions as regards the availability of materials, labour and other factors. The contractor will be responsible for any misuse, loss or damages due to any reasons whatsoever of any departmental material during the execution of work. In case of loss, damage or misuse, recovery at the rate at 5 times the cost of the materials will be deducted from the bills or his other dues.

51. The prevailing percentage of I.T. Department of the gross amount of the bill towards income tax will be deducted from the contractor's bill.
52. It must be clearly understood that under no circumstances any interest is chargeable for the dues or additional dues if any payable for the work executed and final bill pending disposal due to any reason whatsoever.
53. No extra payment will be made for removing spreading and consolidating salvaged metals and materials.
54. Under section 12 of contractors labour (Regulation and Abolition) Act. 1970 the contractor who undertakes execution of work through labour should produce valid license from licensing authorities of labour Department.
55. **Performance Security:**
 - 55.1 If the rate quoted by the bidder is less than 15% of the tendered amount, then such a bid shall be rejected and the tender shall be finalized basing on merits of rest bids. But if more than bid is quoted at 14.99% (Decimals up to two numbers will be taken for all practical purpose) less than the estimated cost, the tender accepting authority will finalize the tender thorough a transparent lottery system where all bidders / their authorized representatives, the concerned CEO and CFO will remain present.

(Amendment to Appendix-IX, Clause-36 of OPWD Code Vol.-II by inclusion).

- 55.2 Additional performance security shall be obtained from the bidder when the bid amount is less than the estimated cost put to tender. In such an event, the bidders who have quoted less bid price/rates than the estimated cost put to tender shall have to furnish the exact amount of differential cost i.e. estimated cost put to tender minus the quoted amount as Additional Performance Security in shape of Demand draft/ Bank Guarantee from Nationalised Bank, Schedule Bank for validity of one year/ Term Deposit Receipt of Schedule Bank/ Nationalized Bank pledged in favour of the **Divisional Manager OFDC** and payable at Rourkela before signing the Agreement. The additional performance security in any other form will not be accepted. If the Contractor fails to complete the work, the amount so furnished as additional performance security will be forfeited in addition to the other penal clauses, if any to be imposed.
56. Sample of all material - The contractor shall supply sample of all materials fully before procurement for the work for testing and acceptance as may be requiring by the concerned Officer in Charge.
57. All reinforced cement work should conform to Odisha Detailed specification and should be of proportion as per Contract Agreement having desired compressive strength (in work test) in 15 Cm cubes at 28days, after mixing and test conducted in accordance with IS 456 and IS 516.
58. Bailing out of water from the foundation, pipeline trenches S. Tanks/ Soak pits/ Sumps/ M.H. etc. either rainwater or sub-soil water if necessary should be borne by the contractor. No payment will be made for benchmarks. Level pillars, profiles and benching and leveling the ground wherever required. The rates quoted should be for finished items of works inclusive of these incidental items of work. It should be understood clearly that no claims whatsoever would be entertained.
59. The tenderer shall have to abide by the C.P.W.D. safety code rules introduced by the Government of India, Ministry of work Housing and Supply in their standing order No-44150 dtd.25.11.57.

60. The Contractor will have to submit to the PMC monthly return of labour both skilled and unskilled employed by him on the work.
61. All fittings for doors and windows P.H. & Electrical works as supplied by the Contractor should be of best quality and conform to relevant I.S. specification and should be got approved by the Engineer-in-charge/PMC of the respective wing before they are used on the work.
62. After completion of the work the contractor shall arrange at his own cost all requisite equipment's for testing buildings, if found necessary and bear the entire cost of such test, including the inspection of Electrical Inspectorate.
63. The Tenderer should furnish along with their tender 1. A list of works, which are at present in their hand Schedule-F 2. List of work executed (Schedule-C) in the prescribed proforma(s) enclosed herewith in appropriate place of bid document.
64. All reinforced cement concrete works should be finished smooth Extra charges for plastering if required to any R.C.C. structures shall not be paid.
65. The tenderer may at his option quote reasonable rate for each item of work carefully so that the rate for one item should not be unworkable low and for others too high.
66. The contractor has to arrange the samples of materials required for execution to be got tested and approved by the Department before taking up the work and during course of execution required from time to time. All such samples will be tested at any of the Govt. Of Odisha/Govt. Of India accredited Laboratory, at the cost of the Contractor with no extra cost to the Department.
67. If there is any damage to the work due to natural calamities like flood or cyclone or any other cause during the course of execution of work or up to 12 months after completion of work or if any, imperfection becomes apparent to the work within 12 months from the date of final certificate of completion of work the contractor shall make good of all such damages at his own cost with no extra cost to the Department. No claims, whatsoever, in this regard will be entertained.

68. The K. B. Bricks should be well burnt and of good qualities. The bricks should be approved by the Officer-in-Charge before use in the work and should confirm to the minimum strength and other criteria as per National Building Code.
69. Under Section 1 of contract labour Regulation and Abolition Act 1970 the contractor who undertakes execution of work through labour should produce valid license from the licensing authority of labour Department.
70. Standard co-efficient for linear measurement will be adopted while calculating consumption of steel and no claim whatsoever regarding difference in co-efficient of steel will be entertained. The rates quoted shall be inclusive of any eventuality of difference for co-efficient for linear measurements.
71. Engineer Contractor desirous to avail the facility of exemption of E.M.D is required to submit an affidavit to the effect that he has not yet availed the facility / participated in the tender for more than two works (Excluding this work) during the current financial year. The name of work for which participated and the authority to whom the tender was submitted must be mentioned in the affidavit, failing which the tender will be rejected.
72. That for the purpose of jurisdiction in the event of disputes if any of the contract would be deemed to have been entered in to within the State of Odisha and it is agreed that neither party to the contract will be competent to bring a suit in regard to the matter by this contract at any place outside the State of Odisha

73. SPECIAL CONDITIONS (PART OF THE CONTRACT)

- (I) All materials before they are being used in the items of works as per this Schedule of quantities and also the finished items of work where tests are applicable shall have to be tested through the Officer-in-charge of the respective wing at

appropriate Laboratories according to the relevant I.S. specifications of the materials and the said items of works and the cost of all such tests shall have to be borne by the Contractor and the rates of the items of works should be inclusive of cost of such tests.

(II) The tests have to be planned & carried out such that the progress of work is not hampered

(III) The tests are mandatory as per the prescribed frequencies and I.S. specifications. However, these are not exhaustive and the Officer-in-charge/PMC has the right to prescribe other required test if any as will be considered from time to time.

74. In case of ambiguity between clauses of this D.T.C.N. and the P-1 contract form, the relevant Clauses of the P-1 contract form shall prevail over the D.T.C.N. The clauses not covered under P-1 contract form shall be governed by the clauses of the D.T.C.N.

75. Schedule of quantities is accompanied in Cover-II (Price Bid). It shall be definitely understood that the Government does not accept any responsibility for the correctness or completeness of this schedule and that this schedule is liable for alternation or omissions, deductions or alternations set forth in the conditions of the contract and such omissions, deductions, additions or alternations shall no way invalidate the contract and no extra monetary compensation, will be entertained.

76. In case of any complaint by the labour working about the non-payment or less payment of his wages as per latest minimum Wages Act, the Officer in Charge will have the right to investigate and if the contractor is found to be in default, he may recover such amount due from the contractor and pay such amount to the labour directly under intimation to the local labour office of the Govt. The contractor shall not employ child labour. The decision of the Officer in Charge is final and binding on the contractor.

77. The contractor should arrange the materials like Steel, Cement, paint and bitumen etc. of approved quality and specification at his own cost for completion of the work with the time schedule. No extension of time will be granted on the application of the contractor due to delay in procurement of materials.

78. Wastage of bars and unnecessary lapping will not be considered for measurement and payment).
79. The contractor is required to pay royalty to Govt. as fixed from time of time and produce such documents in support of their payment to the concerned Officer in Charge with their bills, falling which the amount towards royalties of different materials as utilized by them in the work will be recovered from their bills and deposited in the revenue of concerned department.
78. Trial Boring - The foundation level as indicated in the body of the drawings are purely tentative and for the general guidance only. The OFDC has no responsibility for the suitability of actual strata at the foundation level. The contractor has to conduct his own boring before starting the work and get the samples tested at his own cost to ascertain the S.B.C. and credibility of the strata at founding level while quoting his rates for tender the contractor shall take in to account of the above aspects.
79. Any defects, shrinkage or other faults which may be noticed within 12 (Twelve) months from the completion of the work arising out of defective or improper materials or workmanship timing are upon the direction of the Officer-in-Charge to be amended and made good by the contractor at his own cost unless the Engineer for reasons to be recorded in writing shall be decided that they ought to be paid for and in case of default Department may recover from the contractor the cost of making good the works. The contractor is also required to maintain the Constructed Work for 24 (twenty-four) months from the date of successful completion of the work. The OFDC will deduct retention money which will be Retention Money (5%) five percent from each running bill after correction if any by OFDC+ Additional percentage to be deducted & withheld from each payment invoice after correction, if any by OFDC for repair/replacement/maintenance of the work during defect liability period of 365 days from the date of completion of original work. Performance security and Additional performance security will retain till maintenance period i.e. 24 (twenty-four) month from the date of successful completion of the work.

80. From the commencement of the works to the completion of the same, they are to be under the contractor's charge. The contractor is to be held responsible to make good all injuries, damages and repairs occasioned or rendered necessary to the same by fire or other causes and they hold the OFDC harmless for any claims for injuries to person or structural damage to property happening from any neglect, default, want of proper care or misconduct on the part of the contractor or any one in his employment during the execution of the work. Also no claim shall be entertained for loss due to earthquake, flood, cyclone, epidemic, riot or any other calamity whether natural or incidental damages so caused will have to be made good by the contractor at his own cost.
81. Gradation of ingredients: The coarse and fine aggregates shall meet the gradation requirement as per the latest provision of relevant I.S. Code / I.R.C. code / MoRT&H specifications.
82. Where it will be found necessary by OFDC, the Officer-in-Charge of the work shall issue an order book to the contractor to be kept at the site of the work with pages serially numbered. Orders regarding the work whenever necessary are to be entered in this book by the OFDC Officer-in-Charge with their dated signatures and duly noted by the contractor or his authorized agents with their dated signature. Orders entered in this book and noted by the contractor's agent shall be considered to have been duly given to the contractor for following the instructions of the Department. The order Book shall be the property of the OFDC and shall not be removed from the site of work without written permission of the Officer in Charge and to be submitted to the Officer-in charge every month.
83. The contractor should attach the certificate in token of payment deposit with the registration authority as per recent circular of the Government relating to his registration.
84. In case of any discrepancy in printing or omissions of statutory specifications or any other part or portion of the approved document during download of the bid document, the decision of the officer inviting the bid will be binding on the bidder.

85. The rates quoted by the contractor shall cover the latest approved rates of SOR excluding GST i.e., Labours, Materials, P.O.L. and Royalties. Arrangement of borrow areas i.e. Land, Approach Road to the building site etc. are the responsibility of the contractor.
86. The rate for each work of concrete items wherever dewatering is imperatively necessary the term dewatering shall mean the execution or operation of the items due to standing water as well as due to percolation of water. The quoted rates will be inclusive of this.
87. The contractor shall make requisition of claim book from the date of commencement of the work from the OFDC and shall maintain in proper P.W.D. form with pages serially numbered in order to record items of works are not covered by his contract and claimable as extra. Claims shall be entered regularly in this book under the dated signature of the contractor or his duly authorized agents at the end of each month. A certificate should be furnished along with the claim to the effect that he has no other claim beyond this claim up-to-date. If in any month there are no claims to record, a certificate to that effect should be furnished by the contractor in the claim book. Each claim must be defined and should be given as far as possible regarding the quantities as well as the total amount claimed. The claim book must be submitted by the contractor regularly by 10th and 16th days of each month for orders of the Officer-in-Charge or competent authority. Claims not made in this manner or the claim book not maintained from the commencement of the work is liable to be summarily rejected. The claim book is the property of the OFDC and shall be surrendered by the contractor to the Officer-in-charge after completion of the work or before recession of the contract by the Department whichever is earlier for record.
88. Number of tests as specified in I.R.C. / MoRT&H / I.S.I specification required for the construction of roads / bridges / buildings or any other structural works will be conducted in any Govt. Of Odisha /Govt. Of India accredited Laboratory to be decided by the Officer-in-charge. Testing charges including expenditure for collection / transportation of samples /specimens etc. will be borne by the contractor. The collection of samples and testing are to be conducted for both prior to execution and during execution as may be directed by the Officer-in-charge and on both the accounts the cost shall be borne by the contractor.

89. Even qualified criteria are met, the bidders can be disqualified for the following reasons, if enquired by the Department
- (a) Making a false statement or declaration.
 - (b) Past record of poor performance.
 - (c) Past record of abandoning the work half way/ recession of contract.
 - (d) Past record of in-ordinate delay in completion of the work.
 - (e) Past history of litigation.
90. In case the 1st highest marks tenderer or even the next lowest marks tenderers withdraw in series one by one, thereby facilitating a particular tender for award, then they shall be penalized with adequate disincentives with forfeiture of EMD unless adequate justification for such back out is furnished. Appropriate action for black listing the tenderers shall also be taken apart from disincentives against the tenderer.

Evaluation Criteria (Under QCBS method)

The minimum technical score (St) required to pass is 70 out of 100 possible points. For detailed scoring criteria, see Section.A Proposal will be rejected if it does not earn a total minimum score of 70 points. A Proposal may be rejected, at the discretion of the OFDC, if the firm does not satisfy the mandatory criteria as per table below. In addition, Proposals may be rejected, at the discretion of the OFDC, if any of the Key Personnel fails to satisfy the mandatory requirements.The Bidders will be rejected if its Proposal does not clearly demonstrate that it meets the following Minimum Mandatory Criteria:

Criteria, sub-criteria, and point system for the evaluation of Technical Proposals.		
Sl.No	Criteria, sub-criteria	Marks
1.	Project Management, Architectural design, Civil, Electrical and PH works with similar experience of work	20
2.	CV and experience of key personnel in Project Management, Architectural design, Civil, Electrical and PH works. 1. Project Head – Architecture & Urban Planner with 5 Yrs of experience (10 Marks) 2. Civil Engineer – 5 Yrs of Experience (10 Marks) 3. Mechanical Engineer- 3 Yrs. of Experience (10 Marks) 4. Electrical Engineer – 5 Yrs. of Experience (10 Marks)	40
3.	Views on methodology and clarity of task to be performed. Implementation arrangement & Time line	20
4.	Financial Proposal (Price Bid)	20
	Total Points for All Criteria	100 Marks

Bid for Development of Recreational Park at Koel Nagar, Sector 20, Rourkela

	The minimum technical score S_t required to pass is	70 Marks
	<p>The formula for determining the financial scores is the following: $S_f = 100 \times F_m / F$, in which S_f is the financial score, F_m is the lowest price and F the price of the Proposal under consideration.</p> <p>The weights given to the Technical and Financial Proposals are: $T = [80]$ and $F = [20]$</p>	

SCOPE OF WORKS & SUPPLY

1. SCOPE OF WORK

1.1 Broad Scope of Work.

The broad scope of work shall include Design and execution of all, Landscape works (Including Softscape& Hardscape Works), Civil works, Architectural works, design of benches, dust bins and Electrical works including decorative lights as per the Schedule of Rates (S.O.R), Specifications, Engineering Standards and construction Drawings.

1.2 Detailed scope of work

1.3.1 Civil Works:

- ❖ Earthwork in excavation in all types of soil for civil works inside park of pathways, foundations, Play courts, Gazebo, Gardener's hut, Pre-fab Toilets or any other place as per direction of Engineer-in-Charge. The water table depth may fluctuate. The quoted rate of excavation shall include requirement of dewatering etc. for completion of total works including concreting, backfilling etc. and no extra amount is payable on this account.
- ❖ Earthwork in filling with available excavated earth for site grading or any other place including compacting to achieve at least 90% of maximum laboratory dry density as per IS: 2720 Part VII and testing the degree of consolidation all complete as per direction of Officer-In-Charge.
- ❖ Earthwork in filling with borrow earth for site grading or any other place including compacting to achieve at least 90% of maximum laboratory dry density as per IS: 2720 Part VII and testing the degree of consolidation all complete as per direction of Officer-In- Charge.(Borrow areas shall be arranged by Contractor at his own cost.)
- ❖ Supply & filling in foundation and plinth with sand including watering inside park for jogging track or any other place as per direction of Officer-in-Charge.
- ❖ Filling with earth for mound (Maximum Height upto1.8m) as per drawing, direction of Officer-in-Charge all complete.

- ❖ PCC works for Pathways, foundation, retaining wall, or any other place as per direction of Officer-in-Charge all complete.
- ❖ Rubberized flooring for Outdoor Gym area and Badminton court as the specifications.
- ❖ Waterproofing for structures as per the specification.
- ❖ Centering & shuttering in sub-structure at all depths and in super-structure at all heights/ elevations.
- ❖ RCC works including centering and shuttering for foundation of electric poles, play equipment or any other structure as per direction of Officer-in-Charge all complete.
- ❖ Supplying and placing in HYSD confirming to Fe 500D for RCC works all complete as per direction of Officer-in-charge.
- ❖ Brick masonry in substructure and superstructure for all depths and heights as per specifications.
- ❖ Providing and laying cast-in-situ C.C. Kerb stones M20 (with aggregate 20 mm nominal size) including setting in position all complete as per direction of Officer-in-Charge.
- ❖ Dismantling/ Demolishing of PCC/RCC, brickwork for all depths below plinth level and all heights above plinth level including disposal of unserviceable item outside park area. Stacking & depositing of serviceable items at locations as identified and approved by Officer- in-Charge.
- ❖ Disposal of malba /rubbish or similar unserviceable materials by mechanical means beyond 50m initial lead including all lifts involved including loading & unloading.
- ❖ Any other miscellaneous work as per specifications, codes etc. but not specifically mentioned in scope of work shall form part of scope of work.
- ❖ Obtaining statutory approvals (if required) from local bodies (including existing complex) and other designated authorities etc

1.3.2 Landscape works (including Softscape and Hardscape)

The detail scope of work shall include (but not shall be limited to) the following:

- ❖ All Landscaping and horticulture works including planting operations (Lawn, shrubs, ground-covers & trees)
- ❖ Supply and installation of non-toxic lead free painted FRP play equipments, Outdoor fitness equipments, benches, dustbins, etc.
- ❖ Cement concrete interlocking paver blocks/ Chequered Tiles/ Tactile flooring tiles/ Rubber edge flooring/ wherever specified as per design.
- ❖ Other miscellaneous items as per attached "Schedule of rates".
- ❖ Third Party inspection and testing of Play equipment & Outdoor fitness equipment.

2.1 SCOPE OF SUPPLY

2.2 Contractor's Scope of Supply

All materials (consumables & non-consumables), tools tackles etc. as required for satisfactory completion of the job shall be supplied by the contractor. Prior approval from Owner/ Officer In-charge shall be obtained prior to use of all material at site.

3.0 SPECIFICATIONS

The works shall be performed conforming to the Indian Standard codes, P.H.D & P.W.D. specifications of the State Government. Wherever such specifications are not available, CPWD specifications, relevant references, manuals etc. shall be followed as directed by Owner. For Horticulture and landscaping works CPWD Delhi Schedule of Rates, Analysis of Rate and Specifications (Horticulture & Landscaping) 2014 and RMC-Rourkela Schedule of Rates 2014 shall be followed.

The Work Shall be executed on Preparation of Working Drawings, Procurement and Construction Basis. Details and drawings given in Tender document is for information purpose only and successful bidder shall undertake confirmatory survey for accuracy and completeness of data. It is in scope of successful Bidder to undertake all Site surveys, Geotechnical investigations, Underground Utility Survey and Scanning of the roads for utility shifting, obtaining all required approvals from the relevant authorities, Carry out Design and Drawings for all the components of the work as per Employers requirement and submit the same to client for review and approval, Prepare Good for Construction Drawings, submit maintenance manual to client for approval before start of Maintenance period. The successful bidder shall have to prepare and submit 'As Built Drawings' depicting the exact construction carried out on site, in soft and hard copy format

TECHNICAL SPECIFICATIONS

(Civil & Architectural Works)

For Recreational Park at Koel Nagar Rourkela

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1.1 General

1.2 General Specification.

1.3 Specification for Play Equipment and Out Door Fitness Equipment.

1.4 Specification for Pre-Fab Handicap Toilet, Gardener's room, FRP Gazebo, Rubber Tile Flooring and Badminton Court Flooring

1.1 General

The works shall be performed conforming to the Indian Standard codes, P.H.D & P.W.D. specifications of the State Government. Wherever such specifications are not available, CPWD specifications, relevant references, manuals etc. shall be followed as directed by Owner.

For Horticulture and landscaping works CPWD-Delhi Schedule of Rates, Analysis of Rate and Specifications (Horticulture & Landscaping) 2014 and RMC Schedules 2014 shall be followed.

1.2 General specification: (Civil & Architectural work)

Works shall be performed considering following points in addition to specification mentioned in above clause 1.1, whichever is more stringent.

1. Cement shall not be less than OPC-43 grade/PPC/PSC-53 grade of reputed manufactures confirming to relevant IS Specification.
2. Reinforcement to confirm HYSD Fe500D.
3. As & when required, the steel/cement & other building materials will be tested by Department at the cost of contractor to ensure proper quality as per IS specification.
4. Machine mix shall be used in concrete work for all structure. Design mix of concrete will be preferred. Vibrator of appropriate type shall be used for compaction of concrete.
5. All the structures are to be designed as permanent type and shall have aesthetic elevation.
6. Bricks should conform to IS: 1077. First class KB Bricks/Fly Ash bricks in cement mortar (1:4) in foundation and plinth. All non-load bearing outer walls shall be minimum-230mm thick & inside partition walls shall be minimum 125 mm thick. First class KB bricks in cement mortar (1:6) in superstructure.
7. Providing and laying 8-layer Acrylic cushion flooring system with rubberized surface as per the specification for Badminton court.
8. The testing for water tightness of the structures shall be conducted as per IS: 3370 and the results shall have to satisfy the relevant provisions of the above code.
9. The joints in the form work shall be arranged in a regular pattern.
10. The stripping time of all form work shall be in accordance with recommendations contained in IS: 456.
11. The surplus earth and debris should be lifted after completion of work and proper leveling of site as directed by Engineer-in-charge without any extra claim.

12. All the work including supply of materials to be executed as per relevant IS specification and direction of Officer-in-charge.

13. All foundation, superstructure, construction etc. including all mechanical, electrical & civil engineering works covered under the scope of work of contractor shall be subjected to inspection & testing by the Department for its material, quality, workmanship and the performance. The contractor shall arrange and carry out all such inspection, testing, trial run etc. and demonstrate in presence of the Officer-in-charge of the Department.

14. The cost of such inspection, testing, trial run, demonstration etc. shall be borne by the contractor. All responsibility of such inspection, testing, trial run, demonstration etc. and

any damage/loss that may cause directly or indirectly shall exclusively rest with the contractor.

15. Such inspection, testing, demonstration etc. shall, however, not relieve the contractor of their liability for replacing/rectifying any defects, which may subsequently appear or be detected during erection and guarantee period.

1.0 Paver Blocks / Interlocking Concrete Block Pavement:

- ❖ The concrete pavers should have perpendiculars after release from the mould and these should be retained until the laying. The surface should be of anti-skid and anti-glare type. The paver should have uniform chamfers to facilitate easy drainage of surface run off.
- ❖ The pavers should have uniform interlocking space of 2mm to 3mm to ensure compacted sand filling after vibration on the paver surface.
- ❖ The concrete mix design should be followed for each batch of materials separately and automatic batching plant is to be used to achieve uniformity in strength and quality.
- ❖ The pavers shall be manufactured in single layer only.

- ❖ Skilled labour should be employed for laying blocks to ensure line and level for laying, desired shape of the surface and adequate compaction of the sand in the joints.
- ❖ The pavers are to be skirted all round with kerbing using solid concrete blocks of size 100mm x 200mm x 400mm or as directed by the Engineer. The kerbing should be embedded for 100mm depth. The concrete used for kerbing shall be cured properly for 7 days minimum.

1.1. Bedding Sand Course:

The bedding sand shall consist of a clean well graded sand passing through 4.75mm sieve and suitable for concrete. The bedding should be from either a single source or blended to achieve the following grading.

Bedding Sand Requirement

In Sieve Size	% Passed
9.52mm	100
4.75mm	95-100
2.36mm	80-100
1.18mm	60-100
600 Microns	25-60
300 Microns	10-30
150 Microns	5-15
75 Microns	0-10

Contractor shall be responsible to ensure that single-sized, gap-graded sands or sands containing an excessive amount of fines or plastic fines are not used. The sand particles should preferably be sharp not rounded as sharp sand possess higher strength and resist the migration of sand from under the block to less frequently areas even though sharp sands are relatively more difficult to compact than rounded sands, the use of sharp sands is preferred for the more heavily trafficked

driveways. The sand use for bedding shall be free of any deleterious soluble salts or other contaminants likely to cause efflorescence.

- ❖ The sand shall be of uniform moisture content and within 4% - 8% when spread and shall be protected against rain when stock piled prior to spreading. Saturated sand shall not be used. The bedding sand shall be spread loose in a uniform layer as per drawing. The compacted uniform thickness shall be of 45mm and within +/- 5mm thickness variation shall not be used to correct irregularities in the base course surface.
- ❖ The spread sand shall be carefully maintained in a loose dry condition and protected against pre-compaction both prior to and following screening. Any pre-compacted sand or screened sand left overnight shall be loosened before further laying of paving blocks take place.
- ❖ Sand shall be slightly screened in a loose condition to the predetermined depth only slightly ahead of the laying of paving unit.

2.0 Bricks Masonry:

- ❖ All bricks used on the works shall be burnt clay building bricks of second class quality having minimum crushing strength of 35 Kg/Sq.cm. and shall conform to IS: 1077 latest. All bricks shall be uniform in quality and size. The bricks shall be got tested as per IS: 3495 latest at the Contractor's cost.
- ❖ Bricks shall be unloaded by hand and carefully stacked and all broken bricks shall be removed from site.
- ❖ All bricks shall be subject to inspection on the site and shall be to the approval of the officer who may reject such consignments as are considered by him to be inferior to the quality specified.

2.1. Mortar: (DDK)

- ❖ All mortar shall be prepared in accordance with IS: 2250 latest. The sand used shall conform to IS: 2116 latest and the water shall conform to relevant clauses of Concrete of this specification. Only river sand should be used. Re-stamping of set mortar will not be permitted

❖ Unless otherwise specified in the Schedule of Quantities, the cement mortar proportions shall be as follows:

i) 115mm thick brickwork and hollow brickwork 1:4

ii) 230 mm thick brickwork and hollow brickwork 1:6

2.2. Construction:

❖ All masonry work shall comply with the requirements of IS: 2212 latest. It shall be of English Bond. All closure bricks, etc. necessary to comply with the requirements of the bond specified or to brick joints effectively shall be procured by the Contractor and used for the work.

❖ Ordinarily there shall be four courses per 0.3 m height or in other words, the horizontal bed joints shall be on average 10 mm thick, and the vertical joints 6 mm wide. The mortar shall be worked up to all joints and no hollow space shall be left in any portion of the work. All joints shall be laid truly horizontal and all vertical joints shall be truly vertical. Masonry work shall be raised in a uniform manner so that no one portion is being raised more than 1.0 m above another portion at one time.

❖ For half brick-walls (115 mm thick) which exceed 2.0 m in height, a reinforced concrete band 75 mm thick (concrete band M-15/i0) shall be provided at intervals not exceeding 1.0m. the reinforcement in these bands shall consist of 2 no 6 m. mild steel rounder with 6 mm binders spaced at 150 mm centre to centre. Such band shall also be provided at the free edge of all masonry work including window sills and top of free standing walls.

❖ All bricks shall be thoroughly soaked by keeping them under water for at least 12 hours before use; the practice of dipping bricks in water just before use will not be allowed. All necessary water cisterns for this purpose shall be constructed or tubs brought by the Contractor to the satisfaction of the Engineer to ensure proper soaking of bricks.

❖ No bats or broken bricks are to be used otherwise than as closures. No under burnt or overburnt bricks shall be used.

❖ All concrete block work shall conform to IS: 2572. Well dried blocks shall be laid dry and shall only be moistened to the extent required to compensate the absorption of water from

the mortar. Pieces of blocks shall not be used except where they are absolutely necessary to make a closure.

3.0 Specification for Play Equipment and Out Door Fitness Equipment.

All play equipment and Out Door Fitness Equipment shall be as per specification, of approved quality and procured from manufacturers approved by Owner.

A. Fiber Reinforced Plastics (FRP):

For children play equipment all the Fiber Reinforced Plastics (FRP) (minimum 4-5 mm thick) materials shall be processed by the hand laid process as follows:

- ❖ After the preparation of the mould a layer of gel coat (tested as per IS6746:1994) shall be applied which shall be of N.P.G duly mixed with U.V stabilized pigment to give the required colour to the product.
- ❖ Then a coat of G.P resin tested (as per standard IS 6746: 1994) shall be applied above the surface of the gel coat after it becomes tack free.
- ❖ The constitutive layers of C.S.M (chopped strand matt) as per IS 11551-1996, glass fiber shall be laid down along with resin to the required extent to build up the required thickness in sandwich pattern.
- ❖ The back side coating of the resin shall be done to give a smooth finish.
- ❖ The mould shall be kept open to dry for a specified duration for strengthened the F.R.P. After the mould is completely cured FRP shall be removed from the mould. Then all the corners and edges of it shall ground to make them smooth and harmless from the strands of the glass wool.

B. Outdoor Fitness Equipments:

1. Forearm Twirl:

1.1. General:

Product Area: 1.5 X 0.8 M

Safe Play area: 2.5 X 1.8M

1.2. Technical Specification:

- ❖ Galvanizes pipe bend to form ring and spokes consists of 20NB G.I. pipes that connect to each other to form a pair of wheels of Forearm Twirl. These wheels are mounted on both ends of 40 NB G.I. pipe bend with specially designed bush bearing. This bend pipe is fixed to main frame of 100 NB G.I. pipe.
- ❖ Handle is fixed over the pipe ring for free movement of wheels.
- ❖ All pipes are uniformly powder coated up to min. 60 micron thickness to avoid corrosion.
- ❖ All open ends of pipe been closed by GI/HDPE caps for user safety against entrapment.
- ❖ Handle for rotating the ring to be fixed over the pipe ring.

2. Hip Twister

2.1 General:

Product Area: 1.2 X 0.9 M

Safe Play area: 2.2 X 1.9M

2.2 Technical Specification:

- ❖ The main frame of Hip twister consists of 100NB G.I. pipe with handle attached to it.
- ❖ Handle pipe is made up of 25 NB G.I. pipe with suitable rubber grip attached at both ends.
- ❖ The rotating desk made from HDPR/LLDPE plastic is supported over 80 NB G.I. pipe with the help of heavy duty bearing.
- ❖ This disk is bolted to main frame with the help of 40 NB G.I. pipe.
- ❖ All pipes are uniformly powder coated up to minimum 60 micron thickness to avoid corrosion.
- ❖ All open ends of pipe been closed by GI/HDPE caps for user safety against entrapment.

3. Chest Press

3.1 General:

Product Area: 1.2 X 0.9 M

Safe Play area: 2.2 X 1.9M

3.2 Technical Specification:

- ❖ 100 NB galvanized main vertical support pipe fixed over square tube of 25mm X 25mm
- ❖ bottom frame.
- ❖ HDPE/LLDPE plastic seat fixed over rectangular tube of 80mm X 40mm with zinc plating for corrosion resistance.
- ❖ Seat frame is hinged over vertical support pipe through 40 NB galvanized pipe links with the help of specially designed bush bearings.
- ❖ The handle pipe consists of 25 NB galvanized pipe with rubber handle grip at both ends. Handle is linked to the seat with 40 NB pipe which is hinged to main vertical support pipe with the help of specially designed bush bearings. All pipes are uniformly powder coated up to minimum 60-micron thickness to avoid corrosion. All open ends of pipe been closed by GI/HDPE caps for user safety against entrapment.

4. Aero Rider

4.1 General:

Product Area: 1.2 X 0.5 M

Safe Play area: 2.2 X 1.5 M

4.2 Technical Specification:

- ❖ The main frame of Aero Rider is made from 100 NB and 40 NB galvanized pipe with powder
- ❖ coating of minimum 60 micron thickness.
- ❖ Handle support pipe linked to seat via 25 NB galvanized pipe.
- ❖ Handle pipe consists of grip of 20 NB G.I. pipes with suitable rubber grip.
- ❖ The handle pipe extended to connect foot grip of 25 NB and 20 NB G.I. pipes via 40 NB galvanized pipe.
- ❖ The handle support pipe is pivoted over 100 NB support pipe with Zinc plated rectangular tube.

- ❖ The HDPE/ LLDPE seat rest over the 50mm X 25mm rectangular tube hinged over the 100
- ❖ NB main frame pipe with the help of specially designed bush bearings.
- ❖ All open ends of pipe been closed by GI/HDPE caps for user safety against entrapment.

5. Aerial Stroller (Air Walker)

5.1 General:

Product Area: 1.0 X 0.5 M

Safe Play area: 2.0 X 1.5 M

5.2 Technical Specification:

- ❖ The main frame of Aerial Stroller is made from 80 NB G.I. pipes with G.I. plating up to 40micron thickness.
- ❖ This main frame is resting on 100 NB G.I. pipe to give it strength.
- ❖ Foot rest is made bend pipe is made up of 40 NB G.I. pipes. Foot rest is made with the helpof 25mm X 25mm X 5mm thick MS angles having G.I. plating up to 40 micron thickness andAluminiumchequered plates.
- ❖ Foot rest is mounted on main frame with the help of specially designed bearing for its freemovement.
- ❖ Handle is made by 25 NB G.I. pipes.
- ❖ All pipes are uniformly powder coated up to minimum 60 micron thickness to avoid corrosion.
- ❖ All open ends of pipe been closed by GI/HDPE caps for user safety against entrapment.

6. Shoulder Exerciser

6.1 General:

Product Area: 1.2 X 0.9 M

Safe Play area: 2.2 X 1.9 M

6.2 Technical Specification:

- ❖ 100 NB galvanized main vertical support pipe fixed over square tube of 25mm X 25mmbottom frame.
- ❖ HDPE/LLDPE plastic seat fixed over rectangular tube of 80mm X 40mm with zinc plating forcorrosion resistance.

- ❖ Seat frame is hinged over vertical support pipe through 40 NB galvanized pipe links with the help of specially designed bush bearings.
- ❖ The handle pipe consists of 25 NB galvanized pipe. Handle is linked to the seat with 40 NB pipe which is hinged to main vertical support pipe with the help of specially designed bush bearings.
- ❖ All pipes are uniformly powder coated up to minimum 60-micron thickness to avoid corrosion.
- ❖ All open ends of pipe been closed by GI/HDPE caps for user safety against entrapment

C. Outdoor Children's Play Equipments

1. Double Post Swing

1.1. General:

Age Group : 4-14 Years

Product Area : 3.5 X 1.0 M

Safe Play area : 4.5 X 2.0 M

1.2. Technical Specification:

- ❖ The leg support of the single post swing is made up of 100 NB while the top bar is of 50 NB powder coated G.I. pipes.
- ❖ Two swings are made up of 10mm thick skid reinforced.
- ❖ Seats of the single support swing are made up of 10mm thickness anti-skid rubber.
- ❖ The rubber seat is suspended on 6mm thick G.I. chain.
- ❖ The ball bearings are mounted inside a specially designed nylon clamp.

2. Standard See-Saw

2.1 General:

Age Group : 4-10 Years

Product Area : 2.5 X 0.3 M

Safe Play area : 3.5 X 1.3 M

2.2 Technical Specification:

- ❖ The seats of the see saw are made from Rotomoulded plastic.
- ❖ The lever is made up of 15,20,25 NB G.I. pipes and is fitted on 40 NB G.I. pipe.

- ❖ The bearing used is of heavy duty bush type.

3. Slide

3.1 General:

Age Group : 4-12 Years

Product Area: 0.5 X 3.5 M

Safe Play area: 1.5 X 5.0 M

Platform Height : 1.5 M

3.2 Technical Specification:

- ❖ The slide is made up of Fibre reinforced plastic (FRP) having thickness of 3-4mm with sufficient reinforcement given to acquire proper strength to the module.
- ❖ The platform is supported on vertical 80NB powder coated G.I. pipes.
- ❖ The railing provided to the platform is made from LLDPE and it is supported by 20 NB G.I.pipe.
- ❖ The ladder is made up of 25 NB G.I. pipe and with triangular steps of 16 SWG. Ladder to be designed in such a way it won't entrap child's foot while playing.
- ❖ The 'T' support under the slide is made up of 80 NB G.I. pipe.

4. Combination set 4 in 1

4.1 General:

Age Group : 4-10 Years

Product Area : 5.5 X 8.4 M

Safe Play area : 8 X 10.5 M

4.2 Technical Specification:

- ❖ This set has combination of four items such as swing, cross-n-zero, Spiral slide and Climber with bridge.
- ❖ The complete frame of this item is fabricated from 20 NB and 25 NB powder coated G.I.pipes.

- ❖ The spiral and straight slide in the set is made up of Fibre reinforced plastic (FRP). The slidelanding support is made in 20 NB pipe. Slide is given a smooth finish so that the child doesnot hurt itself while playing.
- ❖ The cross and zero boxes are made up of LLDPE and pipes inserted are of 15 NB.
- ❖ The bucket swing is made up of LLDPE and is attached to a nylon rope. For the bucket swinga handle is given for gripping, which is made in rotational moulding and out of LLDPE.
- ❖ Bridge and Climber to be fabricated from 20 NB and 25 NB powder coated G.I. pipes.
- ❖ Climber stubs/ footrests to be made up of LLDPE and fixed to surface with bolts of suitable size.

TECHNICAL SPECIFICATIONS

(Landscape Works)

1.1 General

The works shall be performed conforming to the Indian Standard codes, P.H.D &P.W.D.specifications of the State Government. Wherever such specifications are not available, CPWD

specifications, relevant references, manuals etc. shall be followed as directed by Owner.

For Horticulture and landscaping works OPWD Schedule of Rates, Analysis of Rate and Specifications (Horticulture & Landscaping) shall be followed.

1.2 General Specifications

Part-I: Entire area of the garden is mainly distributed as,

(a) Hardscape

The landscape area involves pathways under paver block, sand where most of the children's play equipment's are placed and Rubberized tile flooring for Outdoor Gym Equipments etc.

(b) Softscape

The balance area that is covered under Softscape (lawn development, shrubbery, trees, small and medium palms, specimen shrubs, etc.)

The entire area is mildly rolling more or less flat and to be cleared of all debris, rock pieces, stumps, weeds, roots etc. thoroughly.

The area will be properly graded in a slope of 1:100 from the as per availability of SWD to facilitate drainage of rain water into the drain of the adjoining road.

Contractor to maintain the site slope as per the survey levels. Slope prepared for all finished surfaces shall be in a fashion to flow all storm water collected towards the nearest SWD available.

As per the plan, marking will be given on the land showing Hardscape area path under paver block, EPDM flooring and the rest area marked for Softscape area.

The area under Hardscape will be taken up under civil work. The balance area under Softscape

will be treated by trenching, rough dressing, flooding with water, uprooting weeds, stumps etc.

Operations involved in landscaping, procurement of manures, staking, digging of pits etc, measurements, rates, qualities of materials will be in accordance to the principles as laid out in Sub-head 2.0 of CPWD Analysis, 2016, Horticulture and Landscaping.

Irrigation Layout based on type of irrigation system finalized to be prepared and detailed at the later stages based on the survey drawings and availability of existing water source. Layout to be submitted for approval of Engineer in charge, and based on the approval, irrigation system shall be installed by contractor at site.

Part-II: Species to be planted: -

As specified in drawing

1.3 Horticulture Work

Horticultural operations shall be started on ground previously levelled and dressed to required

formation levels and slopes. In case where unsuitable soil is met with, it shall be either removed or replaced or it shall be covered over to a thickness decided by the Engineer-in-charge with good earth. In the course of excavation or trenching during horticultural

operations, any walls, foundations, etc. met with shall not be dismantled without pre-measurement and prior to the written permission of the Officer-in-charge.

1.4 Trenching in Ordinary soil

Trenching is done in order to loosen the soil, turn over the top layer containing weeds etc. and to bring up the lower layer of good earth to form a proper medium for grassing, regrassing, hedging and shrubbery.

Trenching shall be done to the depth ordered by the Officer-in-charge. The depth is generally 30 cm for grassing and 60 cm for re-grassing in good soil. The trenched ground shall, after rough dress, be flooded with water by making small kiaries to enable the soil to settle down. Any local depression unevenness etc. shall be made good by dressing and/or filling with good soil. Weeds or other vegetation which appear on the ground are then uprooted and removed and disposed off and paid.

1.5 Trenching

Trenching shall consist of the following operations:

1. The whole plot shall be divided into narrow rectangular strips of about 1.5 m width or as directed by the Engineer-in-Charge.
2. These strips shall be sub-divided lengthwise into about 1 m long sections. Such sections shall be excavated serially and excavated soil deposited in the adjacent section preceding it.
3. In excavating and depositing care shall be taken that the top soil with all previous plant growth including roots, get buried in the bottom layer of trenched area, the dead plants so buried incidentally being formed into humus.
4. The excavated soil shall be straight away dumped into the adjoining sections so that double handling otherwise involved in dumping the excavated stuff outside and in back filling in the trenches with leads is practically eliminated.

1.6 Good Earth

The earth shall be stacked at site in stacks not less than 50 cm high and of volume not less than 3.0 cum.

1.7 Oil Cake

Neem/Castor: The cake shall be free from grit and any other foreign matter. It should be undecorticated and pulverized. The material shall be packed in old serviceable gunny bags of 50 kg capacity approximately. The weight of gunny bag shall be deducted @1 kg per bag and payment shall be made for net quantity. The quality of cake should be got approved by the officer in-charge before supply.

1.8 Supply and Stacking of Sludge

It shall be transported to the site in lorries with efficient arrangement to prevent pilling en-route. It shall be stacked at site. Each stack shall not be less than 50 cm height and volume not less than 3 cum.

1.9 Rough Dressing Of The Trenched Ground

Rough dressing of the area shall include making kiaries for flooding. The trenched ground shall be leveled and rough dressed and if there are any hollows and depressions resulting from subsidence which cannot be so leveled, these shall be filled properly with earth brought from outside to bring the depressed surface to the level of the adjoining land and to remove discontinuity of slope and then rough dressed again. The supply and spreading of soil in such depressions is payable separately.

In rough dressing, the soil at the surface and for 75 mm depth below shall be broken down to particle size not more than 10 mm in any direction.

1.10 Uprooting Weeds from Trenched Areas

After 10 days and within 15 days of flooding the rough dressed trenched ground with water, the weeds appearing on the ground shall be rooted out carefully and the rubbish disposed off as directed by the officer-in-charge.

1.11 Fine Dressing the Ground

Slight unevenness, ups, and down sand shallow depressions resulting from the settlement of the flooded ground, in drying and from the subsequent weeding operations, shall be removed by fine dressing the surface to the formation levels of the adjoining land as directed by the

Officer-in-charge, and by adding suitable quantities of good earth brought from outside, if necessary.

1.12 Spreading Good Earth

Good earth shall be removed from stacks by head load and spread evenly over the surface to the thickness ordered by the Officer-in-charge. It shall be spread with a twisting motion to avoid

segregation and to ensure that spreading is uniform over the entire area.

1.13 Spreading Sludge/Manure

Good earth shall be thoroughly mixed with sludge or manure in specified proportion as described in the item or as directed by the Officer-in-Charge. The mixing shall be spread to the thickness ordered by the Officer-in-Charge.

1.14 Mixing of Good Earth and Sludge/Manure

The stacked earth shall, before mixing be broken down top particle of sizes not exceeding 6mm in any direction. Good earth shall be thoroughly mixed with sludge or manure in specified proportion as described in the item or as directed by the Officer-in-charge.

1.15 Grassing with Select Grass No.1

The area from where the grass roots are to be obtained shall be specified by the Officer-in-Charge at the time of execution of the work and no royalty shall be charged on this account from the contractor. Grass is to be arranged by contractor (cost of grass to be paid separately).

The soil shall be suitably moistened and then the operation of planting grass shall be commenced. The grass shall be dibbled at 10 cm, 7.5 cm, 5 cm apart in any direction or other spacing as described in the item. Dead grass and weeded shall not be planted. The contractor shall be responsible for watering and maintenance of levels and the lawn for 30 days or till the grass forms a thick lawn free from weeded and fit for moving whichever is later. Generally planting in other direction at 15 cm, 10cm, spacing is done in the case of large open spaces, at 7.5 cm spacing in residential lawn and at 5cm spacing for Tennis Court and sports ground lawn. Rates are including cost of labour and material (grass shall be paid separately.)

During the maintenance period, any irregularities arising in ground levels due to water inaccumulation due to trampling by labour, or due to cattle traying thereon, shall be constantly made upto the proper levels with earth as available or brought from outside as necessary, Constant watch shall be maintained to ensure that dead patches are replanted and weeds are removed.

1.16 Renovation of Lawns

The area shall be first weeded out of all undesirable growth. The entire grass shall be scrapped

without damaging roots and level of the grounds. Slight irregularities in surface shall be leveled off and the area shall then be forked so as to aerate the roots of the grass without, however up-rooting them.

Specified quantity of sludge or manure shall then be spread uniformly with wooden straight edge (phatti) as directed by the Officer-in-charge. The area shall then be slightly sprinkled with water to facilitate proper integration of the manure or sludge with the soil and later flooded. The contractor shall be responsible for watering, proper maintenance and tending of the lawn for 30 days or till the grass forms a lawn fit for mowing, whichever is later.

During the above operations, all undesirable growths shall be constantly weeded out and all rubbish removed and disposed of as directed by the Officer-in-Charge.

1.17 Uprooting Rank Vegetation, Weeds and Preparing the Ground for Planting 'Select Grass No.1'

Initially the area shall be dug up to a depth of 30 cm. and weeds and rank vegetation with roots removed thereon by repeated forking. The whole area then shall be retrenched to a depth of 60 cm in the same manner as described in 1.5.

Clods of excavated earth shall then be broken upto the size not more than 75 mm in any direction.

The area shall then be flooded with water and after 10 days and within 15 days of flooding, weeds shall be uprooted carefully.

The rubbish arising from the above operations shall be removed and disposed off in a manner

directed by the Officer-in-charge, away from the site. The earth shall then be rough dressed and fine dressed.

1.18 Excavation and Trenching for Preparation of Beds for Hedge and Shrubbery

Beds for hedges and shrubbery are generally prepared to width of 60 cm. to 125 cm. and 2 to 4 meters respectively. The beds shall first be excavated to a depth of 60 cm. and the excavated soil shall be stacked on the sides of the beds. The surface of the excavated bed shall then be trenched to a further depth of 30 cm, in order to loosen the soil, in the manner described in 1.5. No flooding will be done at this stage but the top surface shall be rough dressed and leveled. The excavated soil from the top 60 cm depth of the bed stacked at the site shall then be thoroughly mixed with sludge over manure in the proportion 8:1 by ratio or other proportion described in the item.

The mixed earth and manure shall be refilled over the trenched bed, leveled neatly and profusely flooded so that the water reaches even the bottom most layers of the trenched depth of the bed.

The surface after full subsidence shall again be refilled with the earth and manure mixture, watered and allowed to settle and finally fine dressed to the level of 50 mm to 75 mm below the adjoining ground or as directed by the Officer-in-Charge.

Surplus earth if any, shall be disposed off as directed by the Officer-in-charge. Any surplus earth if removed beyond initially lead shall be paid separately. Stones, bricks, bat and other foreign matter if met with during excavation or trenching shall be removed and stacked within initially lead & lift, such material as is declared unserviceable by the Engineer-in-charge shall be disposed by spreading and levelling at designated places. If disposed outside the initial lead & lift, then the transport for the extra leads will be paid for separately.

If a large proportion of material unsuitable for the hedging and shrubbery operations is met with and earth from outside is required to be brought in for mixing with manure and filling, the supply and stacking of such earth will be paid for separately.

1.19 Digging Holes for Planting Trees

In ordinary soil, including refilling earth after mixing with oil cake, manure and watering. Holes of circular shape in ordinary soil shall be excavated to the dimensions described in the items and excavated soil broken to clods of size not exceeding 75 mm in any direction, shall be stacked

outside the hole, stones, brick bats, unsuitable earth and other rubbish, all roots and other undesirable growth met with during excavation shall be separated out and unserviceable material removed from the site as directed. Useful material, if any, shall be stacked properly and separately.

Good earth in quantities as required to replace such discarded stuff shall be brought and stacked at site by the contractor which shall be paid for separately.

The tree holes shall be manured with powdered Neem/Castor oil cake at the specified rate along with farm yard manure over sludge shall be uniformly mixed with the excavated soil after the manure has been broken down to powder, (size of particle not to exceed 6 mm in any direction) in the specified proportion, the mixture shall be filled into the hole up to the level of adjoining ground and then profusely watered and enable the soil to subside the refilled soil shall then be dressed evenly with its surface about 50 to 75 mm below the adjoining ground level or as directed by the Officer-in-charge.

1.20 In Soil other than Ordinary Soil

Where holes are dug in (a) Hard soil (b) Ordinary rock or (c) Hard rock, the above soils occurring independently or in conjunction with each other and /or ordinary soil in any hole, the different excavated soil shall be stacked separately. Excavation in hard rock shall be carried out by chiseling only. The stack measurement of ordinary rock and hard rock shall be reduced by 50% and of soil by 20% to arrive at the excavated volume. This excavation shall be paid for as extra over the rate for holes dug in ordinary soil above, at rate appropriate to particular soil

concerned. Sufficient quantity of good soil to replace the solid volume of stones, brick bats, unsuitable earth and other rubbish, all roots and other undesirable growth, ordinary and hard stacks shall be brought and stacked at site but the supply and stacking of such shall be paid for separately. The useless excavated stuff shall be disposed off by spreading at places as ordered by the Officer in-charge. If such places are outside initially leads, carriage for the extra lead shall be paid for separately.

The ordinary soil excavated from the hole and the earth brought from outside shall then be mixed with manure screened through sieve of IS designation 16 mm in the proportion specified in the description of the item and filled with the pit and the same watered and finally dressed.

1.21 Filling Mixture of Earth & Sludge Over Manure

The separately specified earth and sludge shall be broken down to particles of size not exceeding 6mm in any directions before mixing.

Good earth shall be thoroughly mixed with sludge over manure in specified proportions as directed by Officer-in-Charge. During the process of preparing the mixture as above, trenches shall be flooded with water and leveled.

1.22 Excavation of Dumped Stone or Malba

Excavation operations shall include excavation and getting out water if required. During the excavation stone, brick bats and other foreign material if met shall be removed and stacked within 50-meter lead and sand lifts. Such materials are declared unserviceable by the Officer-in-Charge and disposed within 50 m. The excavated surface shall be neatly dressed and leveled.

Measurements: Measurement shall be made in (Length, breadth and height of stacks) cubic meter. The cubical contents shall be worked out to the nearest two places of decimal in cubic meter.

Rate: The rate shall include the cost of all the labour and material involved in all the operations described above.

1.23 Excavation in Bajri path

All excavated operations shall include excavation and stacking of serviceable and unserviceable

material. Excavated surface of Bajri path shall be removed and stacked upto 50 meter lead and disposed material neatly dressed.

1.24 Excavation of Water Bound Macadam

All excavated operations shall include excavation, stacking of serviceable and unserviceable material. Excavation shall be straight and uniform in width. Soling stone and aggregate obtained from excavation of W.B.M. shall be stacked separately and unserviceable material disposed off with lead upto 50 meter and lift upto 1.50 meter and neatly dressed.

1.25 Flooding the Ground with Water and Making Kiaries

The water for flooding shall be of soft water and free from chemical and good for growing the trees and shrubs etc. Before flooding the kiaries shall be made in required size and shape as per directions of Officer-in-charge. After uprooting weeds from the trenched area and uprooting vegetation, kiaries shall be dismantled.

Contractor can offer components of makes as per ISI/BIS Standard based on satisfactory track record and test certificates and shall be approved by Officer in Charge before order execution