THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

Ministry of Agriculture, Livestock, Lands and Irrigation

PROJECT MANAGEMENT UNIT

Integrated Watershed & Water Resources Management Project

PROCUREMENT OF WORKS UNDER OPEN COMPETITIVE BIDDING - NATIONALLY

Bidding Documents
for

Improvements to Spill Structure of Meiyankal tank -Retender

Contract No: LK-MOMDE-496652-CW-RFB

Issued: June 2025

Bidder Number	
Name	
Address	

Section - 1

Instructions to Bidders (ITB)

Available in ICTAD Publication Number ICTAD/SBD/02
Second Edition January 2007

Instruction to Bidders shall be read in conjunction with Bidding Data under Section 2

MINISTRY OF AGRICULTURE, LIVESTOCK, LANDS AND IRRIGATION

IWWRMP

INVITATION FOR BIDS

Integrated Watershed and Water Resources Management Project (IWWRMP)

Project No: P166865, Credit No: 6619-LK

1. The Government of the Democratic Socialist Republic of Sri Lanka has applied for financing from the International Development Association (World Bank) towards the cost of **Integrated Watershed and Water Resources Management Project (IWWRM Project)** and it intends to apply part of the proceeds of this credit to payment under the contracts mentioned in the schedule below.

2. Project Director of IWWRM Project, invites sealed bids from eligible and qualified bidders for the following **works** as given in the Table 01, on behalf of the Chairman, Project Procurement Committee of Integrated Watershed and Water Resources Management Project.

Table 01

No.	Contract No.	Description of Work	Experience / CIDA Registration	Bid Security and Validity Period	Non-Refundable Bidding Document Fee (Rs.)	Average annual volume of construction work & The minimum amount of liquid assets and/or credit facilities (Rs.)
1	LK-MOMDE-496652-CW-RFB	Improvement to spill structure of Meiyankal Tank - Retender (*Contract Period: 365* days)	Grade: C4 or above Specialty: Irrigation & Drainage Canals	Bid security value: Rs. 2,460,000.00 Validity: Up to 23.12.2025 (147 days)	34,000.00	290.00 Mn & 48.00 Mn

3. To be eligible for a contract award, the successful bidder shall not have been blacklisted and shall meet the requirements in the Bidding Document. Further the successful bidder shall have valid registration Grade in Construction Industry Development Authority (CIDA) as mentioned in above Table under the specialty of Building Construction. Bidders are free to bid for more than one package, but selections will be made according to the capacity limits in CIDA registration.

4. The Bidding documents may be available for inspection in the **https://www.iwwrmp.lk/web/procurement/section/procurement-notices** website for references.

5. Interested bidders may obtain further information from **Senior Project Specialist (Procurement & Contracts),** IWWRM Project, 2nd Floor, Mahaweli Centre Building, No. 96, Ananda Kumaraswamy Mawatha, Colombo 07 and inspect the bidding documents at the same address given above during 9.00 a.m. to 3.00 p.m. from **01.07.2025 to 28.07.2025** (on working Days) by prior notification. (**Contact No: 0112691163**).

6. Prospective Bidders can obtain the Bidding Documents by a written request on a company/firm letter head, addressed to the Project Director, IWWRM Project, 2nd Floor, Mahaweli Centre Building, No. 96, Ananda Kumaraswamy Mawatha, Colombo 07. from **01.07.2025** up to **28.07.2025** from **9.30 hrs. to 15.00 hrs.** only on working days by **prior notification** (Contact No. 011-2691163), on payment of a non-refundable bid document fee as given above per set of Bidding Documents (Please refer Table: 01 for the amount) on Cash or sending the written request by email to iwwrmp@sltnet.lk with the scan copy of Bank Payment Slip paid the non-refundable bidding documents fee to the Integrated Watershed and Water Resources Management Project Bank Account no. of **7042633** at Bank of Ceylon, Hyde Park Branch.

7. The pre-bid meeting and site visit will be conducted as mentioned in table 02. Bidders are requested to inspect the sites with the assistance of the relevant officer.

Table 02

No.	Contract No.	Site visit	Pre-bid meeting	Bid Closing and Opening (Date & Time)
1	LK-MOMDE-496652-CW-RFB	**Date: 14/07/2025** **Time: 10.00 a.m.** Location: Deputy Director of Irrigation, Batticaloa Range, Batticaloa.	**Date: 16/07/2025** **Time: 2.00 p.m.** Conference room, IWWRMP 2nd Floor, Mahaweli Centre Building, No. 96, Ananda Kumaraswamy Mawatha, Colombo 07.	**Date: 29/07/2025** **Time: 2.00 p.m.**

8. All pages of the Bidding Documents shall be signed by the bidder and affixed to his seal.

9. Completed Sealed Bid with **duplicate,** clearly marked the contract name and the number on the top left corner of the envelope may be dispatched either by Registered Post or hand delivered or courier to the **Project Director, IWWRM Project, 2nd Floor, Mahaweli Centre Building, No. 96, Ananda Kumaraswamy Mawatha, Colombo 07** as specified in the **Table 02.** Bids will be opened immediately thereafter. Bidders or their authorized representatives, not exceeding two (2) in numbers, are permitted to be present at the opening of bids.

Project Director,
Integrated Watershed and Water Resources Management Project
2nd Floor, Mahaweli Centre Building,
No.96, Ananda Kumaraswamy Mawatha,
Colombo 07.
29.06.2025

Section - 2

Bidding Data

Available in ICTAD Publication Number ICTAD/SBD/02
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This section shall be read in conjunction with Section 1 – Instructions to Bidders and is intended to provide specific information in relation to corresponding clauses in Section 1. Whenever there is a discrepancy, the provisions in Section 2- Bidding Data shall supersede these provided in Section 1 – Instruction to Bidders

Section 2 - Bidding Data

Instructions to Bidders Clause Reference	Entry
1.1	**Employer's Name and Address** Name: ***Project Director,*** ***Integrated Watershed & Water Resources Management Project*** Address: ***2nd Floor, No.96, Ananda Coomaraswamy Mawatha, Colombo 07.***
1.1	**Scope of Works** **The works consist of the Rehabilitation of Meiyankal Tank.** **(*Improvements to Spill Structure of Meiyankal tank)*** which including i. Improvement to the Spill Structure ii. Construction of Sluice iii. Construction of Retaining wall Located at *Meiyankal Tank in Batticaloa District*
1.2	**Time for Completion** The Time for Completion of the whole work **shall be 365 *Calendar Days***
2.1	**Source of funds** The source of funds is ***International Development Association (IDA)* – World Bank**
3	Substitute by the following: 3.1 The World Bank requires that the Government of Sri Lanka (including beneficiaries of World Bank financing); bidders (applicants/proposers), consultants, contractors and suppliers; any sub-contractors, sub-consultants, service providers or suppliers; any agents (whether declared or not); and any of their personnel, observe the highest standard of ethics during the procurement process, selection and contract execution of World Bank-financed contracts, and refrain from Fraud and Corruption. 3.2 The World Bank requires compliance with its policy in regard to corrupt and fraudulent practices as set forth below. 3.3 In pursuance to this policy, The World Bank: a. Defines, for the purposes of this provision, the terms set forth below as follows: i. "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party; ii. "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts

to mislead, a party to obtain financial or other benefit or to avoid an obligation;

iii. "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;

iv. "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;

v. "obstructive practice" is:

a. deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a World Bank investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or

b. acts intended to materially impede the exercise of the World Bank's inspection and audit rights provided for under paragraph 3.4 below.

b. rejects a proposal for award if the World Bank determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;

c. In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring mis-procurement, if the World Bank determines at any time that representatives of the Government of Sri Lanka or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement process, selection and/or execution of the contract in question, without taking timely and appropriate action satisfactory to the World Bank to address such practices when they occur, including by failing to inform the World Bank in a timely manner at the time they knew of the practices;

d. Sanctions, pursuant to the World Bank's Anti-Corruption Guidelines and in accordance with its prevailing sanctions policies and procedures as set forth in the WBG's Sanctions Framework any firm or individual – determined at any time by the World Bank to have engaged in Fraud and Corruption in connection with the procurement process, selection and/or execution of a World Bank-financed contract;

e. Requires that, for World Bank-financed operations to be implemented utilizing national procurement arrangements, as well as PPPs, agreed by the World Bank, bidders (applicants/proposers) and consultants submitting bids/proposals will be required to accept the application of, and agree to comply with, the Anti-Corruption Guidelines during the procurement process, selection and/or contract execution, including the World Bank's right to sanction as set forth in paragraph 2.2 d., and the World Bank's inspection and audit rights as set forth in paragraph 3.4. The Employer shall consult and apply the World Bank Group's lists of firms and individuals suspended or debarred. In the event

	the Employer signs a contract with a firm or an individual suspended or debarred by the World Bank Group, the World Bank does not finance the related expenditures and may apply other remedies as appropriate; and g. Requires that, when a United Nations (UN) agency is selected to provide goods, works, non-consulting services and technical assistance, the above provisions regarding sanctions on Fraud and Corruption shall apply in their entirety to all contractors, consultants, sub-contractors, sub-consultants, service providers, suppliers, and their employees, that signed contracts with the UN agency. 3.4 In further pursuance of this policy, Bidders shall permit and shall cause its agents (whether declared or not), sub-contractors, sub-consultants, service providers, or suppliers and any personnel thereof, to permit the World Bank to inspect all accounts, records and other documents relating to any prequalification process, bid submission, and contract performance (in the case of award), and to have them audited by auditors appointed by the World Bank.
4.1	**Qualification Information** The following information shall be provided in Section 9 - Schedules: • ICTAD registration Registration number …… Grade …… Specialty …… Expiry date …… • VAT registration number …… • Attach construction program • Attach legal status (Sole proprietor, Partnership, Company etc.) • Attach authentication for signatory • Total monetary value of construction work performed for each of the last five years • Experience in works of a similar nature and size for each of the last five years • Construction equipment • Staffing • Attach Work plan and methods;
4.2 (a)	**CIDA registration required** **The registration required;** **Specialty:** ***Irrigation and Drainage Canals*** **Grade:** ***C 4 or above***
4.2 (b)	**Average annual volume of construction work performed in last 5 years** The average annual volume of construction work performed in the last five years shall be at least ***Rs. 290 Million***
4.2 (c)	Experience in works of a similar nature and site for each of the last five years shall be at least **Rs. 132 Million (Excluding VAT)**

4.2 (d) **Essential equipment**

Proposals for the timely acquisition (own, lease, hire, etc.) of the following essential equipment shall be;

No	Equipment Type and Characteristics	Min. Number Required
1	Crawler excavator - 120 HP, Bucket capacity 1.0 m^3	2
2	Loader backhoe	1
3	Concrete mixers 3 m^3	1
4	Concrete mixers 1 m^3	4
5	Tractor with trailers	5
6	Porker vibrators	4
7	Bar bending machine	1
8	Transport equipment / Tipper	5
9	Water Bowser with sprinkler 5000 L Capacity	1
10	Mobile Generator	2
11	Plate Compactor	2
12	Baby Dozer	1

4.2 (e) **Qualifications and experience of the Contract Manager and other Key personnel**

Key personnel	Qualifications	No. of Position	Experience	Similar work Experience
1. Contract Manager	Engineering Degree or equivalent qualification in a Relevant field	1	07 yrs	03 yrs
2. Environmental and Social Specialist	Degree or equivalent qualification in a Relevant field	1	02 yrs	-
3. Health and Safety Specialist	Degree or equivalent qualification in a Relevant field	1	02 yrs	-
4. Site Engineer	B.Sc. (Civil Engineering) degree or equivalent	1	05yrs	03yrs
5. Quantity surveyor	B.Sc. (QS) degree or equivalent	1	03yrs	-
6. Engineering Assistant (Civil)	NDT or equivalent	1	03 yrs	01 yrs
7. Work Supervisor (Civil)	NCT	2	03 yrs	01 yrs

The Bidder must demonstrate that it will have suitably qualified Contract Manager

	and suitably qualified other key personnel in adequate numbers, as described in the table above.
4.2 (f)	**Liquid assets and/or credit facilities required** The minimum amount of liquid assets and/or credit facilities, net of other contractual commitments and exclusive of any advance payments which may be made under the Contract**, shall be not less than Rs. 48.0 Million.**
8.3	The employer may conduct a site visit concurrently with the pre-bid meeting referred to in Clause 19. The **site visit** will be conducted as follow. Date & Time: 14th July 2025 at 10.00 a.m. Commencing Venue: Office of the Deputy Director of Irrigation, Batticaloa Range, Batticaloa.
10.1	**Clarification of Bidding Documents** Employer's address for clarification of bidding documents is: **Name of Officer: Project Director, IWWRMP** **Address: 2nd Floor, Mahaweli Centre Building,** **No. 96, Ananda Coomaraswamy Mawatha, Colombo 07.** **Phone: 0112691163** **Facsimile: 0112691163** **E-mail:** iwwrmp@sltnet.lk
13.1(A) (j) **13.1(B) (d)**	The Bidder shall submit the following additional documents in its Bid: **Code of Conduct (ESHS)** The Bidder shall submit its Code of Conduct that will apply to Contractor's Personnel (as defined in Sub-clause 1.1.2.7 of the GC), to ensure compliance with its Environmental, Social, Health and Safety (ESHS) obligations under the contract. *[Note: Complete and include the risks to be addressed by the Code in accordance with Schedule 10, e.g. risks associated with: labor influx, spread of communicable diseases, sexual harassment, gender-based violence, sexual exploitation and abuse, illicit behavior and crime, and maintaining a safe environment etc.]* In addition, the Bidder shall detail how this Code of Conduct will be implemented. This will include: how it will be introduced into conditions of employment/engagement, what training will be provided, how it will be monitored and how the Contractor proposes to deal with any breaches. The Contractor shall be required to implement the agreed Code of Conduct. **Management Strategies and Implementation Plans (MSIP) to manage the (ESHS) risks** The Bidder shall submit Management Strategies and Implementation Plans (MSIP) to manage the following key Environmental, Social, Health and Safety (ESHS) risks. The Contractor shall be required to submit for approval, and subsequently implement,

	the Contractor's Environment and Social Management Plan (C-ESMP), in accordance with the Particular Conditions of Contract Sub-Clause 4.1, that includes the agreed Management Strategies and Implementation Plans described here. *[**Note:** The extent and scope of these requirements should reflect the significant ESHS risks or requirements set out in Schedule 10 as advised by Environmental/Social specialist/s. The key risks to be addressed by the Bidder should be identified by Environmental/Social specialist/s, for example, from the Environmental and Social Impact Assessment (ESIA), Environmental and Social Management Plan (ESMP), Resettlement Action Plan (RAP), and/or Consent Conditions (regulatory authority conditions attached to any permits or approvals for the project), up to a maximum of four. The risks may arise during mobilization or construction phases, and may include construction traffic impacts on the community, pollution of drinking water, depositing on private land and impacts on rare species etc. The management strategies and/or implementation plans to address these could include, as appropriate: mobilization strategy, strategy for obtaining consents/permits, traffic management plan, water resource protection plan, bio-diversity protection plan and a strategy for marking and respecting work site boundaries etc.]*
14.4	**Adjustments for change in cost** The Contract **is subjected** to price adjustment
15.1	**Currency of Bid** The bidders shall quote Rates and prices entirely in ***Sri Lankan rupees***.
16.1	**Period of Bid validity:** **The Bid shall be valid up to 119** days from the bid submission deadline date **(25th November 2025).**
17.1	**Amount of Bid security:** The amount of Bid Security is Sri Lanka Rupees: **Two Million Four Hundred Sixty Thousand Sri Lanka Rupees (LKR 2,460,000.00)** The Bid security shall, be in the form of an unconditional bank guarantee issued from a reputed **bank recognized by the Central Bank of Sri Lanka** bank located in Sri Lanka. The format of the bid security should be in accordance with the specimen form of bid security included in the bidding document (Section 11).
17.2	**Validity of Bid Security** The Bid Security shall be valid up to 147 days from the date of closing of the bids (excluding closing date) ***(23rd December 2025).***
17.5	The bid security of the successful bidder will be returned when the bidder has signed the Agreement and furnished the required Performance Securities including the Environmental, Social, Health and Safety (ESHS) Performance Security pursuant to ITB 35.1.
17.6 (c) (ii)	Furnish the required Performance Securities including the Environmental, Social, Health and Safety (ESHS) Performance Security pursuant to ITB 35.1.

19.1	**Pre-Bid meeting** Pre-Bid meeting ***will be held*** at the below mentioned Venue, time and date. **Date: 16th July 2025** **Time: 2.00 pm** Integrated Watershed & Water Resources Management Project 2nd Floor, Mahaweli Centre Building, No.96, Ananda Coomaraswamy Mawatha, Colombo 07.
21.2 (a)	**Employer's Address for the purpose of bid submission is:** ***Project Director*** ***Integrated Watershed & Water Resources Management Project*** ***2nd Floor, Mahaweli Centre Building,*** ***No.96, Ananda Coomaraswamy Mawatha,*** ***Colombo 07.***
21.2 (b)	**Identification number of Contract** The identification Number of the Contract is: **LK-MOMDE-496652-CW-RFB**
22.1	**Deadline for submission of Bids** Deadline for submission of Bids**: 29th July 2025** Time: **2:00 PM**
25.1	**Bid opening** **Venue, time, and date of bid opening.** ***2st Floor, Mahaweli Centre Building,*** ***No.96, Ananda Coomaraswamy Mawatha, Colombo 07.*** Time: 2:00 pm Date: 29th July 2025
31.1	**Preference for Domestic Bidders** Not applicable
32	**If the Procurement is within the authority limit of a MPC:** After evaluation of Bids in accordance with the procedures described under Clauses 28, 29, 30 and 31, the Employer will inform to all the bidders in writing the selection of the successful bidder and the intention of contract award to such bidder. The

	unsuccessful bidders if they so wish, within one week of such notice may make representation to the Secretary to the Line Ministry at the address given below. Such representation shall be self-contained to enable the Secretary to arrive at a conclusion and a cash deposit to amount given below shall be made. The Employer may request the bidder who had made representation to submit further evidence during the investigation of such representation. The cash deposit will be forfeited unless the Employer has changed the original contract award decision in favour of the bidder who has made such representation. **Address: ……...** **Cash Deposit: Rupees 25,000/=** **If the Procurement is within the authority limit of PPC:** After evaluation of Bids in accordance with the procedures described under Clauses 28, 29, 30 and 31, the Employer will inform to all the bidders in writing the selection of the successful bidder and the intention of contract award to such bidder. The unsuccessful bidders if they so wish, within one week of such notice may make representation to the Secretary to the Line Ministry at the address given below. Such representation shall be self-contained to enable the Secretary to arrive at a conclusion and a cash deposit to amount given below shall be made. The Employer may request the bidder who had made representation to submit further evidence during the investigation of such representation. The cash deposit will be forfeited unless the Employer has changed the original contract award decision in favour of the bidder who has made such representation. **Address: …….** **Cash Deposit: Rupees 10,000/=**
35.1	**Amount of Performance Security** The Standard Form of Performance Security acceptable to the Employer shall be a Guarantee from an Agency accepted and stated in the Procurement Guidelines. The amount of the Performance Security is ***7%*** of the Initial Contract Price. The Performance Security shall be valid until 28 Days beyond the Time for Completion …… ***(date)***. In addition, the successful Bidder ***shall*** submit an Environmental, Social, Health and Safety (ESHS) Performance Security within 14 Days of receipt of the Letter of

	Acceptance. The amount of the Environmental, Social, Health and Safety (ESHS) Performance Security is ***3%*** of the initial Contract Price. The Environmental, Social, Health and Safety (ESHS) Performance Security shall be valid until 28 days beyond the defects liability period …… ***(date).*** Bid security shall only be an unconditional guarantee issued by a bank recognized by the Central Bank of Sri Lanka or Construction Guarantee Fund (CGF) in accordance with the format given.
37 **37.1**	Fees and types of reimbursable expenses to be paid to the Adjudicator shall be on a case-to-case basis and shall be shared equally by the Contractor and the Employer. **For contracts with estimated costs equal or exceeding Rs. 500 mn delete Clause 37 Adjudicator and insert following;** **Dispute Adjudication Board (DAB)** Within 28 Days from the Commencement Date each of the Parties shall appoint one member to serve on the Dispute Adjudication Board (DAB). The Parties shall consult both these members and shall agree upon the third member, who shall be appointed to act as the chairman. If either Party fails to nominate a member to the DAB or the Parties fail to agree upon the third member or the Parties fail to agree on the appointment of a replacement person to the DAB, then upon the request of either or both Parties the Institute for Construction Training and Development (ICTAD) shall appoint the relevant member to the DAB.

Section - 3

Conditions of Contract

Available in ICTAD Publication Number ICTAD/SBD/02
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Condition of Contract shall be read in conjunction with the
Section 4 – Contract Data

Section - 4

Contract Data

This section shall be read in conjunction with Section 3 – Condition of Contract, and is intended to provide specific information in relation to corresponding clauses in Section 3. Whenever there is a discrepancy, the provisions in Section 4- Contract Data shall supersede these provided in the Section 3 – Condition of Contract

Section 4 – Contract Data

Conditions of Contract Clause Number/s		
(*) 1.1.2.2 & 1.3	Employer's name and address	Name : Project Director, Integrated Watershed & Water Resources Management Project Address : 2nd Floor, Mahaweli Centre Building, No.96, Ananda Coomaraswamy Mawatha, Colombo 07.
1.3	Contractor's name and address	Name: ……. Address: …….
(*) 1.1.2.4 & 1.3	Engineer's name and address	Name: Deputy Director of Irrigation, Batticaloa Range Address: Deputy Director's office, Batticaloa Range, Provincial Irrigation Department, Yard Road, Batticaloa
	Engineer's Representative name and address	Name: Divisional Irrigation Engineer, Chenkalady Division. Address: Divisional Irrigation Engineer's Office, Chenkalady Division, Trincomalee Road, Chenkalady
1.1.2.5 **Contractor's Personnel**	**Key Personnel** The following is added at the end of the sub-clause: "Contractor's Personnel includes Key Personnel as named in the Contract."	
1.1.2.5 Contractor's Representative	Name:……. Address:……	
1.1.2.9	**Replace existing Clause 1.1.2.9 with following:** "Dispute Adjudication Board" (DAB) means three persons appointed under Sub-Clause 19.2 [Appointment of the Dispute Adjudication Board] or Sub-Clause 19.3 [Failure to Agree on the Composition of the Dispute Adjudication Board] of the Conditions of Contract.	
(*) 1.1. 3.3	Time for Completion of the Works	The time for Completion is 365 ***calendar days from the commencement date.***
(*) 1.1.3.7	Defects Notification Period	The defects Notification Period is 365 Days

1.1.6.8	The following is added after Sub-Clause 1.1.6.7 "ESHS" means environmental, social (including sexual exploitation and abuse (SEA) and gender-based violence (GBV)), health and safety.	
(*) 2. 1	Right to access the Site	14 Days after the Letter of Acceptance
(*) 3.1	Engineer's Duties and Authority	The Engineer shall obtain the specific approval of the Employer before taking action under the following Sub-Clauses of these Conditions: (a) Clause 13, where the final effect of the variations increases the Contract Price
4.1 Contractor's General Obligations	Insert in the fifth paragraph after the words "*The Contractor shall, whenever required by the Engineer, submit details of the arrangements and methods which the Contractor proposes to adopt for the execution of the Works.*" "Notwithstanding Sub-Clause 8.1, the Contractor shall not carry out any Works, including mobilization and/or pre-construction activities (e.g. limited clearance for haul roads, site accesses and work site establishment, geotechnical investigations or investigations to select ancillary features such as quarries and borrow pits), unless the Engineer is satisfied that appropriate measures are in place to address environmental, social, health and safety risks and impacts. At a minimum, the Contractor shall apply the Management Strategies and Implementation Plans and Code of Conduct, submitted as part of the Bid and agreed as part of the Contract. The Contractor shall submit, on a continuing basis, for the Engineer's prior approval, such supplementary Management Strategies and Implementation Plans as are necessary to manage the ESHS risks and impacts of ongoing works. These Management Strategies and Implementation Plans collectively comprise the Contractor's Environmental and Social Management Plan (C-ESMP). The C-ESMP shall be approved prior to the commencement of construction activities (e.g. excavation, earth works, bridge and structure works, stream and road diversions, quarrying or extraction of materials, concrete batching and asphalt manufacture). The approved C-ESMP shall be reviewed, periodically (but not less than every six (6) months), and updated in a timely manner, as required, by the Contractor to ensure that it contains measures appropriate to the Works activities to be undertaken. The updated C-ESMP shall be subject to prior approval by the Engineer.	
(*) 4.2	Amount of Performance Security	7 % of the Initial Contract Price, in the currencies and proportions in which the Contract Price is payable. The acceptable form is an Unconditional Guarantee. **Performance Security shall only be an unconditional guarantee issued by a bank recognized by the Central Bank of Sri Lanka in accordance with the format given** 3 % of the Initial Contract Price The ESHS Performance Security will be in the form of a "*demand guarantee"* in the amount(s) of 3% percent of the Accepted Contract Amount and in the same currency (ies) of the Accepted Contract Amount.

4.2 Performance Security	Add the following The Contractor shall obtain (at his cost) an Environmental, Social, Safety and Health (ESHS) Performance Security for compliance with the Contractor's ESHS obligations, for 3% of Initial Contract Price. The Contractor shall deliver ESHS Performance Security to the Employer within 14 days after receiving the Letter of Acceptance, and shall send a copy to the Engineer. The ESHS Performance Security shall be issued by a reputable bank selected by the Contractor, and shall be in the form annexed to the Particular Conditions, as stipulated by the Employer in the Contract Data, or in another form approved by the Employer. The Contractor shall ensure that the ESHS Performance Security is valid and enforceable until the Contractor has executed and completed the Works and remedied any defects. If the terms of the ESHS Performance Security specify its expiry date, and the Contractor has not become entitled to receive the Performance Certificate (which, if applicable, includes satisfactory performance of the ESHS obligations), by the date 28 days prior to the expiry date, the Contractor shall extend the validity of the ESHS Performance Security until the Works have been completed and any defects have been remedied. The Employer shall return the ESHS Performance Security to the Contractor within 21 days after receiving a copy of the Performance Certificate.

4.14 Progress Reports	Sub-Clause 4.21 (g) is replaced by the following: **"4.14 (g)** the Environmental, Social, Health and Safety (ESHS) metrics set out in Appendix B" At the end of, and as part of Sub-Clause 4.14 add a new paragraph as follows: "The Contractor shall provide immediate notification to the Engineer of incidents in the following categories. Full details of such incidents shall be provided to the Engineer within the timeframe agreed with the Engineer. (a) confirmed or likely violation of any law or international agreement; (b) any fatality or serious (lost time) injury; (c) significant adverse effects or damage to private property (e.g. vehicle accident, damage from fly rock, working beyond the boundary) (d) major pollution of drinking water aquifer or damage or destruction of rare or endangered habitat (including protected areas) or species; or (e) any allegation of gender-based violence (GBV), sexual exploitation or abuse, sexual harassment or sexual misbehavior, rape, sexual assault, child abuse, or defilement, or other violations involving children.

6.8 Contractor's Personnel

Key Personnel

Key personnel	Qualifications	No. of Position	Experience	Similar work Experience
1. Contract manager	Engineering Degree or equivalent qualification in a Relevant field	1	07 yrs	03 yrs
2. Environmental and Social Specialist	Degree or equivalent qualification in a Relevant field	1	02 yrs	-
3. Health and Safety Specialist	Degree or equivalent qualification in a Relevant field	1	02 yrs	-
4. Site Engineer	B.Sc. (Civil Engineering) degree or equivalent	1	05yrs	03yrs
5. Quantity surveyor	B.Sc. (QS) degree or equivalent	1	03yrs	-
6. Engineering Assistant (Civil)	NDT or equivalent	1	03 yrs	01 yrs
7. Work Supervisor (Civil)	NCT	2	03 yrs	01 yrs

Sub-Clauses 6.8 (d) is amended by inserting "or" at the end:

"6.9 (d)……; or"

Sub-Clauses 6.8 (e) is inserted as follows:

"6.9 (e) undertakes behavior which breaches the Code of Conduct (ESHS) (e.g. spreading communicable diseases, sexual harassment, gender-based violence, (GBV), sexual exploitation or abuse, illicit activity or crime)."

After the sentence: "*If appropriate, the Contractor shall then appoint (or cause to be appointed) a suitable replacement person.*" the following is added as a new paragraph:

"The Contractor's Personnel includes Key Personnel. If the Contractor intends to replace a Key Personnel, the Contractor shall, not less than 30 days before the intended date of replacement, give notice to the Engineer, the name, address, academic qualifications and relevant experience of the intended replacement Key Personnel. The Contractor shall not, without the prior consent of the Engineer, revoke the appointment of the Key Personnel or appoint a replacement."

(*) 8.7	Liquidated damages for the Works	0.05 % of the Initial Contract Price per Day
(*) 8.7	The maximum amount of liquidated damages	5% of the Initial Contract Price
12.2 (b)	Method of Measurement	The Method of Measurement shall be joint measurement and annexed in Section 8
13.3 Variation procedure	Sub-Clause 13.3. (a) is replaced with the following: "(a) a description of the proposed work to be performed, a programme for its execution and sufficient ESHS information to enable an evaluation of ESHS risks and impacts;"	
(*) 13.4(b)	The percentage for adjustment of Provisional Sums	10 %
13.7 Adjustment for changes in Cost	Last paragraph "The weightings for each of the inputs of cost ……" shall be substituted by the following: "The weightings for each of the inputs of cost given in this Clause shall be adjusted only if they have been rendered unreasonable, unbalanced or inapplicable, as a result of Variations."	

<table>
<tr><td>13.7</td><td>Weightings of Inputs</td><td>
<table>
<tr><th>Indices No</th><th>Input Name</th><th>Input Percentage</th></tr>
<tr><td>M4</td><td>Cement</td><td>20.48%</td></tr>
<tr><td>M6</td><td>Rubble (300-450mm)</td><td>3.45%</td></tr>
<tr><td>M7</td><td>Metal (20 mm)</td><td>21.35%</td></tr>
<tr><td>M8</td><td>Sand</td><td>8.95%</td></tr>
<tr><td>M13</td><td>Reinforcement Steel</td><td>11.96%</td></tr>
<tr><td>M21</td><td>Formwork Timber</td><td>6.35%</td></tr>
<tr><td>M45</td><td>Earth</td><td>2.12%</td></tr>
<tr><td>L1</td><td>Skilled Labour</td><td>1.99%</td></tr>
<tr><td>L3</td><td>Unskilled Labour</td><td>5.32%</td></tr>
<tr><td>P1</td><td>Small Equipment</td><td>1.68%</td></tr>
<tr><td>P3</td><td>Fuel</td><td>6.35%</td></tr>
<tr><td></td><td>Total</td><td>90%</td></tr>
</table>
The nonadjustable element shall be:
All Psum & Lsum items
</td></tr>
<tr><td>(*) 14.2</td><td>Total Advance Payment</td><td>20 % of the Initial Contract Price excluding provisional sums and contingencies</td></tr>
<tr><td>(*) 14.3(c)</td><td>Percentage of retention</td><td>10 % of Each Interim Payment Certificates</td></tr>
<tr><td>(*) 14.3(c)</td><td>Limit of Retention Money</td><td>5 % of the Initial Contract Price</td></tr>
<tr><td>14.5</td><td>Minimum amount of Interim Payment Certificates.</td><td>5% of the Initial Contract Price</td></tr>
</table>

(*) 14.5 Issue of Interim Payment Certificate	The following is added to the third paragraph as (c): i. if the Contractor was, or is, failing to perform any ESHS obligations or work under the Contract, the value of this work or obligation, as determined by the Engineer, may be withheld until the work or obligation has been performed, and/or the cost of rectification or replacement, as determined by the Engineer, may be withheld until rectification or replacement has been completed. Failure to perform includes, but is not limited to the following: a) failure to comply with any ESHS obligations or work described in the Works' Requirements which may include: working outside site boundaries, excessive dust, failure to keep public roads in a safe usable condition, damage to offsite vegetation, pollution of watercourses from oils or sedimentation, contamination of land e.g. from oils, human waste, damage to archeology or cultural heritage features, air pollution as a result of unauthorized and/or inefficient combustion; b) failure to regularly review C-ESMP and/or update it in a timely manner to address emerging ESHS issues, or anticipated risks or impacts; c) failure to implement the C-ESMP e.g. failure to provide required training or sensitization; d) failing to have appropriate consents/permits prior to undertaking Works or related activities; e) failure to submit ESHS report/s (as described in Appendix B), or failure to submit such reports in a timely manner; f) Failure to implement remediation as instructed by the Engineer within the specified timeframe (e.g. remediation addressing non-compliance/s).	
(*)14.8	Alternative method for Payment of Retention	On reaching the limit of retention, stated in the Contract Data under Sub-Clause 14.3, the Contractor may substitute full retention money with an unconditional guarantee acceptable to the Employer to a value equal to the full retention money, and valid up to 28 Days beyond the end of Defect Notification Period. On receipt of such guarantee the Employer shall repay the full retention money. The guarantee will be released to the Contractor upon the certification of the Engineer that all Defects notified by the Engineer to the Contractor before the end of this period have been corrected.

<table>
<tr>
<td>(*) 18.2</td>
<td>Third Party Insurance</td>
<td>This Amount of insurance per occurrence is:
<table>
<tr><td></td><td>Minimum Insurance Amount</td><td>Maximum Deductible</td></tr>
<tr><td>(a) for the works, Plant and materials:</td><td>110% of the contract Price</td><td>Rs 50,000/-</td></tr>
<tr><td>(b) For loss or damage to equipment</td><td>Replacement value of the Equipment</td><td>Rs 50,000/-</td></tr>
<tr><td>(c) for losses or damage to property (except the works, plant, Materials, and Equipment) in connection with Contract</td><td>Rs 1.0 million</td><td>Rs 50,000/-</td></tr>
<tr><td>(d) for personal injury or death: (i) of the Contractor’s employees per event</td><td>Rs 1,000,000 per employee</td><td>No Deductible</td></tr>
<tr><td>(ii) of other people per event</td><td>Rs 1,000,000 per person</td><td>No Deductible</td></tr>
</table>
</td>
</tr>
<tr>
<td></td>
<td colspan="2"><u>Clause 19.0 Claims, Disputes and Arbitration</u>
Delete existing sub-clause 19.2 (Dispute Resolution),
Delete existing sub-clause 19.3 (Procedure for Adjudication),
Delete existing sub-clause 19.4 (Replacement of Adjudicator),
Delete existing sub-clause 19.5 (Arbitration), and insert the following new sub-clauses;

19.2 Appointment of the Dispute Adjudication Board
19.3 Failure to Agree on the Composition of the Dispute Adjudication Board
19.4 Obtaining Dispute Adjudication Board’s Decision
19.5 Failure to Comply with Dispute Adjudication Board’s Decision
19.6 Expiry of Dispute Adjudication Board’s Appointment
19.7 Arbitration</td>
</tr>
</table>

19.2	Appointment of the Dispute Adjudication Board	Any dispute of whatever nature arising out of or in relation to this agreement shall in the first instance be referred to a Dispute Adjudication Board (DAB) for decision in accordance with Sub-Clause 19.4 [Obtaining Dispute Adjudication Board's Decision]. The Parties shall appoint a DAB within 28 Days from the Commencement Date. The DAB shall comprise, three suitably qualified persons ("the members"), who shall be professionals experienced in the type of construction involved in the Works and with the interpretation of contractual documents, one of whom shall serve as chairman. Within 28 Days from the Commencement Date each of the Parties shall appoint one member to serve on the Dispute Adjudication Board (DAB). The Parties shall consult both these members and shall agree upon the third member, who shall be appointed to act as the chairman. The agreement between the Parties and each of the three members shall incorporate by reference the General Conditions of Dispute Adjudication Agreement contained in the Appendix to these Contract Data, with such amendments as are agreed between them. The terms of the remuneration of the three members, including the remuneration of any expert whom the DAB consults, shall be mutually agreed upon by the Parties when agreeing the terms of appointment of the member or such expert (as the case may be). Each Party shall be responsible for paying one-half of this remuneration If a member declines to act or is unable to act as a result of death, disability, resignation or termination of appointment, a replacement shall be appointed in the same manner as the replaced person was required to have been nominated or agreed upon, as described in this Sub-Clause. The appointment of any member may be terminated by mutual agreement of both Parties, but not by the Employer or the Contractor acting alone. Unless otherwise agreed by both Parties, the appointment of the DAB (including each member) shall expire when the discharge referred to in Sub-Clause 14.11 [Discharge] shall have become effective.

19.3	Failure to Agree on the Composition of the Dispute Adjudication Board	If any of the following conditions apply, namely: (a) either Party fails to nominate a member of a DAB by such date, (b) the Parties fail to agree upon the appointment of the third member (to act as chairman) of the DAB by such date, or (c) the Parties fail to agree upon the appointment of a replacement person within 42 Days after the date on which the one of the three members declines to act or is unable to act as a result of death, disability, resignation or termination of appointment, Then Institute for Construction Training and Development (ICTAD) shall, upon the request of either or both of the Parties and after due consultation with both Parties, appoint this member of the DAB. This appointment shall be final and conclusive. Each Party shall be responsible for paying one-half of the expenses / disbursements incurred by ICTAD.
19.4	Obtaining Dispute Adjudication Board's Decision	If a dispute (of any kind whatsoever) arises between the Parties in connection with, or arising out of, the Contract or the execution of the Works, including any dispute as to any certificate, determination, instruction, opinion or valuation of the Engineer, either Party may refer the dispute in writing to the DAB for its decision, with copies to the other Party and the Engineer. Such reference shall state that it is given under this Sub-Clause. The DAB shall be deemed to have received such reference on the date when it is received by the chairman of the DAB. Both Parties shall promptly make available to the DAB all such additional information, further access to the Site, and appropriate facilities, as the DAB may require for the purposes of making a decision on such dispute. The DAB shall be deemed to be not acting as arbitrator(s).

		Within 84 Days after receiving such reference, or within such other period as may be proposed by the DAB and approved by both Parties, the DAB shall give its decision, which shall be reasoned and shall state that it is given under this Sub-Clause. The decision shall be binding on both Parties, who shall promptly give effect to it unless and until it shall be revised in an amicable settlement or an arbitral award as described below. Unless the Contract has already been abandoned, repudiated or terminated, the Contractor shall continue to proceed with the Works in accordance with the Contract. If either Party is dissatisfied with the DAB's decision, then either Party may, within 28 Days after receiving the decision, give notice to the other Party of its dissatisfaction and intention to commence arbitration. If the DAB fails to give its decision within the period of 84 Days (or as otherwise approved) after receiving such reference, then either Party may, within 28 Days after this period has expired, give notice to the other Party of its dissatisfaction and intention to commence arbitration. In either event, this notice of dissatisfaction shall state that it is given under this Sub-Clause, and shall set out the matter in dispute and the reason(s) for dissatisfaction. Except as stated in Sub-Clause 19.5 [Failure to Comply with Dispute Adjudication Board's Decision] and Sub-Clause 19.6 [Expiry of Dispute Adjudication Board's Appointment], neither Party shall be entitled to commence arbitration of a dispute unless a notice of dissatisfaction has been given in accordance with this Sub-Clause. If the DAB has given its decision as to a matter in dispute to both Parties, and no notice of dissatisfaction has been given by either Party within 28 Days after it received the DAB's decision, then the decision shall become final and binding upon both Parties.
19.5	Failure to Comply with Dispute Adjudication Board's Decision	In the event that a Party fails to comply with a DAB decision which has become final and binding, then the other Party may, without prejudice to any other rights it may have, refer the failure itself to arbitration under Sub-Clause 19.7 [Arbitration]. Sub-Clause 19.4 [Obtaining Dispute Adjudication Board's Decision] shall not apply to this reference.

19.6	Expiry of Dispute Adjudication Board's Appointment	If a dispute arises between the Parties in connection with, or arising out of, the Contract or the execution of the Works and there is no DAB in place, whether by reason of the expiry of the DAB's appointment or otherwise: (a) Sub-Clause 19.4 [Obtaining Dispute Adjudication Board's Decision] shall not apply, and (b) the dispute may be referred directly to arbitration under Sub-Clause 19.7 [Arbitration].
19.7	Arbitration	(a) Any dispute of whatever nature arising from, out of or in connection with this agreement, on the interpretation thereof, or the rights, duties, obligations or liabilities of any Party, or the operation, breach, termination, abandonment, foreclosure or invalidity thereof, shall be referred to by either Party to arbitration for final settlement, in accordance with the Arbitration Act No. 11 of 1995, or any amendment thereof, (b) Pending the award in any arbitration proceedings hereunder, (i) this Contract and the rights and obligations of the Parties shall remain in full force and effect and (ii) each of the Parties shall continue to perform their respective obligations under this Contract. The termination of this Contract shall not result in the termination of any arbitration proceedings pending at the time of such termination nor otherwise affect the rights and obligations of the Parties under or with respect to such pending arbitration. (c) Any award rendered by the arbitral tribunal shall determine the extent to which the cost of arbitration is to be borne by each Party. The arbitration centre charges and the compensation to the arbitrator shall be equally shared by the Parties initially.

		Composition of the Arbitral Tribunal : The arbitral tribunal shall consist of a sole arbitrator who shall be appointed in the manner provided in the Selection Procedure as given below. **Selection Procedure :** The Party desiring arbitration shall nominate three arbitrators out of which one to be selected by the other Party within 21 Days of the receipt of such nomination. If the other Party does not select one to serve as Arbitrator within the stipulated period then the Arbitrator shall be appointed in accordance with the Arbitration Act No. 11 of 1995, or any amendments thereof. **Venue & Language :** The venue of arbitration shall be in Sri Lanka. Unless otherwise agreed to by the Parties the proceedings shall be conducted and the award shall be rendered in the English language.
	In the following sub-clauses the term "Performance Security" is replaced with: "Performance Security and, if applicable, an Environmental, Social, Health and Safety (ESHS) Performance Security": 2.1- Right of Access to the Site 14.2- Advance Payment 14.5- Issue of Interim Payment Certificate 14.11- Discharge 15.5- Employer's Entitlement to Termination for Convenience 16.4(a)- Payment on termination"	

APPENDIX TO CONTRACT DATA

APPENDIX A

A General Conditions of Dispute Adjudication Agreement

1. Definitions

Each "Dispute Adjudication Agreement" is a tripartite agreement by and between:

(a) the "Employer";

(b) the "Contractor"; and

(c) the "Member" who is defined in the Dispute Adjudication Agreement as being one of the three persons who are jointly called the "DAB" (or "Dispute Adjudication Board") and, where this is the case, the other two persons are called the "Other Members."

The Employer and the Contractor have entered (or intend to enter) into a contract, which is called the "Contract" and is defined in the Dispute Adjudication Agreement, which incorporates this Appendix. In the Dispute Adjudication Agreement, words and expressions which are not otherwise defined shall have the meanings assigned to them in the Contract.

2. General Provisions

Unless otherwise stated in the Dispute Adjudication Agreement, it shall take effect on the latest of the following dates:

(a) the Commencement Date defined in the Contract,

(b) when the Employer, the Contractor and the Member have each signed the Dispute Adjudication Agreement, or

(c) when the Employer, the Contractor and each of the Other Members have respectively each signed a Dispute Adjudication Agreement.

This employment of the Member is a personal appointment. At any time, the Member may give not less than 70 Days notice of resignation to the Employer and to the Contractor, and the Dispute Agreement shall terminate upon the expiry of this period.

3. Warranties

The Member warrants and agrees that he/she is and shall be impartial and independent of the Employer, the Contractor and the Engineer. The Member shall promptly disclose, to each of them and to the Other Members, any fact or circumstance which might appear inconsistent with his/her warranty and agreement of impartiality and independence.

When appointing the Member, the Employer and the Contractor relied upon the Member's representations that he/she is:

(a) experienced in the work which the Contractor is to carry out under the Contract,

(b) experienced in the interpretation of contract documentation, and

(c) fluent in the language for communications defined in the Contract.

4. General Obligations of the Member

The Member shall:

(a) have no interest financial or otherwise in the Employer, the Contractor or Engineer, nor any financial interest in the Contract except for payment under the Dispute Adjudication Agreement;

(b) not previously have been employed as a consultant or otherwise by the Employer, the Contractor or the Engineer, except in such circumstances as were disclosed in writing to the Employer and the Contractor before they signed the Dispute Adjudication Agreement;

(c) have disclosed in writing to the Employer, the Contractor and the Other Members, before entering into the Dispute Adjudication Agreement and to his/her best knowledge and recollection, any professional or personal relationships with any director, officer or employee of the Employer, the Contractor or the Engineer, and any previous involvement in the overall project of which the Contract forms part;

(d) not, for the duration of the Dispute Adjudication Agreement, be employed as a consultant or otherwise by the Employer, the Contractor or the Engineer, except as may be agreed in writing by the Employer, the Contractor and the Other Members;

(e) comply with the annexed procedural rules and with Sub-Clause 19.4 (Obtaining Dispute Adjudication Board's Decision) of the Conditions of Contract;

(f) not give advice to the Employer, the Contractor, the Employer's Personnel or the Contractor's Personnel concerning the conduct of the Contract, other than in accordance with the annexed procedural rules;

(g) not while a Member enter into discussions or make any agreement with the Employer, the Contractor or the Engineer regarding employment by any of them, whether as a consultant or otherwise, after ceasing to act under the Dispute Adjudication Agreement;

(h) ensure his/her availability for all site visits and hearings as are necessary;

(i) become conversant with the Contract and with the progress of the Works (and of any other parts of the project of which the Contract forms part) by studying all documents received which shall be maintained in a current working file;

(j) treat the details of the Contract and all the DAB's activities and hearings as private and confidential, and not publish or disclose them without the prior written consent of the Employer, the Contractor and the Other Members; and

(k) be available to give advice and opinions, on any matter relevant to the Contract when requested by both the Employer and the Contractor, subject to the agreement of the Other Members.

5. General Obligations of the Employer and the Contractor

The Employer, the Contractor, the Employer's Personnel and the Contractor's Personnel shall not request advice from or consultation with the Member regarding the Contract, otherwise than in the normal course of the DAB's activities under the Contract and the Dispute Adjudication Agreement. The Employer and the Contractor shall be responsible for compliance with this provision, by the Employer's Personnel and the

Contractor's Personnel respectively.
The Employer and the Contractor undertake to each other and to the Member that the Member shall not, except as otherwise agreed in writing by the Employer, the Contractor, the Member and the Other Members:

(a) be appointed as an arbitrator in any arbitration under the Contract;

(b) be called as a witness to give evidence concerning any dispute before arbitrator(s) appointed for any arbitration under the Contract; or

(c) be liable for any claims for anything done or omitted in the discharge or purported discharge of the Member's functions, unless the act or omission is shown to have been in bad faith.

The Employer and the Contractor hereby jointly and severally indemnify and hold the Member harmless against and from claims from which he is relieved from liability under the preceding paragraph.

Whenever the Employer or the Contractor refers a dispute to the DAB under Sub-Clause 19.4 (Obtaining Dispute Adjudication Board's Decision) of the Conditions of Contract, which will require the Member to make a site visit and attend a hearing, the Employer or the Contractor shall provide appropriate security for a sum equivalent to the reasonable expenses to be incurred by the Member. No account shall be taken of any other payments due or paid to the Member.

6. Payment

The Member shall be paid as follows:

(a) a retainer fee per calendar month, which shall be considered as payment in full for:

(i) being available on 28 Days notice for all site visits and hearings;

(ii) becoming and remaining conversant with all project developments and maintaining relevant files;

(iii) all office and overhead expenses including secretarial services, photocopying and office supplies incurred in connection with his duties; and

(iv) all services performed hereunder except those referred to in sub-paragraphs (b) and (c) of this Clause.

The retainer fee shall be paid with effect from the last day of the calendar month in which the Dispute Adjudication Agreement becomes effective; until the last day of the calendar month in which the Taking-Over Certificate is issued for the whole of the Works.

With effect from the first day of the calendar month following the month in which the Taking-Over Certificate is issued for the whole of the Works, the retainer fee shall be reduced by 50%. This reduced fee shall be paid until the first day of the calendar month in which the Member resigns or the Dispute Adjudication Agreement is otherwise terminated.

(b) a daily fee which shall be considered as payment in full for:

(i) each day or part of a day up to a maximum of two Days travel time in each direction for the journey between the Member's home and the site, or another location of a meeting with the Other Members;

(ii) each working day on Site visits, hearings or preparing decisions; and

(iii) each day spent reading submissions in preparation for a hearing.

(c) all reasonable expenses including necessary travel expenses (hotel and subsistence and other direct travel expenses) incurred in connection with the Member's duties, as well as the cost of telephone calls, courier charges, and faxes: a receipt shall be required for each item in excess of five percent of the daily fee referred to in sub-paragraph (b) of this Clause.

The retainer and daily fees shall be as specified in the Dispute Adjudication Agreement. Unless it specifies otherwise, these fees shall remain fixed for the entire duration of the Contract.

The Member shall submit invoices for payment of the monthly retainer quarterly in advance. Invoices for other expenses and for daily fees shall be submitted following the conclusion of a site visit or hearing. All invoices shall be accompanied by a brief description of activities performed during the relevant period and shall be addressed to the Contractor.

The Contractor shall pay each of the Member's invoices in full within 56 calendar days after receiving each invoice and shall apply to the Employer (in the Statements under the Contract) for reimbursement of one-half of the amounts of these invoices. The Employer shall then pay the Contractor in accordance with the Contract.

If the Contractor fails to pay to the Member the amount to which he/she is entitled under the Dispute Adjudication Agreement, the Employer shall pay the amount due to the Member and any other amount which may be required to maintain the operation of the DAB; and without prejudice to the Employer's rights or remedies. In addition to all other rights arising from this default, the Employer shall be entitled to reimbursement of all sums paid in excess of one-half of these payments, plus all costs of recovering these sums and financing charges calculated at the rate specified in Sub-Clause 14.7 of the Conditions of Contract.

If the Member does not receive payment of the amount due within 70 days after submitting a valid invoice, the Member may (i) suspend his/her services (without notice) until the payment is received, and/or (ii) resign his/her appointment by giving notice under Clause 7.

7. Termination

At any time: (i) the Employer and the Contractor may jointly terminate the Dispute Adjudication Agreement by giving 42Days notice to the Member; or (ii) the Member may resign as provided for in Clause 2.

If the Member fails to comply with the Dispute Adjudication Agreement, the Employer and the Contractor may, without prejudice to their other rights, terminate it by notice to the Member. The notice shall take effect when received by the Member.

If the Employer or the Contractor fails to comply with the Dispute Adjudication Agreement, the Member may, without prejudice to his other rights, terminate it by notice to the Employer and the Contractor. The notice shall take effect when received by them both.

Any such notice, resignation and termination shall be final and binding on the Employer, the Contractor and the Member. However, a notice by the Employer or the Contractor, but not by both, shall be of no effect.

8. Default of the Member

If the Member fails to comply with any of his obligations under Clause 4 (a) - (d) above, he shall not be entitled to any fees or expenses hereunder and shall, without prejudice to their other rights, reimburse each of the Employer and the Contractor for any fees and expenses received by the Member and the Other Members, for proceedings or decisions of the DAB which are rendered void or ineffective by the said failure to comply.

If the Member fails to comply with any of his obligations under Clause 4 (e) - (k) above, he shall not be entitled to any fees or expenses hereunder from the date and to the extent of the non-compliance and shall, without prejudice to their other rights, reimburse each of the Employer and the Contractor for any fees and expenses already received by the Member, for proceedings or decisions of the DAB which are rendered void or ineffective by the said failure to comply.

9. Disputes

Any dispute or claim arising out of or in connection with this Dispute Adjudication Agreement, or the breach, termination or invalidity thereof, shall be finally settled in accordance with Arbitration Act No 11, 1995 of Sri Lanka with a sole Arbitrator..

PROCEDURAL RULES

1. Unless otherwise agreed by the Employer and the Contractor, the DAB shall visit the site at intervals of not more than 70 days, including times of critical construction events, at the request of either the Employer or the Contractor. Unless otherwise agreed by the Employer, the Contractor and the DAB, the period between consecutive visits shall not be less than 35 days, except as required to convene a hearing as described below.

2. The timing of and agenda for each site visit shall be as agreed jointly by the DAB, the Employer and the Contractor, or in the absence of agreement, shall be decided by the DAB. The purpose of site visits is to enable the DAB to become and remain acquainted with the progress of the Works and of any actual or potential problems or claims, and, as far as reasonable, to endeavor to prevent potential problems or claims from becoming disputes.

3. Site visits shall be attended by the Employer, the Contractor and the Engineer and shall be co-ordinated by the Employer in co-operation with the Contractor. The Employer shall ensure the provision of appropriate conference facilities and secretarial and copying services. At the conclusion of each site visit and before leaving the site, the DAB shall prepare a report on its activities during the visit and shall send copies to the Employer and the Contractor.

4. The Employer and the Contractor shall furnish copies to the members of the DAB of all documents which the DAB may request, including Contract documents, progress reports, variation instructions, certificates and other documents pertinent to the performance of the Contract. All communications between the DAB and the Employer or the Contractor shall be copied to the other Party.

5. If any dispute is referred to the DAB in accordance with Sub-Clause 19.4 (Obtaining Dispute Adjudication Board's Decision) of the Conditions of Contract, the DAB shall proceed in accordance with Sub-Clause 19.4 (Obtaining Dispute Adjudication Board's Decision) and these Rules. Subject to the time allowed to give notice of a decision and other relevant factors, the DAB shall:

   (a) act fairly and impartially as between the Employer and the Contractor, giving each of them a reasonable opportunity of putting his case and responding to the other's case, and

   (b) adopt procedures suitable to the dispute, avoiding unnecessary delay or expense.

6. The DAB may conduct a hearing on the dispute, in which event it will decide on the date and place for the hearing and may request that written documentation and arguments from the Employer and the Contractor be presented to it prior to or at the hearing.

7. Except as otherwise agreed in writing by the Employer and the Contractor, the DAB shall have power to adopt an inquisitorial procedure, to refuse admission to hearings or audience at hearings to any persons other than representatives of the Employer, the Contractor and the Engineer, and to proceed in the absence of any party who the DAB is satisfied received notice of the hearing; but shall have discretion to decide whether and to what extent this power may be exercised.

8. The Employer and the Contractor empower the DAB, among other things, to:

   (a) establish the procedure to be applied in deciding a dispute,

   (b) decide upon the DAB's own jurisdiction, and as to the scope of any dispute referred to it,

   (c) conduct any hearing as it thinks fit, not being bound by any rules or procedures other than those contained in the Contract and these Guidelines,

(d) take the initiative in ascertaining the facts and matters required for a decision,

(e) make use of its own specialist knowledge, if any,

(f) decide upon the payment of financing charges in accordance with the Contract,

(g) decide upon any provisional relief such as interim or conservatory measures, and

(h) open up, review and revise any certificate, decision, determination, instruction, opinion or valuation of the Engineer, relevant to the dispute.

9. The DAB shall not express any opinions during any hearing concerning the merits of any arguments advanced by the Parties. Thereafter, the DAB shall make and give its decision in accordance with Sub-Clause 19.4 (Obtaining Dispute Adjudication Board's Decision), or as otherwise agreed by the Employer and the Contractor in writing. The DAB:

(a) shall convene in private after a hearing, in order to have discussions and prepare its decision;

(b) shall endeavour to reach a unanimous decision: if this proves impossible the applicable decision shall be made by a majority of the Members, who may require the minority Member to prepare a written report for submission to the Employer and the Contractor; and

(c) Member fails to attend a meeting or hearing, or to fulfill any required function, the other two Members may nevertheless proceed to make a decision, unless:

(i) either the Employer or the Contractor does not agree that they do so, or

(ii) the absent Member is the chairman and he/she instructs the other Members to not make a decision.

DISPUTE ADJUDICATION AGREEMENT

[for each member of a three - person DAB]

Name and details of Contract
Name and address of Employer
Name and address of Contractor
Name and address of Member

Whereas the Employer and the Contractor have entered into the Contract and desire jointly to appoint the Member to act as one of the three persons who are jointly called the Dispute Adjudication Board (DAB) *[and desire the Member to act as chairman of the* DAB*]*

The Employer, Contractor and Member jointly agree as follows:

1. The conditions of this Dispute Adjudication Agreement comprise the "General Conditions of Dispute Adjudication Agreement" which is appended to the General Conditions of the "Standard Bidding Document, Procurement of Works, Major Contracts - Second Edition, January 2007" and the following provisons. In these provisions, which include amendments and additions to the General Conditions of Dispute Adjudication Agreement, words and expressions shall have the same meanings as are assigned to them in the General Conditions of Dispute Adjudication Agreement.

2. *[Details of amendments to the General Conditions of Dispute Adjudication Agreement, if any*

   For example:

   In the procedural rules annexed to the General Conditions of Dispute Adjudication Agreement, Rule_____ is deleted and replaced by: "……."*]*

3 In accordance with Clause 6 of the General Conditions of Dispute Adjudication Agreement the Member shall be paid as follows:

   A retainer fee of _____ per calendar month,

   plus a daily fee of _____ per day.

4 In consideration of these fees and other payments to be made by the Employer and the Contractor in accordance with Clause 6 of the General Conditions of Dispute Adjudication Agreement, the Member undertakes to serve, as described in this Dispute Adjudication Agreement, as one of the three persons who are jointly to act as the DAB.

5 The Employer and the Contractor jointly and severally undertake to pay the Member, in consideration of the carrying out of these services, in accordance with Clause 6 of the General Conditions of Dispute Adjudication Agreement.

6 This Dispute Adjudication Agreement shall be governed by the law of _____

SIGNED by:_____	SIGNED by:_____	SIGNED by:_____
for and on behalf of the employer in the presence of	for and on behalf of the Contractor in the presence of	the Member in the presence of
Witness:_____	Witness: _____	Witness : _____
Name: _____	Name: _____	Name : _____
Address:_____	Address: _____	Address : _____
Date: _____	Date: _____	Date: _____

APPENDIX B

Environmental, Social, Health and Safety (ESHS)

Metrics for Progress Reports

Metrics for regular reporting:

a. *environmental incidents or non-compliances with contract requirements, including contamination, pollution or damage to ground or water supplies;*

b. *health and safety incidents, accidents, injuries and all fatalities that require treatment;*

c. *interactions with regulators: identify agency, dates, subjects, outcomes (report the negative if none);*

d. *status of all permits and agreements:*

   i. work permits: number required, number received, actions taken for those not received;

   ii. status of permits and consents:

   - *List areas/facilities with permits required (quarries, asphalt & batch plants), dates of application, dates issued (actions to follow up if not issued), dates submitted to resident engineer (or equivalent), status of area (waiting for permits, working, abandoned without reclamation, decommissioning plan being implemented, etc.);*
   - *list areas with landowner agreements required (borrow and spoil areas, camp sites), dates of agreements, dates submitted to resident engineer (or equivalent);*
   - *identify major activities undertaken in each area in the reporting period and highlights of environmental and social protection (land clearing, boundary marking, topsoil salvage, traffic management, decommissioning planning, decommissioning implementation);*
   - *for quarries: status of relocation and compensation (completed, or details of activities and current status in the reporting period).*

e. *health and safety supervision:*

   i. safety officer: number days worked, number of full inspections & partial inspections, reports to construction/project management;

   ii. number of workers, work hours, metric of PPE use (percentage of workers with full personal protection equipment (PPE), partial, etc.), worker violations observed (by type of violation, PPE or otherwise), warnings given, repeat warnings given, follow-up actions taken (if any);

f. *worker accommodations:*

   i. number of expats housed in accommodations, number of locals;

   ii. date of last inspection, and highlights of inspection including status of accommodations' compliance with national and local law and good practice, including sanitation, space, etc.;

iii. actions taken to recommend/require improved conditions, or to improve conditions.

g. HIV/AIDS: provider of health services, information and/or training, location of clinic, number of non-safety disease or illness treatments and diagnoses (no names to be provided);

h. gender (for expats and locals separately): number of female workers, percentage of workforce, gender issues raised and dealt with (cross-reference grievances or other sections as needed);

i. training:

i. number of new workers, number receiving induction training, dates of induction training;

ii. number and dates of toolbox talks, number of workers receiving Occupational Health and Safety (OHS), environmental and social training;

iii. number and dates of HIV/AIDS sensitization and/or training, no. workers receiving training (in the reporting period and in the past); same questions for gender sensitization, flag person training.

iv. number and date of GBV /SEA sensitization and/or training, number of workers receiving training on code of conduct (in the reporting period and in the past), etc.

j. environmental and social supervision:

i. environmentalist: days worked, areas inspected and numbers of inspections of each (road section, work camp, accommodations, quarries, borrow areas, spoil areas, swamps, forest crossings, etc.), highlights of activities/findings (including violations of environmental and/or social best practices, actions taken), reports to environmental and/or social specialist/construction/site management;

ii. sociologist: days worked, number of partial and full site inspections (by area: road section, work camp, accommodations, quarries, borrow areas, spoil areas, clinic, HIV/AIDS center, community centers, etc.), highlights of activities (including violations of environmental and/or social requirements observed, actions taken), reports to environmental and/or social specialist/construction/site management; and

iii. Community liaison person(s): days worked (hours community center open), number of people met, highlights of activities (issues raised, etc.), reports to environmental and/or social specialist /construction/site management.

k. Grievances: list new grievances (e.g. allegations of GBV / SEA) received in the reporting period and unresolved past grievances by date received, complainant, how received, to whom referred to for action, resolution and date (if completed), data resolution reported to complainant, any required follow-up (Cross-reference other sections as needed):

i. Worker grievances;

ii. Community grievances

l. Traffic and vehicles/equipment:

i. traffic accidents involving project vehicles & equipment: provide date, location, damage, cause, follow-up;

ii. accidents involving non-project vehicles or property (also reported under immediate metrics): provide date, location, damage, cause, follow-up;

iii. overall condition of vehicles/equipment (subjective judgment by environmentalist); non-routine repairs and maintenance needed to improve safety and/or environmental performance (to control smoke, etc.).

m. Environmental mitigations and issues (what has been done):

i. dust: number of working bowsers, number of waterings/day, number of complaints, warnings given by environmentalist, actions taken to resolve; highlights of quarry dust control (covers, sprays, operational status); % of rock/spoil lorries with covers, actions taken for uncovered vehicles;

ii. erosion control: controls implemented by location, status of water crossings, environmentalist inspections and results, actions taken to resolve issues, emergency repairs needed to control erosion/sedimentation;

iii. quarries, borrow areas, spoil areas, asphalt plants, batch plants: identify major activities undertaken in the reporting period at each, and highlights of environmental and social protection: land clearing, boundary marking, topsoil salvage, traffic management, decommissioning planning, decommissioning implementation;

iv. blasting: number of blasts (and locations), status of implementation of blasting plan (including notices, evacuations, etc.), incidents of off-site damage or complaints (cross-reference other sections as needed);

v. spill cleanups, if any: material spilled, location, amount, actions taken, material disposal (report all spills that result in water or soil contamination;

vi. waste management: types and quantities generated and managed, including amount taken offsite (and by whom) or reused/recycled/disposed on-site;

vii. details of tree plantings and other mitigations required undertaken in the reporting period;

viii. details of water and swamp protection mitigations required undertaken in the reporting period.

n. compliance:

i. compliance status for conditions of all relevant consents/permits, for the Work, including quarries, etc.): statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance;

ii. compliance status of C-ESMP/ESIP requirements: statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance

iii. compliance status of GBV/SEA prevention and response action plan: statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance

iv. compliance status of Health and Safety Management Plan re: statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance

v. other unresolved issues from previous reporting periods related to environmental and social: continued violations, continued failure of equipment, continued lack of vehicle covers, spills not dealt with, continued compensation or blasting issues, etc. Cross-reference other sections as needed.

Section - 5

Standard Forms (Contract)

- Letter of Acceptance
- Agreement
- Performance Security
- ESHS Performance Security
- Advance Payment Security
- Retention Money Guarantee
- ESHS Declaration

Notes on Form of Letter of Acceptance

The Letter of Acceptance will be the basis for formation of the Contract as described in Clause 34 of the Instructions to Bidders. This Form of Letter of Acceptance should be filled in and sent to the successful bidder only after evaluation of Bids and after obtaining approval from the relevant authority.

FORM OF LETTER OF ACCEPTANCE

[Letter heading paper of the procuring entity]

……. *[date]*

To: ---------- *[name and address of the Contractor]* ---------

This is to notify you that your bid dated ---------- *[insert date]* for the construction and remedying defects of the ***Improvements to Spill Structure of Meiyankal tank - retender*** **LK-MOMDE-496652-CW-RFB** for the Contract price of ----------[*name of currency]*----------[*amount in figures and words]* as corrected in accordance with Instructions to Bidders and/ or modified by a Memorandum of Understanding, is hereby accepted.

You are hereby instructed to proceed with the execution of the said Works in accordance with the Contract documents.

The Commencement Date shall be: …… *(fill the date as per Clause 8.1 of Conditions of Contract).*

The amount of Performance Security is : …… *(fill the amount as per Clause 4.2 of Conditions of Contract).*

The Performance Security shall be submitted on or before …….. *(fill the date as per Clause 4.2 of Conditions of Contract).*

Authorized Signature : ……

Name and title of Signatory : …….

FORM OF AGREEMENT

This Agreement made the ……. *[day]* of …… *[month]* 200….. *[year]*, between …….. *[name and address of Employer]* (hereinafter called and referred to as "the Employer"), of the one part, and …….. *[name and address of Contractor*] (hereinafter called and referred to as "the Contractor"), of the other part:

Whereas the Employer desires that the Contractor execute ***Improvements to Spill Structure of Meiyankal tank – retender,* LK-MOMDE-496652-CW-RFB** *(hereinafter called and referred to as "the Works")* and the Employer has accepted the Bid by the Contractor for the execution and completion of such Works and remedying of any defects therein.

The Employer and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract.

2. In consideration of the payments to be made by the Employer to the Contractor as indicated in this Agreement, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.

3. The Employer hereby covenants to pay the Contractor in consideration of the execute and complete the Works and remedy any defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

In Witness whereof the parties hereto have caused this Agreement to be executed the day and year aforementioned in accordance with laws of Sri Lanka.

……..	……..
Authorized signature of Contractor	**Authorized signature of Employer**
COMMON SEAL	COMMON SEAL

In the presence of
Witnesses :

1. Name and NIC No. …….
   Signature …….
   Address ……

2. Name and NIC No. ……..
   Signature ……..
   Address …….

FORM OF PERFORMANCE SECURITY
(Unconditional)

---------- *[Issuing Agency's Name, and Address of Issuing Branch or Office]* ----------

Beneficiary: ---------- *[Name and Address of* Employer*]*

Date: ----------

PERFORMANCE GUARANTEE No.: ----------

We have been informed that ---------- *[name of Contractor]* (hereinafter called "the Contractor") has entered into Contract No. **LK-MOMDE-496652-CW-RFB** dated ---------- with you, for the ---------- *[insert "construction"]* of ***to Spill Structure of Meiyankal tank - retender*** (hereinafter called "the Contract").

Furthermore, we understand that, according to the Conditions of the Contract, a performance guarantee is required.

At the request of the Contractor, we ---------- *[name of Agency]* hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of ---------- *[amount in figures]* (----------) *[amount in words]*, upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation(s) under the Contract, without your needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the …. day of ……, 20.. *[insert date, 28 days beyond the Time for Completion]* and any demand for payment under it must be received by us at this office on or before that date.

_____
[signature(s)]

Form of Environmental, Social, Health and Safety (ESHS) Performance Security

ESHS Demand Guarantee

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: *[insert name and Address of* Employer*]*

Date: _ *[Insert date of issue]*

ESHS PERFORMANCE GUARANTEE No.: *[Insert guarantee reference number]*

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

We have been informed that _____ (hereinafter called "the Applicant") has entered into Contract No. _____ dated _____ with the Beneficiary, for the execution of _____ (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of _____ (_____),[1] such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its Environmental and/or Social and/or Health and/or Safety (ESHS) obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the …. Day of ……, 2… [2], and any demand for payment under it must be received by us at this office indicated above on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758, except that the supporting statement under Article 15(a) is hereby excluded.

[1] *The Guarantor shall insert an amount representing the percentage of the Accepted Contract Amount specified in the Letter of Acceptance, less provisional sums, if any, and denominated either in the currency (cies) of the Contract or a freely convertible currency acceptable to the Beneficiary.*

[2] *Insert the date twenty-eight days after the expected completion date as described in GC Clause 11.9. The Employer should note that in the event of an extension of this date for completion of the Contract, the Employer would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months] [one year], in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."*

_____

[signature(s)]

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.

FORM OF ADVANCE PAYMENT SECURITY

---------- *[Name and address of Agency, and Address of Issuing Branch or Office]* ------

Beneficiary: ---------- *[Name and Address of* Employer*]*

Date: ----------

ADVANCE PAYMENT GUARANTEE No.: ----------

We have been informed that ---------- *[name of Contractor]* (hereinafter called "the Contractor") has entered into Contract No. **LK-MOMDE-496652-CW-RFB** dated ---------- with you, for the ---------- construction of ***Improvements to Spill Structure of Meiyankal tank - retender*** (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum ---------- *[amount in figures]* (----------) *[amount in words]* is to be made against an advance payment guarantee.

At the request of the Contractor, we ---------- *[name of issuing agency]* hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of ---------- *[amount in figures]* (----------) *[amount in words]* upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation in repayment of the Advance Payment under the Contract.

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Contractor.

This guarantee shall expire on ……. [*Insert the date, 28 days beyond the Time of Completion]*

Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

_____
[signature(s)]

FORM OF RETENTION MONEY GUARANTEE

---------- *[Issuing Agency's Name, and Address of Issuing Branch or Office]* ----------

Beneficiary: ---------- *[Name and Address of* Employer*]* ----------

Date: ----------

RETENTION MONEY GUARANTEE No.: ----------

We have been informed that ---------- *[name of Contractor]* (hereinafter called "the Contractor") has entered into Contract No. **LK-MOMDE-496652-CW-RFB** *[reference number of the contract]* dated ---------- with you, for the execution of ---------- *[name of contract and brief description of Works]* (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, when the works have being taken over and the first half of the Retention Money has been certified for payment, payment of the second half of the Retention Money may be made against a Retention Money guarantee.

At the request of the Contractor, we ---------- *[name of agency]* hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of ----------*[amount in figures]* (----------) *[amount in words]* upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation under the Contract because the Contractor has not attended to the defects in accordance with the Contract..

This guarantee shall expire, at the latest, ---------- [*insert 28 Days after the end of the Defects Liability Period*]. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

_____
[signature(s)]

Form of ESHS Declaration

Date: _____
Bid No.: _____

To: _____
We, the undersigned, declare that civil work contracts *have/ have not been* suspended or terminated and/or performance security called by an employer for reasons related to the non-compliance of any environmental, or social, (including sexual exploitation and abuse (SEA) and gender-based violence (GBV)), or health or safety requirements or safeguard in the past five years.

(Note: If suspended, terminated or Performance Security is called give details)

Year	**Suspended or terminated portion of contract**	**Contract Identification**	**Total Contract Amount (current value, currency, exchange rate and US$ equivalent)**
[insert year]	*[insert amount and percentage]*	Contract Identification: *[indicate complete contract name/ number, and any other identification]* Name of Employer: *[insert full name]* Address of Employer: *[insert street/city/country]* Reason(s) for suspension or termination: *[indicate main reason(s) e.g. for GBV/ SEA breaches]*	*[insert amount]*
…	…	*[list all applicable contracts]*	…
Performance Security called by an employer(s) for reasons related to ESHS performance			
Year		Contract Identification	Total Contract Amount (current value, currency, exchange rate and US$ equivalent)
[insert year]		Contract Identification: *[indicate complete contract name/ number, and any other identification]* Name of Employer: *[insert full name]* Address of Employer: *[insert street/city/country]* Reason(s) for calling of performance security: *[indicate main reason(s) e.g. for GBV/ SEA breaches]*	*[insert amount]*

Signed: _____
In the capacity of _____
Name: _____
Duly authorized to sign the bid for and on behalf of: _____
Dated on _____ day of _____, _____ _____

Corporate Seal (where appropriate)

Section - 6

Specifications

Specifications

Technical Specifications relevant to this contract consist of two parts.

Part 1 - General Technical Specifications

The following specifications published by the Institute for Construction, Training and Development (ICTAD) are applicable as General Specifications for this Contract.

CIDA/SP/102	Irrigation & Land Drainage -– [1st Edition – January 2017]

These publications are not issued with this Bidding Document and the Bidder shall purchase the same from CIDA.

Part 2 - Particular Technical Specifications

Particular Technical Specifications includes project specifications and conditions of particular specification which includes modifications and amplifications to the Standard Specifications given in General Technical Specifications.

1. Introduction

The following Particular Technical Specifications are part of the requirements for the work related to the Civil Works which are to be provided according to the stipulation of the Contract. Hence, the instructions given herein form an integral part of the and are applicable to, all technical and Contract documents issued for Works. Addenda to these specifications may be issued as required during the construction phase.

These Particular Technical Specifications shall be read in conjunction with the General Technical Specifications (ICTAD), the Conditions of Contract and the Bidding Drawings. The Contractor shall comply with all provisions contained within Contract documents.

The General Technical specifications and the Particular Technical Specifications in conjunction with the Bidding drawings define the technical standard and quality to be achieved during construction.

2. Land Available

The land available to the Contractor free of charge for the duration of the Contract shall be as follows:

a. The land occupied by the Permanent Works;

b. The Contractor is responsible for finding out the barrow area and obtaining the necessary approvals for mining and transport.

c. The land as approved by the Engineer for Contractor's housing, plant yards, workshops and offices, after approval has been given for the locations and layouts of such installations.

3. Road Access to the Site

3.1 Transport of Materials

Prior to moving any heavy construction traffic onto highways, roads and bridges, the Contractor shall make suitable arrangements with the appropriate Government Authorities and obtain their approval for the passage of such traffic.

3.2 Special Protection

Where Government Authorities require and specify any special protection or strengthening of highways, roads and bridges. The Contractor shall submit to the Engineer his proposals for such work after their approval by the authority concerned and shall carry out this work as directed.

3.3 Tracked Vehicles

The Contractor shall not travel tracked vehicles or plant on any bituminous sealed road surface. Rubber-tyred vehicles conforming to applicable load restrictions will be permitted to use bituminous sealed roads.

3.4 Construction of Additional Roads

The Contractor shall design, construct and maintain all temporary access and haul roads to, in, and around his camp area, the various working sites and designated borrow and disposal areas, required for the Works. These roads shall include all associated drainage and stream-crossing facilities. The location of these roads shall be in accordance with the Contractor's proposals submitted with his Tender.

During the period of the Contract, the Contractor shall allow the Employer and such other parties free and unrestricted use of all access and haul roads and shall not restrict the access of authorized persons to these roads, look-outs or viewing points as may be instructed.

4. Contract Documents and Drawings

4.1 Contract Documents

The Contractor will be provided with one set of the Contract Documents for his own use. A complete set of Contract Documents supplied by the Engineer and all further instructions issued by him shall be kept at all times by the Contractor on the Site and made available to the Engineer and his staff.

4.2 Construction Drawings

Based on the Tender drawings issued, the Contractor shall prepare and submit all construction and shop drawings. All Contractor's working drawings and shop drawings required to be submitted for approval in accordance with the Specification, shall be provided in electronic format (AutoCAD computer software) and 03 printed copies, plus copies of design calculations where required, specification and parts catalogs in duplicate. All drawings and calculations submitted for approval shall be signed, checked and approved by the Contractor prior to submission. The drawings and calculations shall be signed by a qualified Engineer responsible for the design.

Within 30 days after receiving such designs, design calculations, parts catalogues, specifications and detailed drawings, the Engineer shall give his approval or request modifications. The Contractor shall modify the design and drawings as may be required by the Engineer.

The work shall be constructed in accordance with the approved drawings, and a copy of such drawings shall be kept on the Site at all times until the completion of the Contract. All drawings on which changes are made shall have the revisions clearly marked.

Construction, fabrication or manufacture of any portion of the Works shall not commence until the design and drawings have been approved in writing by the Engineer and thereafter no change shall be made to any drawings so approved without the permission of the Engineer. Permission to make such changes shall be requested by sending 01 electronic copy and 01 print of each revised drawing to the Engineer for approval.

4.3 As-built Drawings

The Contractor shall submit the 4 copies of "As-built Drawings" in a format agreed between the Contractor and Engineer.

These As-built drawings shall be prepared from the Construction drawings incorporating any authorized changes carried out during construction. Once completed these drawings shall become the property of the Employer and shall be submitted before issue of the Taking -over certificate.

5. Schedules and Reports

5.1 Construction and Contractual Program

a. Within 01 month of the award of the Contract, the Contractor shall submit a revision of the construction program attached to the Tender, for approval.

The construction program shall be prepared using the latest computer software such as MS Project or other similar software approved by the Engineer. This program in bar chart form shall outline the Contractor's activities necessary to complete the Works within the period required for completion. The program shall show the following minimum details:

- The duration, sequence and logic links between major activities and any other activities or group of activities which comprise the Works, necessary to define the critical path and logic of the program required for completion and to achieve the Time for Completion. For the purpose of this clause, major activities are those which are greater than one percent of the Contract Price;
- The planned dates for start and completion of the Works and each Section of the Works;
- The critical path(s) for the Works and each Section of the Works;
- Information on shutdown periods, vacation days and other non-working time periods;
- The estimated value of work to be done each month;
- Reasons for any changes to timing, work order, method, or resources from the program submitted at the time of tender, or if submitting an updated construction program, reasons for such changes from the previously submitted program.

The construction program submitted in accordance with the provisions of this clause shall in the opinion of the Engineer be reasonable in all respects. The Contractor's program, when approved, shall be known as the Contractual Program.

b. Whenever the Contractor proposes to change the Contractual Program, he shall immediately advise the Engineer in writing and if the Engineer considers the change is a major one, the Contractor shall submit a revised program for approval. If such a change in the program affects the Engineer's design and the drawing approval program, the Employer will not be responsible for the consequences of the late issue of any drawings, which are attributable to that change.

c. If the Contractor falls behind the revised Contractual Program be shall, within 14 days of the date of such default, submit for approval a revision of the program showing the proposed measures, including additional plant, labour and material resources, to complete the Permanent Works on time.

d. When instructed, the Contractor shall promptly furnish a detailed sub-program of the Contractual Program for particular sections of the Permanent Works.

e. The Contractor shall also attend weekly meetings with the Engineer and provide, not less than 2 days prior to each meeting as required by the Engineer, detailed programs showing separately the various activities of the Contractor anticipated over the forthcoming two week period as well as the progress achieved over the preceding week relative to the program applicable to that period.

5.2 Monthly Progress Report

Before the tenth day of each month, the Contractor shall submit three copies of a monthly progress report in a form acceptable to the Engineer detailing the progress during the preceding month. The monthly progress report shall show the amount of work completed, materials actually used, materials in storage and the cumulative results of all operations completed or in progress and shall be summarized in terms of the percentage of completion referenced to the approved programme for the works.

The monthly progress report shall include at least the following:

- Total percentage of work completed and total percentage programmed to be completed by the end of the reporting period;
- Actual percentage of each main work item completed including temporary works, as well as their scheduled percentage, both total and for the reporting period together with the estimated quantities;
- List of manpower by trade and by position for the reporting period;
- List of equipment and operational days for the reporting period and materials on-site at the end of the period;
- Description of weather conditions for the period including records of each rainfall duration and recorded water levels of the Tank;
- List any accident except of minor nature and any damage that occurred;
- Any matter which affected or may affect the progress of the work, problems encountered and proposed remedial measures;
- Colour photographs with imprinted date, not smaller than 100 mm by 150 mm of the work progress during the period for all major components of the Works. The Contractor shall also provide digital versions as well as 5 sets of hard copies of these photographs in albums with titles.

6. Use of Construction Facilities and Works Area

6.1 Right of Use Water in the Reservoir for Cultivation

The farmers will cultivate both Maha and Yala during the construction period without foregoing any season. The contractor shall prepare the construction program based on the cultivation pattern and the instruction given by the engineer to Contract. Irrigators and farmers shall have the right to use, without charge, the reservoir water for cultivation as per the cultivation meeting decisions and the access facilities of which the Employer has given possession to the Contractor or which have been constructed or acquired by the Contractor for use in constructing the Works.

6.2 Reducing water level in Reservoir for the work

The water level in the reservoir shall not be reduced before for completion of Yala cultivation for the upstream work of the embankment. Once the Yala cultivation is completed water level can be reduced with the approval of the Engineer until the commencement of the next monsoonal rain or the next Maha cultivation which comes early.

7. Contractor's Equipment

The Contractor shall supply, install, operate, maintain and subsequently remove all Contractor's equipment required for the execution of the Works. In particular, the Contractor shall supply all those items listed on the Technical Proposal in the Contract at the time stated therein or at such other time as may be deemed necessary in the opinion of the Engineer.

The Contractor's equipment shall not be removed from the Site without the written approval of the Engineer. If during the execution of the Works any item of the Contractor's equipment in the opinion of the Engineer, is unsuitable so as to fail to perform the services required in the execution of the Works, the Contractor shall replace such construction equipment with another suitable one at his own cost.

The Engineer may, if he considers it necessary for the execution of the Works in accordance with the Contract, order the Contractor to supply additional items of Contractor's equipment or extend the period for which the Contractor's equipment is required. The Contractor shall supply and stock all essential spare parts for his equipment to ensure the efficient execution of the Works.

The Contractor shall submit a Monthly Equipment Report, which lists the following information about the Contractor's equipment.

a. List of all equipment located at the Site
b. Daily working and operation record of each item of equipment
c. Inspection, repair and maintenance records

d. Quality of work
e. Quantities of fuel, lubricant, oil and tires consumed
f. Overhauling record
g. Accident report
h. List of unserviceable equipment and action being taken to put back in operation

8. Standards

Except as otherwise specified in this Specification, all materials and workmanship shall comply in all respects with the requirements of the appropriate standard of code issued by the British Standards Institution, American Society of Testing and Materials, US Corps of Engineers, Technical Methods for Highways, or such other standard as the Engineer may approve, current at the date of Invitation to Tender. If, after the date of Invitation to Tender, there is an amendment to a standard relevant to the Contract, the Engineer will direct whether the amendment is to apply.

The Contractor shall have available in his site office at all times at least one copy of every standard or code referred to in this Specification, and any additional standard or code which may be referred to therein, and shall make these available for reference by the Engineer upon request.

9. Setting out Works

9.1 Existing Survey Date

The Tender drawings included in the bidding document are prepared based on the surveys carried out by the Engineer during design stage.

9.2 Responsibility for Setting Out

The Contractor shall be solely responsible for the correct setting-out of the Works and shall employ experienced qualified surveyors acceptable to the Engineer for this purpose.
The Contractor shall furnish all materials, labour and equipment including stakes, templates, patterns, platforms and special labour that may be required by the Contractor in setting out any part of the Works.
The Contractor shall give the Engineer not less than 24 hours' notice of his intention to set out, survey or give levels for any part of the Works in order that arrangements can be made for checking the accuracy of the setting out, survey or levels. In order that the Engineer can expedite such checking the Contractor shall as soon as practical supply the Engineer with records in an approved form relating to all reference pegs and benchmarks in connection to the set out, survey or levels for any part of the Works which are required to be checked.

9.3 Contractor's Site Staff

The Contractor shall provide competent qualified survey technicians and the necessary support teams to carry out all survey necessary to set out the Works in a neat and workmanlike manner.

9.4 Survey Operatives for the Engineer

The Contractor shall supply chainmen and labourers as required by the Engineer who are well experienced in such works. Chainmen shall be experienced in assisting Engineer in survey work.

It shall be the discretion of the Engineer to select chainmen and labourers whom he considers reliable and suitable and the Contractor shall maintain the continuity of this staff.

9.5 Permanent Survey Pillars

Using the existing temporary benchmarks shown on the Drawings the Contractor shall establish permanent survey pillars sufficient to define the control survey and as directed. The permanent survey pillars shall be linked to the national map grid and their coordinates shall be shown on the As-Built Drawings.

The establishment of these permanent survey pillars shall be undertaken before any of the existing survey point markers are destroyed by the Contractor's operations.

9.6 Detailed Survey

The Contractor shall perform all calculations, surveying and setting out necessary to establish the accurate location of the structures to be constructed.

The Contractor shall submit for the review of the Engineer the methods he intends to employ and the precision he will attain for the setting-out of the Works.

The Contractor shall, under guidance and in the presence of the Engineer, carry-out surveys and measurements for record and payment purposes in accordance with the Conditions of Contract.

In the Engineer's own surveying for checking the Contractor's survey results, the Contractor shall render the Engineer all necessary assistance and services for such check surveys.

10. Safety Precautions

10.1 General

The Contractor shall comply with any safety instructions given by the Engineer. The Contractor shall exercise every reasonable precaution to protect from injury any person or property. The Contractor shall erect and maintain all necessary temporary fencing, barricades, barriers, signs and lights and provide fire alarm, fire extinguishing and firefighting services at strategic points on the Site. The Contractor shall provide adequate ventilation, lighting and safe working conditions for his workmen engaged in all aspects of the Works. The Contractor shall adopt and enforce such rules and regulations as may be necessary, desirable or proper, to safeguard the public, and all persons engaged in the work and its supervision. Safety measures shall include but shall not be limited to those safety measures mentioned in this Clause.

10.2 Safety Officer

The Contractor shall constantly employ, during the progress of the Works, an employee qualified in safety, and familiar with the type of work being performed, whose assignments shall include initiation of measures for the protection of health and the prevention of accidents and who shall see, by personal inspection, that all safety rules and regulations are enforced.

The Contractor shall hold regular scheduled safety meetings at least once each month with his engineers, supervisors and foreman and, when instructed, with the Engineer. The Contractor shall keep the Engineer advised as to when these meetings are to be held and shall provide the Engineer with a copy of the proposed agenda.

10.3 Temporary Fencing

If required the Contractor shall erect, maintain and remove suitable and approved temporary fencing to enclose such areas of the Permanent Works and areas of land occupied by the Contractor within the Site as may be necessary to implement his obligation under the Contract, in an approved manner. Safety fences shall be erected around electrical and mechanical equipment before that equipment is connected to any electrical supply.

Where any temporary fence has to be erected alongside a road, footpath, or other public thoroughfare, it shall be of the type required by and shall be erected to the satisfaction of the Government authority concerned.

10.4 Lighting

Safety measures shall include but shall not be limited to the following:

Without limiting the generality of Clause 4.8 of the Conditions of Contract, the Contractor shall provide sufficient lighting to ensure that, in all places where work is in progress;

10.5 Signs

The Contractor shall provide all necessary signs for the Works. These shall include, but not be limited to;

- Standard road signs

- Warning signs
- Danger signs
- Safety signs
- Control signs; and
- Direction signs

Wording on all signs shall be in the English, Tamil and Sinhalese languages. The size, colour, lettering and location of all signs will be subject to approval of the Engineer and international sign convention shall, where applicable, be followed.

The Contractor shall maintain all signs placed by himself as well as those placed by the Employer.

If the Engineer considers that the system of signs provided by the Contractor is inadequate to ensure safety, or is unsatisfactory in other respects, the Contractor shall add to, amend, or otherwise change the system to the satisfaction of the Engineer.

10.6 Accident Reports

The Contractor shall promptly report to the Engineer in the form to be prescribed, all accidents involving death or serious injury to staff or workmen, and furnish monthly reports of all accidents to staff or workmen involving loss of time, giving such information as may be instructed by the Engineer.

10.7 First Aid Officer

The Contractor shall constantly employ for the duration of the Contract a First Aid Officer and shall provide first aid and ambulance facilities in accordance with the General Conditions of Contract.

10.8 Other Safety Measures

Safety instruction – the Contractor shall at his own cost supply and issue to his employees, those of his sub-contractors and the Engineer, printed booklets of pocket size, on the scale of one per person, in Sinhalese and Tamil and in other languages used by his employees at Site, instructions based on good practice. Within 60 days of the Engineer's written order to commence the Works, proof copies of the booklet shall be submitted to the Engineer for approval before printing and amendments shall be made to the booklet to his entire satisfaction. The Contractor shall issue the booklet immediately after printing as required by this Clause and ensure that all employees are fully conversant with the instructions. Safety instructions shall deal with all safety including;

a. Protective clothing, headgear and footwear
b. Use of lifting equipment
c. Use of drilling equipment
d. Use and storage explosives
e. Earthmoving
f. Formwork erection
g. Concreting
h. Structural steel work
i. Compressed air
j. Welding and painting
k. Routine for accidents or fires; and
l. Watchmen, warning notices and barriers

The Contractor shall allow for ten (10) booklets for the use of the Engineer.

10.9 Provision of Personal Protective Equipment (PPE)

No construction work shall be carried on the Site before appropriate Personal Protective Equipment (PPE) is available for the operations planned. The Contractor shall, within 28 days of the Commencement Date, prepare for the consent of the Engineer a schedule of Personal Protective Equipment (PPE) for free issue, including replacement, to all persons employed on the Works, including employees of the Engineer and Employer. Provision shall also be made for supplying PPE to site visitors.

The schedule shall address the need to provide such clothing and equipment suitable for the climatic conditions on the Site.

The Contractor shall immediately implement the issue of such PPE once he has obtained the Engineer's consent to the schedule. During the course of the Contract, he shall ensure that at no time do the stocks of PPE in his Site stores fall below the level consented to by the Engineer in that schedule. As proof of this, he shall submit to the Engineer each month during the Contract an inventory of PPE showing records of issue and demonstrating the levels of such PPE being retained in his Sites stores. Furthermore, all persons employed by his on the Works shall be made aware of the need to wear such clothing and to use such equipment, and to maintain the same in good working order.

The Engineer will monitor the effectiveness of the implementation of the use of the PPE during the course of the Works, and may certify the reduction of the value of some of all of the relevant Bill of Quantities items in the Monthly Statements in the event of non-usage of PPE on the Site.

Pursuant to Clause 6.9 of the Conditions of Contract the Contractor shall remove from the Works any person who fails to wear PPE, or to use equipment as intended, or who has otherwise failed to comply with the Site Safety Regulations, and any supervisor who fails to enforce those regulations. The Contractor shall make this a condition of employment of every employee engaged in construction work.

11 Temporary Works

11.1 General

The Contractor shall execute, erect, maintain and remove upon completion of the Works, all Temporary Works in accordance with the proposals submitted with the Tender or with such modifications as approved by the Engineer from time to time.

11.2 Approval of Temporary Works

The Contractor shall submit to the Engineer for approval drawings and full particulars of all Temporary Works which he intends to construct at least 30 days before he desire to commence constructing such works.

The submission to, or approval by, the Engineer of any such proposals by the Contractor shall not relieve the Contractor of any of his responsibility for the sufficiency of the Temporary Works for their intended purpose.

The Contractor shall also obtain any necessary approval from local statutory or other Government authorities before commencing construction. Such work shall not be started without prior approval.

11.3 Removal of Temporary Works

On completion of the Works, all Temporary Works constructed by the Contractor or handed-over to the Contractor by the Engineer, unless otherwise specified or instructed by the Engineer, shall be removed from the Site, as approved by the Engineer.

The Contractor shall make safe all areas affected by Temporary Works and reinstate natural drainage. The Contractor shall finish, reinstate, clean up and relinquish parts of the Site at the end of the Defects Liability Period or such earlier times as instructed by the Engineer.

Buildings and facilities removed from the Site will become the Contractor's property. Foundations of buildings and structures shall be broken up and removed from the Site.

12 Contractor's Offices, Camp and Facilities

12.1 General

The Contractor shall provide a main office and site offices for his staff. The main office shall be located in the vicinity of the dam site. Site offices may be mobile field offices so that, when work at one site is complete, the office may be moved to another site. The Engineer will allocate a portion of the Works area at the dam site where the Contractor shall provide and maintain such offices, stores, workshops, housing and adequately fenced store and delivery compounds as are necessary for the

execution of the Works, including all necessary services for water supply, drainage, lighting, roads, paths, parking places, sewerage and garbage disposal.

12.2 Construction Camp

a. The Contractor shall set up his camp as proposed in his Tender and approved in the Letter of Acceptance, for housing, camps and for other required facilities and amenities for his employees and for the employees of his sub-contractors.

b. The Contractor shall be deemed to have inspected these sites and made his own evaluation as to their adequacy and suitability for the development of the required camp facilities.

c. The Contractor shall appoint a Camp Manager who shall be responsible for the administration ad maintenance, and for all matters relating to the allocation of space, discipline and use of buildings and facilities.

d. All buildings shall at all times be open to inspection by the Engineer. Any instruction given by the Engineer for the proper cleaning, disinfection and general maintenance in a sanitary and hygienic condition of any building must be forthwith carried-out by the Contractor. Before any buildings are occupied the Contractor shall draw up a code of rules and regulations for their control which shall be approved by the Engineer.

12.3 Removal of Buildings and Facilities

a. On the completion of the Works, all buildings and facilities provided by the Contractor in accordance with the provisions of this Clause shall be removed from the Site by the Contractor unless otherwise instructed by the Engineer.

b. Foundations of all buildings and structures shall be broken up and removed from the site. All areas shall be restored and left in a clean and tidy condition to the satisfaction of the Engineer.

13 Inspections and Material Testing Laboratory

13.1 Inspections

The Contractor shall carry-out the inspections and tests stipulated in the respective sections of these Specifications in the presence of the Engineer or any person authorized by him.

No work shall be covered up or put out of view without the approval of the Engineer and the Contractor shall afford full opportunity for the Engineer to examine and measure any work which is about to be covered up or put out of view and to examine foundations before the Permanent Works is placed thereon.

The Contractor shall give due notice to the Engineer whenever any such work or foundation is or are ready or about to be ready for examination and the Engineer will without unreasonable delay, unless he considers it unnecessary and advises the Contractor accordingly examine and measure such work or examine such foundations.

Should it be impossible for the Engineer to witness such inspections and tests, the Contractor shall record the results of such inspections and tests using the form specified by the Engineer, and submit to the Engineer the report by attaching the record photographs of the said inspections and tests as the record and report. These records and reports shall be subject to the approval of the Engineer.

These records and reports shall be prepared and submitted to the Engineer for approval irrespective of whether or not the Engineer has witnessed such inspection and tests.

In the case where the Engineer has approved and qualified the results of such inspections and tests, the Contractor may proceed to the next stage of the Works.

The inspections and tests specified herein shall include the following:

a. Inspection of volume of work executed

b. Inspection and test of construction materials
c. Inspection of excavation (including bed surface)
d. Inspection of reinforcement bar assembly
e. Inspection of formwork
f. Inspection of the dimensions of the structures
g. Inspection of disposal of excavated materials
h. Identification test of quality of concrete at site (cast-in-place concrete)
i. Inspection of backfilling
j. Other tests and inspections the Engineer deems necessary
k. Other tests and inspections required according to pertinent regulations, codes and standards

The following tests and inspections shall be executed in the presence of the Engineer;

a. Witnessing at concrete placing
b. Compression test of concrete
c. Other tests and inspections the Engineer deems necessary

13.2 Material Testing Laboratory

The Contractor shall provide and maintain until completion of the Works a material testing laboratory complete with furnishing, fixtures and equipment and carry-out all routine tests including preliminary tests for the concrete works as required by the Technical Specifications.

13.3 Equipment

The Contractor shall provide and maintain furnishings and equipment of approved manufacturers to carry-out testing.

The laboratory shall at all times be provided with a sufficient stock of consumable equipment, to allow for usage, breakage and deterioration. In the event of any item of equipment becoming unserviceable through any cause the Contractor shall, if required to do so by the Engineer, order replacement to be air-freighted from the country of origin.

The Contractor shall supply all equipment, supplies and copies of the relevant standards for the laboratory necessary to perform the tests stipulated in the Technical Specifications. These tests shall include but not be limited to the following:

a. In concrete – temperature, slump, density, flow, air content

b. In aggregate – grading, water absorption, specific gravity, soundness, flakiness, elongation, friable practices.
c. In soil – grading, specific gravity, density (loose and compacted), moisture content, hydrometer, plasticity

The Contractor shall also provide any additional equipment as may be required by the nature of work or by the Engineer.

13.4 Costs

The tests required by the Technical Specifications or by the Engineer will be carried out by the Contractor in the Material Testing Laboratory or in other Laboratories proposed by the Contractor and approved by the Engineer. The cost of such tests including the preparation and transportation of the samples shall be borne by the contractor if not stated otherwise.

13.5 Facilities for Engineer to Take Samples

The Contractor shall provide facilities for the Engineer to take samples for testing of any of the fill, concrete or other materials to be incorporated in the Works. Such samples may be taken before or after incorporation into the Works or at any stage during construction at the discretion of the Engineer.

14 Quality Assurance System

As per Clause 4.17 General Conditions of Contract, the Contractor shall institute a quality assurance system to demonstrate that the Works are being carried out in compliance with the requirements of the Contract. The Contractor shall within 28 days from the receipt of Letter of Acceptance, submit the quality assurance system he is proposing to adopt in the Contract.

The Contractor shall build the quality assurance system for all his activities from the commencement to completion of the Contract. The system shall include but not limited to the following.

- Contractors site management
- Topographic surveys and setting out
- Construction Drawings
- Safety measures adopted
- Environmental Management
- Traffic Management
- Maintenance of Roads
- Construction Methods adopted
- Quality Control
- Progress monitoring
- Monthly Bills
- Monthly Bills

The quality assurance system instituted by the Contractor is a requirement under the Contract and no payment will be made to the Contractor for this work.

15 Dealing with Water

15.1 General

Where it is required that construction shall proceed with flow of water in streams and/or issue of irrigation water to canals, it shall be necessary to isolate the site of the structure to be constructed from the flow of water by the construction of suitable cofferdams, canals, flumes, drains, swamps and/or other temporary diversion and protective works without interruption or interference with the flow of water in the streams and/or issue in the canal. The contractor shall construct sufficient temporary works as described above to deal adequately with surface and groundwater sources to enable the construction of the permanent works to the satisfaction of the Engineer.

The Contractor shall submit for the approval of the Engineer the location, size and other relevant details including the materials proposed for the construction of the temporary works described above. The contractor shall protect the works during the entire construction period from damage due to rains, surface run-off, floods, etc. and from failure of the temporary protective works constructed by him. Any damage to the works or delay to his operations from such events, whether due to his failure to adequately take such factors into consideration or not shall be corrected by the contractor, and will not constitute a basis for claims for additional payment or extension of time. The Contractor shall furnish, maintain and operate all necessary pumps and other equipment for removal of water from the various parts of the works free from water as required for construction. After having served their purpose, all temporary protective works, unless otherwise directed, shall be removed or levelled to give a sightly appearance, so as not to interfere with the operation of the other related works.

Unless specifically provided for in the Bill of Quantities, no separate payment will be made for dealing with water. The cost of all operations required for dealing with water shall be included in the respective items of works for which dealing with water is required.

15.2 Approval of Proposals for Dealing with Water

Prior to the commencement of any works, the Contractor shall submit a Plan for Dealing with Water with full details of the construction, operation, maintenance and removal of the temporary protective works.

15.3 Removal of Water from Foundations

The Contractor's method of removal of water from foundation excavations shall be subject to the approval of the Engineer. Where the excavation for foundations extends below the water table in common material, the portion below the water table shall be de-watered in advance of excavation. The de-watering shall be accomplished in a manner that will maintain the stability of the excavated slopes and the bottom of the excavation, and will result in all construction operations being performed in the dry.

The Contractor shall be required to ensure that the bottom of the excavation is free of water prior to placement of concrete or fill material. Such control may require supplementing approved de-watering methods by the use of perforated pipe under-drains leading to sumps from which the water shall be pumped. The pipe drains shall be of uniform diameter for each run and provided with grout connections and returns at about 15 meter intervals and shall be embedded in reasonable well graded gravel or similar filter material.

During the placing and compacting of fill material in an excavated cutoff trench, the water level at every point in the cutoff trench shall be maintained below the bottom of the cutoff trench until the compacted fill in the cutoff trench at the point has reached a height of 3 meters. Therefore, the water level shall be maintained at 1.5 meters below the top of the compaction fill. When the fill has reached an elevation, which will permit the de-watering systems to maintain the water level at or below the designated elevations as determined to the Engineer, the pipe drains, if any, and surrounding filer material shall be filled with approved grout composed of water and cement or clay.

16 Tests for Borrow Areas and Quarries

16.1 General

All borrow areas and quarries where materials are to be used for permanent construction works shall be subjected to approval of the Engineer. The Engineer may cause any or all of the under-mentioned tests to be done in the Contractor's Field Laboratory at site and/or in the Employers Laboratory of the Irrigation Department.

16.2 Tests on Soils

From areas approved out for exploitation, the following tests shall be conducted on a sample from the quantum that would be required for exploitation from such areas for placement in different parts of the embankment regularly as determined by the Engineer.

(i) In-situ Moisture Content
(ii) Atterberg Limits
(iii) Mechanical Analysis, and
(iv) Proctor Compaction.

The particle size grading for the fill materials are generally specified by limiting the range of the grading results obtained for each sieve. Material outside the limits, will be accepted or rejected at the Engineer's discretion according to the location on the embankment where the material is to be placed, volume required and the nature of the circumstances for the use of such material.

The tabulation below is a guide for the selection of materials for an embankment.

Table 16.2.1 - Grading and Plasticity Limits for Earth Embankments

Zone	Characteristics	Absolute Minimum (%)	Absolute Maximum (%)
Low Permeability	Passing 75 micron sieve	30	70
	Liquid Limit	20	50
	Plasticity Index	8	30
Medium or High Permeability	Passing 75 micron sieve	-	70
	0.355 mm sieve	8	-
	2.36 mm sieve	50	-
	25.0 mm sieve	100	100
	Liquid Limit	0	50
	Plasticity Index	0	30

16.3 Tests on Gravel

Materials from approved gravel quarries shall be tested periodically for the following characteristics:

(i) Mechanical Analysis, and
(ii) Atterberg Limits.

16.4 Tests on Sand

Materials from approved sand quarries shall be tested periodically for the following characteristics:

(i) Gradation
(ii) Specific Gravity, and
(iii) Organic Content

16.5 Tests on Rock

Rock samples from approved quarries shall be tested periodically for the following characteristics:

(i) Gradation
(ii) Specific Gravity
(iii) Los Angeles Abrasion Test, and
(iv) Sodium or Magnesium Sulphate Soundness Test

17 Embankment Filling

17.1 General

The embankment shall be constructed to the dimensions shown on the drawings with approved materials obtained from designated borrow areas and approved excavations. The distributing and gradation of the material throughout the embankment shall be of such homogeneous texture such that the fill will be free from lenses, pockets, streaks or layers of material differing substantially in gradation from the surrounding material. Relatively higher plastic material available from borrow areas shall be used in the central portion and previous material from approved excavations on the downstream slope of the embankment respectively.

The Engineer will give guidance in the selection of material for placement in different parts of the embankment on the basis of investigations done and/or tests carried out. Materials used in the embankment fill shall be continuously subject to the approval of the Engineer.

The combined excavation and placing operations shall be such that the material when compacted in the fill will be blended sufficiently to obtain the required degree of compaction. Successive loads of material shall be placed in layers so as to produce the best practicable distribution of the material subject to the approval of the Engineer for which purpose he may designate the locations in the fill where the individual loads shall be deposited.

Cobbles and rock fragments in material of homogeneous texture, of dimension larger than 75 mm shall not be placed in the fill. Such cobbles and rock fragments found in otherwise approved fill material shall

be removed by the Contractor either at the site of excavation or after being transported to fill but before the materials are placed and compacted and shall be disposed as directed by the Engineer.

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17.2 Placement

Embankment material shall be placed in continuous rows/lanes approximately parallel to the axis of the embankment and in approximately horizontal layers of thickness between 200 and 300 mm before compaction by machinery. If hand tools are used for compaction the thickness of layer shall be between 100 to 150 mm. the embankment may be constructed in separate reaches provided that the slopes of the bonding surfaces parallel to the dam axis between the completed portion of the embankment and material to be newly placed shall not be steeper than 6 horizontal to 1 vertical. The difference in elevation during construction between any adjacent lanes shall not exceed 500 mm.

17.3 Moisture Content

From a practical standpoint a moisture range of 1% less than the optimum and 1% more than the optimum may be regarded as satisfactory during compaction. Water required for conditioning the fill may be conveyed by pipeline or bowser and applied by sprinkler arrangement and throttle to control quantity. Jets may be used in confined areas provided that the nozzle is of an approved size and delivery rate.

The required water may added to the previously rolled layer before placing of the material for the next layer, or added to the top of the next layer, or a combination of both which will give the best results for obtaining a uniform moisture distribution throughout the layer. Harrowing will be required to work the moisture into the layer. Water may be added to the borrow areas by any of the methods described above on the day prior to exploitation, particularly where the ground is too hard and dry. This shall not preclude the addition of a further quantity of water to meet any deficiency in the placement moisture content just before spreading and compaction on the embankment. The methods described above adopted by the Contractor shall be subject to the approval of the Engineer.

If the moisture content of the previously rolled embankment or the material placed for compaction on fill is found to be above the specified limit before compaction then the material shall be dried out to the specified moisture content limit assisted by discing and/or harrowing. In such instances all hauling and other equipment except those required for discing or harrowing shall be kept off the surface to prevent rutting.

In case of stoppage in placing and compacting arising from approved construction or from holiday period exceeding one week or from unforeseen circumstances etc., the top layer placed and compacted before the stoppage shall be graded and rolled with a smooth wheel roller to facilitate surface run-off during the stoppage. Prior to resumption of work the top layer shall be scarified and moistened or allowed to dry as found necessary and approval of the Engineer obtained for continuing the operations.

17.4 Compaction

When each layer has been conditioned to 100% +/- 1% of the optimum moisture content, it shall be compacted by a towed tamping roller, self-propelled vibratory roller, pneumatic tire roller or any other suitable compacting equipment. Compaction with sheep-foot rollers shall be continued until the dry unit weight of the compacted material is not less than 98% of the standard “A” Proctor dry unit weight, which is the dry unit weight at optimum moisture contact. The number of passes of the compacting equipment required to produce the above unit weight shall be determined from trial embankment tests conducted by the Contractor and witnessed by the Engineer. The layer shall be compacted in a direction parallel to the dam axis. The compacting equipment shall travel with adequate overlap to ensure through and compete compaction.

The embankment shall be brought up in approximately horizontal lifts. Roper compaction shall be ensured throughout the entire embankment. The outer edges of the embankment shall be processed to true slopes which shall be maintained until final completion and acceptance. To ensure proper compaction of true slope the other edges shall be made sufficiently wide and trimmed to true slopes.

17.5 Tests for Embankment

When an area of the embankment has been rolled, the bulk unit weight, moisture content and dry unit weight shall be obtained from the following conditions:

(i) For every 750 cubic meters of material placed in each layer,
(ii) Where embankment operations are concentrated, namely when two or more layers are placed over each other on the same day the frequency of tests shall be more than (i) above as determined by the Engineer,
(iii) At every location where the degree of compaction is considered doubtful by the engineer,
(iv) At locations of embedded installations at the discretion of the Engineer.

Compacted samples from every 7,500 cu meters shall be tested for the following.

(i) Atterberg Limits,
(ii) Mechanical Analysis, and
(iii) Proctor Compaction

18. Rip Rap for Protection Upstream Face of Dam

18.1 Rip-rap for Protection of Embankment

Rip-rap required for protection of the embankment shall consist of selected hard, durable rock fragments from quarried rock obtained from approved quarries ad excavations, and individual stone having any one dimension not less than as specified on the drawings and/or as directed by the Engineer.

The Rip-rap material shall have specific gravity (saturated surface dry) greater than 2.60. Soundness (sodium sulphate method) less than 5% loss by weight after 5 cycles and Abrasion (Los Angeles Abrasion using grading A) less than 6-% loss by weight after 500 revolutions. The sizes of stones in the specified thickness of rip-rap shall be reasonably well grades with 50% being of the average individual size from 0.5 to 1.5 times the average size.

Rip-rap shall be dumped in place mechanically on a properly graded filter as bedding material which is described below. Compaction by equipment is not required for rip-rap, but it shall be dumped over the upstream face either preferably as the embankment is being raised or after the completion of same. The rock fragments of the rip-rap shall be dumped and graded off to ensure filling of voids, uniform distribution of stones, thus producing layers of specified thickness. Hand placing will be required only to the extend necessary to secure the above results.

Bedding material for rip-rap shall consist of quarry or river gravel placed adjacent to the layer of fill material of the embankment. Quarry gravel shall consist of rounded or water-worn pebbles of irregular shape and size occurring in natural deposit mixed with minimal clay content. If specifically provided for in the Bill of Quantities and/or the Drawings, river sand and graded metal shall be used as bedding materials instead of gravel. The bedding material shall be placed on the embankment slope as obtained from the quarry/spoil dump in uniform layers of specified thickness. Compaction by equipment is not required but the bedding material may be densified by wetting if required by the Engineer. Rip-rap shall then be placed on the bedding material as described above.

Rip-rap ad bedding materials shall be measured separately of the volume of each in place to the lines, grades and thickness shown on the drawing or established by the Engineer. Payment shall be made separately for each at the unit price per cubic meter.

19. Dam Instrumentation

19.1 General

The Contractor shall be responsible for the procurement of all the instrumentation components in due time. Before placing the purchase order the Contractor shall seek for the Engineer's approval of the instruments.

The equipment to be supplied and installed comprises the following:

(a) Levelling monuments and fix points;

(b) Standpipe piezoneters.

(c) V notches incorporated to culvert outlets

The Contractor shall be prepared to accept changes in the instrumentation layout or additional installations of instruments, if required by the Engineer, and shall also be prepared to receive installation instructions for changed site conditions. The Contractor shall provide access to any instrumentation location at any time during the construction.

19.2 Levelling Monuments and Fix points

A network of leveling points and fix points shall be installed on the embankment as indicated in the drawings or as directed by the Engineer.

If not already existent, a minimum of 2 permanent fix points shall be established on each abutment at location shown by the Engineer. The location of each fix point shall be marked in detail on drawings supplied by the Contractor. The leveling monuments shall be built along the dam crest at intervals of 100 m close to the upstream dam shoulder.

The Contractor shall supply, install and survey all monuments including survey pins, pipes and caps, concrete and backfill as shown on the drawings or as directed by the Engineer. Levelling pins shall be of stainless steel, cast iron or steel bolts embedded in concrete of suitable size. A stainless steel plate fixed to the monument shall mark the chainage of the dam.

Immediately after installation of any point, its position and level shall be precisely surveyed. The level and coordinates shall be computed and shall be indicated in the "As-built drawings" to be submitted by the Engineer.

19.3 Installation of Standpipe Piezometers

Standpipe piezometer tips shall be of porous ceramic not less than 150 mm long and at least 40 mm diameter ad shall be protected at each end by un-plasticized polyvinyl chloride (uPVC) fittings. The ceramic shall be high air-entry type.

Standpipe tubing shall consist of uPVC tubing to BS 3506 Class 6. Tubing to extend existing standpipes shall be of the same size as the existing tubes and have an appropriate jointing detail to provide a flush internal joint.

During earthwork filling operations standpipes shall be extended in 1.5 m lengths. Fill material shall then be placed and compacted around the tube by hand in a mound shape, the tube being maintained vertical with the top of the mound 750 mm higher than the surrounding fill at all times.

Installation of standpipe piezometers in boreholes shall be as follows:

(i) Each piezometer shall be installed in a separate borehole 100 mm minimum diameter. The installation shall be completed as soon as practicable after drilling so as to minimize the amount of deterioration or alteration that occurs in the ground around the location of the piezometer tip. Holes shall be cased through unstable ground.

(ii) After drilling to the required depth, using percussive or rotary methods, but without the use of air flush or drilling mud in the vicinity of the tip position, the hole shall be flushed clean.

(iii) Sand falling wholly between the limits of grading 1200 and 2000 microns will be placed to a minimum depth of 150 mm at the base of the hole by flushing using clean water and a tremie pipe. The piezometer tip, saturated in water prior to the installation, shall then be coupled to the appropriate standpipe tube ad lowered onto the sand, and more sand added by flushing through the tremie pipe to surround and cover the tip ad to fill the hole to the level shown on the drawings.

(iv) A plug of bentonite formed of either stiff hand rolled balls or pellets shall then be tamped over the sand approximately 500 mm thick. The hole shall then be backfilled with a 3:1 by weight bentonite/cement grout mix prepared by thorough mixing using equipment approved by the Project Manager with just sufficient water to allow it to be tremied to the bottom of the hole.

(v) Casing if used to maintain the hole open shall be withdrawn concurrently with the progress of the backfilling.

(vi) An accurate record of the depths of the piezometers sand surround and seals shall be kept.

At final ground level the standpipes shall be protected by a lockable vandal proof cover set in a concrete surround. The exact location of all piezometers shall be indicated in the "As-built drawings" to be submitted by the Contractor.

20 ENVIRONMENT AND SOCIAL MANAGEMENT PLAN (ESMP)

The Contractor shall comply with the provisions in the **Environment and Social Management Plan (ESMP)** annexed in this section without any cost to Employer.

20.1 Environmental Control

The Contractor shall: -

- Comply with the provisions of this Section and other environmental protection provisions in the Contract and with the requirements of any statute, by-law, standard and the like related to environmental protection.
- Arrange all work to cause the least possible disturbance to the environment.
- Submit proposals for traffic movement, temporary structures, cleaning up, storage of materials, demolition and the like. Observe the agreed proposals.
- Dispose of all spoil and unsuitable material in accordance with the provisions given in EMP.

20.2 Monitoring

The Contractor shall monitor the environmental aspects of the construction and the control measures implemented to minimize any adverse environmental impact. Should the control measures put in place be found to be unsatisfactory as a result of the monitoring then the Contractor shall amend the control measures to provide a satisfactory result.

20.3 Environmental Complaints

The Contractor shall maintain a register of all environmental complaints received and shall notify the Engineer of each complaint. Complaints received by the Engineer and referred to the Contractor shall also be recorded in the register.

The Contractor shall investigate all environmental complaints received and where necessary, undertake measures to address the complaint. All measures undertaken to address complaints shall be detailed in the register.

20.4 Environmental Incidents

Should an environmental incident (being environmental nuisance, medium environmental harm, or serious environmental harm) occur during any construction phase, the Contractor shall immediately take the appropriate action to minimize any impact and inform the Engineer. The Contractor shall carry out any instructions received from the Engineer.

The Contractor shall be responsible for the cleanup of any contamination caused by the construction works and no additional payment will be made in this regard.

20.5 Environmental Training

The Contractor shall be responsible for ensuring that all employees (including subcontractors) have received training in relation to the Contractor's environmental operating guidelines.

The Contractor shall ensure that any machinery on site is operated within the appropriate guidelines so as to minimize environmental impact in relation to noise, air and water quality, waste control and contamination. All construction materials used on site shall be utilised in a manner to similarly limit environmental impact.

No additional payment shall be paid to the Contractor and the cost of environmental control measures shall be deemed to have been included in the rates tendered for the Works.

21 Standard Procedure for Ensuring Occupational Health and Safety When working in Wildlife Area

The Contractor shall comply with the provisions in the Standard Procedure for Ensuring **Occupational Health and Safety When working in Wildlife Area** annexed in this section without any cost to Employer.

22 Labor Management Plan (Including site management and camp management measures)

The Contractor shall comply with the provisions in the **Labor Management Plan (Including site management and camp management measures)** annexed in this section without any cost to Employer.

THE WORLD BANK

IWWRMP

Integrated Watershed and Water Resources Management Project (IWWRMP)

MINISTRY OF IRRIGATION

Environmental and Social Management Plan and Environmental and Social Screening Report for the Rehabilitation of Dams & Canals in Eastern Province

IMPROVEMENTS TO BRANCH CANAL AND STRUCTURES OF MEIYANKAL TANK AND SCHEME

APRIL 2023

1.1 ENVIRONMENTAL AND SOCIAL SCREENING DECISIONS

Note: The anticipated impacts described in this section are mainly for the construction phase only. However, any impacts that are induced during operational stages (if any) are also presented where applicable. The impacts are confined to negative impacts, as the positive impacts as a result of improved dam safety, and improved operational capacities of Headworks are obvious and perceived.

Impacts were classified into the following categories:

Environmental Impact

- No: Environmental effects are perceived to have been no change at all.
- Low: Environmental effects are not detectable or are so minor that they will neither destabilize nor noticeably alter any important attribute of the resource.
- Moderate: Environmental effects are sufficient to noticeably alter important attributes of the resource but not to destabilize them.
- High: Environmental effects are clearly noticeable and are sufficient to destabilize the resource.

Social Impact

- No: Negligible or no adverse impacts on communities, individuals
- Low: Very minor impacts in terms of severity and magnitude (e.g., small affected area, very low number of people affected) and duration (short), may be easily avoided, managed, mitigated.

Moderate: impacts of medium magnitude, limited in scale (site-specific) and duration (temporary), can be avoided, managed and/or mitigated with relatively uncomplicated accepted measures.

- High: Adverse impacts on people and/or environment of considerable magnitude, spatial extent and duration, but more limited than Extreme (e.g., more predictable, mostly temporary, reversible). Impacts of projects that may affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples are to be considered at a minimum potentially Extensive

No	Screening question	Yes	No	Significance of the effect	Remarks
PROJECT DESIGN					
GENERAL					
1	Will the sub-project include any physical construction work?	√		Moderate	The project consists of the following: 1. Strengthening the tank bund by doing earthwork and providing Rip-Rap protection in U/S 2. Filtering arrangement in D/S 3. Replacing both sluice gates 4. Radial gated spillway 5. Improving irrigation canals with concrete lining work and farm turnouts and also with road crossing structures by providing pipe outlets.
2	Does the project include upgrading or rehabilitation of existing physical facilities?	√		Moderate	As mentioned above, rehabilitation work is proposed under this project
Rehabilitation of dam head works, and rip rap associated irrigation infrastructure					
3	Will improvements to the tank bund, including the headworks and rip rap structures, require the water level in the reservoir to be artificially drawn down?		√		The construction work is to be carried out in the YALA season when the water level is already low. Lowering of water level artificially is not necessary.

No	Screening question	Yes	No	Significance of the effect	Remarks
4(i)	If yes, can this lead to any alteration of water flows in the surface as well as groundwater sources, especially in the dry season?		√		However, during the proposed construction time of the dry Yala season, the water table is always low. As experienced by the Department of Irrigation, there is no impact on the ground or surface water sources. Although necessary, there is no need to be reduced drastically. As a result, neither the ground nor surface water sources are not impacted.
4(ii)	Will the water drawdown affect the ecology of the tank and other important wetlands that depend on the main lake and canal system to maintain the water level?	√		Low	As per the proposed interventions, there would not be a complete drawdown of the tank. Further, this is a tank that undergoes seasonal fluctuations, and therefore, the ecology of the tank is defined by such seasonal fluctuations. As the repair work will be done mostly in the dry zone at which the tank is at a low water level, a significant ecological impact will not take place due to this activity.
5	Will repairs to irrigation canals require temporary suspension of water issuance in order to facilitate civil works? Can this lead to diminishing of other downstream water uses that can result in social issues such as community bathing, drinking water supplies, irrigation of home gardens etc.?		√		Water suspension is not required. All construction activities are planned to carry out by the end of the Yala season. There is about a 3-month period to carry out critical activities which will affect the community. Irrigation officials ensured this period would be sufficient to complete the task. Moreover, it will not lead to diminishing of other downstream water. During this period, tank water is under the dead storage level. It is a normal situation. Water is not released along the canals even without the project. Issues arise related to the community bathing, drinking water supplies, irrigation of home gardens etc., even under the normal situation. Normally, the community handles the situation by itself. Therefore, the construction activities do not affect that situation. Apart from that, there are community wells, and river streams near that can be used for domestic activities and animal feeding. Water issues will have to be stopped during the rehabilitation of the distributary canals as slopes, and the bed of some stretches of the canals are

No	Screening question	Yes	No	Significance of the effect	Remarks
					supposed to be fully concreted. This will affect irrigated agriculture during the particular season. During the dry season, the identified sluice repair work can be done concurrently with bund rehabilitation work. Therefore, a temporary suspension of irrigation water is not required. There will be no drinking water intake, or industrial or recreational water uses in the command area. Civil works, bund rehabilitation, rip rap construction, and related activities increase soil vulnerability to erosion and can cause water quality deterioration in the tank due to increased turbidity and sediments. Sediment delivery into water bodies results in a reduction in water quality. However, since canal rehabilitation and other structural construction are not involved in the residential environment, social issues will not be expected.
6	Will civil works lead to diminishing of other downstream water uses as a result of water quality impairment?	√		**L**	Not significant. During the identified period, people do not use tank water or canal water. End of the Yala and prior to the start of the Maha, water is not issued in canals. They use piped water and wells for drinking water and domestic purposes. However, there could be an impact on the water quality due to the civil works of the tank, which may increase the sediment transport rate. As downstream water bodies do not receive water from the tank, the civil works will not have a significant impact on water quantity. However, if proper measures are not taken during the construction period to prevent the flow of construction waste to the canals, the water quality of the downstream water bodies will be affected, which will affect the aquatic organisms that inhabit these habitats.

No	Screening question	Yes	No	Significance of the effect	Remarks
7	Will there be changes to original design levels of the head works that will result in inundation of new land in the catchment		√		There will not be any changes to the designed levels of the bund top level, spill crest level and levels of other related structures. Therefore, there will not be any inundation of additional areas.
8	Will the rehabilitated scheme serve new areas of paddy under its command?		√		There will not be a change in the existing command area, but with the proposed rehabilitation work, water wastage due to the dilapidated canal system will be improved. Also, with the renovation of canals and tank bunds, water storage can be done as per the design. Also, an efficient supply of water for its command area can be assured with rehabilitation. There will be more opportunities (such as using more water for agricultural activities). Especially during the Yala season, cropping intensity is low, with the rehabilitation, cultivable area within the specified command area will be increased by 30- 40% during the Yala season.
Additional supplementary facilities					
9	Will there be construction of new irrigation or drainage canals or widening of existing canals?		√		There is no new canal construction or widening canals. Limited to the rehabilitation of the existing canal system.
9(i)	If yes, will new/modified canal trace/alignments interfere with existing land uses (habitats, home gardens) in a negative way?		√		The project will involve improvements to the existing canals, which will not result in any loss of habitats, changes to land use or further fragmentation of habitats. Therefore, canal improvement will not have any significant negative impacts on habitats.
9(ii)	If yes, will the trace interfere with other sensitive infrastructure such as roads, pedestrian paths, schools and temples?		√		Since the rehabilitation is only for the existing canal system, there will not be any interference with the sensitive infrastructure.

No	Screening question	Yes	No	Significance of the effect	Remarks
Project Construction					
10	Will construction and operation of the project involve actions which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)		√		The proposed structural construction, rehabilitation, improvement, and repair work will not alter the project site's landscape.
11	Will construction of the project cause soil erosion within the site due to steep grade or soil content?	√		Moderate	The exposed soil in the project area is vulnerable to soil erosion during the construction stage due to the removal of trees and green cover vegetation on the tank bund for straightening, rip-rap protection and toe filter construction activities. Material stockpiles, material extraction sites, dumping sites, and areas identified for turfing materials will also be susceptible to soil erosion. The anticipated impacts are temporary during the construction stage and can be mitigated to an acceptable level due to proposed mitigation measures through EMP, proper planning and site management.
12	Will the project involve dredging and disposal of dredge material as well as other solid wastes during construction?	√		Low	Although there is no dredging, there will be generation of constructional solid wastes from construction material packaging, waste generation from the workers at the site will be segregated and collected for disposal through authorized garbage collectors.
13	Will the project release pollutants or any hazardous, toxic or noxious substances to air?	√		Low	No hazardous, toxic, or noxious substances are released during the construction stage of the project except exhaust gasses, black fumes due to vehicles, machinery, and equipment, and the emission of dust. These impacts are temporary and short-term.

No	**Screening question**	**Yes**	**No**	**Significance of the effect**	**Remarks**
14	Will the project cause noise and vibration or release of light, heat energy or electromagnetic radiation?	√		Moderate	The noise and vibration generated during the construction activities and transportation of materials may cause temporary impacts on the natural environment in and around the project area. Acoustic interference from construction noise can disrupt the behaviour of fauna and social interactions between animals and may have significant consequences for both individuals and populations living in nearby habitats.
15	Will the project lead to risks of contamination of land or water from releases of pollutants onto the ground or into surface waters, groundwater?	√		Low	When it rains heavily, oil, fuel, and lubricant leak from machinery and construction equipment and are washed away, contaminating the water with oil and grease. Over time, this causes thin oil layers to build on the water. With proper maintenance of the vehicles, machinery in use can significantly lower this impact.
16	Will the project cause localized flooding and poor drainage during construction? Is the project area located in a flooding location?		√		The construction work is scheduled to be completed during the Yala season, which is the dry season in the region. As a result, localized flooding or drainage problems won't be anticipated. The downstream area of the tank floods during heavy rains when the tank spills, even though the project area is not in a floodplain
17	Are there any areas or features of the high landscape or scenic value on or around the location which could be affected by construction activity?		√		There are several scenically important high landscapes and scenic beauty areas located around the project site. However, construction activities will not interfere with or affect those locations since they are located a considerable distance from the site.

No	Screening question	Yes	No	Significance of the effect	Remarks
18	Are there any other areas on or around the location which are important or sensitive for reasons of their ecology e.g. wetlands, watercourses or other waterbodies, the coastal zone, mountains, forests which could be affected by the project?		√		There are no natural habitats in the sites identified for project interventions. Thus, project activities will not have any impacts on sensitive habitats.
19	Are there any areas on or around the location which are used by protected, important or sensitive species of fauna or flora e.g. for breeding, nesting, foraging, resting, migration, which could be affected by the project?		√		The project-affected area does not fall within any protected areas, and as indicated above, there are no sensitive habitats. The project-affected area supported an assemblage of species that are commonly found among man-modified habitats in the dry zone of Sri Lanka. No endemic species or range-restricted species were observed in the project-affected area. The only threatened species observed is the Asian Elephant, which shows a wide distribution within the dry zone, and the impact of the proposed project on elephant habitat is negligible.
20	Will any part of the project's construction activities be located in a previously undeveloped area where there will be loss of greenfield land?		√		No. There will not be any loss of greenfield land due to construction activities.
Land related Impacts					
21	Will the sub-project require acquisition of land and or other assets?		√		No, there is no acquisition of land or other assets.

No	Screening question	Yes	No	Significance of the effect	Remarks
22	Is land for material mobilization or transport for the civil work available within the identified work site / Right of way?	√			No settlement/inhabitants related to the construction area. There are sufficient spaces and government-owned bare lands. No impact on privately owned lands. More materials need to be transported while constructing the bund and the rip rap. However, bund road is not used by the community for transport activities.
23	Is the site chosen for this work free from any encumbrances (e.g. squatters, encroachers)?		√		No kind of settlement, cultivation or any livelihood activities related to the site. All the renovations are carried out within the boundary of existing canals and structures.
24(i)	If the land parcel is to be acquired, is the actual plot size and ownership status known? If so, how much?		√		No land acquisition will take place.
24(ii)	Will the affected land/structure owners likely to lose less than 10% of their land/structures area?		√		None of the lands will be affected.
24(iii)	If any land required for the work is privately owned, will this be purchased or obtained through voluntary donation?		√		No land required is privately owned. All the rehabilitation works are carried out within the Irrigation Department-owned lands.
24(iv)	Are the land/structure owners willing to voluntarily donate the required land for this sub- project?		√		This is not taking place as there are no additional land requirements under the rehabilitation work.
25	Is the project likely to cause partially or fully damage to, or loss of housing, shops, or other resource use?		√		No partially or fully damage to, or loss of housing, shops, or other resource use.

No	Screening question	Yes	No	Significance of the effect	Remarks
26	Are there any routes or facilities on or around the location which are used by the public for access to recreation or other facilities, which could be affected by the project?		√		There are no such facilities available or affected by the project.
Livelihoods Related Impacts					
27	Are there any non-titled people (squatters) who are living/ or doing business who may be partially or fully affected because of the civil works?		√		No impact on the people with or without deeds. Not any impact on settlement, cultivation or any livelihood activities related to the site. All the renovations are carried out within the boundary of existing canals and structures.
28	Will there be damage to agricultural lands, standing crops, trees, etc.?		√		No damage to agricultural lands, standing crops, trees, etc.
29	Will there be any permanent or temporary loss of income and livelihoods as a result of the civil works? If so, for what period?		√		No impacts. Irrigation officials ensured that the water level in the reservoir would not be artificially drawn down due to the improvements of the tank bund, including the headworks and rip rap structures, as it will be carried out during the YALA season when the water level is already at a low level.
29(i)	Have these people/ businesses who may suffer temporary loss of incomes or livelihoods been surveyed and identified for payment of any financial assistance?		√		No impacts
29(ii)	Are there any vulnerable households affected?		√		No impacts on vulnerable households

No	Screening question	Yes	No	Significance of the effect	Remarks
29(iii)	Will people permanently or temporarily lose access to facilities, services, or natural resources?		√		No people permanently or temporarily lose access to facilities, services, or natural resources.
Impacts on community resources, public services, cultural/historical sites, etc					
30	Are there any areas on or around the location which are densely populated or built-up, which could be affected by the project?		√		No such areas could be affected by the project.
31	Are there any areas or features of historic or cultural importance on or around the location which could be affected by the project?		√		No such areas or features of historical or cultural **Impacts on community resources, public services, cultural/historical sites, etc** importance located in the project area could be affected by the project
32	Are there any areas on or around the location which are occupied by sensitive land uses e.g. hospitals, schools, places of worship, community facilities, which could be affected by the project		√		No areas on or around the location are occupied by sensitive land uses. No structures or sensitive locations could be affected by the project
33	Are there any areas on or around the location which are already subject to pollution or environmental damage e.g. where existing legal environmental standards are exceeded, which could be affected by the project?		√		It is observed there are certain locations where people have dumped polythene covers and non-degradable solid waste, which would impact the biodiversity system of the environment. During the project construction time, relevant mitigation measures will be taken to address this existing issue.

No	Screening question	Yes	No	Significance of the effect	Remarks
34	Will the project cause the removal of trees in the locality?	√			No removal of trees related to the social-cultural or economic impacts except the 5 trees on the bund which cause damage to the bund will be removed. (Please refer annexure 4)
35	Are there existing land uses or socio-economic activities on or around the location which could be affected by the project?		√		The tank area and the vicinity are not affected by any of the proposed work.
35(i)	Are there bathing spots that will be unusable during the construction period?		√		There are several bathing spots located in the tank and rehabilitated canals. However, communities do not use these spots for bathing due to not having enough water during the dry period. This period is selected for the construction activities. Therefore, no impacts on the community as a result of construction. These bathing places are unusable due to not releasing water along the canals during this period, even without the project. Normally in this period, communities use community wells and other wells, rivers and streams for bathing, which are flowing close proximity.
35(ii)	Is there subsistence fishing taking that will get disturbed due to canal rehabilitation		√		No significant impact. No fishing in the canals during the selected period for construction activities.
35(iii)	Are there any home gardening and other industrial, agricultural activities that will get disturbed due to construction activity		√		No. There is no disturbance to any of those listed.
35(iv)	Are there drinking water supply sources located in the project area that may be rendered unusable during construction period?		√		Communities do not use the tank or canal water for drinking. They use pipe born water, wells and community wells.

No	Screening question	Yes	No	Significance of the effect	Remarks
35(v)	Are there tourism activities taking place in the project area that will get disturbed by construction activity?		√		Local people arrive to see the tank or entertainment when there is sufficient water level in the tank. The period for the construction activities is selected when there is a lower water level. However, tourism is not prominent in this area.
Construction related impacts (labor influx, community health and safety, etc)					
36	Will there be any risks and vulnerabilities to public safety due to physical hazards during construction of the Project?		√		No impacts to vulnerabilities to public safety during the construction. During the construction period, it is required to follow up the protection methods by the contractor for the protection of public safety.
37	Are there local village roads that will become unsafe due to contractor's usage	√		Moderate	Since the access road to this tank is already not in a proper condition and it is a gravel road. During construction, there would be further damage to the road and a higher volume of dust generation. It is vital to consider this matter and take measures.
38	Are there any transport routes on or around the location which are susceptible to congestion or which cause social and environmental problems, which could be affected due to construction work?		√		Population density is very low in this area. Minor impacts will occur but could be mitigated. Necessary conditions should be included in the contractor's agreement. No significant social and environmental problems.
39	Will the project require significant number of workers (skilled and unskilled)	√		Moderate	For the construction period, there is a requirement of skilled and unskilled workers.
39(i)	Will the project attract significant number of migrant workers to the area?	√		Moderate	Skilled labourers would be needed to hire from outside of the area. Commonly contractors have their own skilled labourers. However, unskilled labourers would be hired from the same area.

No	Screening question	Yes	No	Significance of the effect	Remarks
40	Will construction activity lead to borrowing of earth, gravel and sand? And/or quarrying for rock?	√		Moderate	Material extraction sites for the proposed work have been identified. Contractors and material suppliers must adhere to the project EMP and receive licenses and permits from regulatory line agencies.
41	Will the project increase the risk of introduction of alien invasive species to the locality	√		Moderate	The project will involve the use of heavy machinery, use of soil and other construction material brought from outside the project area. All of these can serve as sources of seeds of alien invasive species. Therefore, the project will increase the risk of the introduction of new alien invasive species to the area, which already contains a number of alien invasive species.
OPERATIONAL IMPACTS					
42	Will the project lead to stagnant water and drainage problems causing increased mosquito breeding	√		Moderate	If the proposed earth and gravel mining sites in the upstream and downstream areas of the Meiyankal tank catchment, reservation and surrounding area are not restored in accordance with the requirements, they may serve as breeding grounds for mosquitoes.
43	Will the project involve the removal and disposal of aquatic invasive species?		√		The proposed project activities will not result in the removal or disposal of any invasive aquatic species. During the operational phase, water availability in the area will increase, which will have a beneficial effect on aquatic species.
44	Will the project involve regular maintenance dredging of the canal network	√		Moderate	It is the responsibility of the Department of Irrigation to rehabilitate the canal network.

No	**Screening question**	**Yes**	**No**	**Significance of the effect**	**Remarks**
45	Will the scheme after rehabilitation serve a larger command area?		√		With the rehabilitation of the structures, it can be assured water distribution can be done for the land under its command area even during the dry period as well. Especially in the Yala season, there is no sufficient water for cultivation. Water security for cultivation is low. Risk will be reduced for farmers. It is expected cultivation extent will be increased by 30-40 % during Yala and 10% in the Maha season of 1,010 ha, within its existing command.

2 ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

2.1 General overview

As per the identified potential social and environmental impacts, the Environmental and Social Management Plan (ESMP) has been prepared in accordance with the ESMF, and the RPF prepared for the IWWRMP.

The generated site-specific ESMP and relevant guidelines will be included as a Special Condition in the Bid Document, and also ESMP will be attached to the contract to form part of the contract requirement. And also, it is important to consider this ESMP will also be equally applicable to sub-contractors, including nominated sub-contractors, if any. The Contractor will be responsible for compliance with the requirements of the ESMP. With the assistance of the Engineer on behalf of the Employer, the Project Proponent (PP) will monitor the compliance of the ESMP by the Contractor.

The bidders will be advised to carefully consider the ESMP requirements during the construction stage when preparing the bid and pricing the items of work. In particular, prior to bidding, the associated costs are to be provided as a provisional sum and/or as part of the engineering cost. The prescriptions and clauses detailed in the ESMP are integral components of the specifications for relevant items of work unless separate items are included in the Bill of Quantities. Thus, separate payments will not be made with respect to compliance with the ESMP.

The Contractor, through an appointed Environmental and Social Officer, will assist the Engineer in conducting his/her duties as required in the ESMP implementation by:

a) maintaining up-to-date records on actions taken by the Contractor with regard to the implementation of ESMP recommendations
b) through timely submission of reports, information and data to the employer through the Engineer,
c) via participating in the meetings conveyed by the Engineer or any relevant line agency and
d) any other assistance requested by the Engineer.

In case the Contractor or the sub-contractor/s fails to implement the actions specified in the ESMP, the Contractor will be informed in writing. If corrective actions are still not taken, the Engineer will take whatever actions it is deemed necessary to ensure that the ESMP is properly implemented.

2.2 Impacts and their mitigation

Table 2 Environmental and Social Management Plan

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
Design and Planning stage					
01	**Delays in mobilization and timely implementation of work program & poor coordination, and extended duration for project completion**	• Before the Implementation of the rehabilitation work, required clearances from the Forest department should be obtained. • Scheduling, coordination, procurement, obtaining approvals, and project implementation should be expedited to the practicable extent. • Standard and good construction practices shall be followed at all times. • The possibility of simultaneous deployment of several gangs needs to be pursued, which will allow the work to be completed within the shortest possible duration. • The five trees which are identified to be removed should be further investigated during the planning stage of the project on the requirement. • Finalize construction programs duly considering provisions for the work schedule The following plans have to be developed during the planning/design stage: ○ Construction Work Plan (with the approval of the IA) ○ Environmental Management Action Plan (based on this ESMP) ○ Material Procurement Plans ○ Transportation Plan for material, equipment, and waste and Traffic Management Plan for each road segment (for haulage routes)	Included in the design cost	Contractor: One-off activities before starting construction	IA and reported to the PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		○ Health & Safety Plan ○ Construction Waste Management Plan ○ Other plans, such as drainage management and erosion control (if any)			
		• On social perspective no negative impacts were identified on the farming community or fisheries community. All the construction activities related to the irrigation system are decided to be carried out during the off-farm season. • If could not complete the task on agreed time schedule due to unavoidable reasons or uncertainties, there may be possibilities to have negative impacts to the downstream community. Therefore, the following action have to be taken; • Make it mandatory for the contractor to adhere to the construction schedule but prevail upon him to complete the rip rap and upstream sluices within the shortest possible time without compromising on quality • Ensure the mobilization of contractor prior to start the construction activities • Once done, start filling the tank so that water will be available for the next Maha season cultivation • Release water periodically during the construction period to minimize water going waste, ensure replenishment of wells and reduce impacts on environment (thereby also reducing impact on domestic water)			

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		• Ensure the material transportation, fulfil the machinery and labor requirement prior to start the works. • Monitor to ascertain whether programs are moving towards correct directions or running effectively as planned and achieving the desired objectives.			
		• A monitoring committee need to be established soon after mobilization of the contractor. The said Committee consists of representatives from each of the Implementing Agencies, SSO and PMU. This forum is used for individual agency to present their constrains and issues if any, review the current progress, take collective decisions on remedial measures and take appropriate actions immediately. Function of the Monitoring Committee • Obtaining the progress report periodically. • Reviewing the progress of construction activities at the committee meetings. • Holding discussions on the constraints which could be cause to delays and take collective decisions on the remedial measures. • If unable to complete the task due schedule time and can't avoid the delays postponed to next year. (To complete the task is contractor responsibility and the additional cost borne to the contractor			

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		Community awareness • The people in the scheme need to aware of the critical condition of the dam and the period of the construction activities carrying out, difficulties that they have to face during the period of rehabilitation work. If unable to achieve the target under any circumstance due time period, aware the community about the negative impacts of on their livelihoods and find solutions to mitigate impacts (such as advancing the previous cultivation season and delay the commencing next cultivation season and encourage to cultivate short period verities).			
		Construction and Engineering measures • Having finalize the construction plan, the material sourcing sites, contractors' equipment sourcing should be finalized. • Monitoring plan should be properly executed. • The fabrication parts which will be done should be designed and finalized as per the plan. • In order to lengthen the construction time, cultivation can be advanced. • Phaseout rehabilitation can be practiced, where two contractors to be work simultaneously to achieve the deadlines. **Advance Cultivation Season (ACS) to allocate more time for construction activities** • If there is any risk achieve the target expected time period, advancing Yala cultivation season is the main strategy proposed to minimize the		IA, Agrarian Service.	

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		potential negative impacts caused by disruption of water supply from the tank. The prime objective of Advance Cultivation Season (ACS) and use short aged seed paddy is to allow a reasonable time period for the construction work whilst safeguarding the paddy income to farmer community. • However, there is a water shortage for paddy cultivation in Yala seasons. In generally cultivated extent is about 40 % of the total extent. Face to the unavoidable issues need to encourage farmers to adjust themselves on an advanced calendar of cultivation operations that would offer chances to earn more or less similar income from paddy cultivation, ensure household food security and maintain the food requirement. The PMU and PID need to ensure all stakeholders would strictly adhere to the proposed calendar of cultivation and water management operations. • Explore the possibilities of cultivating other field crops (OFC) and vegetables in the paddy fields if a water shortage situation arises due to dam rehabilitation work. • Timely cultivation of Maha season with completion of harvesting before mid-February when rain is comparatively less. Irrigation facilities are anticipated immediately afterwards to allow land preparation for Yala paddy cultivation within a short period. Three-month paddies would be sown and harvesting completed by end May. Next Maha season land preparation could be delayed by about 2-3 weeks. Then additional 5-6 weeks available for construction activities. It offered a win-win situation suggesting the practicability			

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		of implementing dam rehabilitation work without disrupting to cultivation. • ACS is community wish; it involves little adjustments in cultivation calendar and institutional support by way of facilitation and coordination entailing hardly any additional cost. ✓ the pre-Kanna Meeting of the Maha have to be conducted by mid-September in the previous year. The need for adjusting to an advanced Yala programme also should be announced at this meeting. ✓ Farmers should be informed at the commencement of Yala that there will no water releases for paddy after end May as the tank has to be fully drained out for rehabilitation ✓ PMU should take the responsibility for convincing the FOs about the importance of strict adherence to the calendar of operations. ✓ Conformity by the officials of concerned authorities about timely input supply and management of the APCS ✓ The monitoring committee should comprise of the representatives of the involved agencies and two office bearers from each Farmer Organization for effective monitoring of the calendar of operations			

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
02	**Poor environmental planning by the Contractor**	• Designate a person to look after environmental and social (E&S officer) matters who will be responsible for coordination with the IA for implementing the EMP and EMoP, including any monitoring actions, etc. • The same person can be designated as the Environmental, Health, and Safety (EHS) Officer, to be appointed towards the end of the planning stage, before the implementation of any project activity. He will select locations and facilities for labour camps in consultation with the PHI of the area. EHS officer will thoroughly review compliance with regulatory requirements, and a summary requirement will be prepared (one for workers and another common one for the public, including the workers). • Coordinate with the IA/PMU on confirmatory surveys to be conducted during the design phase and complete as required with external experts (only if needed) • Proper planning of activities is needed considering climatic conditions and local weather patterns: e.g., - Rainfall and its run-off in the project area may cause disruption to construction works. - Furthermore, climatic conditions play an important role during the dispersion of noise and air pollutants. Seasonal climatic conditions shall be considered for the scheduling of construction activities. - Pipe upstream is placed at a level enabling full cross-sectional area of pipe is used for flowing	Included in the project cost	Contractor: One-off during mobilization and continuously throughout the contract period	IA and reported to the PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		- water. Adequate Pipe slope to be provided to avoid siltation inside the pipe. - The plan dimensions of silt traps to be such that a mamoty or a showel could be easily insert to remove silt. Elevation height (depth) of silt trap should be provided to retain silt until removed without overflowing depending on the duration of maintenance period. - Spacing of catch pits to be adequate to clean the path of water flow with provided cleaning rods. - With the use of historical rain fall data a hydrological analysis should be based in deciding the sizes of storm water drainage canals.			
03	**Incorporation of Environmental Design Recommendations**	Run-off from the project will produce a highly variable discharge regarding volume and quality and, in most instances, will have no discernible environmental impacts. However, the following mitigation measures are needed to minimize any impacts: • Culverts and canal designs shall be considered to allow overland flow and sheet flow from paved areas and cross drainage without any blocking. • Drainage paths need to be identified and demarcated on the sites and excavated site areas. For silt traps, designs shall be considered for the trapping of silt in a proper manner, with facilities for easy removal of silt, if any.	Design Cost	Contractor's Engineer, in collaboration with the IA/PMU	IA/PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		• For catch pits, appropriate designs shall be considered in order to drain out rainwater without blocking or flooding. • Designed drainage facilities must be made capable of disposing of the run-off generated in a given water catchment without inundating the surrounding land for a selected rainfall event. • To minimize erosion and wash off of sediments from spoil heaps, a waste management plan has to be prepared for the disposal of spoil, excavated/dredged material and construction debris; Waste shall be disposed of in existing approved sites; new sites shall be developed considering siting guidelines, maintained and operated accordingly • Efforts shall be taken to minimize the overall material required for the project by adopting various approaches – balanced cut and fill, re-use as much excavated material from this project as possible			
04	**Climate Change Consideration and Vulnerability Screening**	• Climate change vulnerability checks are needed in compliance with the requirements of the Department of Irrigation and adopting proper mitigation measures as may be required. e.g., extreme weather scenarios such as high rainfall intensities and flooding • Efforts shall be made to plant additional trees to increase the carbon sink. The trees may be selected with the help of the Forest Department, and space for additional planting (if the remaining space within ROW is not adequate) will be secured with the help of the Forest Department, Divisional Secretary (DS) and Community-based Organizations (CBOs). This will partially compensate for the increased carbon emissions	Included in the project cost	Contractor: One-off during mobilization and continuously throughout the contract period	IA and reported to the PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		released to the atmosphere during the lifecycle of the project components, including those during the construction phase.			
05	**Delays related to the selection of locations for project interventions** **e.g., Labour camps, stockpile areas, storage, and disposal areas**	• The priority of locating labour camps is near subproject locations. • Sites to be considered will result in the least damage to property and vegetation and the least disturbance to the neighbourhood, including traffic movements. • Residential areas are not the best locations to set up worker camps, given the possibility of social conflicts. • Extreme care should be taken to avoid negative impacts on low-lying areas. • All locations should be included in design specifications and plan drawings. • Storage areas shall be secured to minimize the risk of trespassing and theft. They shall also be safe from access by children, animals, etc. • The Contractor shall submit a method statement and plans for the storage of hazardous materials (fuels, oils, and chemicals) and emergency/contingency procedures.	Included in the project cost	Contractor: One-off before starting construction	IA/PMU
Pre-Construction/Site preparation phase					

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
01	**Site Access Restrictions**	• All public access to the Site needs to be prohibited or controlled via (especially the canal bund road) adequate fencing and signage in order to avoid risk to the public. • The site entrance should include adequate signage indicating the details of the proposed sub-project, implementing agencies etc., as well as safety signage to keep the public away. • Where possible, a fence shall be erected to cover the working area, where possible, using cost-effective fencing materials consisting of chain link fence fabric, concrete posts, etc., in order to ensure animals and the public are unable to freely access the Site. • The Contractor shall not enter or occupy for any purpose with workers, tools, equipment, construction materials, or materials excavated from project activities within the boundaries of any private property outside the designated site boundaries without written permission from the owner and/or tenant of the property.	Engineering Cost	IA the Site in collaboration with the IA/PMU	IA/PMU
02	**Material Sourcing**	• The Contractor is required to ensure that all construction materials are sourced from the identified sites, which are from the high-ground areas in the tank bed. Any change to these sites and the identification of new sites will require prior safeguard approval via the Engineer. These sites will be developed and restored as per the guidance provided in this ESMP. • Quarry material shall be purchased from licensed operators. If the Contractor intends to operate his own quarry site, he will be required	Engineering Cost	Contractor through EO	IA/PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		to obtain all licenses, approvals, and consents and provide the details to the IA for confirmation. • The Contractor is required to maintain the necessary licenses and environmental clearances for all borrow material, sand and quarry materials they are using—including soil, fine aggregate, and coarse aggregate. • Sourcing of any material from protected areas and/or designated natural areas, including tank beds apart from what has been identified and approved, is strictly prohibited. • Contractor-operated borrow/quarry sites shall be developed and remediated per the guidance provided in this ESMP. Site Remediation/Rehabilitation plans shall be provided as and when it is directed by the IA. • The Contractor is required to submit in writing all the relevant copies, numbers, and relevant details of all pre-requisite licenses, etc. and report on their status to the Engineer on a quarterly basis.			
03	**Construction of Coffer Dams**	• When necessary, the Contractor should draft a method statement for coffer damming for the relevant construction locations, and if one is not already provided by the project proponent with plans, the Engineer will have to approve it before construction can begin. • The method statement should include the method of damming, material requirements and sourcing, access to and from the coffer dam to the bund area, contingency plans for unforeseen rainfalls, and removal of the coffer dam.	Engineering Cost	Contractor	IA/PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
04	**Worksite management**	• The Contractor should identify an area on-site (or close to the project area) to store/stock construction materials and equipment, which will be approved by the Engineer and demarcated for material storage as per the site plan. Appropriate safeguards and protection measures are required, such as covering and fencing of material storage areas. Fencing to keep wild animals away should also be considered. • Parking, repairing, and storing vehicles, machinery, and equipment shall be done only at designated areas of the work site and/or in any other designated areas by the Engineer. • The Contractor shall provide instruction and advice to drivers and operators (both company-owned and hired) to park vehicles and store equipment in these designated areas.	Engineering Cost	Contractor through EO	IA/PMU
05	**Labour Camps**	• The location, layout, and basic facility provision of labour camps, site offices, and resting facilities to be set up and will be submitted to the Engineer prior to establishment. • Fencing to keep wild animals away should be considered. • The establishment of labour camps will commence only upon the written approval of the Engineer. Resting and sanitary facilities will be provided separately for both male and female labourers. • The Contractor has to maintain necessary living accommodations and ancillary facilities in a functional and hygienic manner as approved by the Engineer.	Engineering Cost	Contractor	IA/PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		• All temporary accommodations will be established and maintained in such a fashion that safe water supply is available for drinking, cooking, and washing. • The wastewater collection and disposal system for the camp, if not available, will be planned and implemented with concurrence from the Local Public Health Officer (PHI). Collection and disposal of sewage should not pollute water sources. Any on-site collection and disposal facility should conform to provisions of SLS745. • An EPL should be obtained from the CEA if the number of occupants in the camp exceeds 20. **Safety Aspects** • The construction site should be barricaded at all times with adequate marking, safety tape, flags, reflectors etc., for the safety of individuals using the site on a daily basis. • At all times, the Contractor shall provide safe and convenient passage for vehicles, pedestrians and livestock. Work that affects the use of existing accesses shall not be undertaken without providing adequate provisions to the prior satisfaction of the Engineer. • The construction site should be clearly demarcated by the above means, and restriction of access to the public to the site will help the safety of the public. • Safety signboards should be displayed at all necessary locations. • The contractor should obtain a Third-Party Insurance to compensate for any damages or injuries caused to the public or labourers during the construction period.			

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		• All construction vehicles should be operated by experienced and trained operators under supervision. • Basic onsite safety training should be conducted for all labourers during the EMP training prior to the start of the construction activities. • All digging and installation work should be completed in one go. If this task is not accomplished, the area should be isolated using luminous safety tape and barricading structures surrounding the whole area. • Trenches should be progressively rehabilitated once work is completed. • Material loading and unloading should be done in an area well away from traffic and barricaded • Construction wastes should be removed within 24 hours from the site to ensure public safety. **<u>Safety Gear</u>** • Protective footwear and protective goggles should be provided to all workers employed in the mixing of materials like cement, concrete etc. • Welder's protective eye shields shall be provided to workers who are engaged in welding works. • Earplugs shall be provided to workers exposed to loud noise and workers working in crushing, compaction, or concrete mixing operation. • The contractor shall supply all necessary safety appliances, such as safety goggles, helmets, safety belts, ear plugs, masks etc., to workers and staff.			

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		• In addition, the contractor shall maintain in stock at the site office gloves, ear muffs, goggles, dust masks, safety harnesses and any other equipment considered necessary. • A safety inspection checklist should be prepared, taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded.			
06(a)	**Recruitment of labour**	• No workers under the age of 18 should be hired for this contract. The contractors must comply with the labour laws of GOSL and should make sure that there is no child labour and forced labour. The Contractor should give equal pay for equal work regardless of gender, ethnicity or caste. No discrimination in job opportunities and inductions has been given based on gender. • Recruitment of labourers, both unskilled and skilled, from the locality, will reduce the need for having large labour camps and will lead to lesser impacts due to such labour camps during the construction stage			
06(b)	**Labour Training and Awareness**	• Labour awareness programs to educate the labourers about gender-based violence (GBV), general conduct, the Environmental and Social Management Plan, Occupational Health and Safety etc., should be conducted throughout the contract period as agreed in the contract, as stipulated. • Ensure all site personnel has a basic level of environmental awareness training.	Engineering Cost	Contractor	IA/PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		• Heavy vehicles and construction and other operating equipment (such as excavators, loaders, pneumatic and hydraulic machinery and equipment, electrical appliances and equipment, etc.) shall be adequately trained on any potential hazards associated with their task. • No operator shall be permitted to operate major mechanical equipment without having adequate prior experience and/or having been trained appropriately by the Contractor. • All employees must undergo safety training.			
07	**Tree Removal**	• Only a few native trees (5 numbers) are required to be removed for the bund works. (Please refer to annexure 4). The Contractor should adhere to the guidelines and recommendations made by the safeguards staff of the project and the CEA/Divisional Secretariat, if any, with regard to the felling of trees and removal of vegetation. • Prior to clearing, all trees and green cover vegetation removed must be identified and marked. • Clearing operations must be strictly controlled to ensure minimal clearance in both the construction area and the material extraction sites in the catchment. • Protection of existing trees should be considered as much as possible. Avoid the removal of trees as much as possible. • The removal of trees from temporarily used lands should be avoided to the extent possible. • Removal of trees should be done with minimum disturbances to soil cover and without damage to adjoining trees	Engineering Cost	Contractor	DWC/FD

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		• Trees removed need to be compensated on a minimum of a 1:3 basis at a suitable location on-site or in the tank catchment. Preferred number is 1:5.			
08	**Information Disclosure among Stakeholders**	• Discuss about the grievances with the residents in the project affected area. For the process, rresidents will be briefed immediately once the Contractor is mobilized for the project, its purpose, design, and outcomes via a documented community consultation session. • The Contractor shall take note of all impacts, especially nuisances, pollution scenarios and safety hazards that will be of concern to the residents, and take the necessary measures as stipulated in the ESMP to mitigate them. • The Contractor is required to establish a grievance redress mechanism for all stakeholders and will need to maintain a log of any grievances or complaints and the actions taken to resolve them. • A copy of the ESMP shall always be available at the project supervision office on Site.	Engineering Cost	Contractor/IA/ IA/PMU	IA/PMU
Construction/Intervention Phase					
01	**Site clearance and land development**	• Water spraying should be done at regular intervals to avoid dust generation due to site clearance. • Avoid stockpiling any excess spoils at the Site for long periods. Such material should be disposed of at approved/designated areas without delay	Engineering Cost	Contractor	IA/PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		• If disposal is required, the Site shall be selected from barren lands, no/least vegetated areas; sites should be away from residential areas, water bodies, and any other sensitive land uses • Spoil/wastes should be properly segregated during collection and dumped in the designated disposal site; Prohibit burning of vegetative matter, construction and other waste (including that of labour camps); Ensure that wastes are not haphazardly thrown in and around the project site; provide proper collection areas/bins/craters, etc., and create awareness of proper waste management.			
02	**Disposal of debris and spoil**	• All debris and residual spoil material, including any left earth, shall be disposed of only at locations approved by the engineer/LAs. The debris and spoil shall be disposed of in such a manner that waterways and drainage paths are not blocked. The disposed of material should not be prone be washed away by run-off, and it should not be a nuisance to the public. • The debris and residual spoil material, including any left earth, shall be used to refill the borrow areas as directed by the Engineer and subjected to laying of topsoil as per recommendations for conservation and re-use of topsoil in an environmentally acceptable manner. • All spoil, topsoil, demolition waste (if any), and cut vegetation should be covered by secure tarpaulins whenever transported offsite to prevent material from being blown away by trucks.	Engineering Cost	Contractor	IA/PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
03	**Conservation and re-use of topsoil**	• The topsoil of productive areas where it must be removed for the purpose of this project shall be stripped to a specified depth of 50 mm and stored in stockpiles at a height not exceeding 2 m, according to the direction from the Engineer in writing. • Removed topsoil could be used as productive soil when replanting or establishing vegetation • Stockpiled topsoil must be returned to cover the areas where the topsoil has been removed due to project activities. Residual topsoil must be distributed on adjoining/proximate barren areas as identified by the Engineer in thin layers as appropriate.	Engineering Cost	Contractor	IA/PMU
04	**Transport and storage of construction materials**	• The capacity of the trucks shall not be exceeded when transporting material to construction sites. • The Contractor shall minimize the possibility of public nuisance due to traffic congestion during the transportation of materials. • If local roads are used, routes are to be selected based on the axle loads; loads should be safe to prevent damage to local roads, culverts and bridges. • All vehicles used for haulage should be in good condition, and speed limits as per nationality stipulated for haulage must be maintained. • If there is damage to local roads and other utilities due to hauling in roads caused by the Contractor, the Contractor shall be responsible for repairing all damaged infrastructure/roads, if needed, through relevant authorities.	Engineering Cost	Contractor	IA/PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		Air quality impacts: material haulage, vehicle and equipment use: • Vehicles travelling to and from the construction site must adhere to speed limits to avoid producing excessive air-borne dust. • Use tarpaulin sheets to cover loose material (soil, sand, aggregate) when transported by trucks • Wheels and undercarriage of haul trucks should be cleaned sufficiently before leaving the construction site/quarry; Control dust generation while unloading the loose material (particularly aggregate, soil) at the Site by sprinkling water, if needed. • Stabilize surface soils where loaders, support equipment, and vehicles are operated, by using water and maintain surface soils in a stabilized condition • Access and other cleared surfaces, including backfilled trenches, must be dampened whenever possible and especially in dry and windy conditions to avoid excessive dust. • Ensure that all the construction equipment and machinery are fitted with emission control devices which are operating correctly; ensure that only those vehicles and equipment in good condition and are in good maintenance are used for project construction. Vehicles and machinery are to be kept in good working order and to meet the manufacturer's specifications for safety, fuel consumption, etc. • Vehicles/equipment should have a valid Vehicle Emission Certificate (VEC) showcasing emissions below the specified limits; Maintain VEC records of all vehicles at all times for ready inspection at the work sites			

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
05	**Emission of dust during cover application and construction.**	• Storage of construction materials (sand, soil, metal, etc.) in covered areas with plastic sheeting (of about 6 mm minimum thickness) in order to minimize the levels of airborne dust. • Mud patches caused by material transport vehicles on the access road should be cleaned immediately. • To suppress dust, the Contractor should sprinkle water on exposed soil and stockpiled material on the Site sufficiently frequently, depending on the weather • Water sprinkling should be done more frequently on days that are dry and windy (at least two times a day), as the levels of dust can be elevated during dry periods. • Control access to the work area and prevent unnecessary movement of vehicles, workers, and public trespassing into work areas; limiting soil disturbance will minimize dust generation	Engineering Cost	Contractor	IA/PMU
06	**Prevention of soil erosion during site preparation**	• Debris material must be disposed of away from waterways and drainage paths so that it does not clog them. • Silt traps should be constructed to avoid siltation into waterways where necessary. • To avoid siltation, drainage paths should not be directed to any waterway directly, and they need to be separated. • Embarkment slopes, slopes of cuts, etc., shall not be unduly exposed to erosive forces. These exposed slopes shall be graded and covered with grass or other suitable material as per the specifications.	Engineering Cost	Contractor	IA/PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		• All fills, backfills, and slopes shall be compacted immediately to reach the specified degree of compaction and establish proper mulch. • Most of the impacts can be avoided if construction work can be carried out during the dry season. • Within the yards and site areas, exposed areas and areas of loose soil shall be turfed or planted with shrubs. Retention of the ground cover and vegetation (to the extent as possible) is the most natural and effective way of protecting soil from erosion by wind and rain; the feasibility of phasing site clearance in this way in order to reduce these impacts should be investigated when the construction work is planned in detail by the Contractor. • Newly-constructed and/or unstable slopes, loose rock and boulders shall be appropriately protected. Embankment surfaces shall be compacted and turfed. Proper drainage improvement works shall be done along with toe areas of embankments and slopes. • Movement of construction vehicles shall be restricted to access roads, haulage routes and yards to prevent damage to roads and pavements.			
07	**Borrowing of earth and management of self-operated borrow sites**	• Extraction and transportation of borrowed materials shall be done only with the approval of the Geological Survey and Mines Bureau. • The Contractor shall comply with the environmental requirements and guidelines issued by the GSMB, CEA, and the respective local authorities with respect to locating new borrow areas. • All borrow pits and areas have to be rehabilitated at the end of their use by the Contractor in accordance with the requirements and	Engineering Cost	Contractor	IA/PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		guidelines issued by the GSMB, CEA, and the respective local authorities and guidelines presented in the ESMP. • Noise and vibration control methods shall be strictly followed and shall comply with national regulations and IFC EHS Guidelines on Occupational Health and Safety. • If earth needs to be burrowed from the tank bed and the burrowing area is in a protected area, permission from the Forest Department is required. • The engineer should clearly map the entire burrowing area of the tank bed and determine the safe depth of burrowing as well as the amount of soil that needs to be burrowed from the tank bed; this information should be notified to the PMU. • Any fauna associated with the burrowing area and along the transport track shall be relocated safely. Any instructions in this regard shall be obtained from the Department of Wildlife Conservation.			
08	**Quarry operations and management of self-operated quarry sites**	• A site operational plan for opening and closing of quarry sites shall be prepared and submitted to the Engineer for clearance with a valid Environmental Protection License (EPL) and Industrial Mining License; • Prior approval needs to be obtained from GSMB, CEA, and LAs as Pradeshiya Sabha. • Selected quarry sites need to have proper safety measures such as warnings, safety nets, etc., and third-party insurance cover to protect external parties that may be affected by blasting.	Engineering Cost	Contractor	IA/PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		• Quarry sites should not be established within protected and sensitive areas. • Materials shall not be obtained from quarries that have ongoing or prone to disputes with the community. • The maintenance and rehabilitation of the access roads in the event of damage by the Contractor's operations shall be the responsibility of the Contractor. • Copies of all relevant licenses have to be maintained by the Contractor for review and documentation by the Engineer. • Noise and vibration control methods shall be strictly followed and shall comply with national environmental regulations and IFC EHS Guidelines on Occupational Health and Safety.			
09	**Impact on habitats and wild life**	• Material extraction activities should be conducted with the guidlines of and recommendations of CEA. • New transportation routes, storage yards and other facilities should be located without impact on the environment sensitive sites, terrestrial habitats and water bodies. • Avoid contamination of water bodies and terrestrial habitats with construction waste • Construction trash, sediments, and runoff containing oil, fuel, or other hazardous elements should not be discharged into waterways. • New invasive species should not be introduced to the project area due to construction related activities.	Engineering /Environmental cost	Contractor	IA/PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		• Restoration of impacted habitats once construction and material extraction is completed up to their original status. • To minimize any influence on fauna and flora, vegetation clearing should be kept to a minimum. • Conservation of biodiversity with special attention to endemic and threatened species • For the working population, wildlife poaching is completely illegal. • Fencing of construction areas to protect animal without access to construction zones.			
09	**Operation of machinery**	• Only personnel who have prior experience in operating machinery, equipment, and material processing plants should be employed for the project. • Ensure that all the construction equipment and machinery are fitted with emission control devices which are operating correctly; ensure that only those vehicles and equipment in good condition and are in good maintenance are used for project construction. Vehicles and machinery are to be kept in good working order and to meet the manufacturer's specifications for safety, fuel consumption, etc. • Vehicles/equipment should have a valid Vehicle Emission Certificate (VEC) showcasing emissions below the specified limits; Maintain VEC records of all vehicles at all times for ready inspection at the work sites	Engineering Cost	Contractor	IA/PMU
10	**Noise from vehicles, machinery,**	• No activities shall be carried out that generate excessive noise during the night hours (from 6:00 pm to 6:00 am)	Engineering Cost	Contractor	IA/PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
	equipment and construction activities.	• High noise generating machinery will not be used for the constriction activities. • All equipment and machinery should be operated at noise levels that do not exceed the maximum permissible noise levels at the boundaries of the land in which the sources of noise are located for construction activities are 75dB (A) L_{Aeq} during daytime and 50 dB (A) L_{Aeq} during night-time (Daytime: 6.00 am – 9.00 pm, night time: from 9.00 pm – 6.00 am). • All equipment should be in good working condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA [Gazette Extraordinary, No 924/12 (1996)] • Idling of temporary trucks or other equipment should not be permitted during periods of loading or unloading or when they are not in active use. This practice will be ensured, especially near residential and sensitive areas. • The effectiveness of exhaust silencers shall be checked during routine servicing operations and, if found defective, will be replaced. • To keep noise levels at a minimum, maintenance of vehicles, equipment, and machinery should be regular and up to the satisfaction of the Engineer. Health Impacts of Noise and Vibration:			

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		• If a worker is exposed to noise above a noise exposure limit, the Contractor must look for options for engineered noise control, such as using low-noise excavators, jackhammers, drills, and power generators. • Limit the duration of each worker depending on the Exposure Levels and Time Limits for corresponding exposure levels (follow IFC Occupational Safety Standards) • If it is not practicable to reduce noise levels to or below noise exposure limits, the Contractor must post warning signs in the noise hazard areas. Workers in a posted noise hazard area must wear hearing protection. • Use non-explosive blasting chemicals, silent rock cracking chemicals, and concrete breaking chemicals are preferred.			
11	**Pollution of soil and water due to fuel, lubricants and other hazardous waste**	• All construction vehicle parking areas, fuel/lubricant storage areas, vehicle, machinery, and equipment maintenance and refuelling areas, and vehicle, machinery, and equipment refuelling sites must be located away from the construction area. • Fuel and lubricant spills must not contaminate the ground or water. • The Contractor should arrange for the collection, storing, and disposal of oily wastes at the pre-identified disposal sites for the approval of the Engineer. • All spills and collected petroleum products should be disposed of in accordance with standards set by the CEA. • Oil interceptors shall be provided at appropriate locations (e.g., vehicle service areas); Residual and hazardous wastes such as asphalt and	Engineering Cost	Contractor	IA/PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		bituminous waste (if any), solvents, oils, fuels, and lubricants shall be disposed of in approved disposal sites approved by the CEA • Hazardous material, including oil and grease to be collected in leak-proof, properly-labelled containers and stored appropriately. Proper signs should be displayed for hazardous waste) and should be handed over to authorized third parties who have CEA licenses • Concrete, slurry, paints, and chemicals such as bituminous products (if any), fuel, lubricants, paints, solvents, and other chemicals shall be stored at designated places, well-sheltered and impervious floors (preferably paved). The paving area of the storage yards be provided with a gentle slope and shall be made so that any leaks/spills can be collected into a chamber for safe disposal. Such chemicals shall be well-managed, and efforts shall be made to minimize waste generation.			
12	**Loss of minor water sources and disruption to water users**	• The Contractor should make workers aware of how to minimize and conserve water during construction. • Arrange an adequate supply of water for the project's purpose throughout the construction period and, if necessary, obtain water from ground or surface water bodies, with permission from the Engineer and relevant authority. • Apply best management practices to control contamination of run-off water during maintenance and operation of equipment. • The Contractor needs to protect sources of water used by the community so that continued use of these water sources will not be disrupted by the work.	Engineering Cost	Contractor	IA/PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		• If the Contractor's activities adversely affect the quantity or quality of water, the Contractor will serve notice to the relevant authorities and downstream users of water sufficiently in advance.			
13	**Preventing siltation into water bodies**	• The Contractor needs to take the necessary measures to prevent the siltation of water. • Construction materials containing small or fine particles should be stored in places without being washed away by run-off. • Temporary soil dumps should be placed at least 200–250 m away from water sources and covered with thick polythene sheets. • All fills, backfills, and slopes should be compacted immediately to reach the specified degree of compaction and establish proper mulch. • Avoid earthworks during rainy days and monsoon season to prevent soil run-off and schedule works during the dry season when the water levels are low • Avoid stockpiling of earth fill during the monsoon season unless covered by tarpaulins or plastic sheets; Install temporary silt traps or sedimentation basins along drainage leading to water bodies.	Engineering Cost	Contractor	IA/PMU
14	**Preventing contamination of water from construction waste**	• To avoid construction-related effluent from immediately contaminating water sources or irrigation systems, the steps outlined in this ESMP must be followed. • The discharge standards, as stipulated in the National Environmental Act, must be strictly adhered to.	Engineering Cost	Contractor	IA/PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		• Place storage areas for chemicals, fuels & lubricants away from any drainage leading to water bodies; Store fuel, construction chemicals, etc., under shelter and on an impervious floor, also avoid spillage • Pump out the water collected in the pits/excavations to a temporary sedimentation basin and dispose of only clarified water into drainage channels/streams • Consider safety aspects related to trench/pit collapse due to the accumulation of water; dispose of any residuals at the identified disposal site, and stockpile construction material away from water bodies, floodplains and reservations • No spillage of oil, grease, chemicals, etc., into the wetlands and water bodies, floodplains and reservations; Ensure that no silt-laden run-off from nearby construction area enter the water bodies; • Do not clean or wash machinery and equipment near water bodies; prevent any waste/water from discharging to water bodies. • Inspect all vehicles daily for fluid leaks before leaving the vehicle staging area, and repair any leaks before the vehicle resumes operation • Excess water sprinkling on soil and material to control dust may also generate run-off, which may enter the water bodies; this should be avoided by controlled water sprinkling			
15	**Impacts on drainage canals, natural drainage paths and**	• The Contractor's activities shall not lead to flooding conditions as a result of blocked drainage paths and drains or any other modifications to be built- and/or natural drainage canals/paths.	Engineering Cost	Contractor	IA/PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
	activities that would cause (local) flooding	• The Contractor may not permanently close or block existing canals and streams. If needed, obtain approval from the relevant agencies, such as ID/Divisional Secretary, prior to such action being taken. • The Contractor shall take all measures necessary and as directed by the IA to keep all drainage paths and drains clear of blockage at all times. Contractors must return the Site to its original condition once the need for such a diversion, closure, or blockage has passed. • If flooding or stagnation of water is caused by the Contractor's activities, contractors shall provide suitable means to (a) prevent loss of access to any land or property and (b) prevent damage to land and property. • After completing the canal rehabilitation sections, the canal sections should be cleared of all debris, waste, etc., prior to the water issue so that no d/s pollution occurs. • Works associated with the gated structures, such as sandblasting and painting, should be done outside the canal and installed at the completed gate to avoid any water pollution due to hazardous waste material. • The Contractor shall not select land within flood-prone areas to dispose of excavated and spoil material, locations for material stockpiles, yards and other locations where other construction materials are stored			
16	**Public Safety**	• The Site should always have entrance restrictions for the general public. Restrict public access to all areas where construction works are ongoing through the use of barricading and security personnel.	Engineering Cost	Contractor	IA/PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		• Ensure that all material, equipment, workers and all activities are conducted within the demarcated/barricaded strip of land along the road; there should be no spillage of any activity outside this zone • In all relevant areas, safety signboards and signboards that forbid entry and warn of risks should be visible. • To cover any losses or harm to members of the public or construction workers during the project, the Contractor will secure third-party insurance. • Under supervision, only personnel with training and experience shall drive any construction trucks. The safety of pedestrians shall be made a priority while hauling material. • Control dust pollution to ensure public safety during material hauling – implement dust control measures as suggested under air quality • Plan transportation routes to avoid heavily populated areas; Schedule deliveries to avoid congested areas during morning and evening peak traffic periods; Astute coordination to combine deliveries where possible to avoid under-utilization of vehicles and reduce the number of journeys • Source materials in close proximity (within Eastern Province) and other local outlets wherever possible to reduce the length of delivery journeys			
17	**Safety of workers** **Occupational health & safety**	• To the extent that is applicable to this contract, the Contractor should adhere to the requirements for the workers' safety as outlined in ILO Convention No. 62, the Safety & Health Regulations of the Factory	Engineering Cost	Contractor	IA/PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		Ordinance of Sri Lanka and IFC EHS Guidelines on Occupational Health and Safety. • Provide compulsory H&S orientation training to all new workers to ensure that they are apprised of the H&S Plan, including rules of work, PPE, preventing injury to fellow workers, etc.; Conduct regular toolbox safety briefings; tendencies, causes, risks & safe procedures • The Contractor should provide all necessary safety equipment, such as first aid kits and fire extinguishers, for the work site. • The site office should have signage in the local tongues with instructions on first aid management, emergency contact information, and emergency operational protocols. • Prior to the start of the construction activities, all labourers should get fundamental on-site safety instruction during the ESMP course. • A briefing on the dangers of working on a dam rehabilitation site should be included in the training provided to labourers. • Workers who are subjected to loud noises and those engaged in crushing, compaction or concrete mixing processes shall be given earplugs. • The Contractor is responsible for providing PPE; safety gear, including masks, earplugs, safety belts, helmets, Boots shoes, safety goggles as well as insect repellents as required. • Provide adequate supplies of potable drinking water; Provide clean food and eating areas where workers are not exposed to hazardous or noxious substances.			

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		• Ensure the visibility of workers through their use of high-visibility vests when working in or walking through heavy equipment operating areas • Ensure moving equipment is outfitted with audible backup alarms • Mark and provide sign boards for hazardous areas such as energized electrical devices and lines, service rooms housing high-voltage equipment, and areas for storage and disposal. Signage shall be in accordance with international standards and be well known to and easily understood by workers, visitors, and the general public as appropriate. • Disallow worker exposure to high noise for more than 8 hours/day without hearing protection. The use of hearing protection shall be enforced actively. • Employ workers with adequate experience, training, and know-how. These workers shall be led by an experienced supervisor or Engineer who will provide the leadership in daily activities. • General regard for the social and ecological well-being of the Site and adjacent areas is expected of the site staff. Workers need to be made aware of the following general rules: (i) no alcohol/drugs on-site; (ii) prevent excessive noise; (iii) construction staff are to make use of the facilities provided for them, as opposed to ad-hoc alternatives (e.g., fires for cooking, the use of surrounding bushes as a toilet facility); (iv) no fires permitted on-site except if needed for the construction works; (v) trespassing on private/commercial properties adjoining the Site is forbidden; (vi) other than pre-approved security staff, no workers shall be permitted to live on the construction site; and (vii) no worker may be			

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		forced to do work that is potentially dangerous or that he/she is not trained to do. • The Contractor must monitor the performance of construction workers to ensure that the points relayed during their induction have been properly understood and are being followed. If necessary, a translator shall be called to the Site to explain further aspects of environmental or social behaviour that are unclear. • The rules that are explained in the worker conduct section must be followed at all times.			
18	**Prevention of accidents**	• Prevention of accidents involving the public or vehicles or accidents during construction periods will be done via adequate training and guidance to all workers. • The site office should always have a first aid kit on hand, along with a sufficient supply of sterile dressing materials and first aid equipment. • The availability of suitable transport to take injured or sick people to the nearest hospital should also be ensured. • A notice board with names and phone numbers for emergency services such as ambulance services, hospitals, police, and the fire brigade should be prepared. • In any case, if it is decided to set up a labour camp or construction vehicle and equipment parking area adjacent to the tank (under approval of the Engineer), a sentinel person should be stationed there to monitor any animal or elephant presence in or around the camp.	Engineering Cost	Contractor	IA/PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		• Provide garbage collection pits in the worker camp areas and waste should be segregated and stored in the pits until the local authority collection is done. (Prevention of crop damages by elephants) • construct temporary electric fences to protect their paddylands as well as permanent electric fences around the village to protect the homesteads and perennial crops grown in their home gardens.			
19	**Operation of labour camps**	• Avoid/minimize the requirement to establish camps by hiring and employing local workers as far as possible; the presence of workers throughout the day and night during the construction work will disturb the environment, Worker camps should be operated adhering the General health guidelines or any special conditional guidelines stipulated by the government during the implementation period. • If necessary, the Contractor to identify a barren, vacant land (preferably private unused land) to establish the camp nearby; ensure that such camp is at least 500 m away from habitation, water bodies, scrublands, etc., and well away from forest reserves • A sufficient quantity of potable water should be provided in each workplace/labour camp site at suitable and easily accessible locations, and such provisions will be maintained on a regular basis. • The sewage system for the offsite labour camp, if newly established, should be designed, built, and operated in such a fashion that no health	Engineering Cost	Contractor	IA/PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		hazards occur and no pollution to the air, groundwater, or adjacent water courses takes place. • All urinals and toilets should have an adequate water supply. • A contractor should provide garbage bins in the camps and ensure that these are regularly emptied and disposed of in a hygienic manner. • Separate the workers' living areas and, material storage areas, work sites clearly with fencing (electric fencing is needed to keep the wild animals away) • Ensure conditions of liveability at work camps are maintained at the high standards possible at all times; living quarters and construction camps shall be provided with standard materials with proper ventilation) and facilities constructed with materials like GI sheets, timber planks, etc. • The camp shall be provided with proper drainage. There shall not be any water accumulation.			
20	**Handling of environmental and social issues during construction**	• The Contractor shall prepare a detailed Environmental Method Statement (EMS) clearly stating the approach, actions, and way the ESMP is implemented. The contractor staff should align to the code of conduct guide lines provided in the Bidding document. • The Contractor should appoint a suitably qualified person to look after environmental and social (E&S) aspects of the project following the award of the contract. This person will be the primary point of contact for assistance with all environmental issues during the pre-construction and construction phases. This E&S officer will be responsible for	Engineering Cost	Contractor	IA/PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		ensuring the implementation of ESMP. Should the construction staff be approached by members of the public or other stakeholders, the staff shall assist them in locating the E&S officer or Contractor or provide a number by which they may contact the environment management specialist or Contractor. • The Contractor should assign the E&S officer the responsibility to liaise with the public and to handle public complaints regarding environmental or socially related matters. • The conduct of the construction staff when dealing with the public or other stakeholders shall be in a manner that is polite and courteous at all times. Failure to adhere to this requirement may result in the removal of staff from the Site by the E&S officer. • A complaints register shall be kept at the site office. This shall be in carbon copy format, with numbered pages. Any missing pages must be accounted for by the Contractor. This summary of the register shall be included in the monthly report to be submitted by the Contractor to IA. Interested and affected parties need to be made aware of the existence of the complaints book and the methods of communication available to them. • The Contractor must address queries and complaints by (i) documenting details of such communications, (ii) submitting these for inclusion in the complaints register, (iii) bringing issues to IA's attention immediately, and (iv) taking remedial action as per IA's instruction. • The Contractor shall immediately take the necessary remedial action on any complaint/grievance received by him and forward the details of the			

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		grievance, along with the action taken, to the environment management specialist within 48 hours of receipt of such complaint/grievance.			
21	**Management of chance find of Archaeological Property**	• All fossils, coins, articles of the value of antiquity, structures, other remains or things of geological or archaeological interest, etc., discovered on the Site and/or during construction work shall be the property of the GoSL and shall be dealt with as per provisions of the Antiquities Ordinance of 1940 (Revised in 1956 & 1998) • The Contractor shall take reasonable precaution to prevent his workmen or any other person from removing and damaging any such article or thing and shall, immediately upon discovery thereof and before removal, acquaint the Engineer with such discovery and carry out the Engineer's instructions for dealing with the same, awaiting which all work shall be stopped within 100m in all directions from the Site of discovery. • If directed by the Engineers, the Contractor should obtain advice and assistance from the Department of Archaeology of Sri Lanka on conservation measures to be taken with regard to the artefacts prior to the recommencement of work in the area.	Engineering Cost	Contractor	IA/PMU
22	**Chance finds of important Flora/Fauna**	• All work shall be carried out in such a manner that the destruction or disruption to the fauna and their habitats is kept to a minimum. • The Contractor must immediately notify the IA/PMU if any rare, threatened, or endangered flora or fauna species are discovered.	Engineering Cost	Contractor	IA/PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		• All activities that threaten such flora and fauna and/or their habitat must be halted immediately. Such activities shall be started only after obtaining the Engineer's approval. The Contractor shall carry out all activities and plans directed by the Engineer in order to conserve such flora and/or their habitat. • Construction workers should be instructed to protect fauna, including birds and aquatic life, as well as their habitats.			
23	**Site closure and demobilization**	• Prior to completing site demobilization, the Contractor should clear the project site of any extra supplies, tools, and vehicles. • If coffer dams were built, they must be totally removed, together with any accompanying debris, from the Site. • There should be a complete dismantling and removal of all temporary site offices. • According to the Engineer's assessment, if the parking areas, material store/stock areas, machinery and equipment yards, labour camps have deteriorated in any manner, the Contractor should restore it to its pre-demobilization state. • Turfing, planting of trees, and stabilization of the surface areas should be done together with any drainage structures and erosion control measures.	Engineering Cost	Contractor	IA/PMU
24	**Prevention of issues (e.g., GBV) related to labour influx**	• Avoid or reduce labour influx where possible • Contractors to implement robust measures to prevent sexual harassment and gender-based violence (GBV)	Engineering Cost	Contractor	IA/PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
		• Make the workforce aware of unacceptable conduct. • Include a Worker Code of Conduct as part of the employment contract and introduce sanctions for non-compliance (e.g., termination).			
Post Construction/Operation and Maintenance Phase					
01	**Greening and maintenance of earthen embankment**	• Only native species of plants may be used for the planting process. • Attempts will be made to identify suitable "living filter" plant species that are known to minimize the amount of nutrients and sediments flowing into the aquatic environment. • A supply of water will be available for the routine maintenance of the vegetation until it establishes naturally. • Routine maintenance of planted species will be conducted to identify issues with their establishment on Site. • Replacement planting will be conducted as appropriate.	Operational Cost	Facility Operator	IA, CEA
02	**Income generation for beneficiaries during construction periods**	• Providing labour and other services for construction units can be allocated to local communities after providing the required training to ensure enough income for local communities. During training, women would be given priority.	Operational Cost	Contractor	IA, PMU

No	Activities and/or Associated Impact	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
03	**Provide adequate support for social organizations in the community**	• It is advised that some beneficiary services be provided to community organizations through cooperative social responsibility budgets in order to preserve the goodwill of the community	Operational Cost	Contractor	IA, PMU

Integrated Watershed and Water Resources Management Project (IWWRMP)

Standard Procedure for Ensuring Occupational Health and Safety When working in Wildlife Area

June, 2025

Content

1. Purpose

Workers who are working in wildlife or forest areas can be exposed to wildlife threats. Therefore, persons working in these areas need to strictly follow the guidelines and regulations given by the relevant authority. To fulfill this requirement, contractors and workers will have to follow the occupational health and safety guideline covered in this document during their working period in the wildlife/ forest areas.

2. Common hazards that may occur when working in Wildlife areas

1. Infectious disease transmission from mosquito or small animal bites.
2. Swelling, mild or severe allergic reactions from stinging insects.
3. Swelling, mild or severe allergic reactions or death from snake bites.
4. Serious injury or death from contact with large mammals or reptiles.

3. Planning for Occupational Health and Safety (OHS).

1. Review identified area, its nature, jurisdiction, conservation status and relevant authority.
2. Plan to get relevant authorization and get clear idea about given conditions and required OHS measures.
3. Purchasing of relevant safety equipment. (Example – Personal Protective Equipment)
4. Provide necessary training to staff. (Example – First Aid, emergency protocols)
5. Appoint a person to supervise OHS.

4. Safe Operating Procedure

4.1 General procedures

4.1.1 Obtain conditional approval from an authorized agency (Example – Department of Wildlife Conservation / Forest Department).

4.1.2 Understand the given conditions and take action to aware all workers (including drivers and supporting staff) of the given conditions.

4.13 Obtain the service of 01 or 02 officers from relevant authorized agencies and always accompany them to relevant sites and work under their supervision and guidance.

4.1.4 If any risks or danger is anticipated, felt or identified in the area of work, immediately take action to inform authorized persons and get their direction.

4.2 Common preparedness

4.2.1 Be aware of working area and current conditions and history. (Example –elephant attacks / crocodile attacks)

4.2.2 Always carry a mobile phone or some communication system. (In some protected areas of Sri Lanka, there is no mobile phone coverage).

4.2.3 Select suitable vehicles, at least two vehicles should be mobilized (good condition,4-wheel, toolbox, tore ropes and winch, etc.). Persons will not engage in any activities alone.

4.2.4 Always bring a first aid box/ stretcher.

4.2.5 Be aware of nearest hospital and nearest route.

4.2.6 Be equipped with enough clean drinking water for workers.

5. Common protocol to follow

1. Be aware of your surroundings, and note any wild or suspicious acting animals in your working area.
2. Identify and be aware about wild animals' active times and try to avoid those times.
3. Avoid reaching or stepping into or over hidden areas that may contain wildlife.
4. Be aware of signs that indicate above or below ground animal nests. Also, take appropriate action to prevent contamination of these areas.
5. Avoid direct contact with birds, bats, or other animal droppings.
6. Avoid direct contact with animal blood. If contact cannot be prevented, wear rubber gloves and dispose properly.
7. Do not feed any wild animal.
8. Do not capture / harm wild life or plant species and do not collect any thing from protected area. (Example fallen animal horns, bones, tusks (ivory), etc).
9. Set fire under (if necessary) should do under supervision of wildlife officers and after use take action to completely extinguish it.
10. Allocate one person to be on guard/vigilance while other workers are at work

6. Precautional actions

6.1 Precautions against bees/ wasp stings/bites

6.1.1 Awareness about working areas and presence of bee hives or wasp nests .

6.1.2 Do not wear perfumes, colognes, scented soaps or powders.

6.1.3 Tuck pants into your socks or working boots.

6.1.4 Wear safety hats with face protecting net.

6.1.5 Do not make more noise than necessary when working.

6.1.6 Establish safety cage with enough space. (If possible)

6.1.7 Provide safety kit for workers

6.1.8 If you decided to remove bee/ wasp nest from working site, the authorized agency (example Department of Wildlife Conservation -DWLC) should be informed and their concurrence and assistance should be sought prior to implementation.

6.1.9 Always consult and take a service from qualified pest-removal expert. (Example – Bee conservation Society of Sri Lanka)

6.2 Precautions against large mammal attacks

6.2.1 Be aware of working site, access routes etc.

6.2.2 Be aware on animal movement routes, times, nature of the animals etc.

6.2.3 Try to avoid contact with wild animals. (Example – use an alternative route)

6.2.4 Request wildlife officers to bring/provide safety equipment (Example - Thunder-flashes).

6.3 Precautions for prevention of snake bites

6.3.1 Be vigilant and aware of working area.

6.3.2 Always wear safety boots.

6.3.3 Do not put hands or legs into hidden holes, anthills or any hidden spots.

6.3.4 Do not touch dead or live snakes.

6.4 Precautions for prevention of crocodile attacks

6.4.1 Be vigilant and aware of working area on crocodile signs (Example – foot prints, scats, hiding holes etc) and if those signs are available immediately inform to authorized officials and get their advises.

6.4.2 Do not put your hands or legs in to crocodile hiding holes / do not enter into crocodile hiding holes.

6.4.3 Do not enter into unsafe water.

6.4.4 If you need to work in open waters, establish protective cages.

6.4.5 Observe the working area thoroughly before entering in to open waters or protective cages.

7. General Conditions of workers

1. Workers should be in good health condition.
2. Should agree to follow given conditions and safety measures given from time to time and unexpected conditions.
3. Do not consume alcohol while working.
4. Always pay attention to surroundings.
5. Always stay as a group.
6. Do not litter.
7. Aware of all Do's and Don'ts. (contractor and supervision officers are responsible for this).
8. Establish temporary signboards on Do's and Don'ts at working sites.

9. Personal Protective Equipment needs to used

1. Insect repellant
2. Long-sleeved shirts and pants (Jungle green/ dark colour)
3. Safety boots
4. Insect spray designed for bees/wasps/hornets
5. Safety hats with face protector (specially protect from bees and wasps)
6. Life jackets/ raincoats.
7. Life saving equipment for working in water.
8. Re-chargeable torches / lighting equipment.

Integrated Watershed and Water Resources Management Project (IWWRMP)

Ministry of Irrigation

Labor Management Plan

(Including site management and camp management measures)

June 2023

Abbreviations

IA	-	Implementing Agency
IWWRMP	-	Integrated Watershed and Water Resources Management Project
LMP	-	Labor Management Plan
PMU	-	Project Management Unit
PHI	-	Public Health Inspector
GBV	-	Gender Based Violence

Introduction

Labor Management Plan (LMP) of the Integrated Watershed and Water Resources Management Project (IWWRMP) provides basic guidance to contractors to smoothly operate project activities without creating harm to workers and communities. Selected contractors shall follow this plan including relevant national labor management laws, regulations and practices. The labor management plan consists of site management measures and camp management measures which outlines a range of mitigation measures designed to avoid or reduce undesired labor management, site management and camp management impacts during construction.

The plan has been prepared by structuring relevant major subject areas that need to be paid attention to and providing mitigation measures including details of responsible entities for implementation and frequency of monitoring to the identified risks and potential impacts.

Objectives of the plan

The objectives of the labor management Plan are:

- Avoid or reduce negative impacts on environment due to establishment of project sites.
- Establish standards on worker welfare and living conditions at the camps that provide a healthy, safe and comfortable environment.
- Avoid or reduce negative impact on community and maintain constructive relationships between local communities and workers' camps.

Roles and responsibilities

- Contractor shall ensure sufficient resources are allocated on an ongoing basis to meet the requirements of this Plan.
- Contractor shall strictly adhere to national labor acts, rules and regulations pertaining to terms and conditions of employment and labor management.
- The Contractor shall pay attention to implement labor management plan monitor the progress.
- Contractor shall facilitate to PMU or IA to monitor the progress of LMP.
- Contractor shall comply to make necessary amendments to the LMP after the site inspections of PMU, IA or authorized entity.
- Contractor shall comply to ensure that all workers sign the GBV Code of Conduct (CoC), provide necessary awareness and trainings to laborers about rules and regulations, guidelines and general information time to time.

No	Major field	Sub field	Mitigation and management measures	Responsibility	Monitoring frequency
1	Plan basic arrangements of worksite management	Site identification and demarcation	Contractor should identify the exact area of work site before start project activities.	Site engineer & Contractor	-
			Contractor should plan the work site to identify appropriate places for site office, labor camps, yards, stores, parking areas etc.	Site engineer & Contractor	-
			Contractor should obtain relevant approvals form IA and site engineer.	Contactor	-
			Fence or protective measure should be placed around the work site.	Contactor	-
		Control public access to work site	All public access to the work site should be prohibited or controlled to avoid risk to the public.	Contactor	Monthly
			Signboards should be displayed at all entry points which indicating "Authorized entries only" or "prohibited to public entrance".	Contactor	Monthly
			Contractor shall take action to establish a temporary security point at the entrance and assigned a person to duty for 24 hrs. for security of the site and monitor vehicle and monitoring transfer of goods into and out of camps.	Contactor	Weekly
			A register shall be maintained at the security point to register all labors/ officers/vehicles which enter / departure to/from the work site.	Contactor	Weekly
		Disclose of basic information to workers and interest groups	Contractor should established signboards at the main entry point to display detailed information of the proposed project.	Contactor	Monthly
			Safety signs should be displayed at the entrance and other necessary places at the work site.	Contactor	Monthly
			Contractor should established a notice boards at the work site and necessary information should be displayed in time to time.	Contactor	Monthly
		Establishment of site office	Contractor should established a site office according to the site plan and should maintain appropriate working condition.	Contractor/ Site engineer	-
			Necessary documents (guidelines, ESMP, copy of approvals etc.) should be placed at the site office.	Contactor	Monthly

No	Major field	Sub field	Mitigation and management measures	Responsibility	Monitoring frequency
			First aid box with essential drugs should be placed at the site office.	Contactor	weekly
			Fire protection equipment should be placed at the site office.	Contactor	Monthly
			Contractor should maintain an extra stock of safety equipment at site office to issue when necessary.	Contactor	Monthly
			Hazards, explosives or any harmful chemicals should not stock in the site office.	Contactor	weekly
2	Plan work site arrangement	Readiness for emergency response	Contractor shall develop an emergency response plan that meets requirements of emergency situation.	Contractor	-
		Ensure the safety of workers	Contractor should be placed temporary fences/ barricade tapes or protective measures to identify working areas, heavy machinery operating areas and areas where having deep excavations and activities of hazardous nature for the workers.	Contractor	Every 2 weeks
			Specific area in the site should be reserved to store construction materials.	Contractor	Monthly
			Specific area /place/ rooms should be reserved for store Hazards, explosives or harmful materials or chemicals.	Contractor	Weekly
			Materials should stock pilled without exceeding approved height.	Contractor	Monthly
			Areas should be demarcated to park vehicles/ heavy machines or vehicle repairing and relevant sign boards should be displaced.	Contractor	Monthly
			All vehicles used by any contractor for the purpose of the project will have valid registration, insurance and road worthiness.	Contractor	Daily
			Fire protection equipment should be established in the work site at most essential places.	Contractor	Every 2 weeks
			Workshops, Stores, should establish according to the approved site plan.	Contactor	-
			Equipment (including power tools) should store properly, listed and assigned a person to issuing and receiving.	Contractor	Weekly

No	Major field	Sub field	Mitigation and management measures	Responsibility	Monitoring frequency
3	Establishment of Pollution Control measures	Control of Dust and emission,	Stock pilled materials should be covered with appropriate cover or sprinkling water to control dust emission.	Contractor / Site engineer	Daily
			Dust emission form earth works (when operating) should controlled by sprinkling water.	Contractor / Site engineer	Daily
			Contractor should take action to transport excavated debris to approved dumping sites and should not store at work site.	Contractor / Site engineer	Daily
		Control of noise and vibration	Contractor shall adhere to strictly follow given condition for noise limits and vibration limits. (far day and night)	Contractor / Site engineer	Daily
		Control of water pollution	Silt traps should be established in relevant places.	Contractor / Site engineer	Monthly
			Proper solid waste management mechanism should be established in the work site.	Contractor / Site engineer	Daily
			Precautions should be established to avoid oil, fuel or lubricant contamination.	Contractor / Site engineer	Daily
		Final clearance and restoration of worksite	After the completion of project activities contractor shall carefully remove all temporary buildings, huts, stocked pilled materials, temporary blocks of streams etc. form the work site and follow up the approved site restoration actions.	Contractor / Site engineer/PMU	-
4C	Labor management measures	Adhere to laws and regulations	No labor under the age of 18 will be hired for work under this contract.	Contractor	Daily
			Contractor shall strictly follow relevant national labor laws and acts related to terms and conditions of employment (i.e. related to salary payments, working hours, leave etc.) and issue employment letters/contracts to workers with details of the employment terms/conditions.	Contractor	-
			Contractor shall obtain necessary approval when increased the number of workers in labor camps	Contractor	-
			Contractor shall maintain a log of any grievances/complains and actions taken to resolve them.	Contractor	Weekly
			Any complaints related to sexual harassment / gender based violence should be immediately reported to the PMU who in turn will report to World Bank for necessary guidance on the	Contractor	

No	Major field	Sub field	Mitigation and management measures	Responsibility	Monitoring frequency
			actions to be taken.		
			Workers shall abide by camp rules which includes a disciplinary process.	Contractor	Daily
			Contractor shall limit workers interaction with community when outside the camp.	Contractor	Daily
			Contractor's personnel shall not engage in any discrimination or harassing behavior.	Contractor	Daily
		Arrangement for conduct basic awareness for workers	Contractor shall take action to develop a labor code of conduct and translated it in to local languages upon clearance from the Engineer. The code of conduct must be made available to all staff and displayed in the work site in local languages. All workers will required to sign the Code of Conduct.	Contactor	Monthly
			Contractor shall give necessary advices and instructions to all labors and drivers of the site to follow code of conducts.	Contractor/Site engineer/IA/PMU	When necessary
			Contractor shall take action to conduct labor awareness programs to educate the laborers about the code of conduct, general conduct, the Environmental and Social Management Plan, Occupational Health and Safety etc.	Contractor/Site engineer/IA/PMU	When necessary
		Labor safety and welfare facilities	Contractor shall provide sufficient safety gears to labors and need to monitor the utilization.	Contractor/ Site engineer	Daily
			Contractor shall take action to follow safety measures specially in handling of explosives, hazard chemicals, electricity etc.	Contractor/ Site engineer	Daily
			Contractor shall provide equal facilities / standards for all labor camps in the site and do not make any differences on worker's race, gender or nationality.	Contractor/ Site engineer	Daily
			Contractor, as appropriate, shall provide adequate recreation facilities for workers to reduce incentive for leaving camps during leisure time.	Contractor/ Site engineer	Monthly
			Contractor shall pay more attention and provide better quality safety equipment to the workers who are engaging with danger/ risk activities.	Contractor	Daily
		Recognition of	Contractor may provide prayer rooms and other facilities, as	Contractor	Monthly

No	Major field	Sub field	Mitigation and management measures	Responsibility	Monitoring frequency
		cultural, nationality, religion rights.	necessary and to the extent practicable, to satisfy the religious needs and customs of its workforce. (if necessary)		
5	Labor Camp management	Planning of Labor camps	Labor camps shall be established according to the approved site plan.	Contractor/ Site engineer	-
		Address community grievances	PMU or IA may request that camp related activities/operations be amended to address community grievances. Contractor shall comply with these requests.	Contractor	-
			Establishment of labor camps shall be commenced only upon the written approval of the Engineer.	contractor	-
			IA/ PMU may request that camp related activities/operations be amended to address community grievances. Contractor shall comply with these requests.	Contractor	-
		Maintain health condition	Contractor shall comply with the minimum health requirements for project execution and the community Health and Safety Management Plan which set out requirements and management measures on controlling communicable diseases within camps and to outside communities.	Contractor	Daily
			Contractor shall routinely monitor the quality and supply of water and other health related facilities.	contractor	Monthly
		Maintain Living and hygienic conditions	Contractor shall be maintained necessary living accommodation and ancillary facilities in functional and hygienic manner and as approved by the Engineer.	Contractor	Monthly
			Contractor should provide separate resting and sanitary facilities for both men and women laborers.	Contractor	Monthly
			All temporary accommodation should be established and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing.	Contractor	Monthly
			Washrooms should have sufficient and proper water supply.	Contractor	Weekly
			Drinking water facility should be provided to labor camps.	Contractor	Daily
		Application of Waste management measures	The sewage system for the camp, if not available, shall be planned & implemented with concurrence from the Local Public Health Officer (PHI).	Contractor/ Site engineer	-

No	Major field	Sub field	Mitigation and management measures	Responsibility	Monitoring frequency
			Proper solid waste management system (waste collection method/ separation method and final disposal method) should be established at labor camps.	Contractor	Weekly
			Waste water (from kitchen, washrooms, canteen etc.) should not release into open water bodies or streams.	Contractor	Weekly
		Final clearance and camp demolishing	After the completion of project activities contractor shall carefully remove all temporary buildings, huts, labor camps, toilets form the work site. Temporary toilet pits should treat and demolish accordance to approved health guidelines. Approved site restoration actions should implement.	Contractor/IA/ PMU	-

Sample Code of Conduct

Individual Code of Conduct

Implementing ESHS and OHS Standards

Preventing Gender Based Violence

I, _____, acknowledge that adhering to environmental, social, health and safety (ESHS) standards, following the project's occupational health and safety (OHS) requirements, and preventing Gender Based Violence (GBV) is important. The Company considers that failure to follow ESHS and OHS standards, or to partake in activities constituting GBV—be it on the work site, the work site surroundings, at workers' camps, or the surrounding communities—constitute acts of gross misconduct and are therefore grounds for sanctions, penalties or potential termination of employment. Prosecution by the Police of those who commit GBV may be pursued if appropriate.

I agree that while working on the project I will:

1. Consent to Police background check.
2. Attend and actively partake in training courses related to ESHS, OHS, and GBV as requested by my employer.
3. Will wear my personal protective equipment (PPE) at all times when at the work site or engaged in project related activities.
4. Take all practical steps to implement the contractor's environmental and social management plan (C-ESMP).
5. Implement the OHS Management Plan.
6. Adhere to a zero-alcohol policy during work activities, and refrain from the use of narcotics or other substances which can impair faculties at all times.
7. Treat women, children (persons under the age of 18), and men with respect regardless of race, color, language, religion, political or other opinion, national, ethnic or social origin, property, disability, birth or other status.
8. Not use language or behavior towards women, children or men that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate.
9. Not sexually exploit or abuse project beneficiaries and members of the surrounding communities.
10. Not engage in sexual harassment of work personnel and staff —for instance, making unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature is prohibited. E.g. looking somebody up and down; kissing, howling or smacking sounds; hanging around somebody; whistling and catcalls; in some instances, giving personal gifts.
11. Not engage in sexual favors —for instance, making promises of favorable treatment (e.g. promotion), threats of unfavorable treatment (e.g. loss of job) or payments in kind or in cash, dependent on sexual acts—or other forms of humiliating, degrading or exploitative behavior.
12. Not use prostitution in any form at any time.

13. Not participate in sexual contact or activity with children under the age of 18—including grooming, or contact through digital media. Mistaken belief regarding the age of a child is not a defense. Consent from the child is also not a defense or excuse.
14. Unless there is the full consent[1] by all parties involved, I will not have sexual interactions with members of the surrounding communities. This includes relationships involving the withholding or promise of actual provision of benefit (monetary or non-monetary) to community members in exchange for sex (including prostitution). Such sexual activity is considered "non-consensual" within the scope of this Code.
15. Consider reporting through the GRM or to my manager any suspected or actual GBV by a fellow worker, whether employed by my company or not, or any breaches of this Code of Conduct.

With regard to children under the age of 18:

16. Bring to the attention of my manager the presence of any children on the construction site or engaged in hazardous activities.
17. Wherever possible, ensure that another adult is present when working in the proximity of children.
18. Not invite unaccompanied children unrelated to my family into my home, unless they are at immediate risk of injury or in physical danger.
19. Not use any computers, mobile phones, video and digital cameras or any other medium to exploit or harass children or to access child pornography (see also "Use of children's images for work related purposes" below).
20. Refrain from physical punishment or discipline of children.
21. Refrain from hiring children for domestic or other labor below the minimum age of 14 unless national law specifies a higher age, or which places them at significant risk of injury.
22. Comply with all relevant local legislation, including labor laws in relation to child labor and World Bank's safeguard policies on child labor and minimum age.

Use of children's images for work related purposes

When photographing or filming a child for work related purposes, I must:

[1] **Consent** is defined as the informed choice underlying an individual's free and voluntary intention, acceptance or agreement to do something. No consent can be found when such acceptance or agreement is obtained using threats, force or other forms of coercion, abduction, fraud, deception, or misrepresentation. In accordance with the United Nations Convention on the Rights of the Child, the World Bank considers that consent cannot be given by children under the age of 18, even if national legislation of the country into which the Code of Conduct is introduced has a lower age. Mistaken belief regarding the age of the child and consent from the child is not a defense.

23. Before photographing or filming a child, assess and endeavor to comply with local traditions or restrictions for reproducing personal images.
24. Before photographing or filming a child, obtain informed consent from the child and a parent or guardian of the child. As part of this I must explain how the photograph or film will be used.
25. Ensure photographs, films, videos and DVDs present children in a dignified and respectful manner and not in a vulnerable or submissive manner. Children should be adequately clothed and not in poses that could be seen as sexually suggestive.
26. Ensure images are honest representations of the context and the facts.
27. Ensure file labels do not reveal identifying information about a child when sending images electronically.

Sanctions

I understand that if I breach this Individual Code of Conduct, my employer will take disciplinary action which could include:

1. Informal warning.
2. Formal warning.
3. Additional Training.
4. Loss of up to one week's salary.
5. Suspension of employment (without payment of salary), for a minimum period of 1 month up to a maximum of 6 months.
6. Termination of employment.
7. Report to the Police if warranted.

I understand that it is my responsibility to ensure that the environmental, social, health and safety standards are met. That I will adhere to the occupational health and safety management plan. That I will avoid actions or behaviors that could be construed as GBV. Any such actions will be a breach this Individual Code of Conduct. I do hereby acknowledge that I have read the foregoing Individual Code of Conduct, do agree to comply with the standards contained therein and understand my roles and responsibilities to prevent and respond to ESHS, OHS, GBV issues. I understand that any action inconsistent with this Individual Code of Conduct or failure to act mandated by this Individual Code of Conduct may result in disciplinary action and may affect my ongoing employment.

Signature: _____

Printed Name: _____

Title: _____

Date: _____

Section - 7

Form of Bid

Section 7 - FORM OF BID

Name of Contract: ***Improvements to Spill Structure of Meiyankal tank -Retender***
Contract No.: ***LK-MOMDE-496652-CW-RFB***

To: Project Director, Integrated Watershed & Water Resources Management Project

Gentlemen:

1. Having examined the Standard Bidding Document - Procurement of Works – Major Contracts [ICTAD/SBD/02 - Second Edition, January 2007], Specifications, Drawings and Bills of Quantities and Addenda for the execution of the above-named Works, we the undersigned, offer to execute and complete such Works and remedy any defect therein in conformity with the aforesaid Conditions of Contract, Specifications, Drawings, Bills of Quantities and addenda for the sum of Sri Lankan Rupees ..... (LKR .....) or such other sums as may be ascertained in accordance with the said Conditions.

2. We acknowledge that the Contract Data forms part of our Bid.

3. We undertake, if our Bid is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Engineer's notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the Contract Data.

4. We agree to abide by this Bid until the date specified in ITB Clause 16 …… *[insert date]*, and it shall remain binding upon us and may be accepted at any time before that date.

5. Unless and until a formal Agreement is prepared and executed this Bid, together with your written acceptance thereof, shall constitute a binding Contract between us.

6. We understand that you are not bound to accept the lowest or any bid you may receive.

7. We declare that civil work contracts *have/ have not been* suspended or terminated and/or performance security called by an employer for reasons related to the non-compliance of any environmental, or social, (including sexual exploitation and abuse (SEA) and gender based violence (GBV)), or health or safety requirements or safeguard in the past five years.
   (Note: If suspended, terminated or Performance Security is called give details)

Year	**Suspended or terminated portion of contract**	**Contract Identification**	**Total Contract Amount (current value, currency, exchange rate and US$ equivalent)**
[insert year]	*[insert amount and percentage]*	Contract Identification: *[indicate complete contract name/ number, and any other identification]* Name of Employer: *[insert full name]* Address of Employer: *[insert street/city/country]* Reason(s) for suspension or termination: *[indicate main reason(s) e.g. for GBV/ SEA breaches]*	*[insert amount]*
…	…	*[list all applicable contracts]*	…

Performance Security called by an employer(s) for reasons related to ESHS performance		
Year	**Contract Identification**	**Total Contract Amount (current value, currency, exchange rate and US$ equivalent)**
[insert year]	Contract Identification: *[indicate complete contract name/ number, and any other identification]* Name of Employer: *[insert full name]* Address of Employer: *[insert street/city/country]* Reason(s) for calling of performance security: *[indicate main reason(s) e.g. for GBV/ SEA breaches]*	*[insert amount]*

8. We certify/confirm that we comply with the eligibility requirements as per ITB Clause 3 of the bidding documents.

Dated this …….. day of……..20……...…

Signature …….. in the capacity of ……...…….….

duly authorized to sign bids for and on behalf of ……..
[in block capitals or typed]

Address: ……..…

Witness: …….

Section – 8

Bill of Quantities

Schedules

The preamble to the Bill of Quantities
Description of Items and Measurement Methods
Bill of Quantities

The preamble to the Bill of Quantities

1.1 The Bill of Quantities shall be read in conjunction with all parts of this entire Bidding Document; the Instructions to Bidders, General and Particular Conditions of Contract, Technical Specifications, Drawings, and supplementary information.

1.2 The Bill of Quantities includes lump sum items, unit price items and provisional sum items. The lump sum price quoted will be deemed to be full compensation for completion of work items and paid in full when the work is completed. The quantities given in the Bill of Quantities for the unit price items are estimated and provisional, and are given to provide a common basis for bidding. They are not intended to be the maximum or minimum quantities for payment. The unit prices will be considered full compensation for those work items. The basis of payment will be the actual quantities of work carried out under the provisions of the Contract, measured and valued at the applicable rates and prices in the priced Bill of Quantities.

1.3 The rates and prices bid in the priced Bill of Quantities shall, except as otherwise provided under the Contract, include all construction plant, equipment, labour, supervision, materials, transport, erection, maintenance, testing, insurance, overheads, profit, taxes, and duties, together with all general risks, liabilities, and obligations set out or implied in the Contract.

1.4 A rate or price shall be entered against each item in the priced Bill of Quantities, whether quantities are stated or not. The cost of items against which the Contractor has failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.

1.5 The rates and prices entered in the Bill of Quantities shall be full compensation for completed work and shall have taken full account of all requirements and obligations, covered by all parts of the contract, including but not limited to the following, unless expressly stated otherwise:

a. All setting out and survey works including Pre and Post Construction Surveys.
b. All additional site surveys and investigations, preparation of field amendment drawings, shop drawings and As-Built drawings.
c. Mobilization and Demobilization of labour, all construction plant and equipment.
d. Establishment, Maintenance and Removal of all temporary facilities (Contractor's and Engineer's) including offices, workshops, houses, labour camps construction and storage yards, Laboratory facilities and Equipment, Transport for staff and labour etc.
e. Labour and all costs in connection therewith, including but not limited to social charges or fringe benefits.
f. The supply of material and goods, storage and costs in connection therewith including delivery to site and handling material within the site/sites.
g. Taking delivery of materials and goods supplied by others, unloading, storage, handling materials within site, and costs in connection therewith.
h. Construction Plant & Equipment and all costs in connection therewith.
i. Fixing, erecting and installing or placing of materials and goods in position, including usual auxiliary material etc.
j. Temporary Works.
k. Complying with any limitations and constraints on the use of the site/sites including coordinating with other Contractor's, with regard to site access, security etc., maintenance of access to households and other users, maintenance of existing roads, waterways etc.
l. Dealing with the existing flow of water from any source including irrigation flow requirement, rainfall and surface runoff, groundwater, wave action and the like. This includes all and any dewatering operations necessary for the execution of the Works as well as coffer damming if required.

m. General obligations, liabilities and risks involved in the execution of the Works set forth or reasonably implied in the documents on which the tender is based.
n. Overheads and profit.
o. Waste of material.
p. Attendance and transport for surveys, including provision of boats and survey instruments, sampling and testing carried out by the Engineer.
q. Performing all sampling and testing that are required to be carried out by the Contractor, and supplying results of such tests.
r. Providing required material delivery certificates.
s. Coordination with Regulatory Institutes & all stakeholders.
t. Disposal of all waste material.
u. Complying with all requirements in Specifications and Conditions of Contract, where separate items have not been provided.

1.6 Where Bill of Quantities items describe the replacement of existing equipment or components, including mechanical and electrical equipment, the equipment removed remains the property of the Employer, unless stated otherwise in the contract documents. The rates entered shall include for delivery of such equipment to the Employer or for disposal if so directed by the Employer.

1.7 The whole cost of complying with the provisions of the Contract (excluding VAT) shall be included in the Items provided in the priced Bill of Quantities, and where no Items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related Items of Work.

1.8 General directions and descriptions of work and materials are not necessarily repeated nor summarized in the Bill of Quantities. References to the relevant sections of the Contract documentation shall be made before entering prices against each item in the priced Bill of Quantities.

1.9 Provisional Sums included and so designated in the Bill of Quantities shall be expended in whole or in part or not at all at the direction and discretion of the Engineer and in accordance with the Conditions of Contract. Where the expenditure against a Provisional Sum is made in the form of a Variation, the payment for the work will be made in accordance with Clause 37 of the Conditions of Contract.

1.10 The method and unit of measurement of completed work for payment shall be in accordance with the method described in the specifications for each item or in the Bill of Quantities. For Lump Sum items, measurements for Interim Payment Certificates shall be based on percentage completion of such item of work or milestone as per the Contractor's proposed schedule of monthly payments, as approved by the Engineer.

Descriptions of Items and Measurement Methods

INTRODUCTION

The descriptions of the different items in the Bills of Quantities and the method adopted for measurements are indicated in the following paragraphs.

The quantities shall be computed using dimensions from the drawings based on the pre-construction surveys or as varied by the Engineer, except where clearly stated otherwise under the following individual items. No allowance shall be made for settlement, bulking, shrinkage, or waste.

1 BILL NO A - PRELIMINARIES

1.1 Insurance and Securities

Sub Item 1.1.1– Performance Security

The item provides for the provision of Performance Security as specified in Clause 4.2 of the Conditions of Contract.

Payments for the item will be certified when the Performance Security in the specified format has been provided and accepted by the Employer.

Sub Item 1.1.2– Advance payment Security.

The item provides for the provision of Advance payment Security as required in the Contract as a Provisional Sum item.

Payments for each item will be certified when the respective Advance payment security in the specified format has been provided and accepted by the Employer.

Sub Item 1.1.3 & 1.1.4 - Insurances of property materials and works at site, third party insurance and Insurance against accidents, and injury to workmen

The sub-items provide for the provision of the different types of insurances as specified in Clause 18 of the Conditions of Contract.

Payment for each type of insurance will be certified when the respective insurance policies from acceptable insurance companies, together with full payment of the premium, have been submitted to and accepted by the Employer.

1.2 Engineer's facilities

Sub Item 1.2.1 – Allow Provisional sum for constructing, maintaining, dismantling and removal on completion of the works, a temporary building of 10m x 4m for the Engineer's office in conformity with the plans provided for Engineer's requirements, including necessary furniture and fittings, furnishing, sanitary facilities and other facilities. (Existing quarters shall be modified)

The sub-item provides for the provision of Construction of the Engineer's site office, sanitary facilities, installation and supply of electricity & water facilities of the Employer's offices for the duration of the Contract as a Provisional sum item. The Employer shall order the supply of items or the work items to be carried out under this provisional sum item. All items procured or established under this sub-item shall remain the Employer's property and be handed over to the Employer at the end of the Contract.

Sub Item 1.2.2 - Allow Lump sum for providing of Double cab for inspection works of the Batticaloa scheme and attending meetings in the Divisional, District, Provincial and National levels for the project period of 9 months. It should be brand new or registered after 2017, fuel type can be Diesel/ Petrol/Hybrid. Engine Capacity 2500cc,4WD, mileage less than 200,000 km for registered vehicle, while providing for a visit for the first time. minimum running shall be 3000km per month, usage shall be 25 days per month, 06 days per week and 12 hours per day. the vehicle should be fully insured. it should be an automatic air conditioner with rear A/C vent, minimum seating, including driver, shall be five. (Wet Lease basis with Driver)

Payment under this item shall be certified on submission of relevant documents on a monthly basis vehicle shall be supplied on the request of the Engineer.

1.3 Contractor's Requirements

Sub item 1.3.1 and 1.3.2 – Establishment, Maintenance and Removal of all contractors' site facilities

The sub-item provides for the establishment, maintenance, and removal on completion of all the facilities required by the Contractor for execution of the works under the contract, including offices, stores, workshops, housing etc (details with layout to be supplied with the Tender). The Contractor shall submit with the Tender a breakdown of this Lump sum item.

50 % of the lump sum under this item will be certified on the establishment of all planned facilities balance of 25% for maintenance, and the balance of 25% for when they have been removed and the site cleaned on completion of the work. All items established under this item will remain the property of the Contractor.

Payments for maintenance under this item shall be included in the monthly payment certificates from the time the facilities have been established until completion.

1.4 Other requirements

Sub Item 1.4.1- Provisional sum for all costs in connection with preparing samples for testing, making arrangements for testing of materials, goods, etc. as stipulated in the specification, obtaining test reports and submitting the same to the Engineer

The sub-item is provided as a provisional sum item for the reimbursement of preparing samples for testing, making arrangements for testing of materials, goods, etc.

Payments under this item will be certified on production of the relevant documents of proof of payment.

Sub Item 1.4.2– Allow lump sum for maintaining the site by removal of all rubbish and debris in a clean and orderly manner on completion time and during the entire contract period.
The sub-item is provided as a lump sum for the removal of all rubbish and debris and disposal as approved and clearing the site on completion.
Payment for this item will be certified on completion and leaving all in good order before handing over.

Sub Item 1.4.3 – Allow lump sum for provision of progress report, including photo graphics records and other schedules included in the ICTAD publication Guideline for effective construction management (ICTAD/CM/01), relevant to contract administration as directed by the Engineer.
The sub-item is provided as a lump sum for the submission of Monthly Progress Reports and photographs, schedules, etc.
Payments will be certified on a monthly basis on submission of the required documentation, accepted by the Engineer.

Sub Item 1.4.4 – Allow lump sum for provision of 2 sets of (hard copies and soft copies) As-built drawing of all services, for the engineer's approval
The sub-item is provided on a lump sum basis for the submission of As-Built Drawings, Quality Assurance reports and O & M Manual, etc, as specified in the Contract and requested by the Engineer.
Payments will be certified on submission and acceptance of the required drawings and documents.

Sub Item 1.4.5– Lump sum for Compliance with environmental regulations and the Project environment management plan.
The sub-item is provided on a lump sum for compliance with environmental regulations and the

project management plan
Payments will be certified on acceptance by the engineer.

Sub Item 1.4.6– Employer's share of Adjudicator's fees and expenses
This sub-item is provided as a provisional sum for the reimbursement of the Employer's part of the fees and expenses, paid by the Contractor to the Adjudicator.
Payments will be certified on submission of the required documentation, accepted by the Engineer.

Sub Item 1.4.7. Submission of a Monthly progress report on compliance with the regulation of "ESMP", "Tree removal guidelines", "OH&S guidelines, labour management plan. The sub-item is provided as a Provisional sum for the submission of Monthly Progress Reports on compliance with the regulation of "ESMP", "Tree removal guidelines", "OH&S guidelines, labour management plan.
Payments will be certified on a monthly basis on submission of the required documentation, accepted by the Engineer.

Sub Item 1.4.8 Conducting Social Awareness Programme with the coordination of the engineer.
The sub-item is provided on a provisional sum basis for the social awareness programme. The contractor has to make all arrangements for this programme based on the instructions given by the engineer
Payments will be certified on submission of the required documentation, accepted by the Engineer.

Sub Item 1.4.9 & 1.4.10 Providing, fixing and Maintenance of Plaque and Name Board

The sub-item provides for the supply, erection and maintenance of a Plaque and Name Board. It gives details of the Project, Employer, Contractor and other details to be specified by the Engineer.

Payment for this item will be certified upon the submission of required documents accepted by the Engineer when erected.

Sub Item 1.4.11 Execution of recommendation given under the ESMP as instructed by engineer including general environmental and social safeguard.

The sub-item is provided on a provisional sum basis to Attend the recommendation under ESMP. The contractor has to make all arrangements for this programme based on the instructions given by the engineer.
Engineer will finalize the rate on competitive basis and payment will be certified upon submission of required documents accepted by the engineer.

Sub Item 2.01 & 6.01–Removing backfilled Earth near to existing Spill crest up to the Existing Ground level to get the workable space and reshaping the coffer dam to 2.0m top width, 2.0 to 2.5m average height and 1:1.5 side slope
The sub-item provides for removing backfilled Earth near to existing Spill crest up to the Existing Ground level to get the workable space and reshaping the coffer dam to 2.0m top width, 2.0 to 2.5m average height and 1:1.5 side slope.
The payment shall be the recorded machinery hours, with engineer's recommendations.

Sub Item 2.02,3.02 & 6.02–Removing, spreading and levelling the coffer dam after the construction as directed by the Engineer.

The sub-item provides for removing backfilled and formed coffer dam Earth up to the crest level of the spill to give additional support to the spill structure.

The payment shall be the recorded machinery hours, with engineer's recommendations.

Sub Item 2.03,3.03 & 6.03–Breaking existing concrete surface of Spill crest (using chemical blasting or otherwise, finally obtain the shape shown in the drawings. All precautionary measures should be

taken to prevent any damages to other parts of the Spill structure) and disposal of old concrete parts away from 50m to 80m in the downstream of spillway.
The measurement for payment shall be the actual Volume of demolished concrete part approved by the Engineer.

Sub Item 2.04 & 6.04–Breaking existing concrete surface of Spill cushion (using by machinery finally obtain the shape shown in the drawings. All precautionary measures should be taken to prevent any damages to other parts of the Spill structure) and disposal of old concrete parts away from 50m to 80m in the downstream of spillway.
The payment shall be the actual Volume of the demolished concrete part approved by the Engineer.

Sub Item 2.05,3.04 & 6.05–Earth excavation in Spill section and spoil to waste or fill Material, including Transport.

The sub-item provides for Earth excavation and spill section and spoil to waste or fill Material, including Transport. The rate includes the cost for excavation in any material except hard and soft rock areas, and the excavated material stored off-site or stockpiled for reuse in items 2.11 & 6.11 as directed by the Engineer.

The payment shall be the volume of excavation measured from the levels established by the pre-construction surveys and as-built drawings. The working space will not be considered for payment.

Sub Item 4.01 & 5.01-Earth excavation in retaining wall and sluice section and spoil to waste or fill Material, including Transport haul -0.4 Km

The sub-item provides for Earth excavation in the retaining wall and sluice section and spoils to waste or fill Material, including Transport haul -0.4 Km. The rate includes the cost for excavation in any material except hard and soft rock areas and the excavated material off-site or stockpiling for reuse as directed by the Engineer.

The payment shall be the volume of excavation measured from the levels established by the pre-construction surveys and as-built drawings. The working space will not be considered for payment.

Sub Item 2.06,3.05 & 6.06- Soft rock excavation in spill section and spoil to waste or fill Material, including Transport

The sub-item provides for soft rock excavation in the spill section, Side and spoil to waste or fill Material as directed by the Engineer.

The payment shall be the volume of excavation measured from the levels established by the pre-construction surveys and as-built drawings. The working space will not be considered for payment.

Sub Item 2.07,3.06 & 6.07- Hard rock excavation in spill section, Side and spoil to waste or fill Material, including Transport.
The sub-item provides for hard rock excavation in the spill section, side and spoils to waste or fill Material.

The payment shall be the volume of excavation measured from the levels established by the pre-construction surveys and as-built drawings. The working space will not be considered for payment.

Sub Item 2.08,3.07& 6.08- Furnishing and placing 0.90m long 20 mm dia Tor Steel dowel bars

The sub-item provides for furnishing and placing 0.90m long 20 mm dia Tor Steel dowel bars (if required) using chemical adhesive, including boreholes as directed. Detail Drawing annexed.

The measurement for payment shall be the number of dowels placed as directed by the Engineer.

Sub Item 2.09,3.08&6.09- Allow for dealing with water during the construction using a 100mm dia sub-merge pump (8 hrs/day)

The sub-item provides to allow for dewatering during the construction using 100mm dia sub-merge pumps as directed by the Engineer. The rate includes all costs related to this operation.

The payment shall be for the operating hours of sub-merge Pumps approved by the Engineer.

Sub Item 2.10,3.09,4.10& 6.10- De-watering using 75mm dia sub-merge pumps (8 hrs/day)

The sub-item provides to allow for dewatering during the construction using 75mm dia sub-merge pumps as directed by the Engineer. The rate includes all costs related to this operation.

The payment shall be the operating hours of sub-merge Pumps approved by the Engineer.

Sub Item 2.11 & 6.11- Earth filling between cut off wall by using Excavated earth under item No 2.05,2.20,6.05 & 6.20, including watering and compaction (98%)

The sub-item provides for Earth filling between the cut-off wall by using excavated earth under item No 2.05,2.20,6.05 & 6.20, including watering and compaction as directed by the Engineer. the rate includes only transport of earth, watering and compaction.

The payment shall be the volume of compacted Earth placed in position, measured from the as-built drawings.

Sub Item 2.12 & 6.12- Supplying, Pilling, furnishing and placing 225mm - 300mm size Rubble as per the drawing as directed.

The sub-item provides for supplying, furnishing and placing 225mm - 300mm size Rubble as per the drawing as directed. Placement should be done layer by layer, with the thickness of each layer not exceeding 300mm.
The measurement for payment shall be the volume of Rubble placed in position, measured from the as-built drawings and it should be deducted the volume of quarry dust

Sub Item 2.13 & 6.13- Supplying and spreading 15% of quarry dust for the above Rubble volume
The sub-item provides for supplying and spreading 15% of quarry dust for the above Rubble volume, including watering and compaction as per the drawing, as directed by the Engineer. It should be spread above each layer of rubble until it fills all the gaps in between rubble.

The measurement for payment shall be the pile volume of quarry dust approved by the Engineer.

Sub Item 2.14,3.10 &6.14 - Supplying and spreading 37.5mm dia metal
The sub-item provides for supplying and spreading 37.5mm dia metal, including necessary compaction as per the drawing as directed. Placement should be done layer by layer, with the thickness of each layer not exceeding 225mm

The measurement for payment shall be the volume of 37.5mm dia metal placed in position, measured from the as-built drawings.

Sub Item 2.15,3.11 &6.15 - Supplying Pilling, and spreading 19mm dia metal, including necessary compaction as per the drawing as directed.

The sub-item provides for supplying and spreading 19mm dia metal, including necessary compaction as per the drawing as directed. Placement should be done layer by layer, with the thickness of each layer not exceeding 225mm.

The measurement for payment shall be the volume of 19mm dia metal placed in position, measured from the as-built drawings.

Sub-Item 3.12&5.02 - 1:2:4 (20mm) mass cement concrete (Grade 20) in structure, including placing, compacting and necessary curing arrangement as directed. Form work is paid separately.

The sub-item provides for 1:2:4 (20mm) mass cement concrete (Grade 20) in structure including placing and compacting with a porker vibrator and necessary curing arrangement as directed (mixing by machinery). Form work is paid separately.

The payment measurement shall be the concrete volume measured from the as-built drawings approved by the Engineer.

Sub-Item 2.16,3.13,4.02,5.03&6.16 - 1:2:4 (20mm) Reinforce cement concrete (Grade 20) in structure, including placing, compacting and necessary curing arrangement as directed. Form work is paid separately.

The sub-item provides for 1:2:4 (20mm) Reinforce cement concrete (Grade 20) in structure including placing and compacting with a porker vibrator and necessary curing arrangement as directed (mixing by machinery). Form work is paid separately.

The payment measurement shall be the concrete volume measured from the as-built drawings approved by the Engineer.

Sub-Item 2.17,3.14,4.03,5.04&6.17 - Furnishing and making form work with steel form work or 16mm thick in plywood and necessary props for each six uses including fixing and removing the same once.

The sub-item provides for furnishing and making formwork with steel formwork or 16mm thick in plywood and necessary props for each six uses, including fixing and removing the same once. supplying all necessary formwork, erecting, framing, cutting angles, cleaning, wetting and treatment before placing concrete and removal.

The measurement for payment shall be the form work area of concrete measured from the as-built drawings.

Sub-Item 2.18,3.15,4.04,5.05 & 6.18 - Furnishing cutting, bending and laying of tor steel reinforcement.

The sub-item provides for Furnishing Cutting, bending, fabricating, placing and binding by binding wire of tor steel reinforcement (10mm,12mm,16mm,20mm, etc) in position as per drawings, including cover blocks. (Rate should include the lab lengths)

The measurement for payment shall be the weight of the QT rib bars measured from the as-built drawings.

Sub-Item 2.19,3.16,5.06 & 6.19 - providing 50mm dia. PVC Weep holes

The sub-item provides for the Supplying and Placing of 50mm dia and 650mm long (1000 type) PVC pipe weep holes to drain out water.

The measurement for payment shall be the number of weep holes approved by the Engineer.

Sub-Item 2.20 & 6.20 - Common Earth excavation in spillway and forming flank bund or spoil to waste.

The sub-item provides for the common Earth excavation in the spillway section and spoil to waste or use as fill Material, including Transport. The rate includes the cost for excavation in any material except hard and soft rock areas, and the excavated material stored off-site or stockpiled for reuse in items 2.11 & 6.11 as directed by the Engineer.

The payment shall be the volume of excavation measured from the levels established by the pre-construction surveys and as-built drawings. The working space will not be considered for payment.

Sub-Item 2.21 & 6.21 - Soft rock excavation in Spillway

The sub-item provides for Soft Rock Excavation in spillway and spoil to waste as directed by machinery.

The measurement for payment shall be the volume of excavation measured from the levels established by the pre-construction surveys and as-built drawings.

Sub-Item 4.05 - Supplying, Laying and Fixing 750mm dia. RCC pipe
The sub-item provides for Supplying, Laying and Fixing 750mm dia. RCC pipe, including transport, as directed, as per the as-built Drawing & Instruction.

The measurement for payment shall be the Length of precast RCC pipe as per as-built drawings approved by the Engineer.

Sub-Item 4.06 - Supplying and Fixing 250mm X 125mm X 6mm 'H' Iron
The sub-item provides for supplying and fixing 250mm X 125mm X 6mm 'H' Iron to the top of the Sluice gate lifting arrangement, including providing necessary holes as directed by the Engineer.

The measurement for payment shall be the Length of 'H' Iron as per as-built drawings approved by the Engineer.

Sub-Item 4.07 - Supplying and Fixing 0.750m dia. Cast Iron Sluice gate with frame

The sub-item provides for Supplying and Fixing 0.750m dia. Cast Iron Sluice gate with frame, including necessary Transport and fittings as directed by the Engineer.
The measurement for payment shall be the number of cast Iron sluice gates fixed and approved by the Engineer.

Sub-Item 4.08 - Supplying and Fixing 62.50mm dia. Spindle Bar for a length of 6.00m with 1.20m thread cutting.
The sub-item provides for Supplying and Fixing 62.50mm dia. Spindle Bar for a length of 6.00m with 1.20m thread cutting, including Transport and Spindle bush as directed by the Engineer.
The measurement for payment shall be the actual length of the Spindle Bar from as built drawings approved by the Engineer.

Sub-Item 4.09 - Supplying and fixing Hosting Gear arrangement (Gear Ratio 12:5:1 2 1/2 " o Rod).
The sub-item provides for supplying and fixing the Hosting Gear arrangement (Gear Ratio 12:5:1 2 1/2 " o Rod) as directed by the Engineer.

The measurement for payment shall be the number of Gear arrangements fixed and approved by the Engineer.

DAYWORKS PAYMENTS

Labour

Payment in respect of labour employed on a day work basis shall be made at the average daily wage rates (inclusive of the contractor's overheads and profits) in construction as entered by the Bidder in the relevant BOQ. Payment shall be made based on the actual time worked, excluding travelling time.

The rates shall be deemed to include the costs of the Contractor's Site Supervisory and Administrative Staff (including supervising Foremen) and all other costs in respect to the

employment of labour on a day work basis. Rates for types of labour not listed will be determined by the Engineer by reference to the listed rates.

Materials

Payment in respect of materials used in the execution of work on a day work basis shall be the cost of the materials delivered to the store or stockpile on the site, including all overheads and profit. Rates should be entered by the Bidder in the relevant BOQ.

Rates shall be deemed to cover the costs of taking delivery and putting into store or stockpile, storage, overheads, profit and all other charges and costs in respect of the procurement and handling of such materials. Rates for other materials will be determined by the Engineer with reference to the listed rates entered in the BOQ.

Construction Plant and Equipment

Payment in respect of constructional plant deployed on a day work basis shall be made at the rates entered by the Bidder in the relevant BOQ. These rates shall be deemed to include all cost in respect of fuel and consumable stores, maintenance, operators and attendants, contractor's site supervisory and administrative staff, overheads, profit and all other charges and costs in respect of the deployment of constructional plant and equipment on a day work basis.

Payment shall be made on the basis of the actual time worked including such reasonable travelling time as the Engineer may allow, but excluding idle time (except under the orders of the Engineer.) and time during which such constructional plant/equipment is broken down or undergoing maintenance. Rates for other plant/equipment will be determined by the Engineer with reference to the listed rates entered in the BOQ.

Bill of Quantities

SUMMARY

Item No.	Description	Amount (LKR)
1	**Item I -Preliminaries**	
2	**Construction work**	
	Item II - Improvements to existing CO spill structure from 0.00m to 76.00m	
	Item III -Improvements to existing CO spill structure from 76.00m to 106.25 m	
	Item IV -Construction of new sluice	
	Item V -Construction of Reinforced Concrete Retaining wall in the Downstream of left side in spill (Length- 10m)	
	ItemVI –Improvements to existing CO spill structure from 106.25m to 182.50m	
A	**Sub Total - Summary of Bills (1+2)**	
B	Deduct Provisional Sum	2,339,000.00
C	**Sub Total – 2 (A-B)**	
D	Discount (if any)	
E	**Sub Total – 3 (C-D+B)**	
F	Physical Contingencies – 10 % of E (10 % x E)	
G	**Sub Total – 4 (E+F)**	
H	Price Contingencies - 07% of E (07% x E)	
I	**TOTAL BID PRICE, CARRIED TO LETTER OF BID (G+H)**	
Total Bid Price (Amount in words)		
J	VAT- 18% of Bid Price	
	GRAND TOTAL INCLUDING VAT (I+J)	
K	**Provisional sum- Total Day works**	
Sub-total -5 (Bid price with day works) I+K (will be considered only for evaluation purposes)		

Signature of Bidder: -…….

Bill of Quantities

Item No	Description	Unit	Qty	Rate (LKR)	Amount (LKR)	Amount in Words
1.0	**Preliminaries**					
	The attention of the bidder is drawn to the use of the Bill of Quantities, Drawings. Conditions of Contract, Specifications and any other particulars related to this bid. It is the bidder's responsibility to see that his price includes complying with all the requirements of the conditions of contract and other documents specifically required.		Note			
	The bidder is advised to visit the site of the proposed work, as it is his responsibility to ascertain the Conditions governing access to the site, the external working space, storage area, etc.,		Note			
	Existing roads & culverts cannot take the passage of heavy vehicles or such in adequate areas to be strengthened by the successful bidder, before make use		Note			
	Any existing services, roads, culverts and approaches damaged during the construction are to be reinstated without any charge to the employer.		Note			
	All temporary works shall be dismantled and cleared away from the site on completion of the work.		Note			
	Any other preliminary items not listed below but deemed to be included in the bid rates, as no extras would be made.		Note			
	No work in any trade shall be carried out in such a manner as to cause any nuisance to adjacent owners or the public		Note			
	Mechanical plant and equipment which emits obnoxious liquids, gases, etc, will not be allowed to be used on the site without the prior approval from the Employer and the Engineer.		Note			

Item No	Description	Unit	Qty	Rate (LKR)	Amount (LKR)	Amount in Words
	The Engineer has the final decision as and when he deems it necessary for the Contractor to take precautions, maintain or repair such plant and equipment or order their removal from the site.		Note			
	The contractor shall be responsible for any loss or damage to the works, existing structures, adjoining structures and unfixed materials.		Note			
	The Contractor shall be responsible for necessary lighting, watchman and other suitable measures during construction until handing over.		Note			
	Contractor shall be responsible for the erection, shifting and maintaining of necessary protective netting, fencing, hording, screens at the site and other precautions to the required standard and satisfaction of the Engineer.		Note			
	The Contractor shall forthwith and as a condition precedent to the commencement of any works under this contract, take out an insurance policy from a company or companies approved by the Engineer in writing on all risk insurance policy or policies indemnifying the contractor, the Engineer's and the Employer's staff at the site from all liabilities including claims by any and every workman employed in and for the performance of this contract for payment of the Workmen's Compensation Legislation and from all costs and expenses incidental or consequential thereto.		Note			

Item No	Description	Unit	Qty	Rate (LKR)	Amount (LKR)	Amount in Words
1.1	**Insurances and Securities, etc.**					
1.1.1	Provisional Sum for providing a Performance Security	Item	Allow	P.Sum	300,000.00	
1.1.2	Provisional Sum for providing an Advance Payment Security	Item	Allow	P.Sum	200,000.00	
1.1.3	Provisional Sum for insurance of works, Machinery & Equipment, Plant, Materials, Third party persons & property and Employer's personnel & property at site as per the contract	Item	Allow	P.Sum	400,000.00	
1.1.4	Provisional Sum for Insurance against accidents and injury to the contractor’s personnel as per the contract	Item	Allow	P.Sum	300,000.00	
1.2	**Employer's Facilities**					
1.2.1	Allow Provisional sum for constructing, maintaining, dismantling and removal on completion of the works, a temporary building of 10m x 4m for the Engineer's office in conformity with the plans provided for Engineer's requirements, including necessary furniture and fittings, furnishing, sanitary facilities and other facilities. (Existing quarters shall be Modified)	Item	Allow	P.Sum	360,000.00	
1.2.2	Providing of Double cab for inspection works of Batticaloa scheme and attending meetings at Divisional, District, Provincial and National levels for the period of 9 months. It should be brand new or registered after 2017, fuel type can be Diesel/ Petrol/Hybrid. Engine Capacity 2500cc,4WD, mileage less than 200,000 km for registered vehicle, while providing for a visit for the first time. minimum running shall be 3000km per month, usage shall be 25 days per month, 06 days per week and 12 hours per day. The vehicle should be fully insured. it should be an automatic air conditioner with rear A/C vent, minimum seating, including driver, shall be five. (Wet Lease basis with Driver)	Item	Allow	L.Sum		
1.3	**Contractors Requirements**					

Item No	Description	Unit	Qty	Rate (LKR)	Amount (LKR)	Amount in Words
1.3.1	Allow Lump sum for constructing, maintaining, dismantling and removal on completion of the works, a temporary site office (10m x 5m) of adequate size including staff rest room and toilets and other facilities for the contractor's site management staff in accordance with the plans prepared by the contractor and concurred by the Engineer.	Item	Allow	L.Sum		
1.3.2	Allow Lump sum for constructing, maintaining, dismantling and removal on completion of the works, building to be used as workshops and stores for perishable materials and building shall be (8.0m x 5.0m) constructed in accordance with the drawings prepared by the contractor and concurred by the Engineer, the lump sum shall be also included for altering, modifying or dismantling and re-erecting within the site all temporary building/structures if required.	Item	Allow	L.Sum		
1.4	**Other Requirements**					
1.4.1	Allow Provisional sum for all costs in connection with preparing samples for testing, making arrangements for testing of materials, goods etc., as stipulated in the specification, obtaining test reports and submitting the same to the Engineer	Item	Allow	P.Sum	200,000.00	
1.4.2	Allow a lump sum for maintaining the site by removal of all rubbish and debris in a clean and orderly manner on completion time and during the entire contract period.	Item	Allow	L.Sum		
1.4.3	Allow lump sum for provision of progress report including photographic records and other schedule included in the ICTAD publication Guideline for effective construction management (ICTAD/CM/01), relevant to contract administration as directed by the engineer	Item	Allow	L.Sum		
1.4.4	Allow lump sum for provision of 2 sets of (hard copies and soft copies) As-built drawing of all services, for the engineer's approval.	Item	Allow	L.Sum		

Item No	Description	Unit	Qty	Rate (LKR)	Amount (LKR)	Amount in Words
1.4.5	Allow a Lump sum for compliance with environmental regulations and the Project environment management plan.	Item	Allow	L.Sum		
1.4.6	Allow Lump sum for employers share of Adjudicator's fees and expenses.	Item	Allow	P.Sum	300,000.00	
1.4.7	Allow Lump sum for submission of Monthly progress report on compliance with the regulations of "ESMP", "Tree removal guidelines", "OH&S guidelines, labour management plan.	Item	Allow	L.Sum		
1.4.8	Allow a Lump sum for contacting the Social awareness programme with the coordination of the engineer	Item	Allow	P.Sum	180,000.00	
1.4.9	Allow Provisional sum for providing and maintaining the plaque to the specification	Item	Allow	P.Sum	75,000.00	
1.4.10	Allow Provisional sum for providing and maintaining the Name board to the specification	Item	Allow	P.Sum	24,000.00	
Total for Bill No 1.00 (Carried to Summary of Bill)						

Item No	Description	Unit	Qty	Rate (LKR)	Amount (LKR)	Amount in Words
2.00	**Item II -Improvements to existing CO spill structure from 0.00m to 76.00m**					

2.01	Removing backfilled Earth near to existing Spill crest up to the Existing Ground level to get the workable space and reshaping the coffer dam to 2.0m top width, 2.0 to 2.5m average height and 1:1.5 side slope	hrs	30.00			
2.02	Removing, spreading and Levelling coffer dam after the construction as directed by Engineer	hrs	16.00			
2.03	Breaking existing concrete surface of Spill crest (using chemical blasting or otherwise, finally obtain the shape shown in the drawings. All precautionary measures should be taken to prevent any damages to other parts of the Spill structure) and disposal of old concrete parts away from 50m to 80m in the downstream of spillway	m^3	103.00			
2.04	Breaking existing concrete surface of Spill cushion (using by machinery finally obtain the shape shown in the drawings. All precautionary measures should be taken to prevent any damages to other parts of the Spill structure) and disposal of old concrete parts away from 50m to 80m in the downstram of spillway	m^3	308.00			
2.05	Earth excavation in Spill section and spoil to waste or fill Material including Transport	m^3	2,314.00			
2.06	Soft rock excavation in spill section and spoil to waste or fill Material including Transport	m^3	1,262.00			
2.07	Hard rock excavation in spill section Side and spoil to waste or fill Material including Transport	m^3	631.00			
2.08	Furnishing and placing 0.90m long 20 mm dia Tor Steel dowel bars with using chemical adhesive including Bore hole as directed. Detail Drawing annexed.	nos	350.00			
2.09	Allow for dealing with water during the construction using 100mm dia sub merge pump	hrs	125.00			
2.10	Allow for dealing with water during the construction using 75mm dia sub merge pump	hrs	100.00			
2.11	Earth filling between cutoff wall by using Excavated earth under item No 2.05 and 2.20 including watering and	m^3	792.00			

	compaction (98%)					
2.12	Supplying, Pilling, furnishing and placing 225mm - 300mm size Rubble as per the drawing as directed.	m^3	396.00			
2.13	Supplying Pilling, and spreading 15% of quarry dust for an above Rubble volume including watering and compaction as per the drawing as directed.	m^3	60.00			
2.14	Supplying Pilling, and spreading 37.5mm dia metal including necessary compaction as per the drawing as directed.	m^3	213.00			
2.15	Supplying Pilling, and spreading 19mm dia metal including necessary compaction as per the drawing as directed.	m^3	213.00			
2.16	1:2:4 (20mm) Reinforce cement concrete (Grade 20) in structure including placing, compacting and necessary curing arrangement as directed. Form work paid separately.	m^3	876.00			
2.17	Furnishing and making form work with steel form work or 16mm thick in plywood and necessary props for each six uses including fixing and removing same once.	m^2	1,570.00			
2.18	Furnishing Cutting, bending, fabricating and placing of 10mm dia tor steel reinforcement in positioning as per drawings rate including cover blocks and Lapping	Kg	16,580.00			
2.19	Supplying and Placing of 50mm Dia and 650mm long (1000type) PVC pipe to drainout water.	nos	48.00			
2.20	Common Earth excavation in spill way and forming flank bund. Depth of Excavation Up to 1.5m	m^3	2,700.00			
2.21	Soft Rock Excavation in spill way and and forming flank bund. Depth of Excavation from 1.5m to 3.0m	m^3	1,454.00			
Total for Bill No 2.00 (Carried to Summary of Bill)						

Item No	Description	Unit	Qty	Rate (LKR)	Amount (LKR)	Amount in Words
3.00	**Improvements to existing CO spill structure from 76.00m to106.25m**					
3.01	Earth excavation from the borrow and forming a coffer dam including compaction as directed. coffer dam as 2.0m top width, 5.0m average height and 1:1.5 side slope	m^3	1,662.50			
3.02	Removing, spreading and Levelling coffer dam after the construction as directed by Engineer	hrs	10.00			
3.03	Breaking existing concrete surface of Spill piers (using chemical blasting or otherwise, finally obtain the shape shown in the drawings. All precautionary measures should be taken to prevent any damages to other parts of the Spill structure) and disposal of old concrete parts away from 50m to 80m in the downstream of spillway	m^3	11.50			
3.04	Earth excavation in Spill section and spoil to waste or fill Material including Transport	m^3	91.00			
3.05	Soft Rock Excavation in spill section LB & RB Side and spoil to waste or fill Material including Transport	m^3	73.00			
3.06	Hard rock excavation in gated spill section Side and spoil to waste or fill Material	m^3	18.50			
3.07	Furnishing and placing 0.90m long 20 mm dia Tor Steel dowel bars with using chemical adhesive including Bore hole as directed. Detail Drawing annexed.	nos	90.00			
3.08	Allow for dealing with water during the construction using with sub merge pump (100mm dia Pump and 8.0 h/days)	hrs	200.00			
3.09	Allow for dealing with water during the construction using with sub merge pump (75mm dia Pump and 8.0 h/days)	hrs	150.00			
3.10	Supplying and spreading 37.5mm dia metal including necessary compaction as per the drawing as directed.	m^3	40.00			

Item No	Description	Unit	Qty	Rate (LKR)	Amount (LKR)	Amount in Words
3.11	Supplying and sperading 19mm dia metal including necessary compaction as per the drawing as directed.	m^3	31.00			
3.12	1:2:4 (20mm) mass concrete (Grade 20) in structure including placing, compacting and necessary curing arrangement as directed. Form work paid separately.	m^3	141.00			
3.13	1:2:4 (20mm) Reinforce cement concrete (Grade 20) in structure including placing, compacting and necessary curing arrangement as directed. Form work paid separately.	m^3	229.50			
3.14	Furnishing and making form work with steel form work or plywood and nessasary props for each six uses including fixing and removing same once.	m^2	416.50			
3.15	Furnishing Cutting, bending, fabricating and placing of 10mm dia tor steel reinforcement in positioning as per drawings rate including cover blocks and Lapping	kg	4,002.50			
3.16	Supplying and Placing of 50mm Dia and 650mm long (1000type) PVC pipe to drain out water.	nos	7.00			
Total for Bill No 3.00 (Carried to Summary of Bill)						

Item No	Description	Unit	Qty	Rate (LKR)	Amount (LKR)	Amount in Words
4.00	**Construction of New Sluice**					
4.01	Earth excavation in Spill section and spoil to waste or fill Material including Transport haul -0.4 Km (0m-1.5m)	m^3	59.00			
4.02	1:2:4 (20mm) Reinforce cement concrete (Grade 20) in structure including placing, compacting and necessary curing arrangement as directed. Form work paid separately	m^3	50.00			
4.03	Furnishing and making form work with steel form work or 16mm thick in plywood and necessary props for each six uses including fixing and removing same once	m^2	211.00			

4.04	Furnishing, cutting, bending and fabricating and placing of 20mm, 16mm, 12mm & 10mm dia R/F(Tor steel) for structure as per drawing including cover blocks and Lapping.	kg	1,645.00			
4.05	Supplying, Laying and Fixing 750mm Dia. RCC pipe including transport. as directed	Lm	12.20			
4.06	Supplying and Fixing 250mm X 125mm X 6mm 'H' Iron to the top of Sluice gate lifting arrangement including providing necessary holes as directed	Lm	8.00			
4.07	Supplying and Fixing 0.750m Dia. Cast Iron Sluice gate with frame including necessary fittings as directed	Nos	2.00			
4.08	Supplying and Fixing 62.50mm Dia. Spindle Bar for a length of 6.00m with 1.20m thread cutting including Spindle bush as directed	Lm	12.00			
4.09	Supplying and fixing Hosting Gear arrangement (Gear Ratio 12:5:1 2 1/2 " o Rod) as per Drawing	Nos	2.00			
4.10	Allow for dealing with water during the construction using with sub merge pump(75mm dia sub merge pump and 8.0 h/days)	Hrs	20.00			
Total for Bill No 4.00 (Carried to Summary of Bill)						

Item No	Description	Unit	Qty	Rate (LKR)	Amount (LKR)	Amount in Words
5.00	**Construction of Reinforcement concrete Retaining wall in Downstream of left side in spill (Length- 10m)**					
5.01	Earth excavation in Spill section and spoil to waste or fill Material including Transport haul -0.4 Km (0m-1.5m)	m^3	36.00			

Item No	Description	Unit	Qty	Rate (LKR)	Amount (LKR)	Amount in Words
5.02	1:2:4 (20mm) mass concrete (Grade 20) in structure including placing, compacting and necessary curing arrangement as directed. Form work paid separately	m^3	4.50			
5.03	1:2:4 (20mm) Reinforce cement concrete (Grade 20) in structure including placing, compacting and necessary curing arrangement as directed. Form work paid separately	m^3	27.00			
5.04	Furnishing and making formwork with steel formwork or 16mm thick in plywood and necessary props for each six uses including fixing and removing same once	m^2	80.00			
5.05	Furnishing, cutting, bending and fabricating and placing of 20mm, 16mm, 12mm & 10mm dia R/F(Tor steel) for structure as per drawing including cover blocks	kg	682.00			
5.06	Providing PVC (Gauge - 1000) weep holes in retaining wall with filter arrangement as directed by Engineer	Nos	10.00			
5.07	Earth excavation from borrow and backfilling of Retaining wall including spreading and compaction as directed. (by machinery)	m^3	35.00			
5.08	Allow for dealing with water during the construction using 75mm dia sub merge pump	Hrs	20.00			
Total for Bill No 5.00 (Carried to Summary of Bill)						

Item No	Description	Unit	Qty	Rate (LKR)	Amount (LKR)	Amount in Words
6.00	**Item II -Improvements to existing CO spill structure from 106.25m to 182.50m PID/EP/IWWRMP/2023/ME/SPILL/02-01,02,03,04 AND 07**					
6.01	Removing backfilled Earth near to existing Spill crest up to Existing Ground level to get the workable space and reshaping coffer dam as 2.0m top width, 2.0 to 2.5m average height and 1:1.5 side slope	hrs	25.00			

6.02	Removing, spreading and Levelling coffer dam after the construction as directed by Engineer	hrs	12.00			
6.03	Breaking existing concrete surface of Spill crest (using chemical blasting or otherwise, finally obtain the shape shown in the drawings. All precautionary measures should be taken to prevent any damages to other parts of the Spill structure) and disposal of old concrete parts away from 50m to 80m in the downstream of spillway	m^3	104.00			
6.04	Breaking existing concrete surface of Spill cushion (using by machinery finally obtain the shape shown in the drawings. All precautionary measures should be taken to prevent any damages to other parts of the Spill structure) and disposal of old concrete parts away from 50m to 80m in the downstream of spillway	m^3	311.50			
6.05	Earth excavation in Spill section and spoil to waste or fill Material including Transport	m^3	2,217.00			
6.06	Soft rock excavation in spill section and spoil to waste or fill Material including Transport	m^3	1,330.00			
6.07	Hard rock excavation in spill section Side and spoil to waste or fill Material including Transport	m^3	887.00			
6.08	Furnishing and placing 0.90m long 20 mm dia Tor Steel dowel bars with using chemical adhesive including Bore hole as directed. Detail Drawing annexed.	nos	350.00			
6.09	Allow for dealing with water during the construction using 100mm dia sub merge pump	hrs	100.00			
6.10	Allow for dealing with water during the construction using 75mm dia sub merge pump	hrs	80.00			
6.11	Earth filling between cutoff wall by using Excavated earth under item No 6.05 and 6.20 including watering and compaction (98%)	m^3	794.00			
6.12	Supplying, Pilling, furnishing and placing 225mm - 300mm size Rubble as per the drawing as directed.	m^3	397.00			

6.13	Supplying Pilling, and spreading 15% of quarry dust for an above Rubble volume including watering and compaction as per the drawing as directed.	m^3	60.00			
6.14	Supplying Pilling, and spreading 37.5mm dia metal including necessary compaction as per the drawing as directed.	m^3	214.00			
6.15	Supplying Pilling, and spreading 19mm dia metal including necessary compaction as per the drawing as directed.	m^3	214.00			
6.16	1:2:4 (20mm) Reinforce cement concrete (Grade 20) in structure including placing, compacting and necessary curing arrangement as directed. Form work paid separately.	m^3	880.00			
6.17	Furnishing and making form work with steel form work or 16mm thick in plywood and necessary props for each six uses including fixing and removing same once.	m^2	1,580.00			
6.18	Furnishing Cutting, bending, fabricating and placing of 10mm dia tor steel reinforcement in positioning as per drawings rate including cover blocks and Lapping	Kg	16,640.00			
6.19	Supplying and Placing of 50mm Dia and 650mm long (1000type) PVC pipe to drainout water.	nos	48.00			
6.20	Common Earth excavation in spill way and forming flank bund. Depth of Excavation Up to 1.5m	m^3	2,650.00			
6.21	Soft Rock Excavation in spill way and and forming flank bund. Depth of Excavation from 1.5m to 3.0m	m^3	1,426.00			
Total for Bill No 6.00 (Carried to Summary of Bill)						
Total Civil Cost						

7.0 DAYWORKS SCHEDULE

	Description	Unit	Qty	Rate (LKR)	Amount (LKR)	Amount in Words
	Labour					
1	Skilled labour	hr	75.00			
2	Unskilled labour	hr	80.00			
3	Mason	hr	20.00			
4	Carpenter	hr	20.00			
5	Plumber, Electrician	hr	2.00			
6	Mechanic	hr	5.00			
7	Welder, Fitter	hr	5.00			
8	Steel fixer	hr	5.00			
9	Driver	hr	5.00			
	Total for Labour					
	Material					
1	Cement (50 Kg bags)	Nos	50.00			
2	Sand	m^3	20.00			
3	Mild steel reinforcement	t	0.15			
4	Tor steel reinforcement	t	0.30			
5	Mild Steel Plate	t	0.15			
6	Stainless Steel Plate	t	0.15			
7	Fabricated Steelwork	t	0.15			
8	Timber Ply Sheet 12mm	m^2	15.00			
9	Gravel	m^3	20.00			
	Total for Material					
	Equipment					
1	Backhoe/Loader 100 HP	hr	20.00			
2	Mobile crane 30T	hr	10.00			
3	Dump truck / Tipper 20T	hr	10.00			
4	Tractor/Trailer 100HP	hr	10.00			
5	Concrete Mixer 1 m^3	hr	10.00			
6	Air Compressor 3-Tool	hr	5.00			
7	Welding Set 10KVA	hr	10.00			
8	Sandblasting Equipment	hr	15.00			
9	Diesel Generator 20KVA	hr	15.00			
10	Water Pumps 50mm	hr	25.00			
11	Excavator	hr	25.00			
	Total for Equipment					
Total for Bill No 07						

Technical Proposal

Forms for personnel
Forms for equipment
Site organisation
Method statements
Mobilisation and construction schedule

Forms for Personnel

Form PER – 1: Proposed Personnel

Bidders should provide the names of suitably qualified personnel to meet the specified requirements for each of the positions listed in Section III (Evaluation and Qualification Criteria). The data on their experience should be supplied using the form below for each candidate.

1.	**Title of position** **Name**
2.	**Title of position** **Name**
3.	**Title of position** **Name**
4.	**Title of position** **Name**
5.	**Title of position** **Name**
6.	**Title of position** **Name**
etc.	**Title of position** **Name**

Form PER – 2: Resume of Proposed Personnel

The Bidder shall provide all the information requested below. Fields with asterix (*) shall be used for evaluation.

Position*		
Personnel information	**Name**	**Date of birth**
	Professional qualifications	
Present employment	**Name of Employer**	
	Address of Employer	
	Telephone	**Contact (manager / personnel officer)**
	Fax	**E-mail**
	Job title	**Years with present Employer**

Summarize professional experience over the last five years, in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

From*	**To***	**Company, project, position, and relevant technical and management experience***

Forms for Equipment

The Bidder shall provide adequate information to demonstrate clearly that it has the capability to meet the requirements for the key equipment listed in Section III (Evaluation and Qualification Criteria). A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Bidder. The Bidder shall provide all the information requested below, to the extent possible. Fields with asterisk (*) shall be used for evaluation.

Type of Equipment*		
Equipment Information	**Name of manufacturer**	**Model and power rating**
	Capacity*	**Year of manufacture***
Current Status	**Current location**	
	Details of current commitments	
Source	**Indicate source of the equipment** ☐ **Owned** ☐ **Rented** ☐ **Leased** ☐ **Specially manufactured**	

The following information shall be provided only for equipment not owned by the Bidder.

Owner	**Name of owner**	
	Address of owner	
	Telephone	**Contact name and title**
	Fax	**Telex**
Agreements	**Details of rental/lease/manufacture agreements specific to the project**	

Site Organisation

The Bidder shall provide a personnel chart for the proposed site organization, indicating the key positions as given in Section III (Evaluation and Qualification Criteria) and other positions, with names of personnel proposed and a description of the tasks assigned for such positions.

Method Statements

The Bidder shall provide a method statement describing the methodology proposed to be adopted in the execution of the contract.

Mobilisation and Construction Schedule

The Bidder shall provide a detailed mobilization and construction schedule indicating the sequence of all main operations and identifying critical activities.

Section 9 - Schedules

Schedule 1 – General Information

(i) If pre-qualification is done the bidders are required to include information subsequent to that submitted with the pre-qualification application.
(ii) For joint ventures, each joint venture partner shall furnish information separately.

ITB Clause reference	Description	Information *(to be filled by the Bidder)*	Remarks
4.1 (a)	**Legal Status**		*Provide certified copies of Registration*
	Written power of attorney of the signatory to the Bid	*Provide original or certified copy of the power of Attorney attested by a Notary and label as attachment to Clause 4.1(a)*	
	If a Joint Venture, names and addresses of Joint Venture Partners	1. …… 2. …….. 3. ……	*Provide a draft copy of the Joint Venture Agreement or alternatively the memorandum of understanding*
	If a Joint Venture, name of Lead Partner		
	For joint ventures, each joint venture partner shall furnish Legal Status separately		
	Name (Lead partner)		*Provide certified copies and label as attachment to Clause 4.1(a)*
	Legal status		
	Place of registration		
	Principle place of business		
	Written power of attorney of the signatory to the Bid	*Provide original or certified copy of the power of attorney attested by a Notary and label as attachment to Clause 5.1*	
	VAT Registration Number		
	Name (Partner 2)		*Provide certified copies and label as attachment to Clause 4.1 (a)*
	Legal status		
	Place of registration		
	Principle place of business		

	Written power of attorney of the signatory to the Bid	*Provide original or certified copy of the power of attorney attested by a Notary and label as attachment to Clause 4.1 (a)*	
	VAT Registration Number		
	Name (Partner 3)		*Provide certified copies and label as attachment to Clause 4.1 (a)*
	Legal status		
	Place of registration		
	Principle place of business		
	Written power of attorney of the signatory to the Bid	*Provide original or certified copy of the power of attorney attested by a Notary and label as attachment to Clause 4.1 (a)*	
	VAT Registration Number		
4.2 (a)	**ICTAD Registration**		*Provide certified copies and label as attachment to Clause 4.2(a)*
	Registration number		
	Grade		
	Specialty		
	Expiry Date		

Schedule 2 – Annual Turn-over Information (Construction only – Last five years)

(i) If pre-qualification is done the bidders are required to include information subsequent to that submitted with the pre-qualification application.

(ii) For joint ventures, each joint venture partner shall furnish information separately.

Year	Turn-over	Remarks
1		*Attach audited reports and label as attachment to Clause 4.2*
2		
3		
4		
5		

Schedule 3 – Adequacy of Working Capital

If pre-qualification is done the bidders are required to include information subsequent to that submitted with the pre-qualification application

Source of credit line	Amount	Remarks
		Provide documentary evidence and label as attachment to Clause 4.2
Total		

Schedule 4 – Construction Experience in last five years

(i) If pre-qualification is done the bidders are required to include information subsequent to that submitted with the pre-qualification application.

(ii) For joint ventures, each joint venture partner shall furnish information separately.

Year	Employer	Description of Works	Amount	Contractor's Responsibility (%)
		Total		

- *Provide documentary evidence and label as attachment to Clause 4.2*

Schedule 5 – Major Items of Construction Equipment Proposed	
Type	**Capacity**

Schedule 6 – Construction Management Staff		
A. Key Professionals		
Name	**Position**	**Task**
B. Support Staff		
Name	**Position**	**Task**

Schedule 7 – Time Schedule for Key Staff														
			Months (in the form of a Bar Chart)											
Name	**Position**	**Activities**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**Number of Months**

Full-time: _____ Part-time:**……**

Schedule 8 – Work Programme

Sheet 1 of ……

	[1st, 2nd, etc. are months from the Start Date.]																							
Construction Activity	**1st**	**2nd**	**3rd**	**4th**	**5th**	**6th**	**7th**	**8th**	**9th**	**10th**	**11th**	**12th**	**13th**	**14th**	**15th**	**16th**	**17th**	**18th**	**19th**	**20th**	**21st**	**22nd**	**23rd**	**24th**

Schedule 9 – Input percentages for Price Adjustment Formula		
Input Name *(Include major materials below the list, together with percentages for all inputs)*	**ICTAD Reference for Indices**	**Percentage** *(percentages listed should added to 90.0)*
Total		**90.0 %**

The nonadjustable element shall be:
All Psum & Lsum items

Schedule 10: ESHS Management Strategies and Implementation Plans

(ESHS-MSIP)

The Bidder shall submit comprehensive and concise Environmental, Social, Health and Safety Management Strategies and Implementation Plans (ESHS-MSIP) as required by ITB 13.1 A (j) and 13.1 B (d). These strategies and plans shall describe in detail the actions, materials, equipment, management processes etc. that will be implemented by the Contractor, and its subcontractors.

Code of Conduct: Environmental, Social, Health and Safety (ESHS)

The Bidder shall submit the Code of Conduct that will apply to the Contract Manger and other key personnel as required by ITB 13.1 A (j) and 13.1 B (d) and subcontractors. The Code of Conduct shall ensure compliance with the ESHS provisions of the Contract.
In addition, the Bidder shall submit an outline of how this Code of Conduct will be implemented. This will include: how it will be introduced into conditions of employment/engagement, what training will be provided, how it will be monitored and how the Contractor proposes to deal with any breaches.

Environmental, social, health and safety requirements

The Employer should use the services of a suitably qualified environmental, social, health and safety specialist/s to prepare the specifications for ESHS working with a procurement specialist/s.

The Employer should attach or refer to the Employer's environmental, social, health and safety policies that will apply to the project. If these are not available, the Employer should use the following guidance in drafting an appropriate policy for the Works.

SUGGESTED CONTENT FOR AN ENVIRONMENTAL AND SOCIAL POLICY (STATEMENT)

The Works' policy goal, as a minimum, should be stated to integrate environmental protection, occupational and community health and safety, gender, equality, child protection, vulnerable people (including those with disabilities), sexual harassment, gender-based violence (GBV), sexual exploitation and abuse (SEA), HIV/AIDS awareness and prevention and wide stakeholder engagement in the planning processes, programs, and activities of the parties involved in the execution of the Works. The Employer is advised to consult with the World Bank to agree the issues to be included which may also address: climate adaptation, land acquisition and resettlement, indigenous people, etc. *The policy should set the frame for monitoring, continuously improving processes and activities and for reporting on the compliance with the policy.*

The policy shall include a statement that, for the purpose of the policy and/or code of conduct, the term "child" / "children" means any person(s) under the age of 18 years.

The policy should, as far as possible, be brief but specific and explicit, and measurable, to enable reporting of compliance with the policy in accordance with the Particular Conditions of the Contract Sub-Clause 4.21 and Appendix C to the General Conditions of Contract.

As a minimum, the policy is set out to the commitments to:

1. *apply good international industry practice to protect and conserve the natural environment and to minimize unavoidable impacts;*
2. *provide and maintain a healthy and safe work environment and safe systems of work;*
3. *protect the health and safety of local communities and users, with particular concern for those who are disabled, elderly, or otherwise vulnerable;*
4. *ensure that terms of employment and working conditions of all workers engaged in the Works meet the requirements of the ILO labour conventions to which the host country is a signatory;*
5. *be intolerant of, and enforce disciplinary measures for illegal activities. To be intolerant of, and enforce disciplinary measures for GBV, inhumane treatment, sexual activity with children, and sexual harassment;*
6. *incorporate a gender perspective and provide an enabling environment where women and men have equal opportunity to participate in, and benefit from, planning and development of the Works;*
7. *work co-operatively, including with end users of the Works, relevant authorities, contractors and local communities;*
8. *engage with and listen to affected persons and organizations and be responsive to their concerns, with special regard for vulnerable, disabled, and elderly people;*
9. *provide an environment that fosters the exchange of information, views, and ideas that is free of any fear of retaliation, and protects whistleblowers;*
10. *minimize the risk of HIV transmission and to mitigate the effects of HIV/AIDS associated with the execution of the Works;*

The policy should be signed by the senior manager of the Employer. This is to signal the intent that it will be applied rigorously.

MINIMUM CONTENT OF ESHS REQUIREMENTS

In preparing detailed specifications for ESHS requirements, the specialists should refer to and consider:

- *project reports e.g. ESIA/ESMP*
- *consent/permit conditions*
- *required standards including World Bank Group EHS Guidelines*
- *relevant international conventions or treaties etc., national legal and/or regulatory requirements and standards (where these represent higher standards than the WBG EHS Guidelines)*
- *relevant international standards e.g. WHO Guidelines for Safe Use of Pesticides*
- *relevant sector standards e.g. EU Council Directive 91/271/EEC Concerning Urban Waste Water Treatment*
- *Grievance redress mechanism including types of grievances to be recorded and how to protect confidentiality e.g. of those reporting allegations of GBV/SEA.*
- *GBV/SEA prevention and management.*

- *The detail specification for ESHS should, to the extent possible, describe the intended outcome rather than the method of working*

The ESHS requirements should be prepared in manner that does not conflict with the relevant General Conditions of Contract and Particular Conditions of Contract, and in particular:

General Conditions of Contract	
Sub-clause 1.13	*Compliance with Laws*
Sub-clause 2.2	*Permits, Licenses and Approvals*
Sub-clause 4.1	*Contractor's General Obligations*
Sub-clause 4.4	*Subcontractors*
Sub-clause 4.8	*Safety Procedures*
Sub-clause 4.13	*Protection of the Environment*
Sub-clause 4.15	*Contractor's Operations on the Site*
Sub-clause 4.16	*Fossils*
Sub-clause 4.19	*Avoidance of Interference*
Section 6	*Staff and Labour (includes health and safety)*
Sub-clause 7.1	*Manner of Execution*
Sub-clause 10	*Clearance of Site*
Sub-clause 12.3	*Evaluation (reference ITB 14.2 "Items against which no rate or price is entered by the Bidder shall be deemed to be covered by the rates for other items in the Bill of Quantities and will not be paid separately by the Employer.")*

MINIMUM REQUIREMENTS FOR THE BIDDER'S CODE OF CONDUCT

[A minimum requirement for the Code of Conduct should be set out by the Employer, taking into consideration the issues, impacts, and mitigation measures identified, for example, in:

- *project reports e.g. ESIA/ESMP*
- *any particular GBV/SEA requirements*
- *consent/permit conditions (regulatory authority conditions attached to any permits or approvals for the project)*
- *required standards including World Bank Group EHS Guidelines*
- *relevant international conventions, standards or treaties, etc., national legal and/or regulatory requirements and standards (where these represent higher standards than the WBG EHS Guidelines)*
- *relevant standards e.g. Workers' Accommodation: Process and Standards (IFC and EBRD)*
- *relevant sector standards e.g. workers' accommodation*
- *Grievance redress mechanisms.*

The types of issues identified could include. Risks associated with: labor influx, spread of communicable diseases, sexual harassment, gender based violence, illicit behavior and crime, and maintaining *a safe environment etc.*

[Amend the following instructions to the Bidder taking into account the above considerations.]

A satisfactory code of conduct will contain obligations on all Contractor's Personnel project staff (including sub-contractors and day workers) that are suitable to address the following issues, as a minimum. Additional obligations may be added to respond to particular concerns of the region, the location and the project sector or to specific project requirements. The code of conduct shall contain a statement that the term "child" / "children" means any person(s) under the age of 18 years.

The issues to be addressed include:

1. Compliance with applicable laws, rules, and regulations
2. Compliance with applicable health and safety requirements to protect the local community (including vulnerable and disadvantaged groups), the Employer's Personnel, and the Contractor's Personnel (including wearing prescribed personal protective equipment, preventing avoidable accidents and a duty to report conditions or practices that pose a safety hazard or threaten the environment)
3. The use of illegal substances
4. Non-Discrimination in dealing with the local community (including vulnerable and disadvantaged groups), the Employer's Personnel, and the Contractor's Personnel (for example on the basis of family status, ethnicity, race, gender, religion, language, marital status, age, disability (physical and mental), sexual orientation, gender identity, political conviction or social, civic, or health status)
5. Interactions with the local community(ies), members of the local community (ies), and any affected person(s) (for example to convey an attitude of respect, including to their culture and traditions)
6. Sexual harassment (for example to prohibit use of language or behavior, in particular towards women and/or children, that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate)
7. Violence, including sexual and/or gender based violence (for example acts that inflict physical, mental or sexual harm or suffering, threats of such acts, coercion, and deprivation of liberty
8. Exploitation including sexual exploitation and abuse (for example the prohibition of the exchange of money, employment, goods, or services for sex, including sexual favors or other forms of humiliating, degrading behavior, exploitative behavior or abuse of power)
9. Protection of children (including prohibitions against sexual activity or abuse, or otherwise unacceptable behavior towards children, limiting interactions with children, and ensuring their safety in project areas)
10. Sanitation requirements (for example, to ensure workers use specified sanitary facilities provided by their employer and not open areas)
11. Avoidance of conflicts of interest (such that benefits, contracts, or employment, or any sort of preferential treatment or favors, are not provided to any person with whom there is a financial, family, or personal connection)
12. Respecting reasonable work instructions (including regarding environmental and

social norms)

13. Protection and proper use of property (for example, to prohibit theft, carelessness or waste)
14. Duty to report violations of this Code
15. Non retaliation against workers who report violations of the Code, if that report is made in good faith.

The Code of Conduct should be written in plain language and signed by each worker to indicate that they have:

- received a copy of the code;
- had the code explained to them;
- acknowledged that adherence to this Code of Conduct is a condition of employment; and
- Understood that violations of the Code can result in serious consequences, up to and including dismissal, or referral to legal authorities.

A copy of the code shall be displayed in a location easily accessible to the community and project affected people. It shall be provided in languages comprehensible to the local community, Contractor's Personnel, Employer's Personnel, and affected persons.

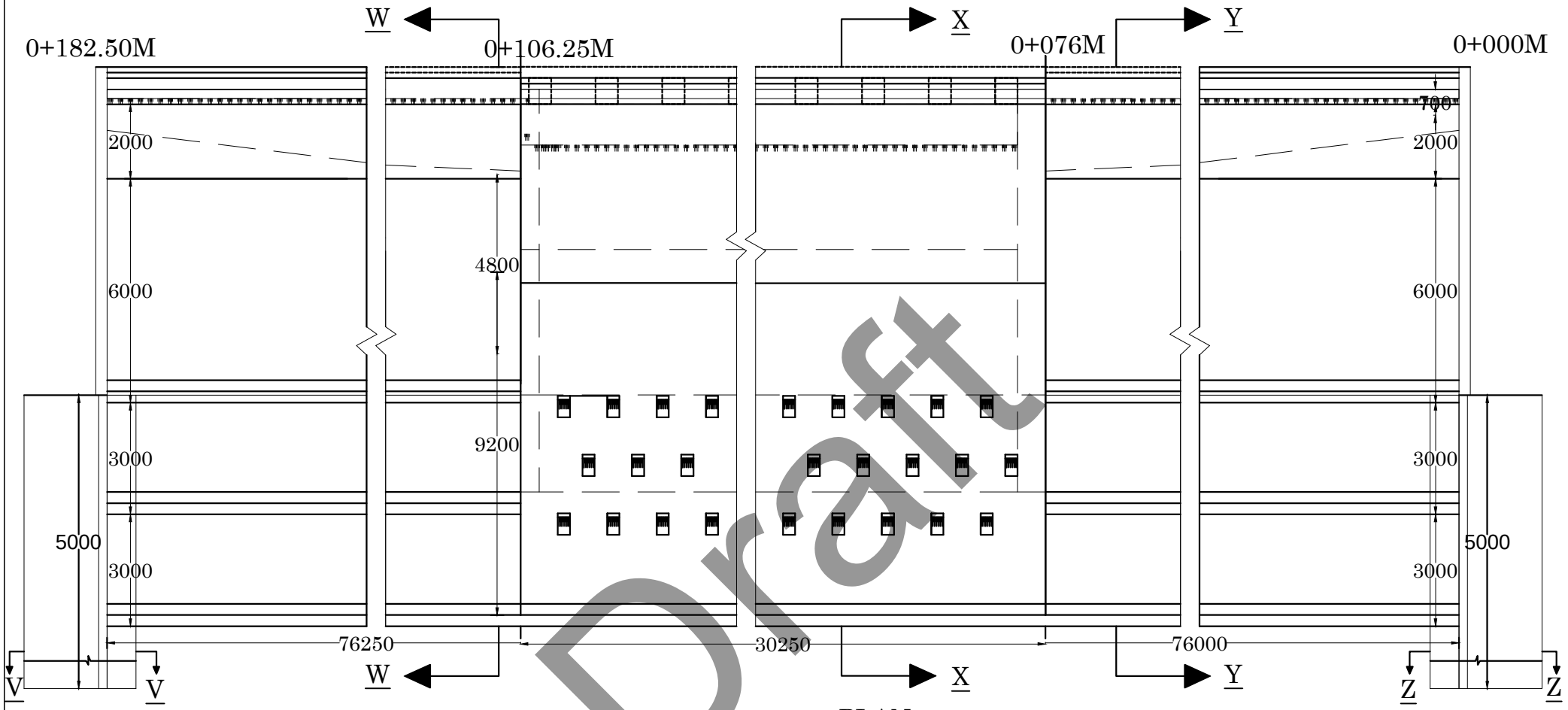
PAYMENT FOR ESHS REQUIREMENTS

The Employer's ESHS and procurement specialists should consider how the Contractor will cost the delivery of the ESHS requirements. In the majority of cases, the payment for the delivery of ESHS requirements shall be a subsidiary obligation of the Contractor covered under the prices quoted for other Bill of Quantity items. For example, normally the cost of implementing work place safe systems of work, including the majors necessary for ensuring traffic safety, shall be covered by the Bidder's rates for the relevant works. Alternatively, provisional sums could be set aside for discrete activities for example for HIV counselling service, and, GBV/SEA awareness and sensitization or to encourage the contractor to deliver additional ESHS outcomes beyond the requirement of the Contract.

Section - 10

Drawings

S. NO.	DESCRIPTION	DRAWING NO	NO OF SHEETS
01.	SPILL STRUCTURE	PID/EP/IWWRMP/2023/ME/SPILL/02-01	01
02.	CSS OF SPILL STRUCTURE	PID/EP/IWWRMP/2023/ME/SPILL/02-02 TO 03	02
03.	CONSTRUCTION OF SPILL STRUCTURE	PID/EP/IWWRMP/2023/ME/SPILL/02-04 TO 09	06
04.	CONSTRUCTION OF TOWER SLUICE	PID/EP/IWWRMP/2023/ME/SPILL/02-10 TO 11	02
05.	CONSTRUCTION OF RETAINING WALL	PID/EP/IWWRMP/2023/ME/SPILL/02-12	01



PLAN

SCALE :- 1:100

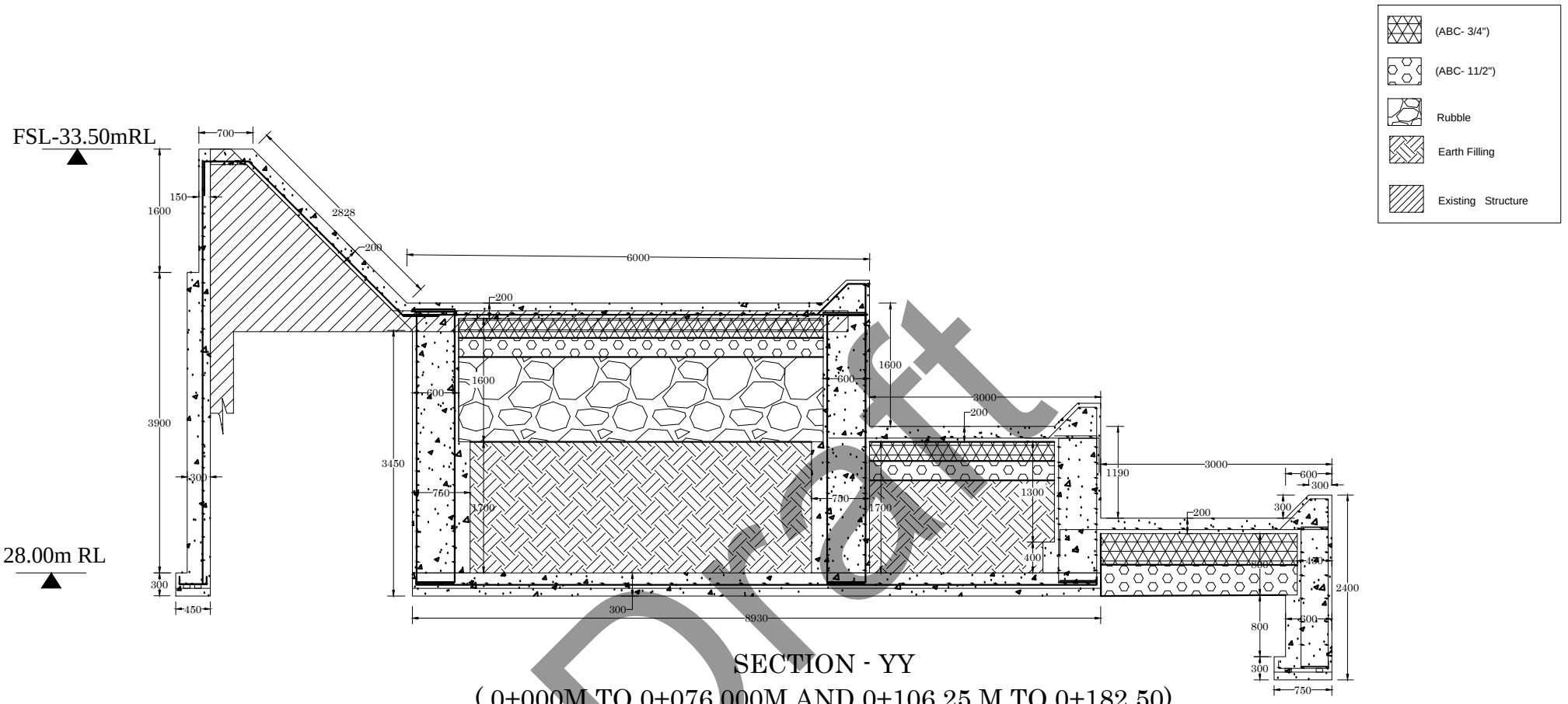
SCALE :- 1:100

DIE's Office	LEVELLED & DRAWN BY: Mr.T.Sivasingam,TO TECHNICAL OFFICER DRAWING CHECKED BY: MR.M.M.M.UVAIS DRAUGHT PERSON	DESIGNED BY: ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER	SUBMITTED BY: ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER
DDI's Office	DRAWING CHECKED BY: DRAUGHT PERSON	DESIGN CHECKED BY: IRRIGATION ENGINEER	RECOMMENDED BY: ENG.K.PRATHEEPAN , P/DEPUTY DIRECTOR OF IRRIGATION
P/DI's Office	DRAWING CHECKED BY: DRAUGHT PERSON	DESIGN RE CHECKED BY: P/ DEPUTY DIRECTOR OF IRRIGATION	APPROVED BY: ENG.V.RAJAGOPALASINGAM P/ DIRECTOR OF IRRIGATION

PROVINCIAL IRRIGATION DEPARTMENT
EASTERN PROVINCE

CONSTRUCTION OF SPILL STRUCTURE AT
MEIYANKAL TANK.
UNDER IWWRMP-2025

DATE -	SHEET NO- 02 OF 05	DRW. NO -



Draft

SECTION - YY

(0+000M TO 0+076.000M AND 0+106.25 M TO 0+182.50)

SCALE :- 1:50

DIE's Office	LEVELLED & DRAWN BY: Mr.T.Sivasingam,TO TECHNICAL OFFICER DRAWING CHECKED BY: MR.M.M.M.UVAIS DRAUGHT PERSON	DESIGNED BY: ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER	SUBMITTED BY: ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER
DDI's Office	DRAWING CHECKED BY: DRAUGHT PERSON	DESIGN CHECKED BY: IRRIGATION ENGINEER	RECOMMENDED BY: ENG.K.PRATHEEPAN , P/DEPUTY DIRECTOR OF IRRIGATION
P/DI's Office	DRAWING CHECKED BY: DRAUGHT PERSON	DESIGN RE CHECKED BY: P/ DEPUTY DIRECTOR OF IRRIGATION	APPROVED BY: ENG.V.RAJAGOPALASINGAM P/ DIRECTOR OF IRRIGATION

PROVINCIAL IRRIGATION DEPARTMENT
EASTERN PROVINCE

CONSTRUCTION OF SPILL STRUCTURE AT
MEIYANKAL TANK.
UNDER IWWRMP-2025

DATE -	SHEET NO- 02 OF 05	DRW. NO -

NOTE

1. ALL DIAMENSION ARE IN MILLIMETERS
2. ALL LEVELS ARE IN METERS ABOVE MSL
3. BAR NOTATION

20 Y 20 - 10 - 225 T

- 20 — No OF BARS
- Y — STEEL ~~TYPE~~
- 20 — BAR SIZE
- 10 — BAR SPACING
- 225 — BAR LOCATION
- T — BAR MARK

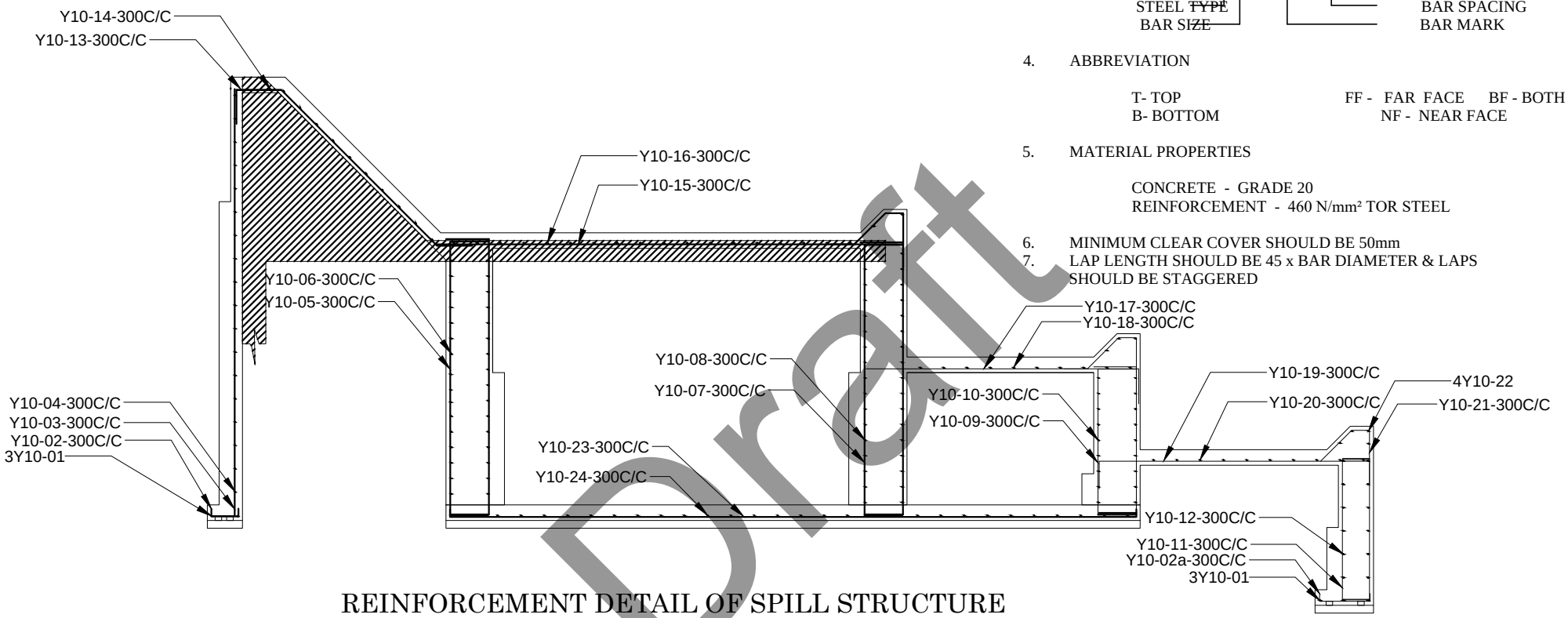
4. ABBREVIATION

T- TOP
B- BOTTOM
FF - FAR FACE
NF - NEAR FACE
BF - BOTH FACE

5. MATERIAL PROPERTIES

CONCRETE - GRADE 20
REINFORCEMENT - 460 N/mm² TOR STEEL

6. MINIMUM CLEAR COVER SHOULD BE 50mm
7. LAP LENGTH SHOULD BE 45 x BAR DIAMETER & LAPS SHOULD BE STAGGERED



REINFORCEMENT DETAIL OF SPILL STRUCTURE
(0+000M TO 0+076.000M AND 0+106.25 M TO 0+182.50)

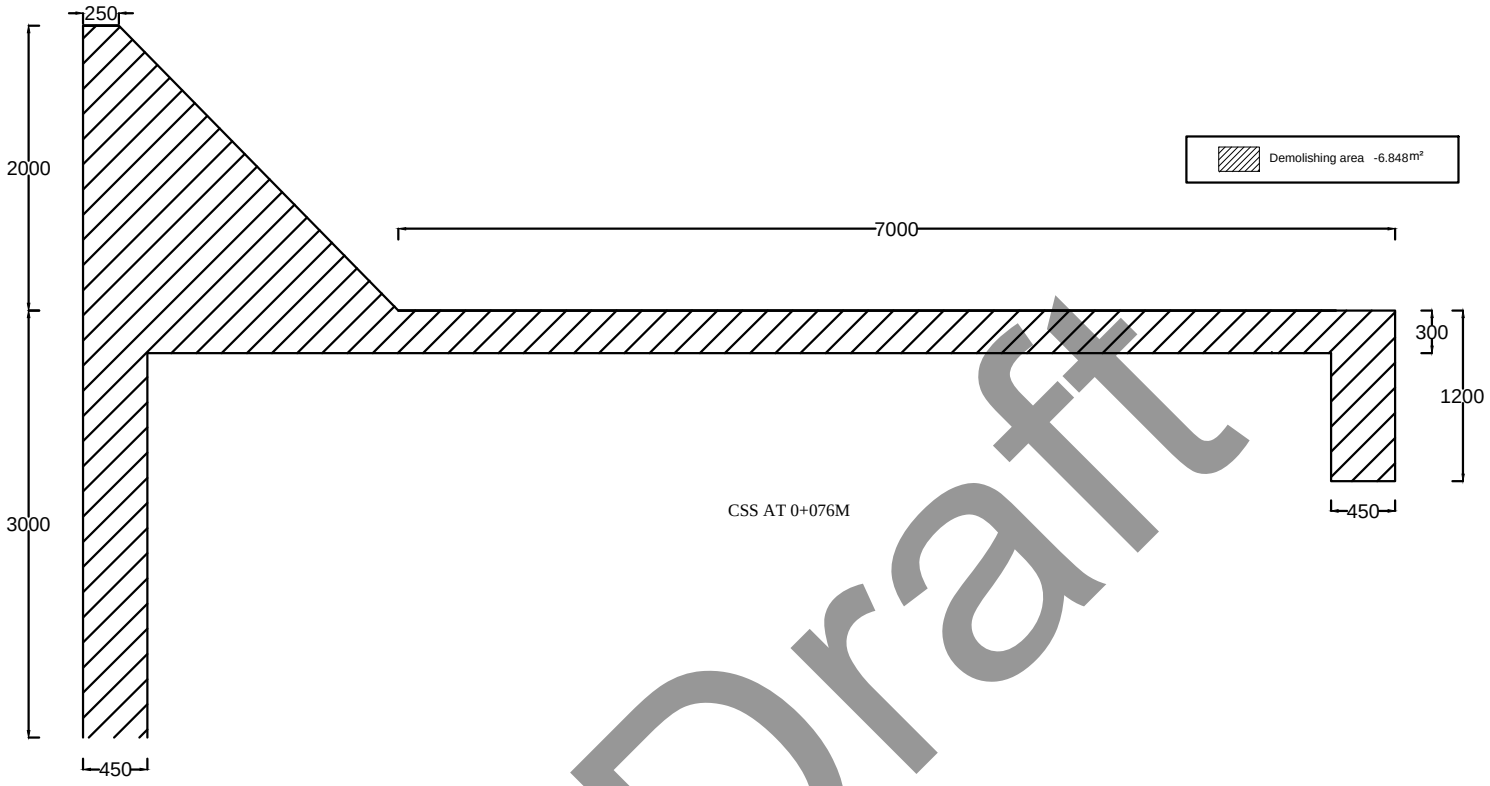
SCALE :- 1:50

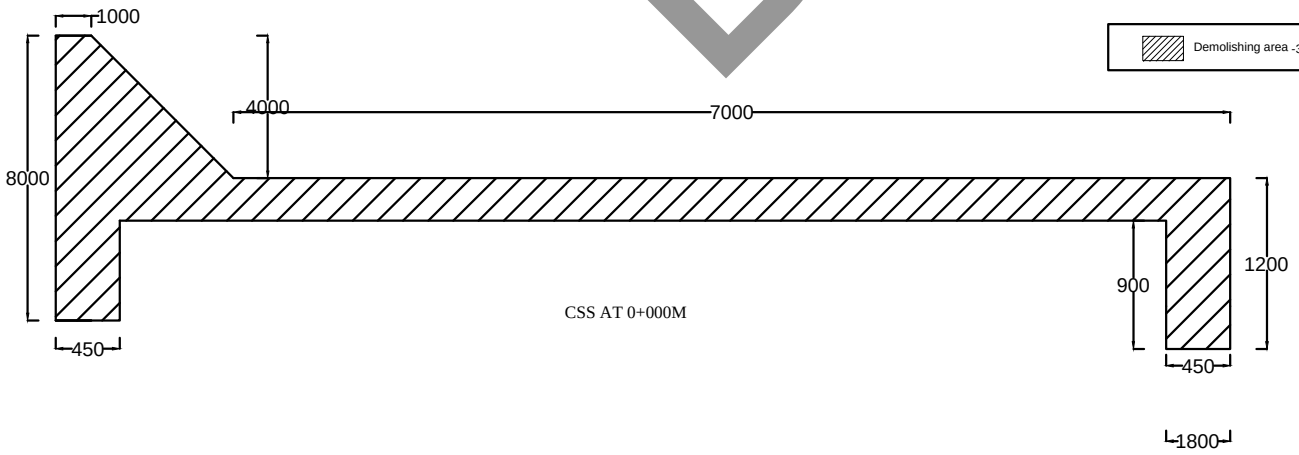
DIE's Office	LEVELLED & DRAWN BY: Mr.T.Sivasingam,TO TECHNICAL OFFICER	DESIGNED BY:	SUBMITTED BY:
	DRAWING CHECKED BY: MR.M.M.M.UVAIS DRAUGHT PERSON	ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER	ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER
DDI's Office	DRAWING CHECKED BY: DRAUGHT PERSON	DESIGN CHECKED BY: IRRIGATION ENGINEER	RECOMMENDED BY: ENG.K.PRATHEEPAN , P/DEPUTY DIRECTOR OF IRRIGATION
P/DI's Office	DRAWING CHECKED BY: DRAUGHT PERSON	DESIGN RE CHECKED BY: P/ DEPUTY DIRECTOR OF IRRIGATION	APPROVED BY: ENG.V.RAJAGOPALASINGAM, P/ DIRECTOR OF IRRIGATION

PROVINCIAL IRRIGATION DEPARTMENT
EASTERN PROVINCE

CONSTRUCTION OF SPILL STRUCTURE AT
MEIYANKAL TANK.
UNDER IWWRMP-2025

DATE -	SHEET NO- 02 OF 05	DRW. NO -



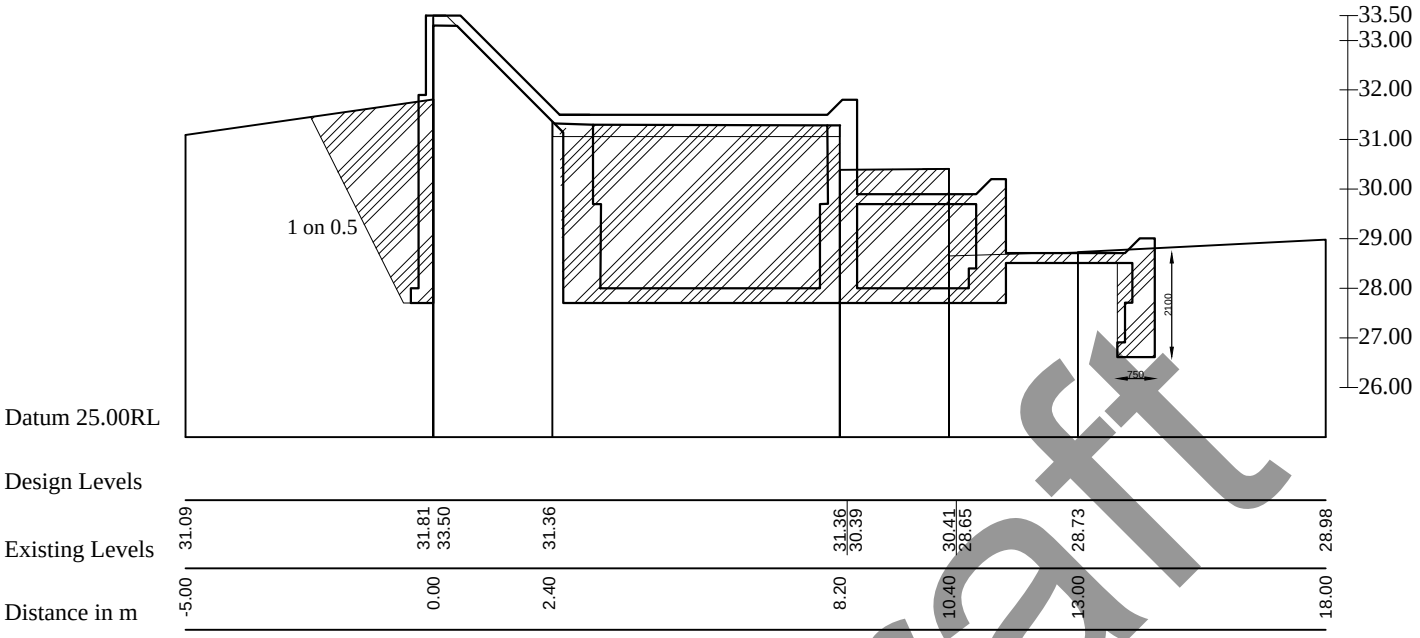


DES's Office	LEVELLED & DRAWN BY: Mr.T.Sivasingam,TO TECHNICAL OFFICER	DESIGNED BY:	SUBMITTED BY:
	DRAWING CHECKED BY: MR.M.M.M.UVAIS DRAUGHT PERSON	ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER	ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER
DD's Office	DRAWING CHECKED BY: DRAUGHT PERSON	DESIGN CHECKED BY: IRRIGATION ENGINEER	RECOMMENDED BY: ENG.K.PRATHEEPAN , P/DEPUTY DIRECTOR OF IRRIGATION
PDD's Office	DRAWING CHECKED BY: DRAUGHT PERSON	DESIGN BE CHECKED BY: P/ DEPUTY DIRECTOR OF IRRIGATION	APPROVED BY: ENG.V.RAJAGOPALASINGAM P/ DIRECTOR OF IRRIGATION

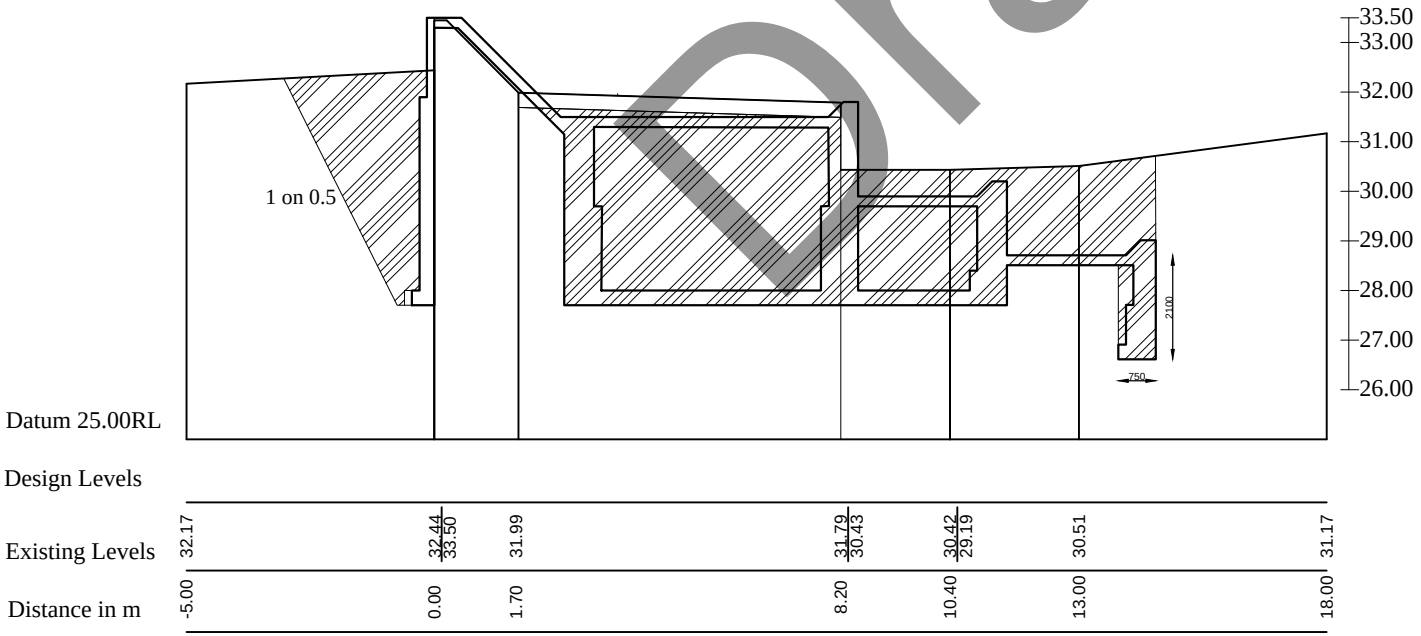
PROVINCIAL IRRIGATION DEPARTMENT
EASTERN PROVINCE

CONSTRUCTION OF SPILL STRUCTURE AT
MEIYANKAL TANK.
UNDER IWWRMP-2025

DATE -	SHEET NO- 02 OF 05	DRW. NO -



CSS AT 0+076M



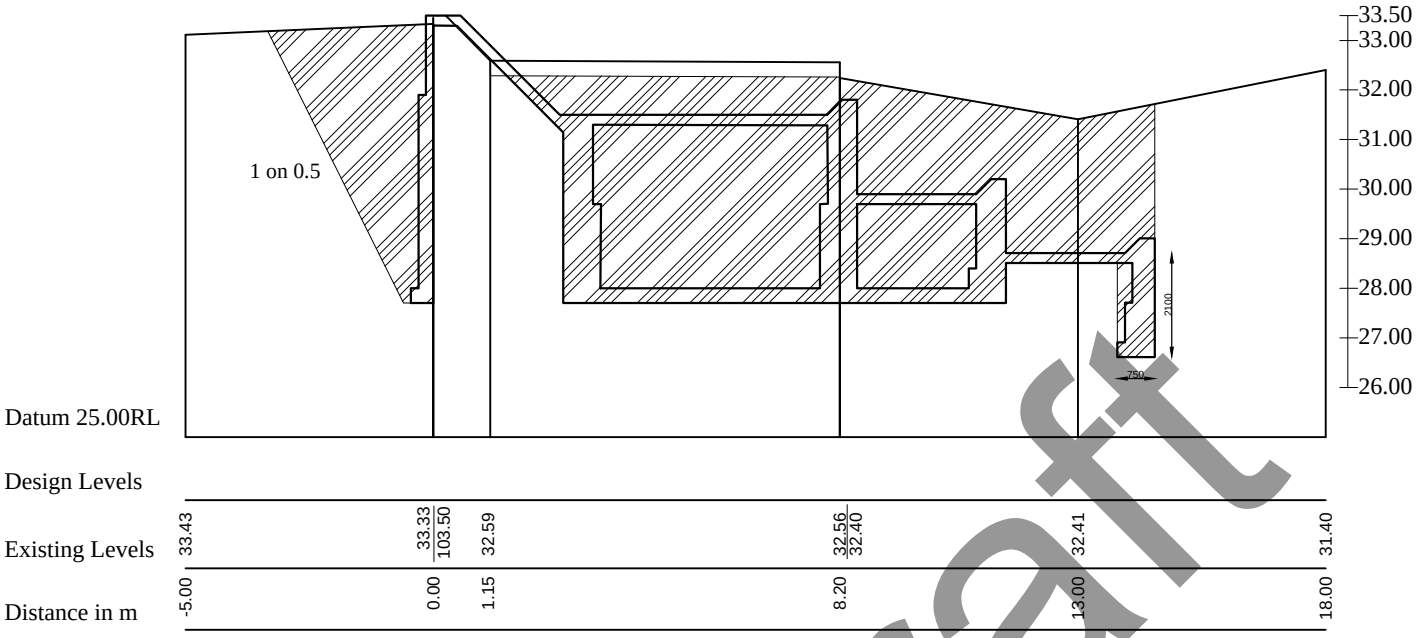
CSS AT 0+060M

DIE's Office	LEVELLED & DRAWN BY: Mr.T.Sivasingam,TO TECHNICAL OFFICER DRAWING CHECKED BY: MR.M.M.M.UVAIS DRAUGHT PERSON	DESIGNED BY: ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER	SUBMITTED BY: ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER
DDI's Office	DRAWING CHECKED BY: DRAUGHT PERSON	DESIGN CHECKED BY: IRRIGATION ENGINEER	RECOMMENDED BY: ENG.K.PRATHEEPAN , P/DEPUTY DIRECTOR OF IRRIGATION
P/DI's Office	DRAWING CHECKED BY: DRAUGHT PERSON	DESIGN RE CHECKED BY: P/ DEPUTY DIRECTOR OF IRRIGATION	APPROVED BY: ENG.V.RAJAGOPALASINGAM P/ DIRECTOR OF IRRIGATION

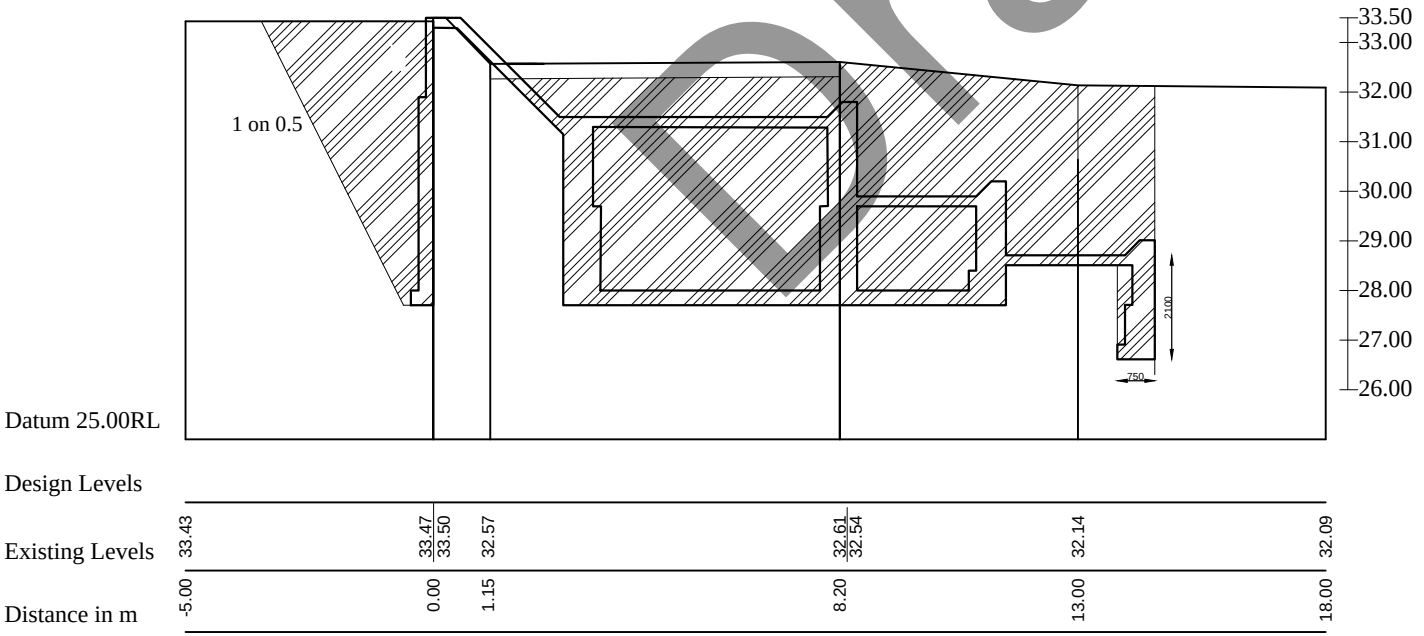
PROVINCIAL IRRIGATION DEPARTMENT
EASTERN PROVINCE

CONSTRUCTION OF SPILL STRUCTURE AT
MEIYANKAL TANK.
UNDER IWWRMP-2025

DATE -	SHEET NO- 02 OF 05	DRW. NO -



CSS AT 0+030M



CSS AT 0+000M

DIE's Office	LEVELLED & DRAWN BY: Mr.T.Sivasingam,TO TECHNICAL OFFICER DRAWING CHECKED BY: MR.M.M.M.UVAIS DRAUGHT PERSON	DESIGNED BY: ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER	SUBMITTED BY: ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER
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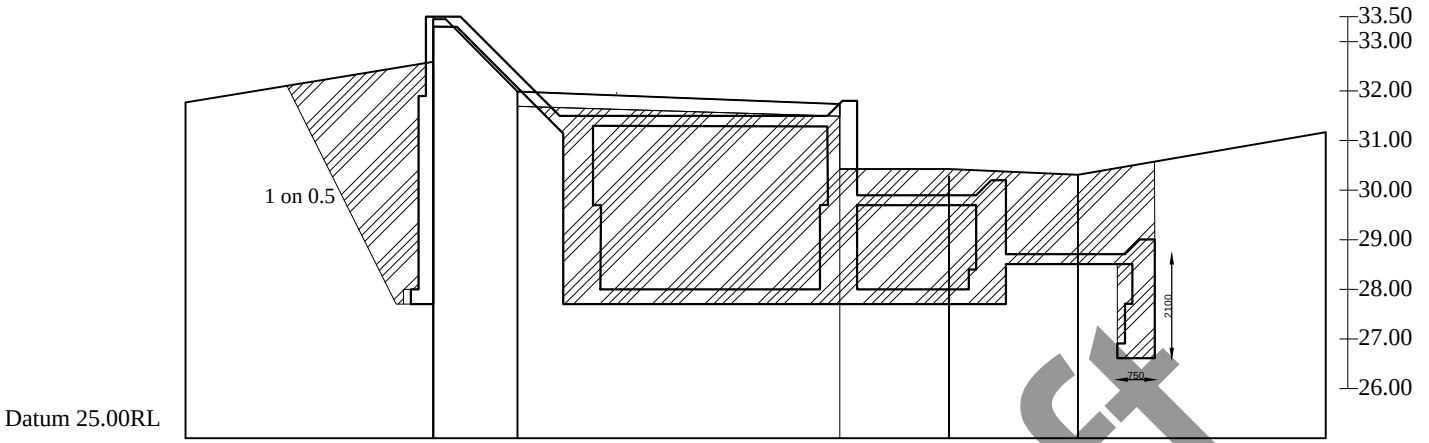
P/DI's Office	DRAWING CHECKED BY: DRAUGHT PERSON	DESIGN RE CHECKED BY: P/ DEPUTY DIRECTOR OF IRRIGATION	APPROVED BY: ENG.V.RAJAGOPALASINGAM P/ DIRECTOR OF IRRIGATION

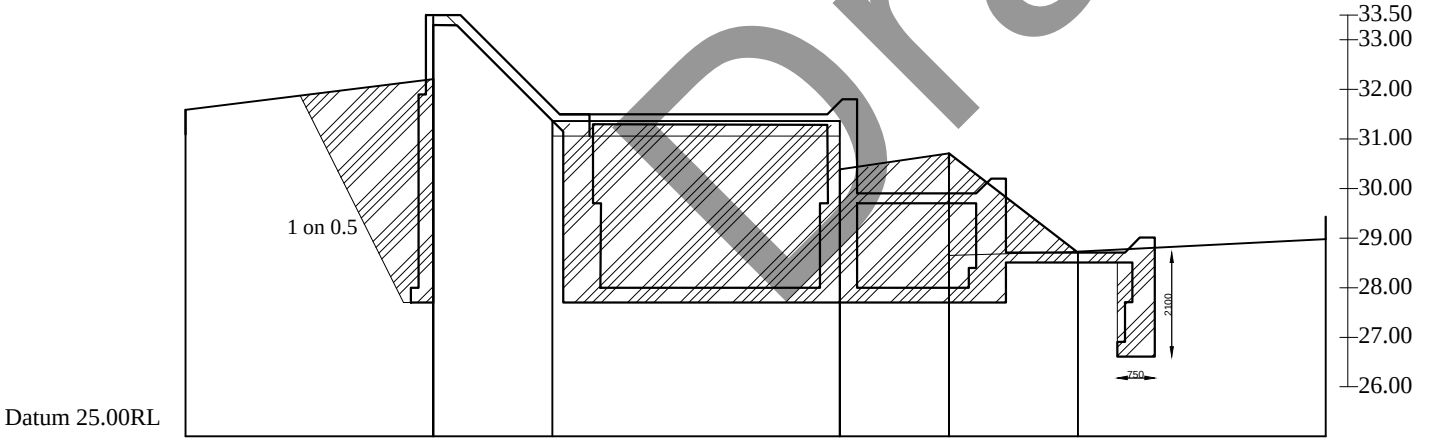
PROVINCIAL IRRIGATION DEPARTMENT
EASTERN PROVINCE

CONSTRUCTION OF SPILL STRUCTURE AT
MEIYANKAL TANK.
UNDER IWWRMP-2025

DATE -	SHEET NO- 02 OF 05	DRW. NO -



CSS AT 0+140M



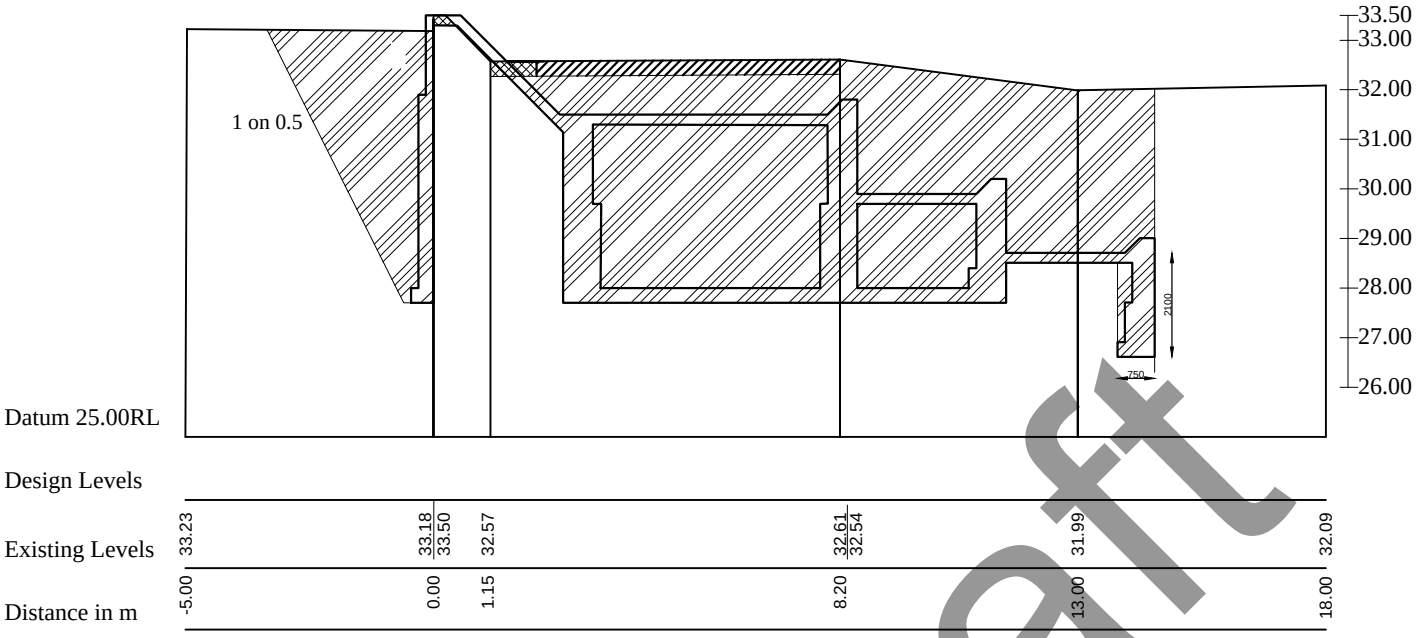
CSS AT 0+106.25M

DIE's Office	LEVELLED & DRAWN BY: Mr.T.Sivasingam,TO TECHNICAL OFFICER DRAWING CHECKED BY: MR.M.M.M.UVAIS DRAUGHT PERSON	DESIGNED BY: ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER	SUBMITTED BY: ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER
DDI's Office	DRAWING CHECKED BY: DRAUGHT PERSON	DESIGN CHECKED BY: IRRIGATION ENGINEER	RECOMMENDED BY: ENG.K.PRATHEEPAN , P/DEPUTY DIRECTOR OF IRRIGATION
P/DI's Office	DRAWING CHECKED BY: DRAUGHT PERSON	DESIGN RE CHECKED BY: P/ DEPUTY DIRECTOR OF IRRIGATION	APPROVED BY: ENG.V.RAJAGOPALASINGAM P/ DIRECTOR OF IRRIGATION

PROVINCIAL IRRIGATION DEPARTMENT
EASTERN PROVINCE

CONSTRUCTION OF SPILL STRUCTURE AT
MEIYANKAL TANK.
UNDER IWWRMP-2025

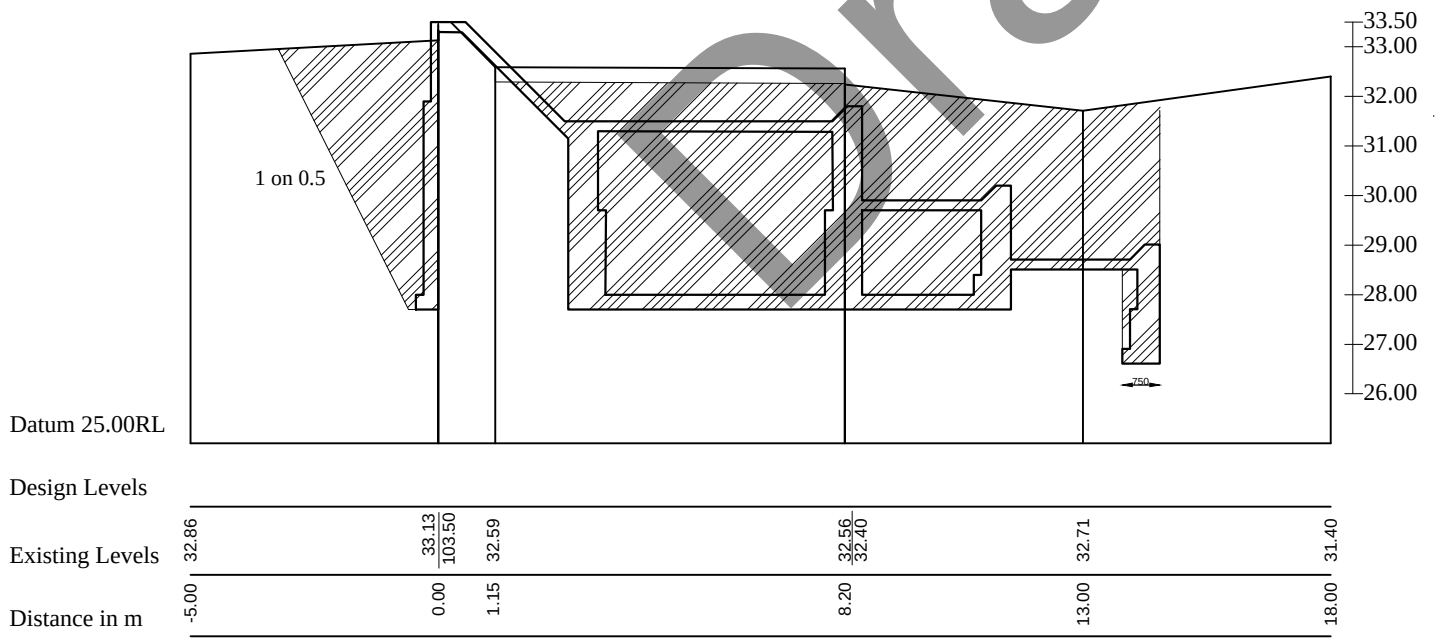
DATE -	SHEET NO- 02 OF 05	DRW. NO -



Earth excavation - 64.698m²

SCALE :- 1:100

CSS AT 0+182.50M



Earth excavation - 62.435m²

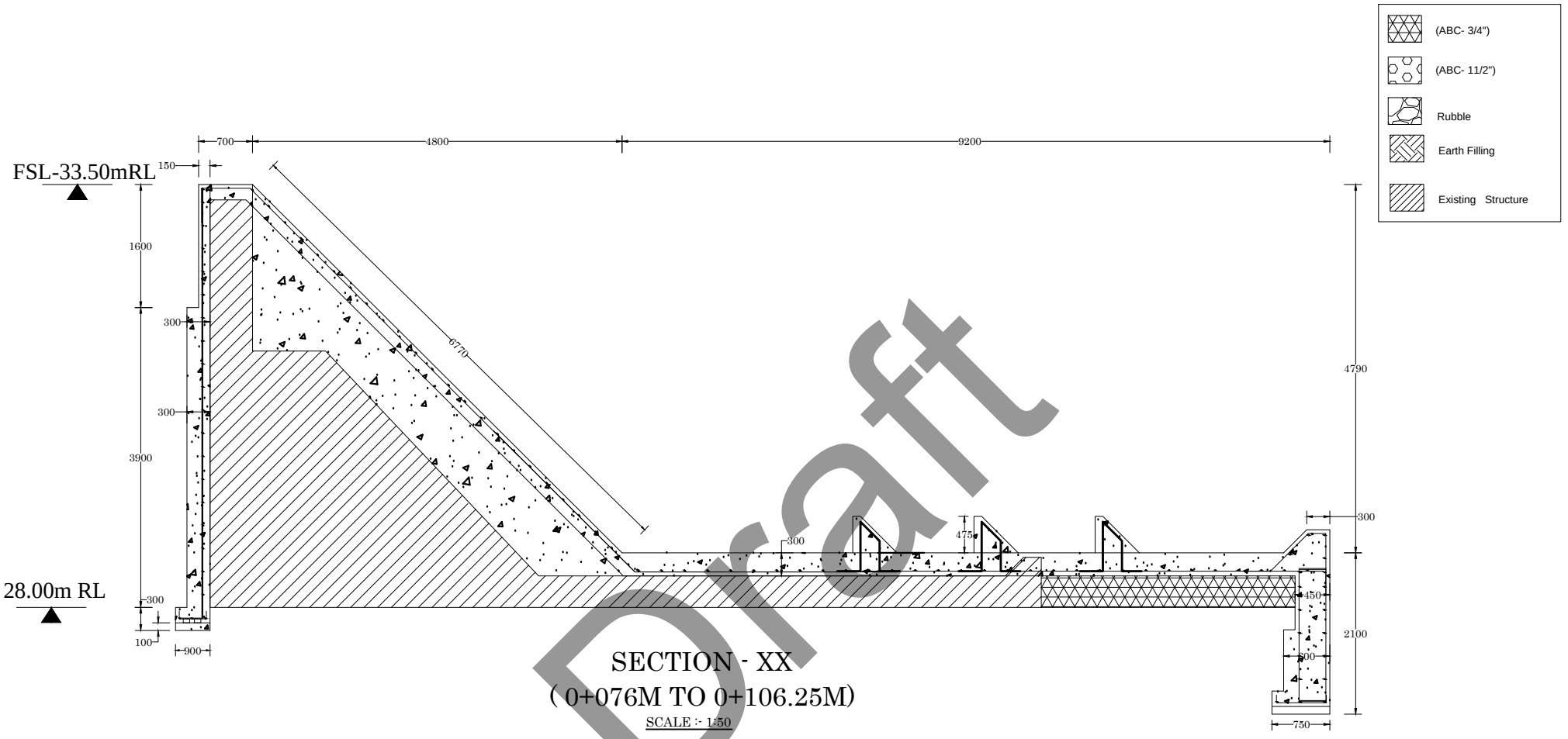
CSS AT 0+160M

DIE's Office	LEVELLED & DRAWN BY: Mr.T.Sivasingam,TO TECHNICAL OFFICER DRAWING CHECKED BY: MR.M.M.M.UVAIS DRAUGHT PERSON	DESIGNED BY: ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER	SUBMITTED BY: ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER
DDI's Office	DRAWING CHECKED BY: DRAUGHT PERSON	DESIGN CHECKED BY: IRRIGATION ENGINEER	RECOMMENDED BY: ENG.K.PRATHEEPAN , P/DEPUTY DIRECTOR OF IRRIGATION
P/DI's Office	DRAWING CHECKED BY: DRAUGHT PERSON	DESIGN RE CHECKED BY: P/ DEPUTY DIRECTOR OF IRRIGATION	APPROVED BY: ENG.V.RAJAGOPALASINGAM P/ DIRECTOR OF IRRIGATION

PROVINCIAL IRRIGATION DEPARTMENT
EASTERN PROVINCE

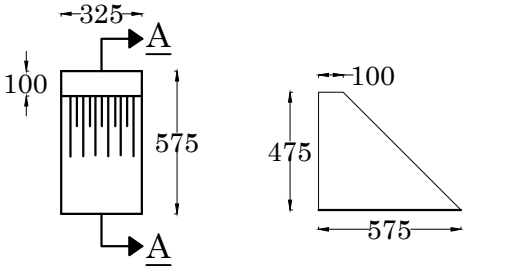
CONSTRUCTION OF SPILL STRUCTURE AT
MEIYANKAL TANK.
UNDER IWWRMP-2025

DATE -	SHEET NO- 02 OF 05	DRW. NO -



SECTION - XX
(0+076M TO 0+106.25M)

SCALE :- 1:50



PLAN SECTION-AA

SCALE :- 1:20

DIE's Office	LEVELLED & DRAWN BY: Mr.T.Sivasingam,TO TECHNICAL OFFICER	DESIGNED BY: ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER	SUBMITTED BY: ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER
	DRAWING CHECKED BY: MR.M.M.M.UVAIS DRAUGHT PERSON		
DDI's Office	DRAWING CHECKED BY: DRAUGHT PERSON	DESIGN CHECKED BY: IRRIGATION ENGINEER	RECOMMENDED BY: ENG.K.PRATHEEPAN , P/DEPUTY DIRECTOR OF IRRIGATION
P/DI's Office	DRAWING CHECKED BY: DRAUGHT PERSON	DESIGN RE CHECKED BY: P/ DEPUTY DIRECTOR OF IRRIGATION	APPROVED BY: ENG.V.RAJAGOPALASINGAM, P/ DIRECTOR OF IRRIGATION

PROVINCIAL IRRIGATION DEPARTMENT
EASTERN PROVINCE

CONSTRUCTION OF SPILL STRUCTURE AT
MEIYANKAL TANK.
UNDER IWWRMP-2025

DATE -	SHEET NO- 02 OF 05	DRW. NO -

NOTE

1. ALL DIAMENSION ARE IN MILLIMETERS
2. ALL LEVELS ARE IN METERS ABOVE MSL
3. BAR NOTATION

20 Y 20 - 10 - 225 T

No OF BARS — BAR LOCATION
STEEL TYPE — BAR SPACING
BAR SIZE — BAR MARK

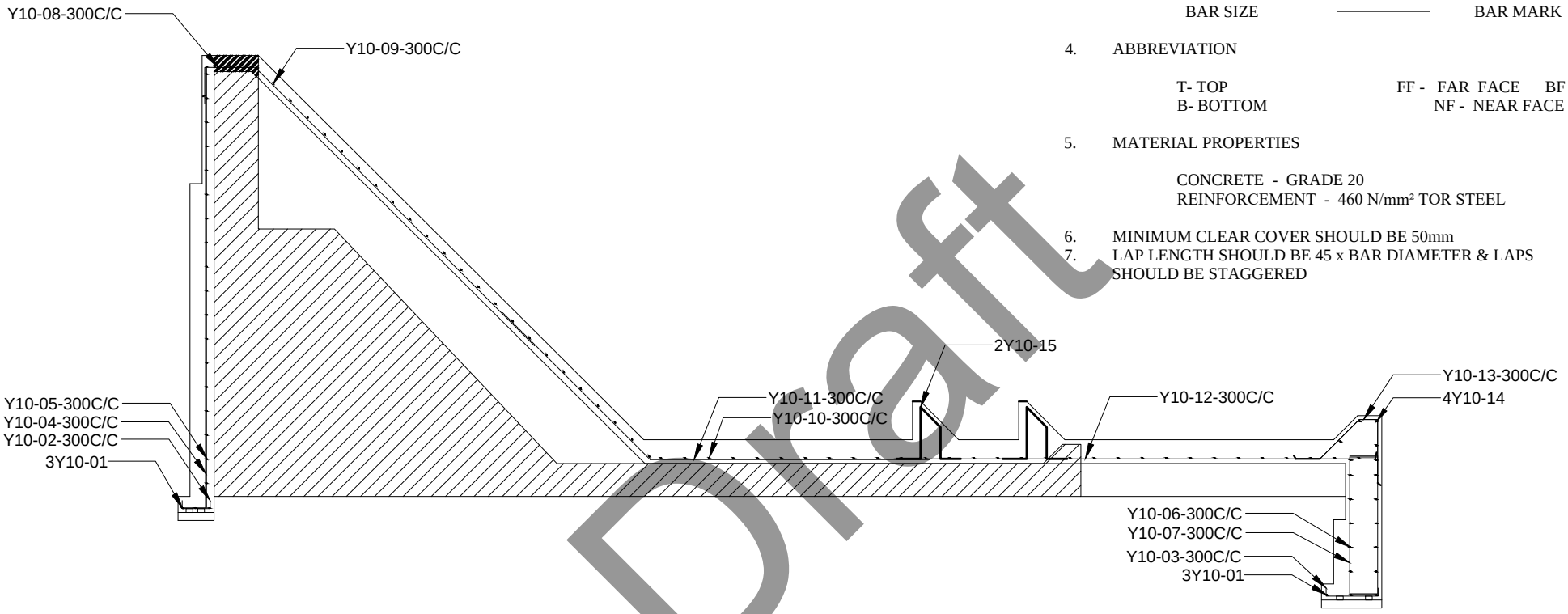
4. ABBREVIATION

T- TOP
B- BOTTOM
FF - FAR FACE
NF - NEAR FACE
BF - BOTH FACE

5. MATERIAL PROPERTIES

CONCRETE - GRADE 20
REINFORCEMENT - 460 N/mm² TOR STEEL

6. MINIMUM CLEAR COVER SHOULD BE 50mm
7. LAP LENGTH SHOULD BE 45 x BAR DIAMETER & LAPS SHOULD BE STAGGERED



REINFORCEMENT DETAIL OF SPILL STRUCTURE
(0+076M TO 0+106.25M)

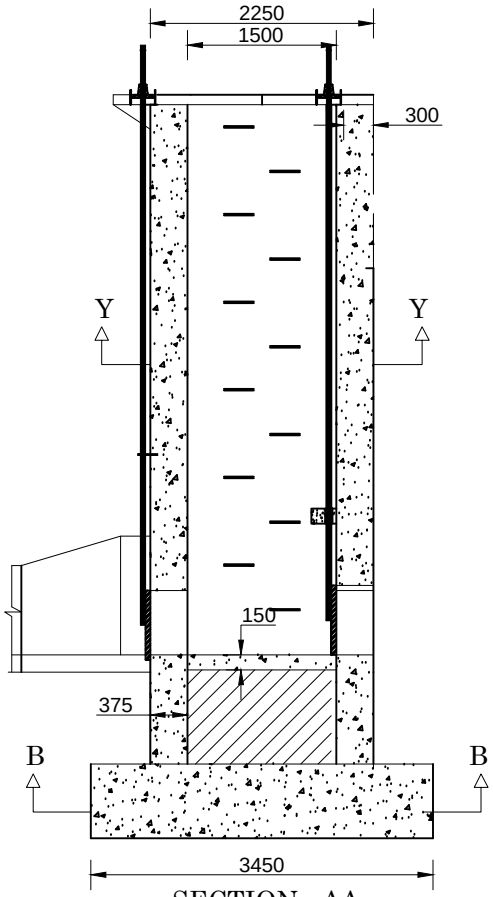
SCALE :- 1:50

DIE's Office	LEVELLED & DRAWN BY: Mr.T.Sivasingam,TO TECHNICAL OFFICER	DESIGNED BY: ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER	SUBMITTED BY: ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER
	DRAWING CHECKED BY: MR.M.M.M.UVAIS DRAUGHT PERSON		
DDI's Office	DRAWING CHECKED BY: DRAUGHT PERSON	DESIGN CHECKED BY: IRRIGATION ENGINEER	RECOMMENDED BY: ENG.K.PRATHEEPAN , P/DEPUTY DIRECTOR OF IRRIGATION
P/DI's Office	DRAWING CHECKED BY: DRAUGHT PERSON	DESIGN RE CHECKED BY: P/ DEPUTY DIRECTOR OF IRRIGATION	APPROVED BY: ENG.V.RAJAGOPALASINGAM, P/DIRECTOR OF IRRIGATION

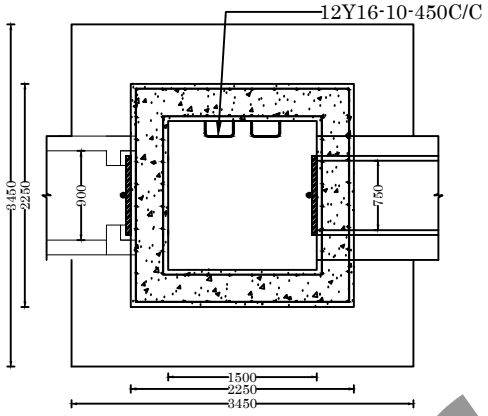
PROVINCIAL IRRIGATION DEPARTMENT
EASTERN PROVINCE

CONSTRUCTION OF SPILL STRUCTURE AT
MEIYANKAL TANK.
UNDER IWWRMP-2025

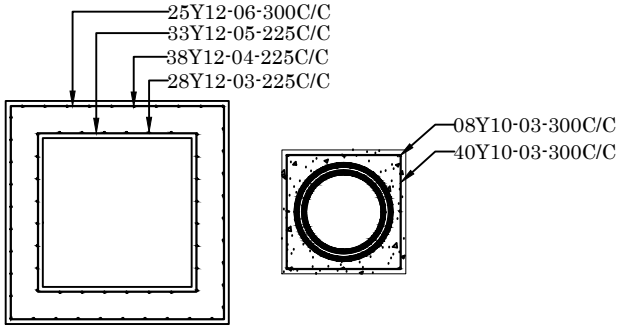
DATE -	SHEET NO- 02 OF 05	DRW. NO -

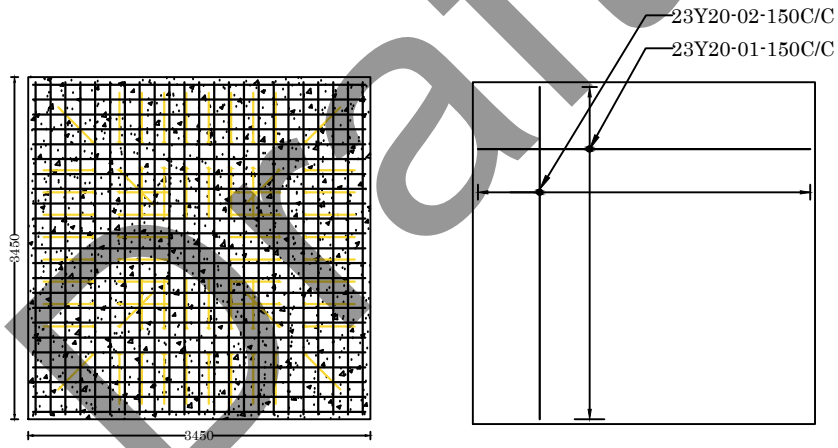


SECTION - AA

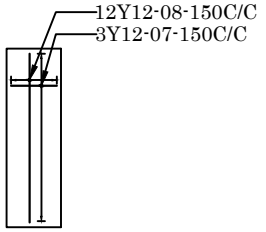


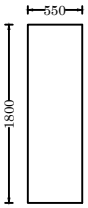
SECTION - YY



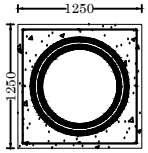


SECTION - BB

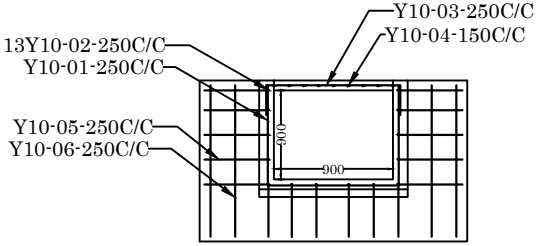




COVER SLAB



SECTION - CC



REINFORCEMENT DETAIL OF TOWER

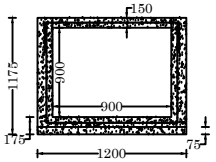
SCALE :- 1:50

DIE's Office	LEVELLED & DRAWN BY: Mr.T.Sivasingam,TO	DESIGNED BY: ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER	SUBMITTED BY: ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER
	DRAWING CHECKED BY: MR.M.M.M.UVAIS DRAUGHT PERSON		
DDI's Office	DRAWING CHECKED BY: DRAUGHT PERSON	DESIGN CHECKED BY: IRRIGATION ENGINEER	RECOMMENDED BY: ENG.K.PRATHEEPAN , P/DEPUTY DIRECTOR OF IRRIGATION
P/DI's Office	DRAWING CHECKED BY: DRAUGHT PERSON	DESIGN RE CHECKED BY: P/ DEPUTY DIRECTOR OF IRRIGATION	APPROVED BY: ENG.V.RAJAGOPALASINGAM P/ DIRECTOR OF IRRIGATION

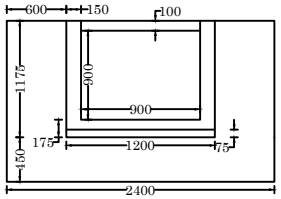
PROVINCIAL IRRIGATION DEPARTMENT
EASTERN PROVINCE

CONSTRUCTION OF TOWER SLUICE AT MEIYANKAL TANK.
UNDER IWWRMP-2025

DATE -	SHEET NO- 04 OF 05	DRW. NO -



SECTION - XX



FRONT ELEVATION

NOTE

1. ALL DIAMENSION ARE IN MILLIMETERS
2. ALL LEVELS ARE IN METERS ABOVE MSL
3. BAR NOTATION

20 Y 20 - 10 - 225 T

No OF BARS
STEEL ~~TYPE~~
BAR SI~~ZE~~
BAR LOCATION
BAR SPACING
BAR MARK

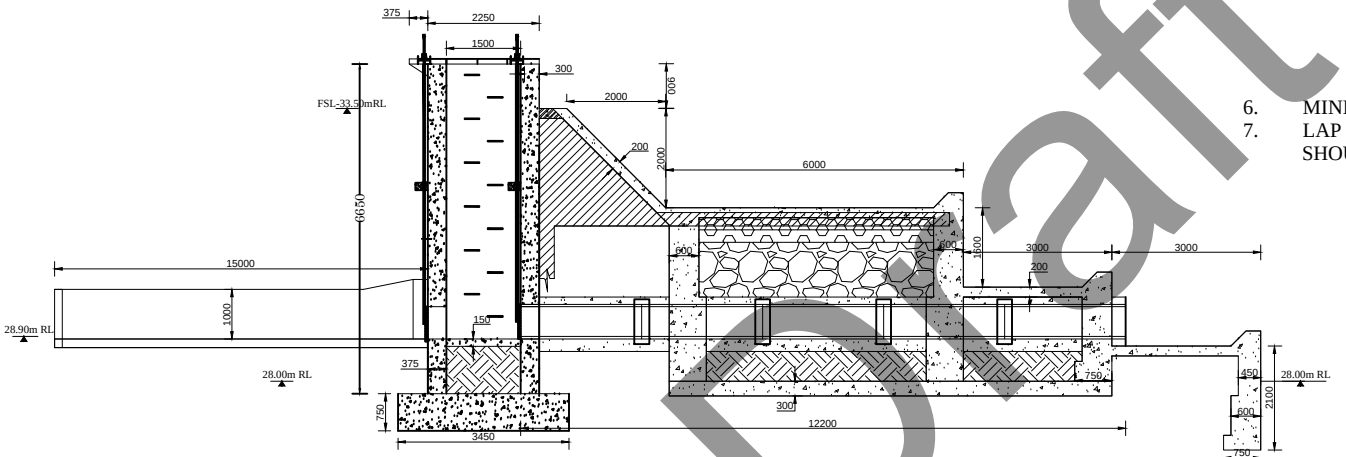
4. ABBREVIATION

T- TOP
B- BOTTOM
FF - FAR FACE
NF - NEAR FACE
BF - BOTH FACE

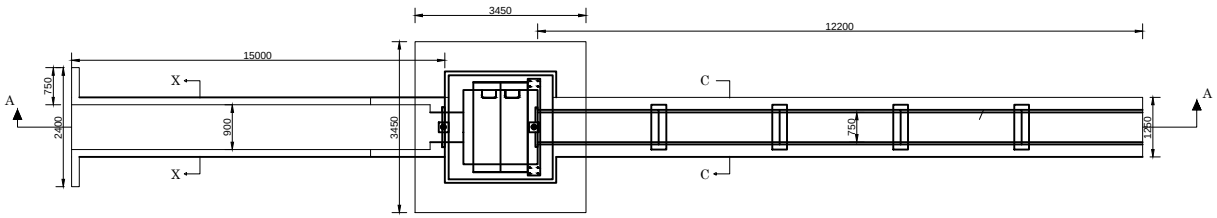
5. MATERIAL PROPERTIES

CONCRETE - GRADE 20
REINFORCEMENT - 460 N/mm² TOR STEEL

6. MINIMUM CLEAR COVER SHOULD BE 50mm
7. LAP LENGTH SHOULD BE 45 x BAR DIAMETER & LAPS SHOULD BE STAGGERED



SECTION -AA



PLAN

DIE's Office	LEVELLED & DRAWN BY: Mr.T.Sivasingam,TO DRAWING CHECKED BY: MR.M.M.M.UVAIS DRAUGHT PERSON	DESIGNED BY: ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER	SUBMITTED BY: ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER
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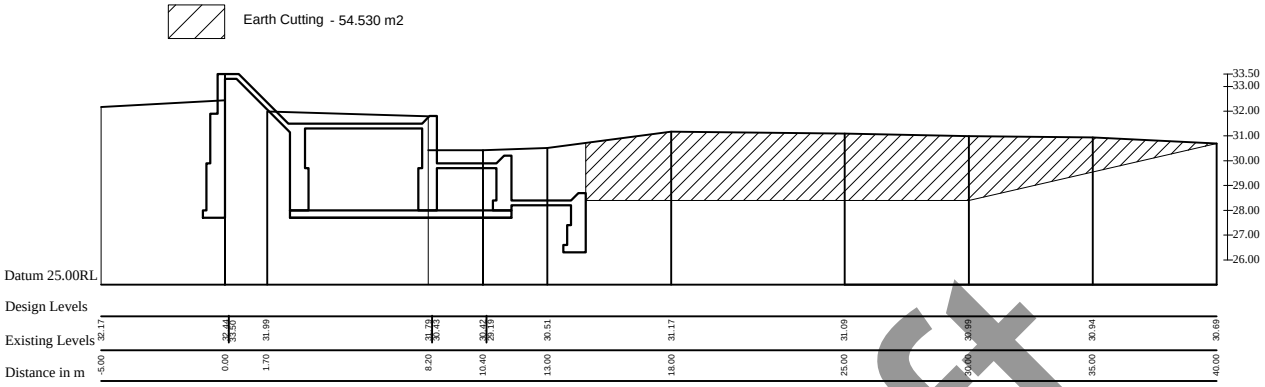
P/DI's Office	DRAWING CHECKED BY: DRAUGHT PERSON	DESIGN RE CHECKED BY: P/ DEPUTY DIRECTOR OF IRRIGATION	APPROVED BY: ENG.V.RAJAGOPALASINGAM P/ DIRECTOR OF IRRIGATION

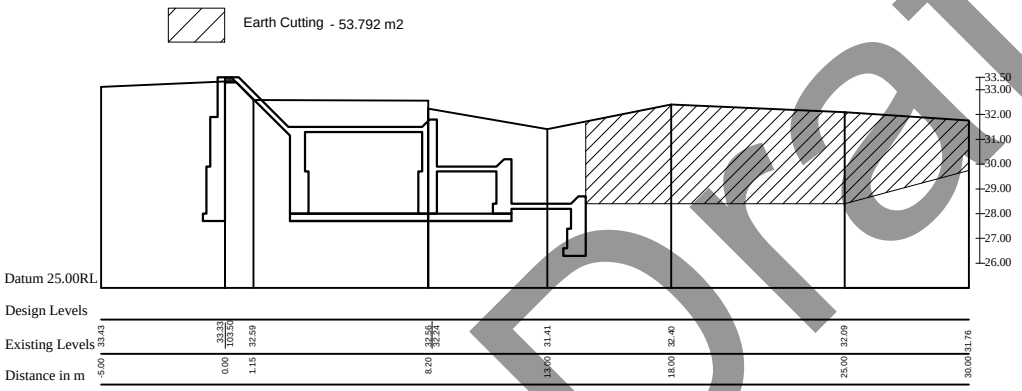
PROVINCIAL IRRIGATION DEPARTMENT
EASTERN PROVINCE

CONSTRUCTION OF TOWER SLUICE AT MEIYANKAL TANK.
UNDER IWWRMP-2025

DATE -	SHEET NO- 04 OF 05	DRW. NO -



CSS AT 0+060M



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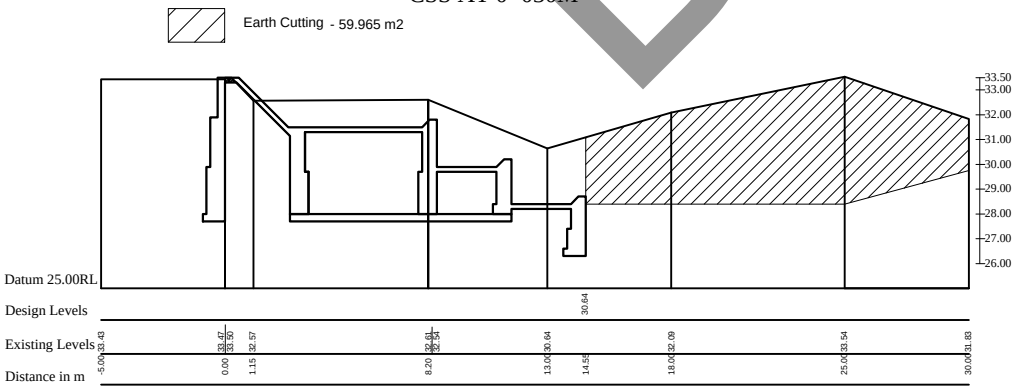

CSS AT 0+000M

DIE's Office	LEVELLED & DRAWN BY: Mr.T.Sivasingam,TO TECHNICAL OFFICER DRAWING CHECKED BY: MR.M.M.M.UVAIS DRAUGHT PERSON	DESIGNED BY: ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER	SUBMITTED BY: ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER
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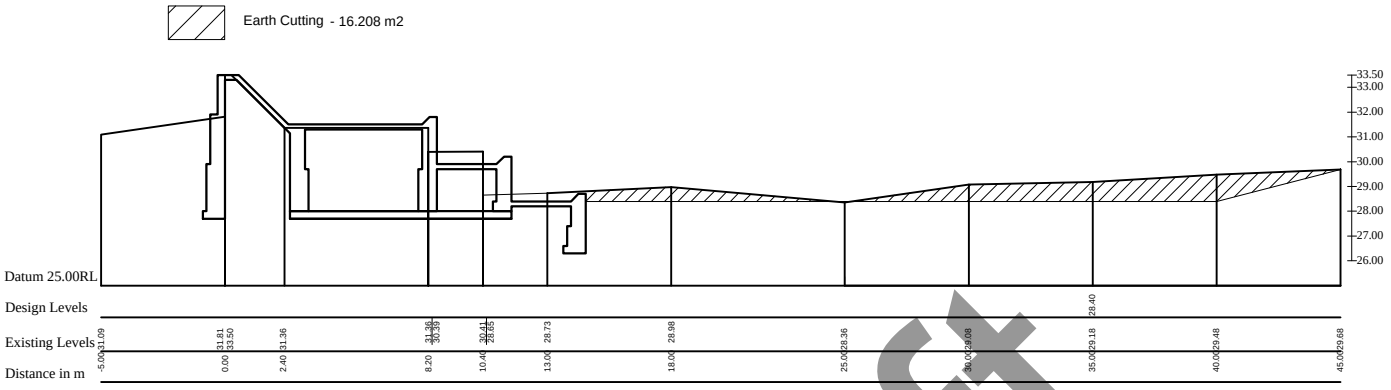
P/DEs Office	DRAWING CHECKED BY: DRAUGHT PERSON	DESIGN RE CHECKED BY: P/ DEPUTY DIRECTOR OF IRRIGATION	APPROVED BY: ENG.V.RAJAGOPALASINGAM P/ DIRECTOR OF IRRIGATION

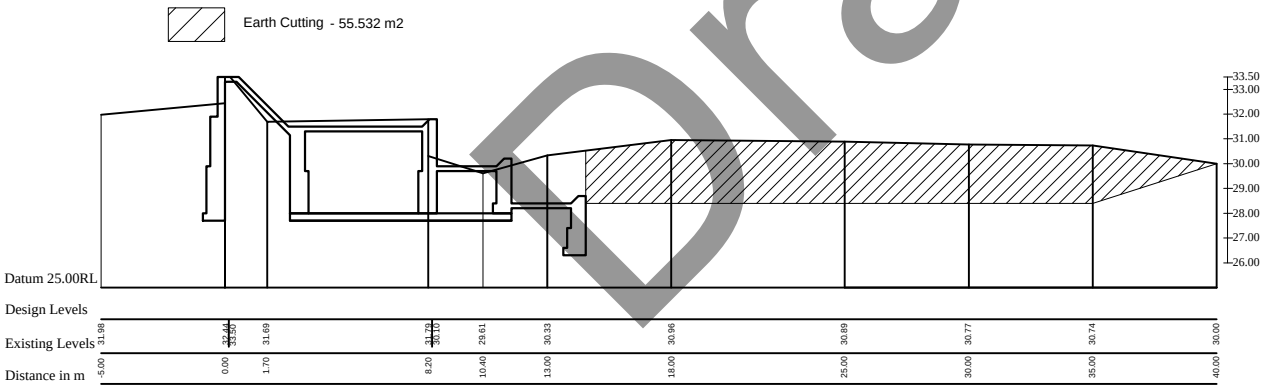
PROVINCIAL IRRIGATION DEPARTMENT
EASTERN PROVINCE

CONSTRUCTION OF TOWER SLUICE AT MEIYANKAL TANK.
UNDER IWWRMP-2025

DATE -	SHEET NO- 04 OF 05	DRW. NO -



CSS AT 0+076M



CSS AT 0+073M

DIE's Office	LEVELLED & DRAWN BY: Mr.T.Sivasingam,TO DRAWING CHECKED BY: MR.M.M.M.UVAIS DRAUGHT PERSON	DESIGNED BY: ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER	SUBMITTED BY: ENG. A.S.M.IRSATH, DIVISIONAL IRRIGATION ENGINEER
DDI's Office	DRAWING CHECKED BY: DRAUGHT PERSON	DESIGN CHECKED BY: IRRIGATION ENGINEER	RECOMMENDED BY: ENG.K.PRATHEEPAN , P/DEPUTY DIRECTOR OF IRRIGATION
P/DI's Office	DRAWING CHECKED BY: DRAUGHT PERSON	DESIGN RE CHECKED BY: P/ DEPUTY DIRECTOR OF IRRIGATION	APPROVED BY: ENG.V.RAJAGOPALASINGAM P/ DIRECTOR OF IRRIGATION

PROVINCIAL IRRIGATION DEPARTMENT
EASTERN PROVINCE

CONSTRUCTION OF TOWER SLUICE AT MEIYANKAL TANK.
UNDER IWWRMP-2025

DATE -	SHEET NO- 04 OF 05	DRW. NO -

Section - 11

STANDARD FORMS (BID)

FORM OF BID SECURITY

[This Guarantee form shall be filled in accordance with the instructions indicated in brackets]

---------- [insert issuing agency's name, and address of issuing branch or office]

Beneficiary: ***Project Director***
Integrated Watershed & Water Resources Management Project,
2nd Floor, Mahaweli Centre Building,
No. 96, Ananda Coomaraswamy Mawatha
Colombo 07.

Date: ---------- *[insert (by issuing agency) date]*

BID GUARANTEE No.: ---------- *[insert (by issuing agency) number]*

We have been informed that ---------- *[insert (by issuing agency) name of the Bidder]* (hereinafter called "the Bidder") has submitted to you its bid dated ---------- *[insert (by issuing agency) date]*(hereinafter called "the Bid") for the execution of '**Improvements to Spill Structure of Meiyankal tank - Retender**' under Invitation for Bids No. **LK-MOMDE-496652-CW-RFB** ("the IFB").

Furthermore, we understand that, according to your conditions, Bids must be supported by a Bid Guarantee.

At the request of the Bidder, we ---------- *[insert name of issuing agency]* hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of ---------- *[insert amount in figures]* ---------- *[insert amount in words]*) upon receipt by us of your first demand in writing accompanied by a written statement stating that the Bidder is in breach of its obligation(s) under the bid conditions, because the Bidder:

(a) has withdrawn its Bid during the period of bid validity specified; or

(b) does not accept the correction of errors in accordance with the Instructions to Bidders (hereinafter "the ITB") of the IFB; or

(c) having been notified of the acceptance of its Bid by the Employer/Purchaser during the period of bid validity, (i) fails or refuses to execute the Contract Form, if required, or (ii) fails or refuses to furnish the Performance Security, in accordance with the ITB.

This Guarantee shall expire: (a) if the Bidder is the successful bidder, upon our receipt of copies of the Contract signed by the Bidder and of the Performance Security issued to you by the Bidder; or (b) if the Bidder is not the successful bidder, upon the earlier of (i) the successful bidder furnishing the performance security, otherwise it will remain in force up to ---------- *(insert date)*

Consequently, any demand for payment under this Guarantee must be received by us at the office on or before that date ----------