



CEYLON PETROLEUM STORAGE TERMINALS LIMITED

**BIDDING DOCUMENT
INTERNATIONAL COMPETITIVE BIDDING (ICB)**

FOR

**REPAIRS TO PETROL LOADING TANK NO.
TK-31 AND TK-32 AT MUTHURAJAWELA
TERMINAL**

CONTRACT NO: KPR/60/2024

Employer:

Ceylon Petroleum Storage Terminals Limited,
Oil Installation,
Kolonnawa,
Wellampitiya,
Sri Lanka.

Issued to:

Issued by:

Date:

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DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

Invitation for Bids (IFB)

CEYLON PETROLEUM STORAGE TERMINALS LIMITED

REPAIRS TO PETROL LOADING TANKS NO. TK-31 AND TK-

32 AT MUHURAJAWELA TERMINAL CONTRACT NO :

KPR/60/2024

1. The Chairman, Ministry Procurement Committee (MPC) on behalf of the Ceylon Petroleum Storage Terminals Limited, Oil Installation, Kolonnawa, Wellampitiya, Sri Lanka now invites sealed bids from eligible and qualified bidders for “Repairs to Petrol Loading Tank No. TK-31 and TK-32 at Muthurajawela Terminal” as described below and estimated to cost LKR 200 million. **The total Construction period is 300 calendar days.**

	Description	Time Duration for completion
1	Supply of Materials for first tank (BOQ items 2.02, 2.03, 2.04 or BOQ items 3.02, 3.03, 3.04)	Within 140 calendar days from Site handing Over
2	Supply of Materials for o (BOQ items 2.02, 2.03, 2.04 or BOQ items 3.02, 3.03, 3.04)	Within 180 calendar days from Site handing Over

- No Interim payment will be paid for the repairs to first tank until the completion of BOQ items 2.02, 2.03, 2.04 or BOQ items 3.02, 3.03, 3.04.
 - No Interim payment will be paid for the repairs to second tank until the completion of BOQ items 2.02, 2.03, 2.04 or BOQ items 3.02, 3.03, 3.04 which ever remaining to complete.
2. Above repair work in both TK-31 and TK-32 tanks consist of replacement of defective shell courses, repair tank accessories including staircases, Nozzles, handrails, supports, water drain system, fire water system, Foam system, etc., Surface preparation and Painting of Bottom plate Top Side, tank accessories, tank roof, shell Interior, Shell exterior and repaired areas, Repair and reinstall Internal Floating roofs, calibration, Roundness & Plumbness checking, testing including Hydro testing, procurement of required materials including plates, pipes paints etc., and all associated works.
- Shell Courses replacement in one tank shall be completed first and other repairs, painting and IFR installation in the other shall be followed subsequently. Shell Courses replacement in second tank shall be initiated after the completion of Shell Courses replacement in the former tank. However this sequence can be amended with the approval of the CPSTL.
3. Bidding will be conducted through **International Competitive Bidding (ICB)** Procedure.
4. To be eligible for contract award, the successful bidder shall not have been blacklisted and shall meet the following requirements.

- (a) For domestic Bidders, **ICTAD (CIDA) registration is required as follows;**

Specialty	Grade	Party
Heavy Steel Fabrication	EM1	Bidder or Partner in Charge of Joint Venture (JV)

- (b) For foreign bidders, **No ICTAD (CIDA) registration is required**, but more experience is required compared to domestic bidder as per Clause 4.3 for compensating above registration.

In case of foreign bidder is selected for contract award, particular bidder shall obtain **temporary registration as a foreign contractor under Construction Industry Development Act No. 33 of 2014 and other required registrations under the laws of Sri Lanka.**

5. Qualification requirements to qualify for contract award include,
 - 5.1 Average annual volume of construction work performed in last five years shall be at least **LKR360 Million (Sri Lanka Rupees Three Hundred Sixty Million) or equal amount in foreign currency.**
 - 5.2 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, until the project is taken over by the CPSTL, shall be not less than **LKR 60 Million (Sri Lankan Rupees Sixty Million) or equivalent amount in foreign currency.**
 - 5.3 Bidder/Partner in Charge of Joint Venture (JV) should have experience as a prime contractor in the construction of a nature and complexity similar to the Works (5,000 m³ or higher capacity steel, vertical, above ground storage tank as per API Standard 650) or major repairs to such tanks including replacement of entire shell courses/ shell plates replacement with shell penetrations and repairing IFRs conforms to API 653.

At least one project for domestic bidder/ Partner in Charge of JV and two for foreign bidder/joint venture partner for new tank construction or at least two projects for domestic bidder/Partner in Charge of JV and four for foreign bidder/joint venture partner for major repairs to such tanks during last ten years.

For joint ventures between Domestic and Foreign partners;
 - (a) If the Domestic partner have ICTAD (CIDA) registration of **EM1 in Heavy Steel Fabrication specialty**, foreign bidder/joint venture partner should have experience as a contractor in at least one project for new tank construction or at least two projects for major repairs to such tanks required.
 - (b) If the Domestic partner doesn't have ICTAD (CIDA) registration of **EM1 in Heavy Steel Fabrication specialty**, foreign bidder/joint venture partner should have experience as a contractor in at least two projects for new tank construction or at least four projects for major repairs to such tanks required.
6. Any of the following party who wishes to submit a bid, shall register himself at the Department of Registrar of Companies www.drc.gov.lk (e-ROC) as per the Public Contracts Act, No. 03 of 1987 for every public contract value exceeding Sri Lankan Rupees **Five million (LKR 5,000,000)**.
 - (a) An agent, sub-agent, representative or nominee must be registered **prior to the closing of the Bid/Tender.**
 - (b) If the tender applicant and tenderer is the same party he must be registered prior to award of the tender.
7. Interested bidders may obtain further information from the Manager Procurement of the Ceylon Petroleum Storage Terminals Limited, (Tele Phone+94 112572156, 112572157 and Tele Fax: +94 11 20742995 and Email: procure@cpstl.lk) and inspect the bidding documents free of charge during any working days from 0900 hrs to 1400 hrs. at the address given below. However, the bidders can inspect the bidding document (excluding drawings) from CPSTL website; www.cpstl.lk .

8. A complete set of Bidding Documents in English language may be purchased by interested bidders on the submission of a written application to the address below from **29.08.2024** until **10.10.2024** from 0900 hrs. to 1400 hrs. on any working day upon cash payment of a non-refundable fee of Sri Lankan Rupees Thirty Five thousand (LKR 35,000.00) or United States Dollars One hundred and Twenty (USD 120.00) directly to the CPSTL bank account, details given below. All bank charges (foreign & local) shall be borne by bidder and proof of remittance (copy of TT) is required along with a written request before 14 days to the Bid closing date to issue the bidding document by courier service. No liability will be borne by CPSTL on loss or late delivery. Bidding Document (excluding drawings) available in the web is only for viewing purpose and Bids shall be submitted using Hard Copy of the Bidding Document purchased from CPSTL.

Account Holder : Ceylon Petroleum Storage Terminals Limited,

Account No : **074733828 US\$**

Swift : BCEYLKLX

Branch Code : 7010

Bank & Branch : Bank of Ceylon
Corporate Branch
Head Office, Head Office Building
No. 04, Bank of Ceylon Mawatha
Colombo 01
Sri Lanka.

9. Bids shall be submitted on the bidding document issued by the Procurement Function - CPSTL and the original of the duly filled bids may be sent by post/courier under registered cover or sealed cover to reach the Chairman, Ministry Procurement Committee (MPC), C/o Manager Procurement, Ceylon Petroleum Storage Terminals Limited, Procurement Function, 01st Floor, New Building, Oil Installation, Kolonnawa, Wellampitiya, Sri Lanka or could be deposited in the tender box kept at the main entrance of CPSTL, on or before 1400 hrs. Sri Lanka local time (GMT+5:30) on 11th October 2024. Late bids will be rejected. Bids will be opened soon after closing in the presence of the bidders' representatives who choose to attend.
10. In case the bidders are unable to submit the original bids as above, they could submit the scanned copy of the duly filled bidding documents in PDF format via email to tenders@cpstl.lk to reach on or before 1400 hrs. on **11.10.2024**, subject to following conditions.
- i. Submission of the bid via email is at own discretion of the bidder.
 - ii. The title and the closing date of the tender shall be indicated as the subject of the email.
 - iii. Size of an email (with attachment) shall be limited to the maximum of 20 MB. In case the size of an attachment exceeds 20 MB, the bidder is requested to split the attachments and send as separate emails (i.e. 01 of 03, 02 of 03 etc.,).
 - iv. Do not CC/BCC to any other official/personal email IDs of CPSTL staff. Bids sent to any other email IDs is strictly not entertained.
 - v. However, the original bids will be obtained only for the filing purpose, not for verification against the e-bid

11. Bids shall be valid up to **10.01.2025**

12. All bids shall be accompanied by a Bid Security

In the form of a cash deposit to the CPSTL Cashier for a minimum sum of LKR 1,000,000.00 (Sri Lanka Rupees One Million only) or USD 3,280.00 (US Dollars Three Thousand Two Hundred and Eighty Only).

or

In the form of bank draft/ bank guarantee of LKR 2,000,000.00 (Sri Lanka Rupees Two Million only) or USD 6,560.00 (US Dollars Six Thousand Five Hundred and Sixty Only).

Bid Security shall be valid up to **07.02.2025**.

13. A pre-bid meeting will be held at 0930 hrs Sri Lanka local time (GMT+5:30) on 12th September 2024 at the office of Muthurajawela Petroleum Terminal, Kerawalapitiya, Sri Lanka.

In case, the bidders are unable to participate the pre bid meeting, they can participate via video conferencing method. Interested parties who wish to participate in the Pre bid meeting shall send their request to email procure@cpstl.lk at or before 1400 hrs. Sri Lanka local time (GMT+5.30) on 11th September 2024.

The address referred to above is

**The Chairman, Department Procurement (MPC)
Committee, C/o Manager Procurement,
Ceylon Petroleum Storage Terminals Limited,
Procurement Function, New Building,
Oil Installation, Kolonnawa,
Wellampitiya, Sri Lanka.
Postal Code 10600
Telephone :+94 11 2572156, +94 11 5750764
Facimile :+94112572155
E-mail : procure@cpstl.lk**

SECTION 1
INSTRUCTIONS TO BIDDERS

INSTRUCTIONS TO BIDDERS

Instructions to Bidders applicable to this contract are that given in Section-I of the Standard Bidding Document for Procurement of Works - Major Contracts. ICTAD Publication No. ICTAD/SBD/02, Second Edition, January 2007, published by the Construction Industry Development Authority (CIDA), "Savsiripaya", 123, Wijerama Mawatha, Colombo 07.

This publication will not be issued with the Bidding Document and the Bidder is advised to purchase it from CIDA.

Instructions to Bidders shall be read in conjunction with the Bidding Data provided under Section-2 of the Bidding Document (Volume 2)

Instructions to Bidders will not be a part of the contract and will cease to have effect once the Contract is signed.

SECTION – 2
BIDDING
DATA

This section shall be read in conjunction with Section I – Instructions to Bidders, and is intended to provide specific information in relation to corresponding clauses in Section I. Whenever there is a discrepancy, the provisions in Section 2 – Bidding Data shall supersede these provided in the Section I - Instructions to Bidders.

BIDDING DATA**Instructions to Bidders****Clause****Reference****1.1 Employer's Name and Address:**

**Ceylon Petroleum Storage Terminals Limited,
Oil Installation,
Kolonnawa,
Wellampitiya,
Sri Lanka.**

1.1 Scope of Works**“Repairs to Petrol Loading Tank No. TK-31 and TK-32 at Muthurajawela Terminal”**

Above repair work in both TK-31 and TK-32 tanks consist of replacement of defective shell plates, repair tank accessories including staircases, Nozzles, handrails, supports, water drain system, fire water system, Foam system, etc., Surface preparation and Painting of Bottom plate, tank accessories, tank roof, shell interior, shell exterior and repaired areas, Repair and reinstall Internal Floating roofs, calibration, plumbness checking, testing including Hydro testing, procurement of required materials including plates, pipes paints etc., and all associated works.

Shell Courses replacement in one tank shall be completed first and other repairs, painting and IFR installation in the other shall be followed subsequently. Shell Courses replacement in second tank shall be initiated after the completion of Shell Courses replacement in the former tank. However this sequence can be amended with the approval of the CPSTL.

1.2 Time for Completion

The Time for Completion for the whole of works shall be **300 calendar days from the date of site handing over.**

	Description	Time Duration for completion
1	Supply of Materials for first tank (BOQ items 2.02, 2.03, 2.04 or BOQ items 3.02, 3.03, 3.04)	Within 140 calendar days from Site handing Over
2	Supply of Materials for Second tank (BOQ items 2.02, 2.03, 2.04 or BOQ items 3.02, 3.03, 3.04)	Within 180 calendar days from Site handing Over

- No Interim payment will be paid for the repairs to first tank until the completion of BOQ items 2.02, 2.03, 2.04 or BOQ items 3.02, 3.03, 3.04.
- No Interim payment will be paid for the repairs to second tank until the completion of BOQ items 2.02, 2.03, 2.04 or BOQ items 3.02, 3.03, 3.04 which ever remaining to complete.

2.1 Source of funds

The source of funds is Ceylon Petroleum Storage Terminals Limited.

4.1 The following information shall be provided in Section 9 - Schedules:

- ICTAD (CIDA) registration (for domestic bidders only)
Registration number
Grade
Specialty
Expiry date
- Copy of Business Registration of the Company/ies (if a foreign company, Business registration issued by the relevant country)
- VAT registration number (if applicable)
- Form PCA 03 (if applicable)
- Construction program
- Legal status (Sole proprietor, Partnership, Company etc.)
- Authentication for signatory in the form of Power of Attorney (Specifically for this Bid)
- 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 ten years
- Construction equipment
- Staffing
- Work plan, method statements, QA/QC procedures and HSE policy
Details of the suppliers and manufactures

4.1 (a) Qualification Information

Bidder is the party having experience in construction of 5,000 m³ or higher capacity steel, vertical, above ground storage tank as per API Standard 650 or major repairs to such tanks including replacement of entire shell courses/ replacement of shell plates with penetrations conforms to API 653 and repair and installation of Internal Floating Roofs. In the case of joint venture, party having above experience are considered as the bidder, and the other party/ies are considered as joint venture partner/s.

4.1 (c) Not applicable

4.2 To qualify for the award of the Contract, bidder shall meet the following minimum qualifying criteria specified under 4.2 (a), 4.2 (b), 4.2 (c), 4.2 (d), 4.2 (e), 4.2 (f) and 4.2 (g) of “Bidding Data”.

4.2(a) ICTAD (CIDA) registration required

(i) For domestic Bidders: - **ICTAD (CIDA) registration is required as follows;**

Specialty	Grade	Party
Heavy Steel Fabrication	EM1	Bidder or Partner in Charge of Joint Venture (JV)

(ii) For foreign bidders: - **No ICTAD (CIDA) registration is required**, but more experience is required compared to domestic bidder as per Clause 4.2 (c) for compensating above registration.

In case of a foreign bidder is selected for contract award, particular bidder **shall obtain temporary registration as a foreign contractor under Construction Industry Development Act No. 33 of 2014 and other required registrations under the laws of Sri Lanka.**

4.2(b) Average annual volume of construction work performed in last 5 years

Average annual volume of construction work performed in last five years shall be at least **LKR 360 million (Sri Lanka Rupees Three Hundred Sixty Million) or equivalent amount in foreign currency.** Details shall be entered in Schedule 2 of Section 9 “Schedules”. Documentary evidence such as copies of audited financial statement/accounts **certified by an Attorney at Law** for the most recent last five (05) years (2018/2019, 2019/2020, 2020/2021, 2021/2022, 2022/2023 and 2023/2024) shall be submitted with the offer.

4.2 (c) Experience

Bidder/ Partner in Charge of JV should have experience as a prime contractor in the construction of a nature and complexity similar to the Works (5,000 m³ or higher capacity steel, vertical, above ground storage tank as per API Standard 650) or major repairs to such tanks including replacement of entire shell courses/ replacement of shell plates with shell penetrations and repairing of IFRs conforms to API 653.

At least one project for domestic bidder/ Partner in Charge of JV and two for foreign bidder/joint venture partner for new tank construction or at least two projects for domestic bidder/ Partner in Charge of JV and four for foreign bidder/joint venture partner for major repairs to such tanks during last ten years. (To comply with this requirement, works cited should be at least 70 percent complete).

for joint ventures between Domestic and Foreign partners;

- (a) If the Domestic partner has ICTAD (CIDA) registration of **EM1 in Heavy Steel Fabrication specialty**, foreign bidder/joint venture partner should have experience as a contractor in at least one project for new tank construction or at least two projects for major repairs to such tanks required.
- (b) If the Domestic partner doesn't have ICTAD (CIDA) registration of **EM1 in Heavy Steel Fabrication specialty**, foreign bidder/joint venture partner should have experience as a contractor in at least two project for new tank construction or at least four projects for major repairs to such tanks required.

Details shall be entered in Schedule 4 of Section 9 “Schedules”. Documentary proof (Copy of PO, performance certificate, completion certificate, agreement etc.) for successful completion of the work relating to experience and the availability of engineers and other staff involved in work relating to experience, shall be submitted with the offer. Documentary proof of past experience shall be certified by the Embassy/ Consular General Office or Foreign Ministry of the relevant country in which the project has been carried out.

The bidders shall have very clear documentary evidence as proof of having above experience.

4.2(d) Essential equipment

Proposals for the timely acquisition (own, lease, hire, etc.) of the following minimum required essential equipment shall be entered in Schedule 5 of Section 9 “Schedules”. Scaffoldings, welding generators, Sand blasting equipment etc.

4.2(e) Qualification and Experience of the Contract Managers/Engineering staff

Following staff shall be available and deployed to the Contract. Details shall be entered in Schedule 6 of Section 9 “Schedules”. The bidder shall produce documentary proof for availability of following staff and their detailed Bio- Data.

(i) Managerial:

- a. One Project Manager, a Chartered Engineer with minimum 10 years’ experience.

(ii) Engineering:

- a. One Mechanical Engineer with B.Sc. (Eng) or equivalent with more than 4 years’ experience and who is conversant with API Standard 650, 653 and other relevant standards and codes.
- b. One Mechanical Engineer with B.Sc. (Eng) or equivalent with more than 1 year experience in similar tank fabrication works should be assigned to the project full time basis on site during tank erection.

(iii) Supervisory

Two Supervisors with minimum NVQ (5) or equivalent qualification in Mechanical Engineering with more than 3 years’ experience in Large similar steel tank fabrication, repairs and structural steel welding.

This is the minimum requirement and the successful bidder shall assign all other necessary staff to enable compliance with all other contractual stipulations.

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, until the project is taken over by the CPSTL, shall be not less than **LKR 60 Million (Sri Lanka Rupees Sixty Million) or equivalent amount in foreign currency.**

- 4.2 (g)** Bidder shall submit Project Time schedule (Work Plan) by means of Gantt Chart, Method statements, QA/QC procedures and HSE policy, Details of the suppliers and manufactures to cover project scope of work along with the bid.

	Description	Time Duration for completion
1	Supply of Materials for first tank (BOQ items 2.02, 2.03, 2.04 or BOQ items 3.02, 3.03, 3.04)	Within 140 calendar days from Site handing Over
2	Supply of Materials for Second tank (BOQ items 2.02, 2.03, 2.04 or BOQ items 3.02, 3.03, 3.04)	Within 180 calendar days from Site handing Over

- No Interim payment will be paid for the repairs to first tank until the completion of BOQ items 2.02, 2.03, 2.04 or BOQ items 3.02, 3.03, 3.04.
- No Interim payment will be paid for the repairs to second tank until the completion of BOQ items 2.02, 2.03, 2.04 or BOQ items 3.02, 3.03, 3.04 which ever remaining to complete.

5.2 One of the partners shall have the qualification requirement for 4.2 (a) and (c). The qualification for each of the partners of a joint venture shall be added together to determine the bidder's compliance with the minimum qualifying criteria of Sub-Clause 4.2 (b) and (f); however, for a joint venture to qualify, each of its partners must meet at least 25 percent of minimum criteria 4.2 (b), (c) and (f); and the partner in charge must satisfy at least 40 percent of those minimum criteria. Failure to comply with this requirement will result in rejection of the joint venture's Bid. Subcontractor's experience and resources will not be taken into account in determining the bidder's compliance with the qualifying criteria.

8. Site Visit

Prior to submitting a bid, bidders shall familiarize themselves and shall be deemed to have done so. The bidders shall inform Engineering Manager, Engineering Function, Oil Installation, CPSTL, Kolonnawa (Tel. +94-11- 2572214, Fax No. 0094-11-2531328) at least 02 days in advance with their names, NIC Numbers/Passport Numbers so that the CPSTL will arrange required permits for the site visit.

The bidders are advised to limit the number of persons, for the visit, due to the security reasons, at the Muthurajawela terminal. Site visit will be permitted during 0830 – 1600 hrs except Sundays and Mercantile Holidays. The cost of such visits shall be borne by the bidder.

10.1 Clarification of Bidding Documents

Employer's address for clarification in bidding document is as below.

**The Chairman, Ministry Procurement Committee,
C/o Manager Procurement,
Ceylon Petroleum Storage Terminals Limited,
Procurement Function, New Building,
Oil Installation, Kolonnawa,
Wellampitiya, Sri Lanka.
Postal Code : 10600**

Telephone :+94 11 2572156, +94 11 5750764

Facimile :+94112572155

E-mail : procure@cpstl.lk

13 Documents comprising the Bid

The Bid submitted by the bidder shall comprise the following:

- (A) Enclosed in the envelope marked as "ORIGINAL";
 - (a) Duly filled and signed Form of Bid (in the format indicated in section 7);
 - (b) Bid Security (in the format indicated in section 11);
 - (c) Power of attorney / Power vesting letter for the signatory to the Bid;
 - (d) Original of Form PCA 03 (if applicable)
 - (e) Section 2 - Bidding Data
 - (f) Section 4 - Contract Data
 - (g) Section 6 - Specifications;
 - (h) Section 8 - Priced Bill of Quantities;
 - (i) Section 9 - Duly filled Schedules;
 - (j) Section 10 - Drawings

- (B) Detailed “Construction Procedure” for related repair work including repair methodology, precautions for assuring tank structural rigidity during repair, welding sequences & Procedures, procurement procedures, Time schedules, testing, commissioning and documentation. Catalogues, literature, write-ups to be annexed to supplement the procedure with adequate information. Manufacture/supplier, country of origin, country of manufacture of plates, pipes, fittings, flanges, nozzles and other equipment shall be clearly mentioned. The name and address of the 3rd party inspection company for Tank inspection (plumbness, roundness and calibration) should be given in the bid for evaluation purposes.
- (C) Enclosed in the envelope marked as "COPY"
- (a) Duly filled and signed Form of Bid (in the format indicated in section 7);
 - (b) Section 8 - Priced Bill of Quantities;
 - (c) Section 9 - Duly filled Schedules;

14.3 VAT component shall not be included in the rates. The amount written in the Form of Bid shall be without VAT.

If bidder is registered for VAT, the bidder shall indicate the amount of VAT claimed separately at the end of the Bill of Quantities, in addition to the net value of the bid, along with VAT registration number. The amount written on the Form of bid shall be without VAT.

If any bidder is not registered for VAT, he shall indicate the net value of the bid.

14.4 Adjustments for change in cost

The Contract **is subjected** to price adjustment.

15.1 Currency of Bid

In order to minimize the risk of fluctuation in foreign currency exchange rate, the bidders are allowed to bid partially in United States Dollars (USD).

Therefore, the Bid shall be quoted either in Sri Lankan Rupees (LKR) or in mixed currencies with LKR and USD.

In case of mixed currencies, USD component shall be 25% of the total Bid Price.

For evaluation and comparison of Bids under Sub-Clause 30.2, rates and prices quoted in USD by the bidders will be converted to Sri Lanka Rupees using the “Average of the Buying & Selling Exchange Rate” published by Central Bank of Sri Lanka (CBSL), on the date 28 Days prior to date of closing of Bids.

If any bid has been quoted without considering USD component limitations, such bidder will be requested to adjust his USD component as per the limitation without changing the bid price. If the bidder does not agree for the adjustment, his bid will be rejected.

16.1 Period of Bid validity:

The Bid shall be valid up to **10.01.2025**

17.1 The amount of Bid Security

In the form of a cash deposit to the CPSTL Cashier for a minimum sum of LKR 1,000,000.00 (Sri Lanka Rupees One Million only) or USD 3,280.00 (US Dollars Three Thousand Two Hundred and Eighty Only).

or

In the form of bank draft/ bank guarantee of LKR 2,000,000.00 (Sri Lanka Rupees Two Million only) or USD 6,560.00 (US Dollars Six Thousand Five Hundred and Sixty Only).

17.2 Validity of Bid Security submitted in the form of Guarantee

The Bid Security Guarantee shall be valid up to **07.02.2025** as per attached specified format.

Securities and Guarantees shall be irrevocable and unconditionally en-cashable upon the first written request from the Procuring Entity.

The bid securities issued by the following agencies are acceptable;

- a commercial bank operating in Sri Lanka approved by Central Bank of Sri Lanka,
- a bank based in another country but the guarantee “backed and confirmed” by a bank in Sri Lanka approved by Central Bank of Sri Lanka. (Local bank and the bank based in another country shall jointly bear the responsibility in case of encashment of the security)

19.1 Pre-Bid meeting

13. A pre-bid meeting will be held at 0930 hrs Sri Lanka local time (GMT+5:30) on **12th September 2024** at the office of Muthurajawela Petroleum Terminal, Kerawalapitiya, Sri Lanka.

In case, the bidders are unable to participate the pre bid meeting, they can participate via video conferencing method. Interested parties who wish to participate in the Pre bid meeting shall send their request to email procure@cpstl.lk at or before 1400 hrs. Sri Lanka local time (GMT+5.30) on **11th September 2024**.

Subsequently, a site visit will be arranged. All costs incurred in attending to this pre bid meeting and site visit will have to be borne by the Bidder.

21.2 (a) Employer's Address for Bid submission

Employer's address for the purpose of bid submission is the Office of the
**The Chairman, Ministerial Procurement Committee (MPC),
C/o Manager Procurement,
Ceylon Petroleum Storage Terminals Limited,
Procurement Function, New Building,
Oil Installation, Kolonnawa, Wellampitiya, Sri
Lanka.
Postal Code : 10600**

21.2 (b) Identification number of Contract

Identification Numbers of the Contract: **KPR/60/2024**

22.1 Deadline for submission of Bids

Deadline for submission of Bids: 140 hrs. Local time (+ 5.30 GMT) **11.10.2025**

25.1. Bid opening

Venue: **Office of Manager Procurement,
Ceylon Petroleum Storage Terminals Limited,**

**Procurement Function, New Building,
Oil Installation, Kolonnawa,
Wellampitiya,
Sri Lanka.**

Time: 1400 hrs. Local time (+ 5.30 GMT)

Date: **11.10.2024**

31.1 Preference for Domestic Bidders

Preference for domestic bidders is applicable as per Government Procurement Guideline Clause No. 7.9.5 and Public Finance Circular No 442.

Domestic Contractors are eligible for a 15% margin of preference in the comparison of their Bids with those of bidders who do not qualify for the preference. To eligible for domestic preference the bidders & joint ventures shall meet the following criteria:

- (a) For an **individual/sole proprietorship** the bidder shall be a Sri Lankan;
- (b) For **partnerships** more than fifty percent (50%) of the members of the partnership, shall be Sri Lankans;
- (c) For an **individual firm** –
 - (i) such firms shall be registered in Sri Lanka ;
 - (ii) should have more than fifty percent (50%) ownership by Sri Lankans; and
 - (iii) Should not sub contract more than ten percent (10%) of the contract price, excluding provisional sums to foreign contractors.
- (d) The application of the margin of preference for a **joint venture of domestic firms**:
 - (i) Would be limited only to joint ventures of individual firms who meet the criteria stipulated in (c) (i) & (ii) above;
 - (ii) The joint venture should be registered in Sri Lanka; and
 - (iii) Should not sub contract more than ten percent (10%) of the contract price, excluding provisional sums to foreign contractors.

Domestic Bidders shall submit the documentary proof for above requirements under Schedule -1 “General Information” in order to consider for domestic preference.

The following procedure will be used to apply the margin of preference: Responsive bids will be classified into the following groups:

- (i) Group A : Bids offered by domestic bidders ; and
- (ii) Group B : all other Bids

For the purpose of evaluation and comparison of Bids only, an amount equal to 15% of the evaluated bid prices determined in accordance with Sub-Clause

30.2 will be added to all Bids classified in Group B.

After evaluation of Bids in accordance with the procedures described under Clause 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 Chairman to the Ceylon petroleum Storage Terminals Limited at the address given below. Such representation shall be self-contained to enable the Chairman 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 : The Secretary,
Ministry of Power and Energy,
No. 80,
Sir Ernest de Silva Mawatha,
Colombo 07.

Cash Deposit : Rs. 25,000/=

35.1 Amount of Performance Security

Performance Security acceptable to the Employer given in the Form for Performance Security given in the bidding document shall be a Guarantee obtained from;

- a commercial bank operating in Sri Lanka approved by Central Bank of Sri Lanka,
- a bank based in another country but the guarantee “backed and confirmed” by a bank in Sri Lanka bank in Sri Lanka with a valid licence issued by the monetary board of Sri Lanka. (Local bank and the bank based in another country shall jointly bear the responsibility in case of encashment of the security)

The amount of Performance Security is **5%** of the Initial Contract Price, in the currencies and proportions in which the Contract Price is payable.

The Performance Security shall be valid until 28 days beyond the expected completion date of Defects Liability Period.

37 Adjudicator

The Adjudicator proposed by Employer is **Institute for Construction Training and Development ICTAD / (CIDA)**.

Fees and types of reimbursable expenses to be paid to the Adjudicator shall be on a case to case basis and shall be shared by the Contractor and the Employer 50% by the Employer and 50% by the Contractor.

All disputes arising out of contract agreements should be dealt in accordance with the provisions of Arbitration Act No. 11, 1995 of Sri Lanka

SECTION – 3
CONDITIONS OF CONTRACT

Conditions of Contract shall be read in conjunction with the Section 4 – Contract Data in Volume 2, which shall take precedence over the Conditions of Contract.

CONDITIONS OF CONTRACT

Conditions of Contract that will be applicable for this Contract is that given in section- 3 of the Standard Bidding Document for Procurement of Works- Major Contracts, ICTAD Publication No. ICTAD/SBD/02, Second Edition, January 2007, Addendum 01 issued in October 2009, published by the Construction Industry Development Authority (CIDA)“Savsiripaya” 123, Wijerama Mawatha, Colombo 7.

This publication will not be issued with the Bidding Document and Bidder is advised to purchase it from CIDA.

Conditions of Contract shall be read in conjunction with the Section 4 – Contract Data, which shall take precedence over the Conditions of Contract.

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 – Contact Data shall supersede those provided in the Section 3 - Condition of Contract.

CONTRACT DATA

**Conditions of
Contract
Clause
Number/s**

1.1.2.2 & 1.3	Employer's Name and Address Chairman, Ceylon Petroleum Storage Terminals Limited, Oil Installation, Kolonnawa, Wellampitiya, Sri Lanka.	
1.3	Contractor's Name & Address: Name: Address:	
1.1.2.4 & 1.3	Engineer's name & Address Name: Engineering Manager Address: Ceylon Petroleum Storage Terminals Limited, Engineering Function, Oil Installation, Kolonnawa, Wellampitiya, Sri Lanka.	
1.1.3.3	Time for Completion of the Works	Time for completion of the whole works shall be 300 calendar days.
1.1.3.7	Defects Notification Period	Defects Notification Period is Three Hundred Sixty-Five (365) Days
2.1	Right of access to the Site:	14 days after Letter of Acceptance
4.2.1	Amount of Performance Security	The amount of Performance Security is 5% of the Initial Contract Price, in the currencies and proportions in which the Contract Price is payable. Performance Security acceptable to the Employer given in the Form for Performance Security given in the bidding document shall be a Guarantee obtained from; <ul style="list-style-type: none">• a commercial bank operating in Sri Lanka approved by Central Bank of Sri Lanka,

- a bank based in another country but the guarantee “backed and confirmed” by a bank in Sri Lanka Lanka with a valid licence issued by the monetary board of Sri Lanka. (Local bank and the bank based in another country shall jointly bear the responsibility in case of encashment of the security)
- The Performance Security shall be valid until 28 days beyond the expected completion date of Defects Liability Period

4.8

Safety Procedure

Special Safety Conditions

- i. Fire barriers to be erected and Fire blanket are to be laid before starting hot work at site where ever required.
- ii. The work/workers should conform to the Fire & Safety rules and regulations of CPSTL and they should wear safety belts when working at high elevations.
- iii. Before work of any nature is commenced in any area it is necessary to obtain excavation permits, safety certificates and if the work involves sparks or flames a hot work permit from the Fire & Safety Section of the CPSTL, Muthurajawela depending on nature of work. All precautions stipulated in these documents must be observed by the contractor and his employees. If the work cannot be completed in the period for which these documents are valid the work shall be discontinued until the documents have been renewed.
- iv. The Muthurajawela Terminal is security-restricted area and all contractor’s personnel shall abide by the security regulations prevailing and those which might be enforced as and when necessary due to changed circumstances.
- v. All contractor’s personnel and their vehicles will be required to obtain gate passes before enter in to the CPSTL Muthurajawela Terminal. Safety clearances to be obtained before enter to the tank farm.
- vi. All contractor’s personnel should possess valid police clearance certificate (Police Report) to obtain gate passes.

vii. The contractor shall, except if and so far as the contract provides otherwise, indemnify the CPSTL against all losses and claims in respect of injuries or damage to any person or material or physical damage to any property whatsoever which may arise out of or in consequence of the execution of the works and against all claims, proceedings, damages, costs, charges and expenses whatsoever in respect of or in relation thereto except any compensation or damages for or with respect to:

- a. the permanent use or occupation of land by the works or any part thereof;
- b. the right of the CPSTL to execute the works or any part thereof on, over, under, in or through any land;
- c. injuries or damage to persons or property resulting from any act or neglect of the CPSTL, his agent, servants or other Contractors, not being employed by the Contractor, or for or in respect of any claims proceedings, damages, costs, charges and expenses in respect thereof or in relation thereto or where the injury or damage was contributed to by the Contractor, his servants or agents such part of the compensation as may be just and equitable having regard to the extent of the responsibility of the Employer, his servants or agents or other contractors for the damage or injury.

6.4 Working Hours

- i. Normal working hours of CPSTL from Monday to Friday is from 0730 hrs. to 1630 hrs.
- ii. In the work programme, contractor can consider Saturday and period from 1630 hrs to 1800 hrs on weekdays as a working period, for which the contractor is required to obtain prior permission since the offices are normally closed on Saturdays and after hours.
- iii. However, working on statutory holidays, Sundays and after 1800 hrs. on working days will not be permitted.

Provided always that provision of above (iii) shall not be applicable in case of any work which is customary to carry out, outside normal working hours.

8.7	Liquidated damages for the Works	0.1% of the Initial Contract Price per day
8.7	Maximum amount of liquidated damages	10% of the Initial Contract Price
12.2 (b)	Method of Measurement	Sri Lanka Standard 573: 1999 UDC 69(08374)
13.4(b)	Percentage for Adjustment of Provisional Sums	Not applicable

13.7	Adjustments for Changes in Cost	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">No.</th> <th style="text-align: center;">CIDA No.</th> <th style="text-align: center;">Name of Input</th> <th style="text-align: center;">Percentage</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">L1</td> <td>Skilled Labour</td> <td style="text-align: center;">26.2%</td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">L3</td> <td>Unskilled Labour</td> <td style="text-align: center;">24.3%</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">M 8</td> <td>Sand</td> <td style="text-align: center;">3.5%</td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">P2</td> <td>Heavy Equipment</td> <td style="text-align: center;">6.6%</td> </tr> <tr> <td style="text-align: center;">5</td> <td style="text-align: center;">P1</td> <td>Small Equipment</td> <td style="text-align: center;">18.8%</td> </tr> <tr> <td style="text-align: center;">6</td> <td style="text-align: center;">P3</td> <td>Fuel</td> <td style="text-align: center;">10.6%</td> </tr> <tr> <td colspan="3" style="text-align: center;">Sub Total</td> <td style="text-align: center;">90.0%</td> </tr> </tbody> </table>	No.	CIDA No.	Name of Input	Percentage	1	L1	Skilled Labour	26.2%	2	L3	Unskilled Labour	24.3%	3	M 8	Sand	3.5%	4	P2	Heavy Equipment	6.6%	5	P1	Small Equipment	18.8%	6	P3	Fuel	10.6%	Sub Total			90.0%
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Sub Total			90.0%																															

- Non Adjustable BOQ Item Nos. are 1.1, 1.2, 1.3, 1.4, 1.5, 2.02, 2.03, 2.04, 2.23, 3.02, 3.03, 3.04 & 3.21 only.
- Disregarded BOQ Item Nos. are 2.24, 2.25, 3.22 & 3.23 only.

14.2	Total Advance Payment	<p>20 % of the Initial Contract Price excluding Provisional Sums & Contingencies.</p> <p>The advance payment securities issued by the following agencies are acceptable;</p> <ul style="list-style-type: none"> ▪ a commercial bank operating in Sri Lanka approved by Central Bank of Sri Lanka, ▪ a bank based in another country but the guarantee “backed and confirmed” by a bank in Sri Lanka approved by Central Bank of Sri Lanka. (Local bank and the bank based in another country shall jointly bear the responsibility in case of encashment of the security)
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14.2	Number and timing of instalment for Advance Payment	<p>20% of Initial Contract Price, will be paid in two equal instalments.</p> <p>Stage I- Two equal instalments. The first ten percent (10%) of advance payment will be paid within 14 days from receipt of both Performance and Advance Payment Guarantee as required under clause 4.2 and 14.2 respectively.</p> <p>Stage II- Balance ten percent (10%) will be paid after successfully mobilization at the site after receipt of mobilization Advance Payment Guarantee.</p> <p>For calculate the Initial Contract Price, the foreign currency component will be converted to Sri Lanka Rupees using “Average of the Selling & Buying Exchange Rates” published by Central Bank of Sri Lanka, on the date of the invoice of performance security</p>
14.3(c)	Percentage of Retention	10% of certified value of works (Applicable for all interim payments except final interim payment)
14.3(c)	Limit of Retention	5% of the Initial Contract Price (Applicable only for Final interim payment)
14.4	Plant & Material Intended for the works	Interim Payment Certificates shall include, under sub-paragraph (e) of Sub-Clause 14.3 (<i>Application for Interim Payment Certificate</i>), an amount equivalent to 80% of the invoiced value of Plant and Materials which have been delivered to the Site for incorporation in the Permanent Works.
14.5	Minimum amount of interim payment certificates	LKR 10 million or USD 30,000
14.6	Payment	<p>To be eligible for USD payment, bidders are required to submit justification to that effect. Import of materials, plant, equipment and machinery, and payment of remuneration for expatriates etc., would for instance be deemed to be valid justifications. All payments to local bidders will be made only in LKR.</p> <p>The payments will be made by converting the USD component into LKR using the “Average of the Buying & Selling exchange Rate” published by Central Bank of Sri Lanka (CBSL) at the date of CUSDEC form for imported materials and the invoice date for Foreign Services obtained.</p>

14.8	Alternative method for Payment of Retention	Not applicable.
18.1 (a)	Insurance for Works	for an amount not less than 115% of Initial Contract Price.
18.1 (b)	Insurance for Contractor's Equipment	Contractor's responsibility
18.2	Third Party for Insurance (including Employer's Property)	Insurance cover to the amount of LKR 100 Million the entire period of construction work. The contractor shall take special measures to safeguard the adjacent storage tanks and allied facilities at the site.
18.3	Insurance for Contractor's Personnel	A copy of insurance policy for the workmen of the contractor as per the Workmen Compensation Act shall be forwarded to CPSTL prior to commencement of the work.

SECTION 5
STANDARD FORMS
(CONTRACT)

- **FORM OF LETTER OF ACCEPTANCE**
- **FORM OF AGREEMENT**
- **FORM OF PERFORMANCE SECURITY**
- **FORM OF ADVANCE PAYMENT SECURITY**

***Notes on Standard
Forms(Contract):***

Bidders should not complete the Form of Agreement at the time of preparing of bids. The successful Bidder will be required to sign the Form of Agreement, after the award of contract. Any corrections or modifications to the accepted bid resulting from arithmetic corrections, acceptable deviations, or quantity variations in accordance with the requirements of the bidding documents should be incorporated into the Agreement.

The Form of Performance Security, Form of Advance Payment Security and Form of Retention Money Guarantee should not be completed by the Bidders at the time of preparation of bids. The successful Bidder will be required to provide these securities in compliance with the requirements herein or as acceptable to the Employer.

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 *[name of the Contract and identification number]* 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] 20.....[year], between **Chairman, Ceylon Petroleum Storage Terminals Limited, Oil Installation, Kolonnawa, Wellampitiya**[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 [name and identification no of Contract](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 Conditions of Contract hereinafter referred to, and they shall be deemed to form and be read and construed as part of this Agreement.
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 :

Name and NIC No.
Signature
Address

Name and NIC No.
Signature
Address

**FORM OF PERFORMANCE SECURITY
(Unconditional)**

.....[Issuing Agency’s Name and
Address of Issuing branch or Office]

**Beneficiary: Ceylon Petroleum Storage Terminals Limited, Kolonnawa, Wellampitiya,
Sri Lanka**

Date:.....

PERFORMANCE GUARANTEE No:.....

We have been informed that
.....
.....[Name of Contractor](Hereinafter called “The Contractor”) has entered into
Contract No. [Reference number of the contract]
dated

..... with you, for the
.....(insert “Construction”) of
..... (Name of Contract and
brief description) (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 theday of 20.....[insert date,28 days
beyond the time of 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 ADVANCE PAYMENT SECURITY

..... [Name and address of Agency, and Address of Issued branch or Office]

Beneficiary: Ceylon Petroleum Storage Terminals Limited, Kolonnawa, Wellampitiya, Sri Lanka

Date:

ADVANCE PAYMENT GUARANTEE No:.....

We have been informed that [Name of Contractor] (hereinafter called “ The Contractor”) has entered into Contract No.

..... [reference number of the contract] dated with you , for the Construction of (Name of Contract and brief description) (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)]

SECTION -06
SPECIFICATIONS

6.1 Scope of Supply by CPSTL

6.1.1 Tank Details

Tank Identification	:	TK-31 and TK-32
Tank Capacity	:	5000 m ³
Tank Diameter	:	22 m
Tank Height	:	19 m
Type of the Tank	:	Self Supported Doomed Roof, welded, Atmospheric, Steel, Vertical Storage tank with Internal Floating Roof Tank
Status	:	Gas Free State without product
Use	:	Storing 92 Octane

6.1.2 Construction Utilities

- i. Electricity and drinking water that would be supplied to the contractor to undertake this work would be charged from the contractor as per meter/estimate. The prospective contractor is required to indicate his requirements of power from the CPSTL in his offer for evaluation purposes.
- ii. The electrical power supply is available to the contractor subjected to following conditions.
 - a. CPSTL shall provide only the power supply tapping point with a meter at the nearest switch room.
 - b. Contractor shall supply and install his own feeder cables and power distribution board required for the work site from the tapping point.
 - c. The maximum power CPSTL shall supply is 63A, 400V, 50Hz, 3 Phase.
 - d. The electricity charge shall be deducted from the Final Bill of the Contractor.
 - e. A fixed charge of Rs. 3,000/= one-off payment and a consumption charge as per applicable tariff rate for the concerned period shall be deducted as the electricity charge.
 - f. Engineer shall estimate the bill on above basis in occasions the power supply is provided without a meter.
- iii. A metered water connection may be supplied by CPSTL for repair work on the request of the contractor and charger will be applied according to applicable tariff system. Cost for the connection, maintenance and disconnection will be added to the contractor cost. It is contractor's responsibility to ensure that sufficient amount and flow rate are available for construction work and arrange pumping and piping requirements as CPSTL is not bound to fulfill such requirement. In such case, the contractor has to maintain his own water source for the work.

6.1.3 CPSTL will provide New Top Pouring Units for Tank No. TK-31 and TK-32.

6.2 Contractor's Scope of Supply

Contractor shall supply construction equipment, materials, consumables and other requisites as follows;

6.2.1 Construction Utilities

- (i) Contractor shall use his own feeder cables and temporary power distribution board sufficiently rated to power the equipment and machinery used at site, conforming to CEB regulations in consultation / supervision of Electrical Engineer of CPSTL
- (ii) Contractor's power distribution board should consist of adequate over current and earth leakage protective devices for safety of men and machinery.
- (iii) Contractor shall install the feeder cables from the metering point up to the temporary power distribution board as per the instruction & approval of the CPSTL Electrical Engineer.
- (iv) It is the responsibility of the contractor to maintain his switch gear and cable network in good condition, so as to provide, complete safety to men and machinery.
- (v) All portable electrical appliances used inside the tank shall be at low voltage, 110V, 1 Phase and should be fed through a center earthed transformer.
- (vi) The whole electrical installation of the contractor should conform to IEE wiring regulations (16th Edition) published by the Institution of Electrical Engineers (I.E.E), London.

6.2.2 Supply of Carbon Steel plates to replace defective carbon steel tank shell plates, repairs to Roof and bottom plates, reinforcement plates, Shell manhole and other tank accessory fabrication, installation and repair works.

- (i) Materials
 - a. Materials for Shell plates, Reinforcement Plates, Flanges, Flange covers, Nozzles, Nozzle necks etc. attached to tank shell plates shall be Chinese standard GB 6654 Grade 16MnR or equivalent material conforms to API 650 (*Twelfth Edition*) Section 4.
 - b. Material for Roof and Bottom plate repair patch plates, roof Reinforcement Plates, Stiffening rings, Nozzle neck plates etc. shall be GB/T 700 Grade Q 235 A or equivalent material conforms to API 650 (*Twelfth Edition*) Section 4.
- (ii) Dimensions
 - a. Dimensions of Shell plates for replacements shall be approximately 7mmx1850mmx8642mm, 8mmx2400mmx8642.5mm and 9mmx2400mmx8642.9mm as per existing tank design.
 - b. Dimensions of Carbon steel Plates for Roof and Bottom plate repair patch plates, Doubler plates, Reinforcement plates, Shell manhole and other tank accessory fabrication, installation and repair works shall be supplied as per API 650 (*Twelfth Edition*) and API 653 or latest standard requirement.
 - c. Plate thicknesses will be 5 mm, 6.5mm, 7mm, 8mm, 9mm, 12mm, 20mm etc. as per requirement.
- (iii) Identification: - Heat/Batch number and material description shall be marked on the plates.
- (iv) Valid mill test certificate with the heat/batch numbers or any other reference number shall

be submitted with the plates. The heat /batch numbers or any other reference number marked on plates should tally with that of the certificate for final acceptance at Ceylon Petroleum Storage Terminals Limited (CPSTL) Muthurajawela.

- (v) Tolerance in size, if any, should be mentioned with relevant standards for the purpose of evaluation.
- (vi) Third Party inspection shall be as per clause 6.3.21

6.2.3 Supply of Carbon Steel Structural sections for fabricating Wind girders and repair, replace or reinstall Platforms and stairway, pipe supports and other structural steel requirements.

(i) Materials

Material for Wind girders and repair, replace or reinstall Platforms and stairway, pipe supports and other structural steel requirements etc. shall be GB/T 700 Grade Q 235 A or equivalent material conforms to API 650 (*12th Edition or latest*) Section 4.

(ii) Dimensions

- a. Wind girder shall be fabricated with 125mmx80mmx10mm Angle sections as per API 650 standard.
- b. 100x50x6 mm "C" channels for repairing stairway landing platforms of Tank No. Tk-31.
- c. Dimensions of other structural steel requirements vary as per as existing in the tank.

(iii) Identification: - Heat/Batch number and material description shall be marked on the plates.

(iv) Valid mill test certificate with the heat/batch numbers or any other reference number shall be submitted with the plates. The heat /batch numbers or any other reference number marked on plates should tally with that of the certificate for final acceptance at Ceylon Petroleum Storage Terminals Limited (CPSTL) Muthurajawela.

(v) Tolerance in size, if any, should be mentioned with relevant standards for the purpose of evaluation.

(vi) Third Party inspection shall be as per clause 6.3.21

6.2.4 Supply of Stainless-steel grade 304 (1" x 1", 1.5 mm wire) wire mesh with frames, Neoprene Rubber gaskets, Hot dip galvanized bolts and nuts required for fixing and covering openings of Centre and Rim air vents.

6.2.5 Supply of carbon steel pipes for replacing foam pipelines etc. conforming to material specifications provided here with.

- (i) Length 5.8m, seamless and Bevel Ends (BE)
- (ii) Material shall conform to API Standard 5L-Gr B or ASTM A 106 B.
- (iii) Dimensions shall conform to
 - a. Pipe Dia. ½" to 2" - ANSI B 36.10 SCH 80
 - b. Pipe Dia. 2 ½" and above - ANSI B 36.10 SCH 40
- (iv) Identification: - Heat/Batch number, SCH number, API or ASTM number, seamless and material description shall be marked on the pipes.

- (v) Both ends of pipe should have protective sleeves.
 - (vi) Valid mill test certificate should be supplied with Heat/Batch numbers or any other reference number marked on pipes as well as in the certificates to check once the items are delivered to CPSTL Muthurajawela with reference to the items against the Mill Certificate.
- 6.2.6** Supply of carbon steel fittings (Elbows, bends, TEE, Reducers etc.) for replacing foam pipelines etc.
- (i) Shall have Bevel ends (BE)
 - (ii) Material shall conform to ASTM A 234 Gr. WPB.
 - (iii) Dimensions shall conform to ANSI B 16.9, SCH40
 - (iv) Identification: - SCH number, ASTM number and material description shall be marked on the elbows and reducers.
 - (v) Valid mill test certificate should be supplied with Identification number or any other reference number marked on elbow as well as in the certificates to check once the items are delivered to Ceylon Petroleum Storage Terminals Limited Muthurajawela with reference to the items against the Mill Certificate.
- 6.2.7** Supply of carbon steel Flanges conforming to ASME B16.5 to replace defective flanges.
- (i) Class 150, Slip on/Blind, Raised Face (RF).
 - (ii) Material shall conform to ASTM A 105 Normalized.
 - (iii) Dimensions shall conform to ANSI B 16.5.
 - (iv) Identification: - ASTM number, ANSI Number, Class and material description shall be marked on the flange.
 - (v) Flange should be marked with the ASTM specification grade identification symbol and ASTM specification number.
 - (vi) Valid mill test certificate should be supplied with identification numbers or any other reference number marked on flanges as well as in the Certificate to check once the items are delivered to CPSTL Muthurajawela with reference to the items against the Mill Certificate.
- 6.2.8** Supply of Aluminium pontoons, Aluminium Structural parts, Aluminium Deck plates, Stainless steel fasteners, Periphery Rim Seals (Double lip Seal) and other components required for repair, Modify and reinstall Aluminium Pontoon Type Floating Roofs as per API650 (*12th Edition or latest*) Standard.
- 6.2.9** Supply of Pipes, flat irons, Angle sections for hand rails conforms to BS1387, SLS 829 or equivalent standard
- 6.2.10** Supply of Spiral wound graphite gaskets.
- (i) Conforms to ASME B16.20 or equivalent.
 - (ii) Gasket Style - with Stainless steel inner rings, outer rings and windings.
 - (iii) Flange type – ASME B16.5
 - (iv) Pressure class- 150
 - (v) Nominal Working Temperature – 60°C
 - (vi) Gasket Thickness- 3.2 mm
 - (vii) Each gasket shall be indelibly marked with complying standard, pressure class, size and manufacturer's identification mark.

- 6.2.11** Supply of hot dip galvanized Studs, bolts, Nuts and U Bolts
- (i) All Studs, Bolts and Nuts shall be Hot Dip galvanized High Tensile ASTM A194 Grade 2H and ASTM A193 Grade B7 or equivalent type Studs, Bolts and Nuts. Identification marks shall be available on items to conform above standards. Threads should be in accordance with ANSI B 1.1 or BS 1580 Class 2A for bolts and class 2B for nuts.
 - (ii) U Bolts shall be Hot dip galvanized.
 - (iii) Hot Dip Galvanize shall be done as per the BS EN ISO 1461:2009 (*Hot dip galvanized coatings on fabricated iron and steel articles Specifications and test methods*)
- 6.2.12** Supply of Brass (CuZn36) Sprinkler Nozzles for tank shell top most sprinkler pipelines similar to existing sprinklers.
- 6.2.13** Supply of all construction equipment such as welding equipment, metal cutting equipment, air compressors, cranes, material transportation vehicles, rigging equipment, jacks, scaffolding materials, planks, corrugated metal sheets, fire blankets and tools and other equipment and materials where necessary.
- 6.2.14** Supply of all inspection equipment such as X-ray machines, vacuum testing instruments and gauges to perform necessary inspection and testing.
- 6.2.15** Supply of all consumables such as welding electrodes, gas for cutting, grinding discs, temporary erection material, dye penetrant / X ray films / diesel for inspection, blasting material for blast cleaning and all other consumables necessary for the proper execution of the job.
- 6.2.16** Supply of materials for all replacement and repair work such as manhole covers, vents, nozzles, wind girder, dip plates, foam and fire water sprinkler lines and its supports, stairways and its supports, stairways landings, stairway and roof handrails, fire water strainers etc. which are required to carry out scope of work which are not listed in this document, but required for completion of the entire work as specified in this Bidding Document.
- 6.2.17** Supply of Marine Grade Paints and thinner required for tank interior & exterior painting with all accessories, stairway and its hand rail, fire foam system, water sprinkle system etc. shall be provided by the contractor.
- 6.2.18** Blasting media, cement, reinforcement, composite materials and all other necessary material for proper execution of job.
- 6.2.19** Supply of required type and capacity Cranes and other lifting and rigging equipment including lifting cables, chains, shekels etc. with up to date load testing and fitness certificates at the time of their use.
- 6.2.20** Supply concrete beam supports to stack removed steel plates safely.
- 6.2.21** Supply of All direct requirements of field equipment such as fuel, lubrication oil etc.
- 6.2.22** Shall submit a Gantt chart for the total project clearly indicating the various phases of the contract, breakdown of manpower and equipment and organization chart allocated for this contract.

- 6.2.23** Quality assurance records shall be maintained by the contractor and these records shall be given to Engineer upon completion of each job.
- 6.2.24** The Contractor shall submit the performance bond and insurance covers as per Contract Data in Section – 4.
- 6.2.25** Supply of carbon Steel plates, structural steel sections, paints, consumables and other necessary materials required for successful completion of scope of work.
- 6.2.26** Contractor shall submit detailed repair methodology, precautions for assuring tank structural rigidity during repair, detailed drawings, welding sequences, welder qualification details and Procedures including electrode type, size and number of runs, time schedules and other related documents to CPSTL for approval before commencement of the work.

6.3 Contractor's Scope of Work

6.3.1 General Scope of Work

- (i) The scope of work of the contractor is defined in general and shall include the following, but not limited to the same. The bidder shall also carry out all the related work that are not listed in this document, but required for completion of the entire work as specified in this Bidding Document. All repair work shall conform to API 653 (*4th edition or latest*) and API 650 (*12th Edition or latest*) latest editions.
- (ii) The Bidder/Contractor is responsible for its own investigations to establish sufficient and accurate information for the tank repair work. The Bidder shall visit the proposed sites and shall ascertain the nature and location thereof and all conditions which may affect tank repairs.
- (iii) The tanks would be handed over to the contractor in a clean and gas Free State. However, the possibility of presence of hydrocarbon vapours under the existing bottom cannot be totally ruled out. Therefore, the contractor shall take this into account and shall use appropriate techniques to permit safe cutting and welding. The contractor shall obtain Confined vessel entry permission through CPSTL Fire and Safety department at Muthurajawela terminal before entering into the tank.
- (iv) Contractor shall perform necessary cleaning works in the tanks suitable for performing repair work.
- (v) Contractor shall check Tank design and existing condition of Tank No. TK-31 and TK-32 and provide detailed repair methodology for shell plate and other attached accessory replacement for the approval of CPSTL. Repair methodology shall include shell plate removal, installation and reinforcements procedures.
- (vi) All drawings, welding sequences, method statements, time schedules, as built drawings and other related documents shall be prepared and submitted by the contractor for the approval of CPSTL.
- (vii) IFR in TK-32 Tank Shall be disassembled and stored safely at site before initiating repairs in TK-32 tank.
- (viii) Shell Courses replacement in one tank shall be completed first and other repairs, painting and IFR installation in the other shall be followed subsequently. Shell Courses replacement in second tank shall be initiated after the completion of Shell Courses replacement in the former tank. However this sequence can be amended with the approval of the CPSTL.
- (ix) Contractor shall cut removed shell plates in to 4' x 8' size plates and stack safely on concrete beam supports without touching ground in a CPSTL provided location inside the Muthurajawela terminal. Removed Wind Girder sections also shall be cut in to 19' long section and stack on concrete beam supports without touching ground in a provided location inside the Muthurajawela terminal.
- (x) Contractor shall adhere to Security, Health and Fire and Safety regulations of the CPSTL and it is contractor's responsibility to educate on such regulations from CPSTL.

6.3.2 Repairs to Tank Shell including Replacement of defective shell plates and wind Girder in Tank No. TK-31 and TK-32

- (i) Tanks shall be sufficiently reinforced before removal of any shell plates, wind girder etc. to assure structural rigidity of the tank during repair work. Contractor shall provide tank reinforcement methodology and other precautions shall be taken as per the necessary calculations. Methodology including drawings shall be approved by engineer before initiating repair works.
- (ii) Cranes and other lifting and rigging equipment should have up to date load testing and fitness certificates at the time of their use.
- (iii) Following shell plates shall be replaced in Tank no. TK-31 as per the specifications, drawings provided and requirements of API 650 (12th Edition or latest) and API 653 (5th Edition or latest) standards.

Shell Course No.	Shell Plate Thickness	No. of Shell Plates / Shell Courses to be replaced	Replaceable Shell Plates (from Spiral Stairway, anti-clockwise) as per Drawing No. MT/3132/01
2	9 mm	2 nos. of Shell plates	Plate no. 6 & 7
3	8 mm	Entire Shell Course	All Plates
4	7 mm	Entire Shell Course	All Plates
5	7 mm	Entire Shell Course	All Plates

- (iv) Following shell plates shall be replaced in Tank No. TK-32 as per the specifications, drawings provided and requirements of API 650 (12th Edition or latest) standard.

Shell Course No.	Shell Plate Thickness	No. of Shell Plates / Shell Courses to be replaced	Replaceable Shell Plates (from Spiral Stairway, anti-clockwise) as per Drawing No. MT/3132/02
3	8 mm	Entire Shell Course	All Plates
4	7 mm	Entire Shell Course	All Plates
5	7 mm	Entire Shell Course	All Plates

- (v) New Shell manhole shall be fabricated and installed in Plate no. 6 of 2nd shell course in Tank No. TK-31 as per the Drawing No. 08020.400.E511.06-03 and specifications. Other manholes in both tanks shall be repaired including IFR guides attached to manholes positioned above the IFR deck plate level on tank shell.

- (vi) Replacement of Wind Girders
 - a. Existing Wind Girder attached to the 5th shell courses in both tanks shall be removed.
 - b. A rolled reinforcement plate (380 mm wide & 6 mm thick) shall be welded to newly fabricated tank 5th shell course (About 10390mm from Bottom Plate) for the installation of Wind girder as per the Drawing no. IE/LC/DWG31/01-10-04.
 - c. Wind girders shall be fabricated from rolled Angle iron Sections as per Existing design conforms to API 650 (*12th Edition or latest*) clause 5.9.7.1 figure 5.24 Detail-d having Section Moduli conforms to the requirement of API 650 (*12th Edition or latest*) standard.
 - d. Wind Girder shall be welded to external surface of the tank shell as per the requirements of API 650 (*12th Edition or latest*) standard. A new wind girder shall be installed similar to existing material and dimensional specifications.
- (vii) Tanks Intermediate Fire water ring below the wind girder shall be removed and reinstalled after replacing shell plates and wind girder.
- (viii) Existing attachments to the tank shell such as Spiral stairway, Manhole Platform, handrails, Nozzles, pipe supports, Fire Water system, foam system, water drain off system etc. shall be removed carefully whenever required for the replacement of Shell plates and reinstall appropriately with new reinforcement plates and fasteners as per specifications. Removed nozzles shall be installed with new flanges and pipes as per the specifications of existing nozzles.
- (ix) All minor corrosion repairs to FW pipeline supports, Foam line supports and any other attachment to the shell exterior surface shall be done by appropriate method subjected to the approval of the Engineer.
- (x) Welding Procedure and valid Welder qualification reports as per Section – IX of the ASME code, shall be submitted and get the approvals of CPSTL before commencing all welding works.
- (xi) Weld design for shell plates, Reinforcements, manholes, wind girder, doubler plate welding etc. shall be as per API 650 (*12th Edition or latest*) and Section – IX of the ASME code.
- (xii) The contractor on the approval of the Engineer shall commence erecting of the new shell plates. The plates shall be joined by a suitable welding method using low hydrogen AWS E70 classification series electrode in such a way it will provide a near possible plane surface.
- (xiii) AWS E60 classification series electrode can be used for joining of shell plates. Subject to approval of the Engineer, the welding sequence adopted should result in least distortion.
- (xiv) Tank shell Exterior surface shall be blast cleaned and painted as per paint System-1.
- (xv) Tank shell Interior surface shall be blast cleaned, Surface Irregularities shall be weld filled and grinded to level acceptable to the engineer and painted as per paint system-2 and tank shell interior coating shall have abrasion resistant properties.
- (xvi) All fasteners including U Bolts, Studs, Bolts and Nuts shall be replaced with Hot Dip galvanized High Tensile Grade new fasteners similar to existing fasteners.
- (xvii) Lose Corrosion scale on tank shell interior surface shall be cleaned by scraping out loose scales.

- (xviii) Post Welding Heat Treatment and Thermal Stress relief shall be conducted during shell plate, shell man hole and wind girder installation as per the requirements specified in API 650 (12th Edition or latest) standards.

6.3.3 Repairs to Bottom Plate in Tank No.TK-31 and TK-32

- (i) Pass-through holes and deep corrosion pits (depth more than 50% from original bottom plate thickness) on the tank bottom shall be repaired by welding 6 mm patch plates as per API 653 (4th Edition or latest) and instruction of the Engineer. Maximum total area of patch plates would be 12m² in both tanks.
- (ii) Shallow corrosion pits (depth less than 50% from original bottom plate thickness) shall be repaired by weld filling and ground to flat as per the instructions of Engineer.
- (iii) Cut and removed sections on Tank Bottom Plate for Inspection Purposes shall be repaired using patch plates as per API 653 (4th Edition or latest) requirements.
- (iv) Dip plate on the tank bottom shall replace with relevant procedure as per the instruction of Engineer.
- (v) Tank bottom plate top surface shall be blast cleaned and painted as per paint system-2.

6.3.4 Repairs to Tank Roof and Roof Accessories in Tank No.TK-31 and TK-32

- (i) Flame Arrestor with Pressure Vacuum Valves shall be removed from Tank No. TK-31 and U-shaped Centre Air vent provided by CPSTL shall be installed as per the instructions of Engineer.
- (ii) Openings of Periphery vents and center air vents shall be covers with Stainless steel mesh with frame and securely installed.
- (iii) Tank roof plate exterior including attached accessories shall be blast cleaned and painted as per paint system-1.
- (iv) Tank roof plate interior including structural components and 1 m height in shell plate from the roof plate in top most shell course shall be blast cleaned and painted as per paint system-2.

6.3.5 Repairs to Tank Inlet Diffuser Pipes and Stilling Well in Tank No.TK-31 and TK-32

- (i) Remove existing Stilling Well, Fabricating and installing 8” Dia. New Stilling well pipe tank interior section (Approx. 18m long) with intermittent circular slots as per drawing to use for radar gauge installation. (Supply of material paid separately)
- (ii) Tank Inlet diffuser pipes and stilling well shall be blast cleaned and painted as per the paint system-2.

6.3.6 Repairs to Tank stairways, platforms and hand rails in Tank No.TK-31 and TK-32

- (i) Middle landing of stairway in Tank No. TK-31 shall be repaired by replacing corroded 100x50x6x 1152 mm "C" channel main frame.
- (ii) Other corroded section in stairways shall be repaired or replaced as per the instruction of Engineer.

- (iii) Hand rails in Tank No. TK-31 shall be repaired by replacing two middle guard flat iron sections (50 x 6 mm) and flat iron toe plate between 1st post of top landing to 20th post (from the direction of Anti clock wise from stairway top landing) shall replace with heavy grade galvanized pipes with similar diameter.
- (iv) Repair of Tank TK-31 crown handrail by replacing corroded middle flat Iron (50x6 mm) approximately 30 m length and weld repair other corroded vertical angle iron poles as per existing design (Supply of material paid separately).
- (v) All Galvanized stairway steps, grating, etc. shall cover properly prior to blast cleaning.
- (vi) Both top and middle landing Gratings shall be removed prior to the blast cleaning and painting.
- (vii) Other parts of the stairways, platforms and hand rails shall be blast cleaned and painted with paint system-1.
- (viii) Galvanized steps, Gratings and other galvanized surfaces shall be power tool cleaned, freshwater washed and painted as per paint system-3.

6.3.7 Repairs to Tank Oily Water Drain off System in Tank No.TK-31 and TK-32

- (i) Remove, Repair and reinstallation of Oily Water system including Semi-Automatic Water Drain Off Valve (SAWDO) Valve, Piping, Piping Accessories, Gate Valves, Gaskets, Water housing including flanges, Pipes, Gaskets and fasteners etc. as per Existing Design.
- (ii) Corrosion damages in Semi-Automatic Water Drain off (SAWDO) Valve shall be weld repaired.
- (iii) Connected pipes shall be replaced with new SCH 40 carbon steel pipes, fittings and new flange conforms to ASTM B16.5
- (iv) Corrosion Damaged Gate valve and pressure not holding gate valves shall be replaced with Gate valves comply with API 6D standard requirements.
- (v) Water drain off system shall be blast cleaned and interior of SWDO valve shall be painted as per paint system-1. Exterior of SAWDO valve and attached pipes shall be painted as per paint System-2.

6.3.8 Repairs to Tank fire fighting Water system in Tank No.TK-31 and TK-32

- (i) Fire Water System Shall be disassembled if required for the replacement of shell plates
- (ii) Removal of Existing Tank shell Top Most Sprinkler pipes, Fabrication and installing new 3" dia. fire water sprinkler lines (at 14 -15m height) including Sprinkler Nozzles attached to top most shell course including new gaskets, Hot Dip Galvanized high tensile studs, Nuts and U bolts as per Existing design. (Supply of material paid separately)
- (iii) Fire water strainers shall be weld repaired by weld filling and patching, replace corrosion damaged flanges with new flanges conform to ASTM B16.5 and corrosion damaged pipes with new pipes conforms to SCH 80 as per instructions of Engineer.
- (iv) Fire water strainers shall be blast cleaned and painted as per the paint system-1.
- (v) Galvanized Fire Water pipes shall be power tool cleaned for corroded locations, perform High pressure water washing and painted as per the paint System-3.

6.3.9 Repairs to Tank fire fighting Foam system in Tank No.TK-31 and TK-32

- (i) Foam System Shall be disassembled if required for the replacement of shell plates
- (ii) Remove Existing Top Pourers, 2 nos. of 4” Top Pourer units and 2 nos. of 4” dia. Foam Pipes, installation of new 2 nos. of 4” Top Pourer units (Angus Fire TPS 80 MK4 Type Carbon Steel) and Fabricating and installing 4” Dia. 2 nos. of New Foam Pipes (Approx. 16m long) with SCH 40 Carbon Steel Pipes, drains, valves, fittings and flanges conform to ASTM B16.5 as per existing design.
- (iii) Remove, Repair and reinstallation of fire water Strainer housing (4” Dia. 2 nos. & 6” Dia. 1 nos.) Including flanges, Pipes, Gaskets and fasteners of tank fire water line as per existing design.
- (iv) Foam pipe shall be blast cleaned and painted as per the paint system-1.

6.3.10 Tank Plumbness and Roundness Measurement

- (i) The contractor shall inspect tank Plumbness and Roundness after shell plate repairs and provide a report on tank Plumbness and Roundness through specialized inspection service provider who is acceptable to CPSTL before commencing hydro testing and painting.
- (ii) Contractor shall ensure Roundness and plumbness of the tanks are within acceptable limits of 7.5 of Appendix H of API 650.
- (iii) Roundness and Plumbness inspection reports shall be forwarded to CPSTL in 3 copies and soft copy
- (iv) The name and address of the 3rd party company should be given in the bid for evaluation purposes.

6.3.11 Tank Hydro Test

- (i) On completion of the scope of work in each tank, it shall be hydro tested as per API650 and any leaks that appear on the tank at this stage would have to be rectified by the contractor at his cost within a period of 2 weeks. Any delay in attending to such leaks too would be covered by late completion in “Schedule”- Section 5.
- (ii) Tank interior shall be clean and free of dirt, weld slags etc. before hydro test.
- (iii) The Contractor shall carry out tank hydro test for each tank after completion of erector activities and Nondestructive testing. Testing procedure to be agreed by the Contractor and CPSTL.
- (iv) Contractor shall provide Fresh water for hydro tests and necessary arrangements to pump into the tank and remove after the test. CPSTL may assist on sourcing water for hydro test.

6.3.12 Disassemble, Repair, Modify and Installation of Internal Floating Roofs

- (i) Installation, Repair and material specifications of Aluminium Pontoon type internal floating Roofs (IFR) shall be done as per the API 650 (*12th Edition or latest*) and API 653 (*5th Edition or latest*) standards.

- (ii) Buoyancy calculations for each IFR shall be done and confirm correct floatation after installation. Buoyancy calculations shall be approved by CPSTL Engineer prior to IFR Installation.
- (iii) Repair and Installation of Internal Floating Roofs in TK-31 and TK-32 Tank
 - a. Aluminium Pontoon Type Internal floating roofs in Tank no. TK-31 already removed from the tank and stored in the site.
 - b. Aluminium Pontoon Type Internal floating roofs in Tank no. TK-32 shall be disassembled and store safely in the site before initiating tank repairs.
 - c. All Aluminium pontoons shall be checked for any leaks and Damages and pressure tested to detect leaks, structural components, Legs shall be replaced with similar type new items conforms to API650.
 - d. Repair, Modify and reinstall dismantled Internal Floating Roofs (IFRs) in both tanks including supply of replacements for defective Deck Plates, pontoons, structural components etc. using Stainless steel Fasteners as required for successful reinstallation as per the specifications and directed by the Engineer.
 - e. IFRs shall be assembled in tanks with new Austenitic stainless-steel fasteners.
 - f. IFRs shall be modified to install Double Lip Periphery Rim seal and supply and installation of Double Lip Periphery Rim seal. Seal shall be made of non-fluorinated polymer material.
 - g. New austenitic stainless-steel Dia. 8mm Anti-rotation cables with polymeric insulations for end connections and Dia. 3 mm Anti-static cables shall be supplied and install using stainless steel cable clamps (2 clamps per each location).
 - h. IFRs shall be reassembled in Tank No. TK-31 and 32 after completion of tank repair and painting in each tank.
 - i. Touch up painting shall be done to repair damages caused to tank bottom plate during IIFR installation.
 - j. Layout drawing of IFR disassembled from Tank No. TK-31 is attached with this docuemnt
- (iv) Contractor shall refer available IFR drawings and check disassembled IFR materials.
- (v) Contractor shall replace deformed or leaking Aluminum pontoons, deformed structural sections, damaged Aluminium Deck plates, Periphery Rims seal and other damaged accessories of the IFR with similar type Aluminium parts conforms to API 650 as per the instruction of Engineer.
- (vi) **IFR Initial Flotation**

Contractor shall make sure proper functioning of the IFR and carry out initial floatation test after the repair as per the API standard 650 using product while commissioning the tanks.

6.3.13 Instrument cables and cable guide pipes

Instrument cables and cable guide galvanized pipes shall be power tool cleaned, fresh water washed and painted as per Paint System-3.

6.3.14 Specifications for Erection of Scaffolding

Scaffolding shall be erected as per the approval of the safety department of CPSTL as follows:

- (i) It shall be erected by using steel pipes and couplings, toe plates, platforms etc.
- (ii) Thickness of 2” timber planks or steel platform plates to be used for the platform and to be properly fastened at both ends.
- (iii) Ladders should be provided from the ground to the platform.
- (iv) After erecting the scaffolding the contractor should obtain a written approval from the safety department of CPSTL before commencement of the work.
- (v) Approval for the screening for blast cleaning to be obtained from Fire & Safety Department of CPSTL after erection of scaffolding and prior to the blasting.

6.3.15 Specifications for Erection of Temporary Fire Barrier and Fire Blanket

- (i) A temporary fire barrier shall be erected to cover near tanks as required using corrugated metal sheets.
- (ii) It should be in a height of at least 1 m beyond the tank roof top position. Starting level of fire barrier can be decided to the contractor depending on his design. However it shall be approved by CPSTL.
- (iii) It should be erected in such away as to give positive fire isolation. Further pipe rack running by the tank and all valves should be covered by a fire blanket.

6.3.16 Third party inspection of plates and other relevant materials

- (i) Steel Plates used for replacing tank shell plates and reinforcing plates shall be certified by reputed third party inspection company approved by CPSTL.
- (ii) Third Party Inspection reports shall be submitted to CPSTL for the approval.
- (iii) Test certificates shall be in accordance with EN 10204 type 3.2.

6.3.17 Welding Procedure and Welder Qualification

- (i) Qualification of Welding Procedure

Prepare welding procedure specification (WPS) for all category of welding that are intended to be carried out in tank repair work and perform tests documented by Procedure Qualification Records (PQR) to support the specifications as required by section IX of the ASME code and any additional provisions of API 650 standards.

- (ii) Qualification of Welders

Conduct tests for all welders assigned to manual and semi-automatic welding to demonstrate the welders’ ability to make acceptable welds in accordance with section ix of ASME code and API 650 standards.

6.3.18 Testing and Inspection

- (i) The contractor shall arrange for all inspection and testing of the welders, shell plate weldments, as per the requirements of API 650 and 653.
- (ii) Tank shell welds shall be tested by Radiographic examination. The report of radiographic examination of welds shall be submitted to the Engineer together with any other relevant information that may be required.
- (iii) All inspection and testing of the weldments and the accessories shall be arranged by the contractor as per the requirements of API 650 and API 653.
- (iv) Tank hydro test shall be carried out according to the API 650 and API 653.
- (v) The Contractor should make the required piping and pump arrangements for Hydro Test. Testing procedure to be mutually agreed..

6.3.19 Calibration of Tank No.TK-31 and TK-32

- (i) After successful completion of repair work and painting, the tank shall be calibrated. The calibration and tabulations should conform to API 2550, ASTM 1220. The tank calibration should be carried out using one of the following methods by a third party company acceptable to CPSTL.
 - a. MPMS Ch. 2.2B – Calibration of Upright Cylindrical Tanks using the Optical Reference Line Method (ORLM)
 - b. MPMS Ch. 2.2C – Calibration of Upright Cylindrical Tanks using the Optical Triangulation Method (OTM)
 - c. MPMS Ch. 2.2D - Calibration of Upright Cylindrical Tanks using the Internal Electro Optical Distance Ranging Method (EODRM)
 - d. MPMS (Manual of Petroleum Measurement Standards)
- (ii) The name and address of the 3rd party company should be given in the bid for evaluation purposes.
- (iii) The Contractor shall submit three sets of certified calibration tables and soft copy in the form of spread sheets to the Engineer on or before successful completion of the work.

6.3.20 Box up the Tank

After completion of all works specified the tank shall be boxed up and handed over for operational purposes. New manhole and nozzle gaskets shall be provided to ensure leak free connections.

6.3.21 Site cleaning

- (i) Work site, tank interior, tank exterior and tank farm shall be cleaned and maintained properly until it is handed over to CPSTL.
- (ii) Tank inside, tank exterior and tank farm shall clean after completion of the works and all removed material shall be dumped at a location inside the premises as directed by the engineer.
- (iii) Existing excess materials shall be removed from the site as directed by the Engineer.

6.3.22 Studs, Bolts and Nuts

All Studs, Bolts and Nuts shall be replaced with Hot Dip galvanized High Tensile Studs, Bolts and Nuts conforming to material specifications provided.

6.3.23 U Bolts

All U bolts with Nuts shall be replaced with similar type Hot Dip Galvanized U bolts and Nuts.

6.3.24 Gaskets

All Gaskets shall be replaced with spiral wound graphite gaskets conforming to material specifications provided.

6.3.25 Surface Preparation and Painting of Tank No.TK-31 and TK-32 and their accessories

(i) Painting of shell plate exterior, Roof Exterior, attachment to tanks, Fire water system, Foam system, water drain off system, Pipe Supports, Strainers, etc. as per following Paint System-1 Exterior Coating system shall comply with ISO12944, C5 category with High durability class (15 -25) years of durability.

- a. All the surfaces shall be sand blast cleaned conform to ISO 8501 SA 2 ½ standard.
- b. Sufficient covering shall be provided to prevent spreading of blasting sand and dust to surrounding areas. Erection of temporary fire barriers/ covering in order prevent any sparks, dust, sand etc.
- c. High pressure washing shall be done on blast cleaned surface and in between each coating and whenever requested by the engineer due to long over coating intervals since surfaces are contaminating with salty winds.
- d. Surface shall be dry and free from contamination prior to paint application.
- e. Paint System and application

Paint System -1

Primer Coat	Zinc Rich Epoxy (Coating Thickness 60 µm to 80 µm)
Intermediate Coats (1 or 2 coats)	Epoxy
Top (Final) Coat	Aliphatic Polyurethane
No. of Coats	3 to 4 nos.
Minimum Total Dry Film Thickness	261

- f. Method of Application shall be Air Less Spray.
- g. There should be contrasting colour shades between each coat.
- h. Paint manufactures recommendations as per the datasheets shall be strictly adhered.

- i. Coating System shall be fully resistant to abrasion, UV and adverse weather conditions.
- j. Coating system shall be comply with ISO12944, C5 category with High durability class (15-25 years).

(ii) Painting of tank shell interior 1 m band from tank roof and roof interior including roof structural members as per following Paint Systems.

- a. Localized Areas with Corrosion/Exposed to Bare metal shall be sand blast cleaned conform to ISO 8501 SA 2 ½ standard as per the discretion of the engineer and apply following Paint System-2.

Coat Reference	Coating Specification (Generic)	DFT
1 st Touch-up Coat	Marine/Professional Grade Two-Component Polyamide Cured Epoxy Holding/Blasting Primer..	100 µm
2 nd Touch-up Coat	Marine/Professional Grade Two Component Reinforced. High Solid Polyamine Adduct Cured Tank Coating, Certified for Class A, B & C Cargos.	150 µm
3 rd Touch-up Coat	Marine/Professional Grade Two Component Reinforced. High Solid Polyamine Adduct Cured Tank Coating, Certified for Class A, B & C Cargos	150 µm
	Total DFT	400 µm

- b. Areas Remaining Visually Intact & Sound Coatings shall be sweep sand blast cleaned to remove loose material and roughening the surface and apply following Paint System-3.

Coat Reference	Coating Specification (Generic)	DFT
1 st .Full Coat	Marine/Professional Grade Two-Component Polyamide Cured Epoxy Holding/Blasting Primer to be used as the Sealer.	50 µm
2 nd .Full Coat	Marine/Professional Grade 2 Component Reinforced. High Solid Polyamine Adduct Cured Tank Coating, Certified for Class A, B & C Cargos.	150 µm
	Total DFT in microns	200 µm

- c. Sufficient covering shall be provided to prevent spreading of blasting sand and dust to surrounding areas. Erection of temporary fire barriers/ covering in order prevent any sparks, dust, sand etc.
- d. High pressure washing shall be done on blast cleaned surface and in between each coating and whenever requested by the engineer due to long over coating intervals since surfaces are contaminating with salty winds.
- e. Method of Application shall be Air Less Spray.
- f. There should be contrasting colour shades between each coat.
- g. Paint manufactures recommendations as per the datasheets shall be strictly adhered.
- h. Surface shall be dry and free from contamination prior to paint application.

(iii) Painting of tank shell interior except 1m band from tank roof and tank bottom plate interior as per following Paint System-4.

- a. All surfaces shall be sand blast cleaned conform to ISO 8501 SA 2 ½ standard and apply following Paint System-4.

Coat Reference	Coating Specification (Generic)	DFT
1 st .Full Coat	Marine/Professional Grade Two-Component Polyamide Cured Epoxy Holding/Blasting Primer.	100 µm
2 nd Full Coat	Marine/Professional Grade Two Component Reinforced. High Solid Polyamine Adduct Cured Tank Coating, Certified for Class A, B & C Cargos.	150 µm
3 rd Full Coat	Marine/Professional Grade Two Component Reinforced. High Solid Polyamine Adduct Cured Tank Coating, Certified for Class A, B & C Cargos	150 µm
	Total DFT	400 µm

- b. The Coating system shall be fully resistant to refined petrochemicals including Diesel, Gasoline, Kerosene, Fuel Oil, Jet Fuel and all the additives such as MTBE, Ethanol, GTBE and other derivatives and seawater.
- c. Sufficient covering shall be provided to prevent spreading of blasting sand and dust to surrounding areas. Erection of temporary fire barriers/ covering in order prevent any sparks, dust, sand etc.
- d. High pressure washing shall be done on blast cleaned surface and in between each coating and whenever requested by the engineer due to long over coating intervals since surfaces are contaminating with salty winds.
- e. Method of Application shall be Air Less Spray.
- f. There should be contrasting colour shades between each coat.
- g. Paint manufactures recommendations as per the datasheets shall be strictly adhered.
- h. Surface shall be dry and free from contamination prior to paint application.

Coating System - Thin Film Chemically Resistant Epoxy Phenolic Tank Coating

- a. The coating system (Excluding Holding Blast Primer Coat) shall be as follows.

Coat Reference	Coating Specification (Generic)	DFT
1 st .Full Coat	Marine/Professional Grade Two-Component Polyamide Cured Epoxy Holding/Blasting Primer.	100 µm
2 nd Full Coat	Marine/Professional Grade Two Component Reinforced. High Solid Polyamine Adduct Cured Tank Coating, Certified for Class A, B & C Cargos.	150 µm
3 rd Full Coat	Marine/Professional Grade Two Component Reinforced. High Solid Polyamine Adduct Cured Tank Coating, Certified for Class A, B & C Cargos	150 µm
	Total DFT	400 µm

- b. Tank shell interior coating shall have abrasion resistant properties.
- c. The coating system shall be applied on Holding (Blast) Primer coating and it shall be fully compatible with Holding (Blast) Primer.

- d. Each coat shall be Light Grey or Light Green colour and there should be contrasting colour shades between each coat.
- e. Method of Application method shall be Air Less Spray, Roller / Brush as per the discretion of the engineer.

(iv) All Galvanized Pipes, Plates and Gratings in the tank shall be cleaned by using wire brush hand tool, freshwater washing and painted as per following Paint System-5.

Exterior Coating system shall comply with ISO12944, C5 category with minimum High durability class (15 -25) years of durability

Coating System shall be as follows.

Primer Coat	Universal anticorrosive epoxy primer (Coating Thickness 60 µm to 80 µm)
Intermediate Coats (1 coats)	Epoxy
Top (Final) Coat	Aliphatic Polyurethane
No. of Coats	3 nos.
Minimum Total Dry Film Thickness	200 µm

- a. There should be contrasting colour shades between each coat.
- b. The Coating System shall be applied on all localized corroded area of the tank shell exterior shall clean by using power tool and painted as per the specification of above Paint System-5.
- c. Method of Application method shall be Air Less Spray, Air Spray, Roller / Brush
- d. Coating System shall be fully resistant to abrasion, UV and adverse weather conditions.
- e. Coating system durability shall be 15 to 25 years period.

(v) Painting Colours

The painting colours to be used will be as specified in the following table. However the Employer could advice his preferable colours. Prior approval from CPSTL shall be obtained for the top Coat.

Description	Colour
Tanks Interior	1 st Coat : Light Gray 2 nd Coat : Light Green
Tanks Exterior	Light Gray (RAL 7035)
Fire Water pipe lines On the Ground On the Tank	Red (RAL 3000) Aluminium
Fire Water Strainers	Red (RAL 3000)
Top Pourer, Foam Pipelines	Yellow (RAL 1003)
Other Pipes, Valve Body	Light Gray (RAL 7035)
Valve Handle	Blue (RAL 5012)
Steel Structures / Platforms	Gray (RAL 7000)
Hand Rails	Yellow (RAL 1003)
Tank Bottom (External Ring including Annular plate External)	Black

- (vi) Tank Identification No. Shall be painted on tank Shell Exterior similar to originals as per the same size and font.
- (vii) Details of application and approval
 - a. All painting work shall be done as per the manufactures' "datasheet". The whole area specified above to be painted with primer, intermediate and finish paint. The primer paint, intermediate and finish coats are recommended to apply by Airless spray.
 - b. All welding seams, sharp edges and other required areas are to be stripped coated as required.
 - c. Tanks shall be marked with tank identification number as directed by the Engineer.
 - d. Approval for painting should be obtained from the Inspection Engineer of CPSTL or his representative as follows.
 - Prior to application of first primer coat after satisfactory cleaning of surfaces.
 - Prior to application of first intermediate coat after applying the required thickness of primer.
 - Prior to application of first finish coat after applying the required thickness of intermediate coat.
 - e. Required total DFT indicated in specifications to be applied and the first coat of Paint shall be applied as soon as possible after surface preparation is approved by Engineer. The preparation of paint before application is to be done as per the instruction stated by the paint manufacturer.
 - f. Time interval between two coatings shall comply with paint manufactures instructions.
 - g. The Engineer reserves the authority to accept or reject.
 - Prepared surface before painting depending on his observations.
 - Application of paint depending on the preparation of paint and the weather.
 - h. Painting carried out under doubtful weather condition is the responsibility of contractor. If any painting is found to be unacceptable the particular surfaces shall be made paint free and repainted at contractor's expense.
 - i. Contractor shall provide a Painter qualification certificate issued by authorized local agent.

6.3.26 Galvanising

- (i) All hot dip galvanizing work shall conform to ASTM A 123 or BS EN ISO 1461:2009. Average mean coating thickness of galvanizing is 70 microns for lids of rim air vents and 85 microns for all other pipes, fittings, flanges, supports and gratings.
- (ii) Touch up painting as per the Paint System-3 shall be attended on the galvanized surfaces wherever required after installation.
- (iii) Certificate from the galvanizing company stating that all the specifications of the bidding document were met shall be submitted to CPSTL after completion of galvanizing work.

6.3.27 All the related work that are not listed in this document, but required for completion of the entire work as specified in this Bidding Document.

SECTION -07

FORM OF BID

FORM OF BID

Name of Contract: **Repairs to Petrol Loading Tank No. TK-31 and TK-32 at Muthurajawela Terminal.**

To: **Ceylon Petroleum Storage Terminals Limited, Oil Installation, Kolonnawa, Wellampitiya.**

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 Nos.....for the sum of Sri Lankan Rupees

.....
.....

(LKR) and United States Dollar

.....
.....

(USD) 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, 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 certify/confirm that we comply with the requirements as per ITB Clause 3and 4 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]

Name :

Designation:

Address:

Witness:

SECTION- 8 BILL OF QUANTITIES

PREAMBLE TO THE BILL OF QUANTITIES

It is the Bidder's responsibility to see that the prices include for complying with all the requirements of the other documents whether specifically referred to in Bill of Quantities.

The Bidder is advised to visit the site of the proposed work and it is the responsibility of the Bidder to ascertain the conditions governing access to the site, the extent of working space storage area etc.

1. This Bill of Quantities contains pages numbered from 57 to 69. Bidders are requested to see that no page is missing, no duplicate and that all TRADES are carried to SUMMARY at the end of the Bill of Quantities.
2. The Conditions of Contract, the Specifications and the Drawings are to be read in conjunction with the Bill of Quantities.
3. The cost of complying with all conditions, obligations and liabilities described in the Conditions of Contract, Specifications and the Bill of Quantities including all overhead charges and profit in carrying out the work as shown on the Drawings shall be deemed to be spread over and included in the prices of sums stated by the Bidder in the Bill of Quantities unless separately measured.
4. If the Bidder fails to price any items in the Bill of Quantities, then the cost of the work under such items shall be held to be spread over and included in the prices given against other items of work.
5. The quantities set out in the Bill of Quantities are provisional and cover the approximate scope of the work anticipated to be performed by the Contractor. The actual quantities used for final measurement purposes will be determined by the Engineer by measurement of the work completed by the Contractor.
6. Where trade names, brands and or Catalogue Numbers are referred to, sole preference to any material or equipment is not intended. Any other material or equipment may be used, provided that the characteristics of type, quality, appearance, finish, method of construction and / or performance is superior to the specified.
7. Whenever the method of measurement is not clear from the documents available, the principles as given in the Sri Lanka Standard 573: 1999 UDC 69(08374) shall be applicable.
8. Selected Bidder shall comply with the arrangement of work and be ready to work part by part as required by the Authorities of the Employer if applicable.
9. The unit and lump sum prices of the Bill of Quantities (referred to as the Contract Rates) shall, except in so far as is otherwise provided for under the Contract, be deemed to cover all obligations set out in the Contract, and all matters or things necessary for the proper completion and maintenance of the Works, and shall be fixed and binding upon the Contractor.
10. Unit prices when applied to the quantity of work performed under the Contract shall, and other sums specifically determined under the provisions of the Contract, constitute full remuneration to the Contractor under the Contract.
11. Each item shall be priced by the Bidder in Sri Lanka Rupees or United States Dollars (**USD**).
12. Rates for items in this Bill of Quantities shall be inclusive for hauling, transporting, loading, unloading, spreading, heaping, supporting, scaffolding, welding, and for laps, unless otherwise specifically stated.

13. Unless otherwise specifically stated in Bill of Quantities or herein, the following shall be deemed to be included with all items:-
- i. Labour and all costs in connection therewith.
 - ii. Materials, goods and all costs in connection therewith.
 - iii. Tools, plants, equipment, machinery and all costs in connection therewith.
 - iv. Waste of materials.
 - v. Protecting and clearing.
 - vi. Square cutting.
 - vii. Establishment charges, overhead charges and profit.
 - viii. All setting out works.
 - ix. For providing of method statements, calculations, proposals by Contractor, shop drawings and as built drawings.
 - x. The rate for each item shall also include for all the following.
 - a. Complying with regulations of the Municipal Council and/or any other relevant authority under which particular item of work is to be executed unless otherwise included in the preliminaries.
 - b. Plant and equipment unless and otherwise included in preliminaries.
 - c. In addition to above, the rate for item of work in substructure shall include for the works at depth extending below ground water table where applicable including excavation under water, removal and disposal of mud, sand and preparation of place to a condition suitable for proper execution of the work.
14. If Bidders are anticipating to give any discount, it shall be marked separately in the space allocated in the summary of Bill of Quantities. Provisional Sums shall not be considered when calculating discount.
15. All materials, equipment supplied shall be new, unused without any defects.
16. All materials used in the Works shall be of the best quality of their respective kinds as specified and shall be obtained from sources and suppliers approved by the Engineer and shall comply strictly with the tests prescribed or, Where tests are not laid down in this Specification, with the requirements of the latest issue of the relevant British Standards or other Standards approved by the Engineer.
17. Metric units are used throughout the Bill of Quantities for measurement purposes unless otherwise indicated. Abbreviations used in the Contract are as follows:-

L.S.	-	Lump Sum
P.S.	-	Provisional Sum
m	-	Meter
m ²	-	Square meter
m ³	-	Cubic meter
kg	-	kilograms
nr	-	Numbers
LKR	-	Sri Lankan Rupees
USD	-	US Dollars

BILL OF QUANTITIES

CEYLON PETROLEUM STORAGE TERMINALS LIMITED

JOB : REPAIRS TO PETROL LOADING TANK NO. TK-31 AND TK-32 AT MUTHURAJAWELA TERMINAL

BOQ No: E/.../.....

Note: Items which has both the LKR Component and USD Component, shall be rated separately in the provided columns. For the items which has only a single currency component shall be rated in respective columns. Sub totals of LKR Component and **USD** Component should be carried forward to the summary and the **USD** subtotal to be converted in to LKR in the summary [**USD** shall be converted to LKR using the “Average of the Buying & Selling Exchange Rate” published by Central Bank of Sri Lanka (CBSL), on the date 28 Days prior to date of closing of Bids]. Then both components shall be added and the total to be carried to Form of Bid.

* Please refer **Section 6 -Specification** for details of the Items in following table

Item	Description	Unit	Qty	Rate (LKR)	Rate (USD)	Amount (LKR)	Amount (USD)
1	PRELIMINARY WORK						
1.1	Mobilization and demobilization and site clearing.	Item	1				
1.2	Allow lump sum for construction maintenance of temporary site office (approx. 40m ²) with providing necessary furniture, fittings and other facilities for the contractor's personal. Rate shall include for providing temporary sanitary facilities at the site for the contractor's staff & workers and dismantling and removal on completion of the works.	Item	1				
1.3	Erection of temporary fire barrier and fire blanket in order to protect the surrounding piping and other tanks in service.	m ²	3600				
1.4	Supply, erection, maintenance and subsequent removal of scaffoldings for permanent works	Item	1				

Item	Description	Unit	Qty	Rate (LKR)	Rate (USD)	Amount (LKR)	Amount (USD)
1.5	Supply, fabrication, welding and removing for reinforcement arrangement to remove shell course in tank no. 31 & 32.	Item	1				
SUB TOTAL AMOUNT CARRIED TO SUMMARY							
2	REPAIRS TO TANK NO.31						
	REMOVAL WORK						
2.01	Removal of the 3rd, 4th and 5th shell courses and 2 no's shell plates of 2nd shell course. Rate shall include for temporarily reinforcing tank shell and all other relative works.	Item	1				
	SUPPLY OF MATERIAL						
2.02	Supply of carbon steel plates for shell courses, reinforcement plates & other carbon steel plate requirements during repair works.	Item	1				
2.03	Supply of structural steel, Wind Girder, pipes for replacing fire water sprinkler pipes, Foam pipes, Stilling Well, Oily Water System pipes, Pipe Accessories, Stainless steel Meshes with frames, Gaskets, Galvanized Fasteners, Sprinklers, Consumables, middle & top landing of stairway, repair of crown handrail etc. for replacement & repairs works.	Item	1				

Item	Description	Unit	Qty	Rate (LKR)	Rate (USD)	Amount (LKR)	Amount (USD)
2.04	Supply of painting materials for painting of tank bottom and shell interior, under side of roof plates & structure, top side of roof plates, other accessories, shell exterior, spiral stairway, pipes, platforms, handrails and leak preventing materials	Item	1				
FABRICATION, ERECTION AND REPAIR							
2.05	Fabrication and fixing of all shell plates of 3rd, 4th and 5th shell courses and 2 nos. shell plates for 2nd shell course including Manholes, Nozzles, Pipe Supports, etc. with required reinforcement plates as per the existing design (Supply of material paid separately)	Item	1				
2.06	Detaching Stairways, Platforms, Sprinkler pipes, Fire Water piping etc. from removing tank shell plates, weld and attach to new shell plates with required reinforcement plates, fasteners etc. as per the existing design (Supply of material paid separately)	Item	1				
2.07	Remove existing stilling Well, fabricating and installing 8" Dia. new stilling well (Approx. 18m long) with intermittent circular slots as per drawing to use for radar gauge installation and replacement of 300x300 mm dip plate.	Item	1				
2.08	Fabrication and fixing of Tank Wind Girder (using Two Angles size 125mm x 80mmx10mm) including Reinforcement plates (6 mm Thick) etc. (Supply of material paid separately)	Item	1				

Item	Description	Unit	Qty	Rate (LKR)	Rate (USD)	Amount (LKR)	Amount (USD)
2.09	Repairing of stairway landings (top & middle landings) and crown handrail . Rate to include for removing replace of corroded 100x50x6mm "C" channel main frame on landings and replacing corroded middle 50xmm flat Iron (Apr. 30m long), toe guard 150x6 mm (apro.21 m long) and 50x50x6mm angle iron (apro. 5.8 m) other corroded sections on crown handrail. (Supply of material paid separately)	Item	1				
2.10	Fabrication and replacement of 2 nos. top supports (600mm long) 100x50mmx6mm "C" Channel vertical and 100x50mmx6mm "C" Channel horizontal) of fire water sprinkler system (Supply of material paid separately).	Item	1				
2.11	Removal of Existing Tank shell Top Most Sprinkler pipes, Fabrication and installing new 3" dia. fire water sprinkler lines (at 14 -15m height) including Sprinkler Nozzles attached to top most shell course as per Existing design. (Supply of material paid separately)	Item	1				
2.12	Repair of tank bottom plate by weld filling corrosion pits and ground to flat about 50 locations and welding of 6.5 mm thick Patch Plates (Approx. total area of patch plates is 6 m2 & Supply of material paid separately)	Item	1				
2.13	Remove existing 2 nos. of 4" dia. of top Pouring units with foam Pipes, and fabricating and installing 4" Dia. 2 nos. of new top Pouring units with new Foam Pipes (Approx. 16m long) including necessary flanges, gaskets, etc. (Supply of material paid separately)	Item	1				

Item	Description	Unit	Qty	Rate (LKR)	Rate (USD)	Amount (LKR)	Amount (USD)
2.14	Remove, Repair and reinstallation of fire water Strainer housing (4" Dia. 2 nos. & 6" Dia. 1 nos.) Including flanges, Pipes, Gaskets and fasteners of tank fire water line as per existing design. (Supply of material paid separately)	nr.	3				
2.15	Remove existing Fame arrestor with PV valves, Install Centre Air Vent, Periphery vents and Centre Vent by Weld Filling and 5 mm thick Patch Plates Welding and covering Vent Openings with Stainless steel Mesh with frame. (Supply of material paid separately and centre air vent supply by CPSTL)	Item	1				
2.16	Remove, Repair and reinstallation of Oily Water system including Semi-Automatic Water Drain Off Valve (SAWDO) Valve, Piping, Piping Accessories, Gate Valves, Gaskets, fasteners, Water housing including flanges, Pipes, Gaskets and fasteners etc. as per Existing Design.	Item	1				
	PAINTING WORK						
2.17	Sand blasting and painting underside of roof plates and roof structure (Supply of material paid separately).	m ²	525				
2.18	Sand blasting and painting of exterior of roof plates with roof accessories, vents and attachments. (Supply of material paid separately).	m ²	475				

Item	Description	Unit	Qty	Rate (LKR)	Rate (USD)	Amount (LKR)	Amount (USD)
2.19	Sand blasting and painting shell exterior with manholes, nozzles, accessories, Fire water system, Foam system, Oily water system, pipeline accessories and attachments. (Supply of material paid separately).	m ²	1400				
2.20	Sand blasting and painting top side of tank bottom including all projections, pipe supports, Sumps, Stilling Well, Slop Oil Pipes, Inlet Diffuser etc. (Supply of material paid separately).	m ²	415				
2.21	Sand blasting and painting shell interior. (Supply of material paid separately)	m ²	1350				
2.22	Sand blasting and painting stairways with steps, gratings, hand rails, supports, Platforms, pipe line crossing pedestals with handrails and crown hand rail with attachments etc. (Supply of material paid separately).	m ²	165				
2.23	Repair, Modify and install Internal Floating Roof (IFR) already disassembled and stacked in the site including supply of replacements for defective Deck Plates, pontoons, structural components, Stainless steel Fasteners, replace foam periphery seal with a Double lip periphery seal etc., as required for successful reinstallation as per the specifications and directed by the Engineer	Item	1				

Item	Description	Unit	Qty	Rate (LKR)	Rate (USD)	Amount (LKR)	Amount (USD)
2.24	Roundness check, Plumbness check and calibration of the tank including supply of 3 copies of the calibration tables and soft copy in the form of spread sheets	Item	1				
2.25	Hydro Testing of the Tank	Item	1				
SUB TOTAL AMOUNT CARRIED TO SUMMARY							
3	REPAIRS TO TANK NO.32						
	REMOVAL WORK						
3.01	Removal of the entire 3rd, 4th and 5th shell courses. Rate shall include for temporarily reinforcing tank shell and all other relative works.	Item	1				
	SUPPLY OF MATERIAL						
3.02	Supply of carbon steel plates for shell courses, reinforcement plates & other replacement & repair works	Item	1				
3.03	Supply of structural steel, Wind Girder, pipes for replacing fire water sprinkler pipes, Foam pipes, Oily Water System pipes, Pipe Accessories, Stainless steel Meshes with frames, Galvanized Fasteners, stilling well 8" dia, Sprinklers, Consumables etc. for replacement & repairs works.	Item	1				

Item	Description	Unit	Qty	Rate (LKR)	Rate (USD)	Amount (LKR)	Amount (USD)
3.04	Supply of painting materials for painting of tank bottom and shell interior, under side of roof plates & structure, top side of roof plates, other accessories, shell exterior, spiral stairway and its handrail and leak preventing materials	Item	1				
FABRICATION, ERECTION AND REPAIR							
3.05	Fabrication and fixing of all shell plates of entire 3rd, 4th and 5th shell courses including Manholes, Nozzles, Pipe Supports etc. (Supply of material paid separately).	Item	1				
3.06	Detaching Stairways, Sprinkler pipes, Platforms, Fire Water piping etc. from removing tank shell plates, weld and attach to new shell plates with required reinforcement plates, fasteners etc. as per the existing design. (Supply of material paid separately)	Item	1				
3.07	Remove existing stilling well and dip plate, fabricating and installing 8" Dia. new stilling well (Approx. 18m long) with intermittent circular slots as per drawing to use for radar gauge installation and 300x300 mm new dip plate.	Item	1				
3.08	Fabrication and fixing of Tank Wind Girder (using Two Angles size 125mm x 80mmx10mm) including Reinforcement plates (6 mm Thick) etc. (Supply of material paid separately)	Item	1				

Item	Description	Unit	Qty	Rate (LKR)	Rate (USD)	Amount (LKR)	Amount (USD)
3.09	Removal of Existing Tank shell Top Most Sprinkler pipes, Fabrication and installing new 3" dia. fire water sprinkler lines (at 14 -15m height) including Sprinkler Nozzles attached to top most shell course as per Existing design. (Supply of material paid separately)	Item	1				
3.10	Repair of tank bottom plate by weld filling corrosion pits and ground to flat about 50 locations and welding of 6.5 mm thick Patch Plates (Approx. total area of patch plates is 6 m ² & Supply of material paid separately)	Item	1				
3.11	Repair Tank Periphery vents and Centre Vent covering Vent Openings with Stainless steel Mesh with frame. (Supply of material paid separately)	Item	1				
3.12	Remove existing 2 nos. of 4" top pourer units, Pipes with pipeline accessories and installation of new 02 nos. top pourers units, fabricate & install pipes including pipeline accessories as per existing design. (Supply of material paid separately)	Item	1				
3.13	Remove, Repair and reinstallation of fire water Strainer housing (4" Dia. 2 nos. & 6" Dia. 1 nos.) including flanges, Pipes, Gaskets and fasteners of tank fire water line as per existing design.	nr.	3				
3.14	Remove, Repair and reinstallation of Oily Water system including Semi-Automatic Water Drain Off Valve (SAWDO) Valve, Piping, Piping Accessories, Gate Valves, Gaskets, fasteners, Water housing including flanges, Pipes, Gaskets and fasteners etc. as per Existing Design.	Item	1				

Item	Description	Unit	Qty	Rate (LKR)	Rate (USD)	Amount (LKR)	Amount (USD)
	PAINTING WORK						
3.15	Sand blasting and painting underside of roof plates and roof structure (Supply of material paid separately).	m ²	525				
3.16	Sand blasting and painting of exterior of roof plates with roof accessories, vents and attachments. (Supply of material paid separately).	m ²	475				
3.17	Sand blasting and painting shell exterior with manholes, nozzles, accessories, Fire water system, Foam system, Oily water system, pipeline accessories and attachments. (Supply of material paid separately).	m ²	1400				
3.18	Sand blasting and painting top side of tank bottom including all projections, pipe supports, Sumps, Stilling Well, Slop Oil Pipes, Inlet Diffuser etc. (Supply of material paid separately).	m ²	415				
3.19	Sand blasting and painting shell interior. (Supply of material paid separately)	m ²	1350				
3.20	Sand blasting and painting stairways with steps, gratings, hand rails, supports, Platforms, pipe line crossing pedestals with handrails and crown hand rail with attachments etc. (Supply of material paid separately).	m ²	165				

Item	Description	Unit	Qty	Rate (LKR)	Rate (USD)	Amount (LKR)	Amount (USD)
3.21	Dismantle, repair, Modify and reinstall dismantled Internal Floating Roof (IFR) including supply of replacements for defective Deck Plates, Pontoons, structural components, Stainless steel Fasteners, replace foam periphery seal with a Double lip periphery seal etc. as required for successful reinstallation as per the specifications and directed by the Engineer.	Item	1				
3.22	Roundness check, Plumbness check and calibration of the tank including supply of 3 copies of the calibration tables and soft copy in the form of spread sheets	Item	1				
3.23	Hydro Testing of the Tank	Item	1				
SUB TOTAL AMOUNT CARRIED TO SUMMARY							

.....
Date

.....
Signature & Common Seal
of the Bidder

SUMMARY OF BOQ

ITEM	DESCRIPTION	LKR AMOUNT	USD AMOUNT
1	PRELIMINARY WORK		
2	REPAIRS TO TANK NO.31		
3	REPAIRS TO TANK NO.32		
	Sub Total I	(a)	
	Less discount if any	(b)	
	Sub Total II	(c) = (a) +(b)	
	SSCL Tax (if applicable)	(d) = (c) (.....) %	
	Total sum carried to Form of Bid	(e) = (c) + (d)	
	VAT 18%	(f) = (e) *18%	
	Total sum with VAT	(g) = (e) + (f)	

Total amount in words (LKR)

and (USD)

VAT Amount (if applicable) :-

VAT registration No (if applicable) :-..... (Attached a Copy of the VAT Registration)

SSCL Registration No. (if applicable) (Attached a Copy of the SSCL Registration)

Address :-.....

.....

Date

.....

Signature & Common Seal
of the Bidder

Witness :.....

Name :.....

Address :.....

N.I.C. No:.....

Witness :.....

Name :.....

Address :.....

N.I.C. No:.....

***SECTION – 9
SCHEDULES***

SCHEDULES

Schedule 1 – General Information			
<p>(i) If pre-qualification is done the bidders are required to include information subsequent to that submitted with the pre-qualification application.</p> <p>(ii) For joint ventures, each joint venture partner shall furnish information separately.</p>			
ITB Clause reference	Description	Information (to be filled by the bidder)	Remarks
	ICTAD Registration		Provide certified copies and label as attachment to clause 3.1
	Registration Number		
	Grade		
	Specialty		
	Expiry Date		
	NCASL Membership		Provide certified copies and label as attachment to clause 3.2
	Number		
	Expiry Date		
	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 Partner	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		
	(Lead Partner)		Provide certified copies and label as attachment to clause 4.1(a)
	Legal Status		
	Place of registration		
	Principal 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)

Schedule 1– General Information continued

	If a Joint Venture, names and addresses of Joint Venture Partner	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		
	(Partner 2)		Provide certified copies and label as attachment to clause 4.1(a)
	Legal Status		
	Place of registration		
	Principal 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		
	Principal 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		

Schedule 2 – Annual Turn-over 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.

Year	Turn-over	Remarks
2018 / 2019		Attach audited reports and label as attachment to clause 4.2
2019 / 2020		
2020 / 2021		
2021 / 2022		
2022 / 2023		
Average		

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

Schedule 6 – Construction Management Staff (Contract Managers/Technical Staff)			
A. Key Personnel / Professionals			
	Name	Position	Task
Managerial	1.		
	2.		
	3.		
Engineering	1.		
	2.		
	3.		
B. Support Staff			
	Name	Position	Task
	1.		
	2.		
	3.		
	4.		
	5.		

SCHEDULE FOR DAY WORKS**SCHEDULE A- LABOUR**

Any labour engaged on Day work shall be paid at the rates given below. Contractor's profit and overheads should not be included in the rates.

No.	Category	Gross Daily Wages LKR
1	Skilled labour	
2	Semi-skilled labour	
3	Unskilled labour	
4	Welder	

SCHEDULE B-MATERIAL

The Bidder shall give in this schedule the basic price of the following material

No	Category	Unit	Gross Rate LKR
1	Carbon Steel Plates	1 m ³	
	5mm	1 m ³	
	6mm	1 m ³	
	6.5mm	1 m ³	
	7mm	1 m ³	
	8mm	1 m ³	
	9mm	1 m ³	
	10 mm	1 m ³	
	12 mm	1 m ³	
	20 mm	1 m ³	
2	Structural Steel & Pipes		
	Angle section 125mmx80mmx10mm	1 m	
	C Section 100mmx50mmx6mm	1 m	
	4" SCH 40 Carbon Steel Pipes	1 m	
	3" SCH 40 Carbon Steel Pipes	1 m	

SCHEDULE C – PLANT

Any Plant engaged on Day works shall be paid at the rates given below. The rates are for wet hire. These rates shall include for all inputs for running of the plant, transport to site, operators, attendants, insurance and other overheads associated with such plant.

N o.	Description of Plant	Hourly Rate LKR
1	Farm Tractor with Trailer	
2	DC Welding Plant	
3	25 Ton Crain	
4	50 Ton Crain	
5	Grit/Sand blasting equipment	

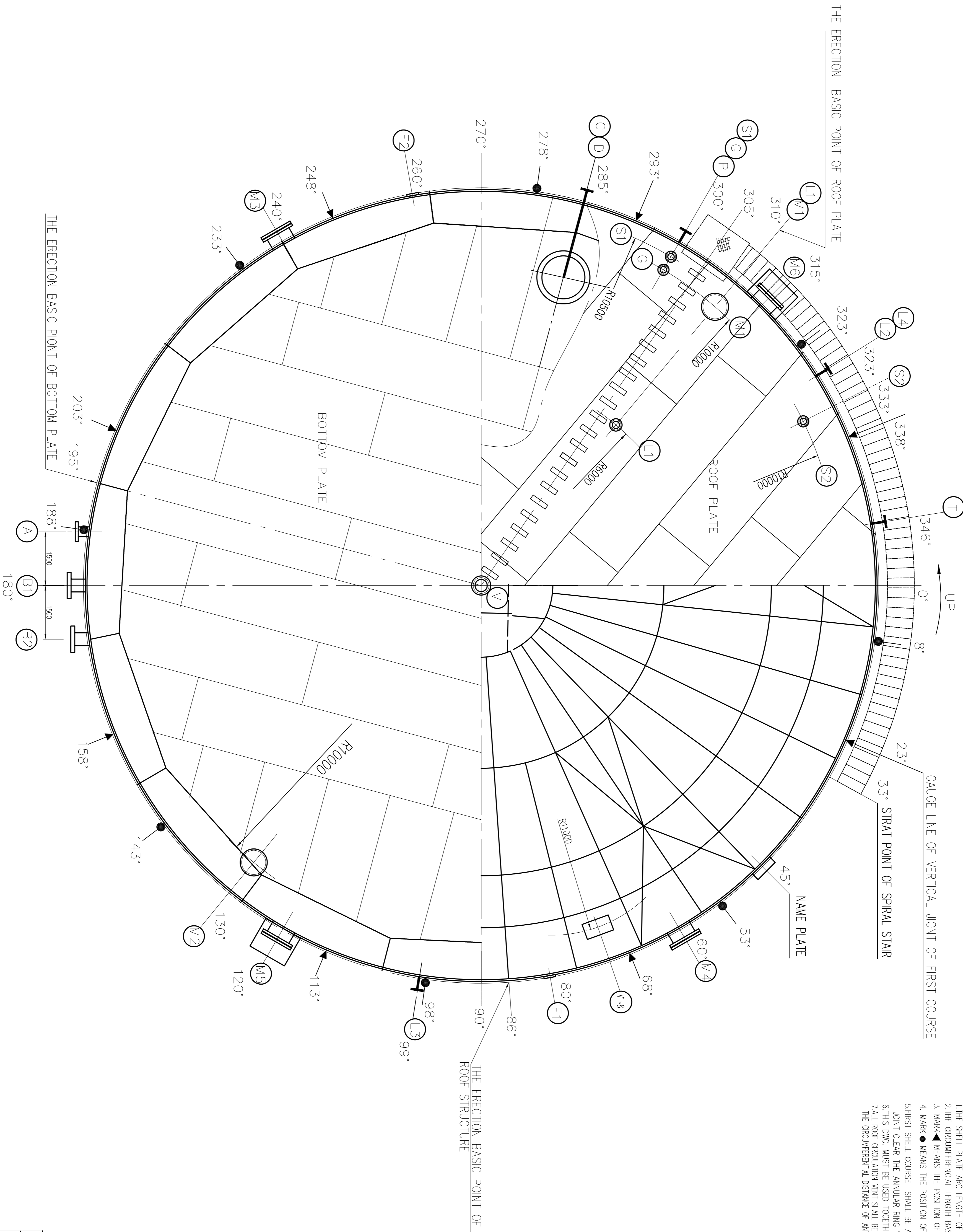
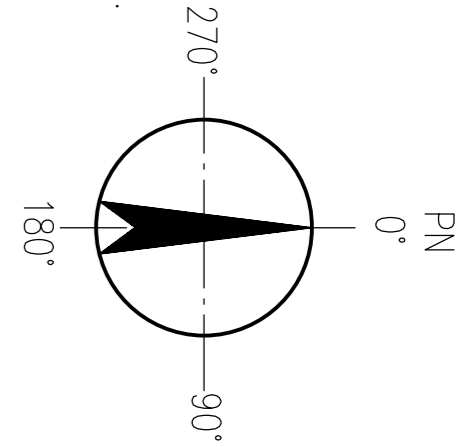
Schedule 9–Details of Suppliers & Manufactures					
N o	Item	Manufacture	Supplier	Country of Origin	Country of manufacturer
1.	Plates				
2.	Pipes				
3.	Fittings				
4.	Flanges				
5.	High Tensile Galvanized Nut & bolts				
6.	Spiral wound Gaskets				
7.	Structural Steel (Angle Iron etc.)				
8.	Angle iron/C Channel				
9.	GI Pipes				
10.	Any Other				
11.	IFR parts				
12.					

SECTION – 10
DRAWINGS

LIST OF DRAWINGS

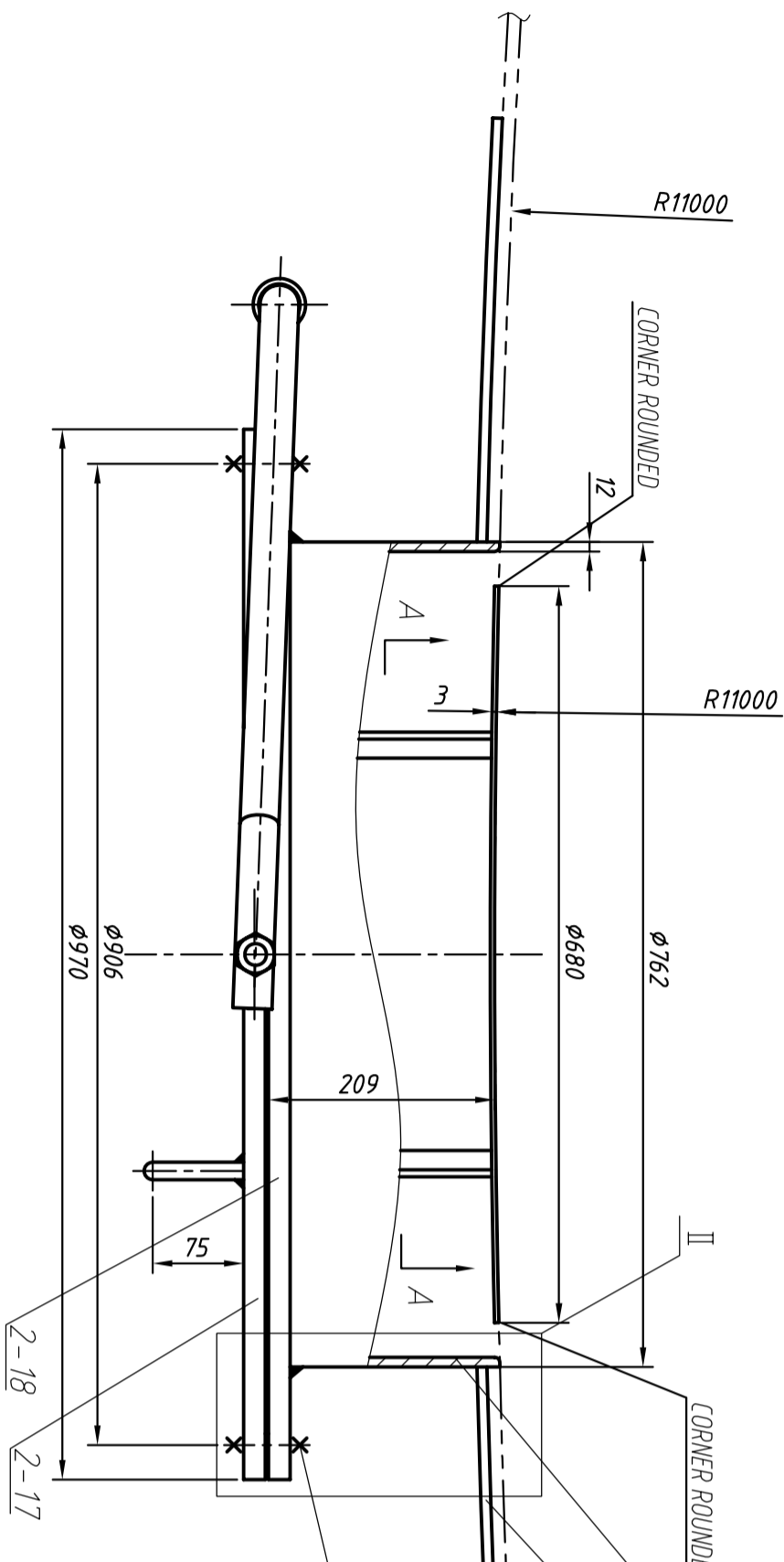
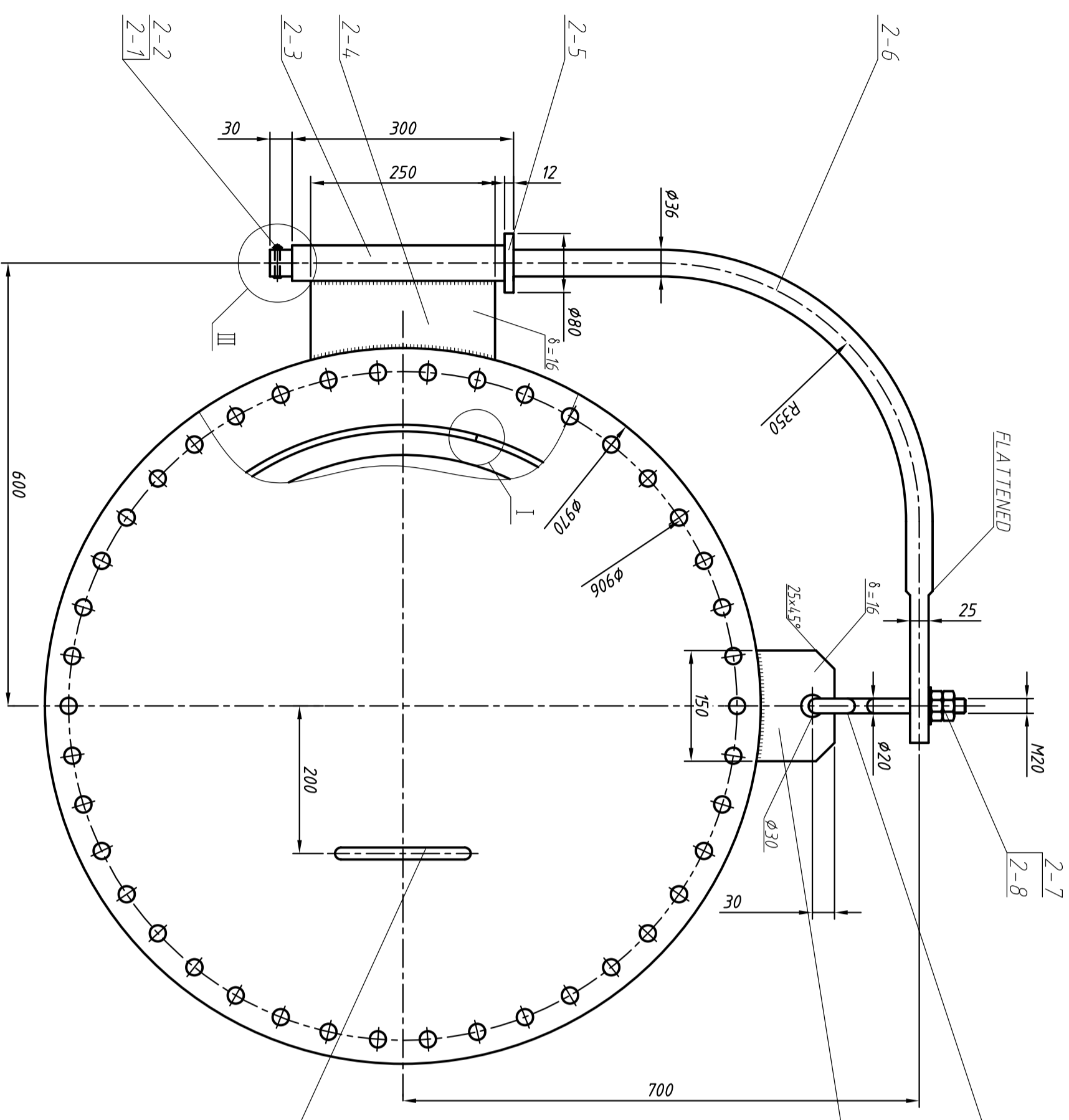
NO.	DRAWING TITLE	DRG. NO.
01	Tank Assembly Drawing (TK-31 & TK-32)	08020 400 E511 06-01_1
02	Tank Nozzle Orientation (TK-31 & TK-32)	08020 400 E511 06-01_2
03	Shell Thickness Drawing (TK-31 & TK-32)	A013 000 DWC 2520 0205
04	Replaceable Plates in Tank No. TK-31 & TK-32	MT3132
05	Shell Manhole (2 nd Shell Course) in Tank No. TK-31	08020.400.E511.06-03
06	Stilling Well (TK-31 & TK-32)	08020.400.E511.06-06
07	Wind Girder Modification Details	IELCDWG3101-10-04
08	Internal Floating Roof of Tank No. TK-31	1757-1

- NOTES:
1. THE SHELL PLATE ARC LENGTH OF ONE DEGREE IS EQUAL TO 192.2mm
 2. THE CIRCUMFERENTIAL LENGTH BASED ON OUTSIDE DIAMETER OF 1ST SHELL COURSE IS 69184.2mm.
 3. MARK ◀ MEANS THE POSITION OF VERTICAL JOINT OF 1ST SHELL COURSE
 4. MARK ● MEANS THE POSITION OF VERTICAL JOINT OF 2ST SHELL COURSE .
 5. FIRST SHELL COURSE SHALL BE ARRANGED SO THAT THE VERTICAL JOINT CLEAR THE ANNULAR RING WELDS BY AT LEAST 300mm.
 6. THIS DWG. MUST BE USED TOGETHER WITH DWG. 2520 0201A FOR TK-57TK-38.
 7. ALL ROOF CIRCULATION VENT SHALL BE CIRCUMFERENTIALLY EQUAL SPACED AS POSSIBLE WITHOUT BREAKING ANY ROOF STRUCTURE. THE CIRCUMFERENTIAL DISTANCE OF ANY TWO ADJACENT VENT SHALL BE NOT MORE THAN 10000mm AND V1 AND V2 SHALL BE ABOUT 180°APART.



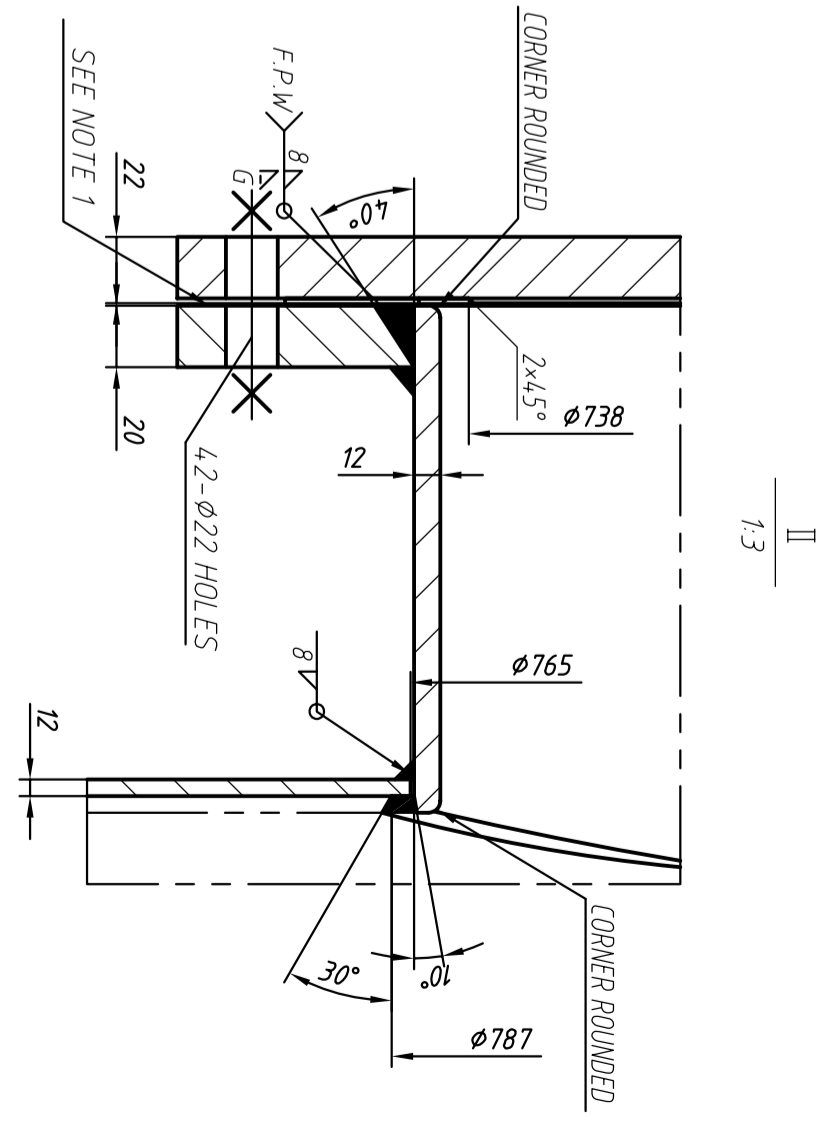
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NOTE:

1. GASKETED FACE SHALL BE MACHINE-FINISHED.
2. IN THE DRAWING MARK B.C. MEANS THE BACK CHIPPING.
3. REINFORCING PLATE SHALL BE SHAPED TO SUIT TANK SHELL CURVATURE.
4. BOLT HOLES SHALL STRADDLE THE FLANGE VERTICAL CENTER LINE.
5. ALL FILET WELDING SHALL BE OF MIN. TWO PASSES.
6. BUTT WELDS SHALL BE EXAMINED BY RADIOGRAPHIC METHOD AS PER API 650.
7. ONE LAYER OF PROTECTING PAINT OF ZINC RICH EPOXY (300um IN DFT) SHALL BE APPLIED ON ALL THE SURFACES WHICH WILL BE EXPOSED TO THE AIR AFTER MANUFACTURING WITH THE INTENDED SURFACE SAND BLASTED TO SA2.5.



PART NO.	DWG OR STD. NO.	DESCRIPTION	QTY	MATERIAL	SCALE	DWG. NO.	ASSEMBLY DWG. NO.	REMARK
2-20		ANGLE L30x30x4 L=205	3	Q235-A	1:1	08020.400.E51106-03	08020.300.E5106-01	
2-19		BLIND 680 8=3	1	Q235-A	1:1	08020.400.E51106-03	08020.300.E5106-01	
2-18		FLANGE PL.20X6970X6762	1	16MnR	1:1	08020.400.E51106-03	08020.300.E5106-01	
2-17		BLIND 6970 8=22	1	16MnR	1:1	08020.400.E51106-03	08020.300.E5106-01	
2-16		GASKET 685 ⁰⁰ X6750 ⁰⁰ 8=3	3	N.A	1:1	08020.400.E51106-03	08020.300.E5106-01	EXT.2
2-15	ASME B.8.2-1987(R1999)	NUT 3/4"-10UNC	88	A194Gr.2H	1:1	08020.400.E51106-03	08020.300.E5106-01	EXT.4
2-14	ASME B.18.2.1-1996	STUD BOLT 3/4"-10UNCX105 ¹	44	A193Gr.B7	1:1	08020.400.E51106-03	08020.300.E5106-01	EXT.2
2-13		REIN.FL PL.12X154.5 ⁰⁰ X765 ⁰⁰	1	Q345R	1:1	08020.400.E51106-03	08020.300.E5106-01	
2-12		PIPE DN738 8=12 L=200	1	16MnR	1:1	08020.400.E51106-03	08020.300.E5106-01	
2-11		HANDER 616 L=312	2	Q235-A	1:1	08020.400.E51106-03	08020.300.E5106-01	
2-10		LUG 8=16	1	Q235-A	1:1	08020.400.E51106-03	08020.300.E5106-01	
2-9		POTHOOK	1	Q235-A	1:1	08020.400.E51106-03	08020.300.E5106-01	
2-8		WASHER	1	HV	1:1	08020.400.E51106-03	08020.300.E5106-01	
2-7	ASME B.8.2-1987(R1999)	NUT 3/4"-10UNC	2	A194Gr.2H	1:1	08020.400.E51106-03	08020.300.E5106-01	
2-6		DAVIT 636	1	Q235-A	1:1	08020.400.E51106-03	08020.300.E5106-01	
2-5		SUPPORT RING 680/638 8=12	1	Q235-A	1:1	08020.400.E51106-03	08020.300.E5106-01	
2-4		PLATE 8=16	1	Q235-A	1:1	08020.400.E51106-03	08020.300.E5106-01	
2-3		PIPE 1-1/2" SCH80 L=288	1	20	1:1	08020.400.E51106-03	08020.300.E5106-01	
2-2	GB/T 91	SLEEVE 1.6x15	1		1:1	08020.400.E51106-03	08020.300.E5106-01	
2-1	GB/T 882	SLEEVE 6x4.2	1		1:1	08020.400.E51106-03	08020.300.E5106-01	

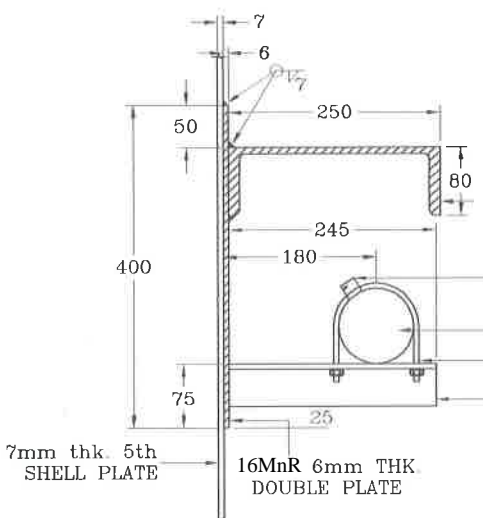
PART NO.	DESCRIPTION	COMPONENTS	MASS	SCALE	DWG. NO.	ASSEMBLY DWG. NO.
2	SHELL MANHOLE WITH BLIND	409	409	1:1	08020.400.E51106-03	08020.300.E5106-01

明 细 表
 DETAIL DESCRIPTION

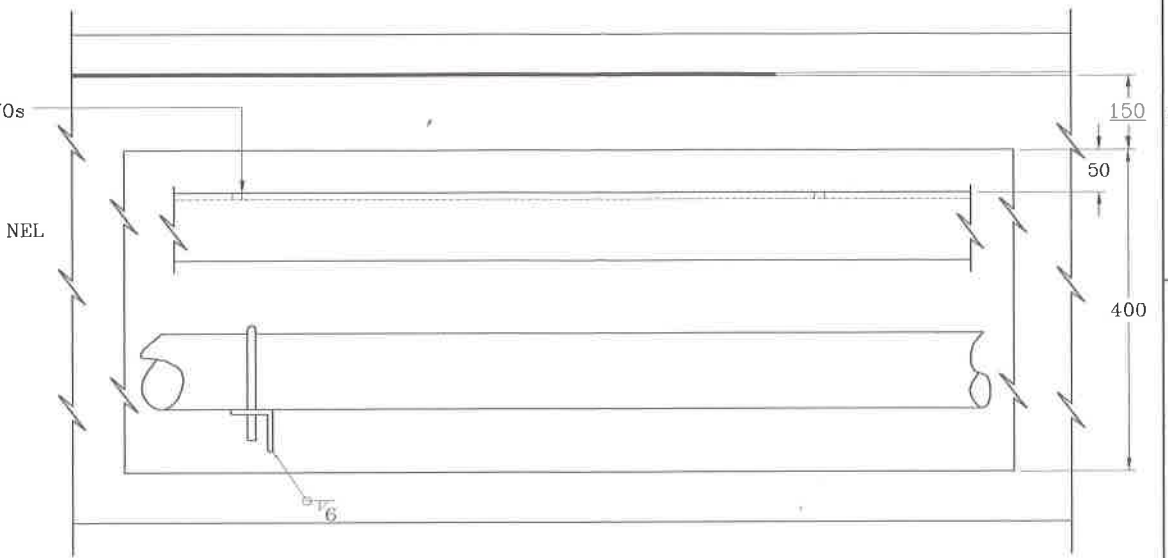
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项目负责人: 400 UNIT
 设计阶段: AS BUILT
 图号: 08020.400.E51106-03
 图名: 北京



- WIND GIRDER
ANGLE L125 x 80 x 10
Q 235-A
API 650
5.9.7.1 figure 5.24 Detail-d
- SPRINKLE NOZZLE
BRASS 36 Nos
- SPRINKLE Ø3" LINE
- 3" U BOLT
- 50X50X6mm ANGLE
IRON SUPPORT



5th SHELL COURSE FRONT ELEVATION

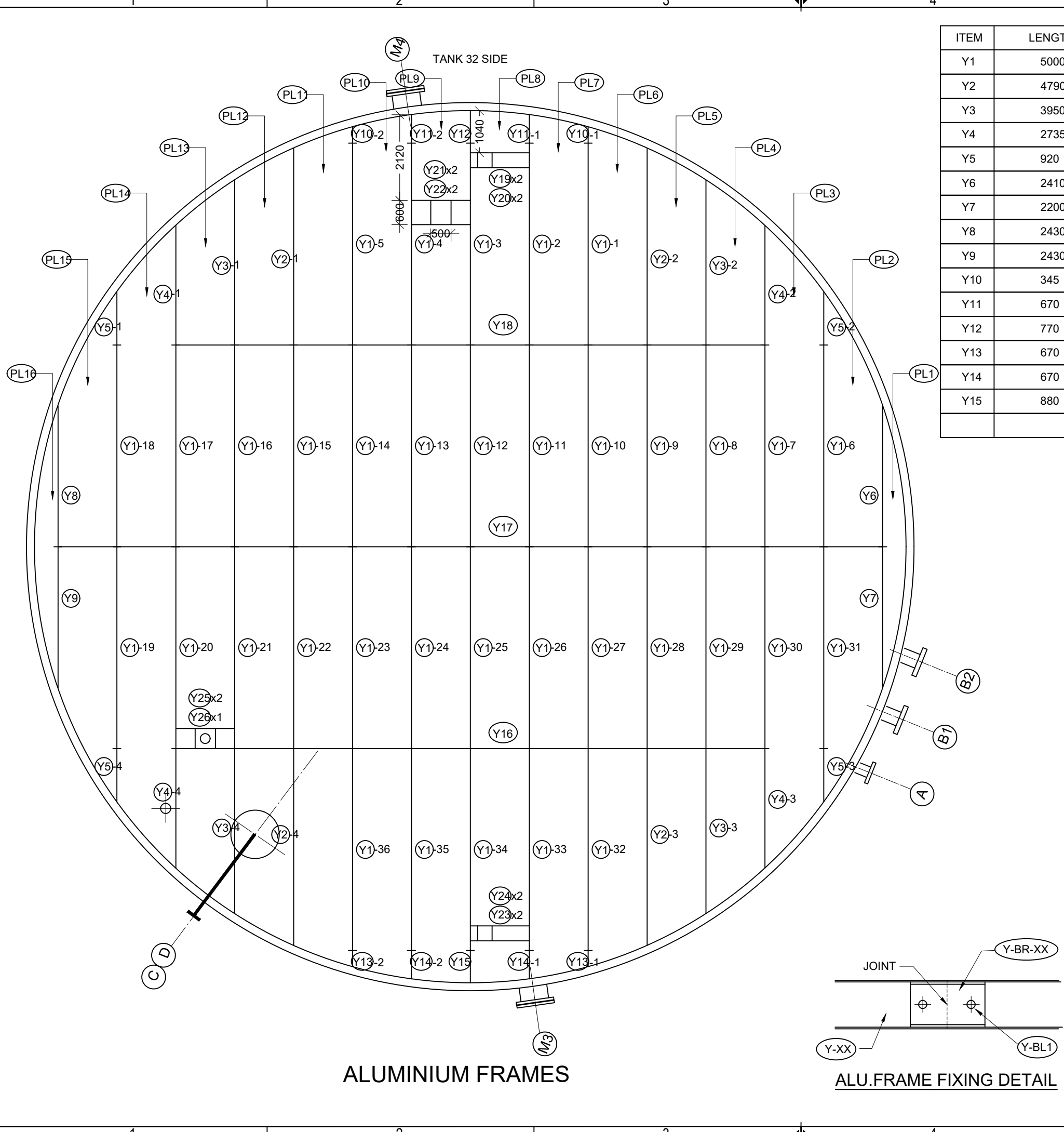
NOTE :

TOP CAPPING WELD ON FABRICATED CHANNEL NEED TO BE GROUND FLUSH IN ORDER TO PREVENT LIQUID ACCUMULATION ON THE SURFACE OF THE CHANNEL

MARKING: F.P.W. : THE FULL PENETRATION WELDS

SECTIONAL VIEW

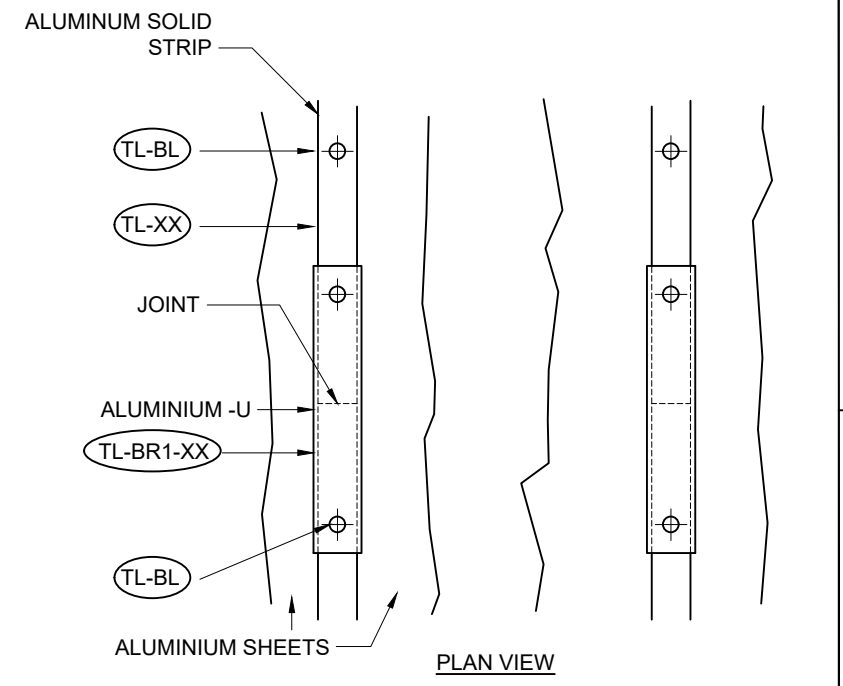
01	03/09/10					AS BUILT	
REV	DATE	DRAWN	CHECKED	APPROVED	AUTH.	MODIFICATIONS	STATUS
CEYLON PETROLEUM STORAGE TERMINALS LIMITED							
DRG NAME WIND GIRDER MODIFICATION DETAIL TANK No 31 & 32							
2005	DATE	NAME		SCALE		SIZE	
DRAWN.	19/06/2010	R.J DE SILVA		DRAWING-NO.		SHEET	
CHECKED	20/06/2010	K.M.A.S SOMARATNE		IE/LC/DWG31/01-10-04		OF	
APPROV.	20/06/2010	K.A KUMARASIGHE					
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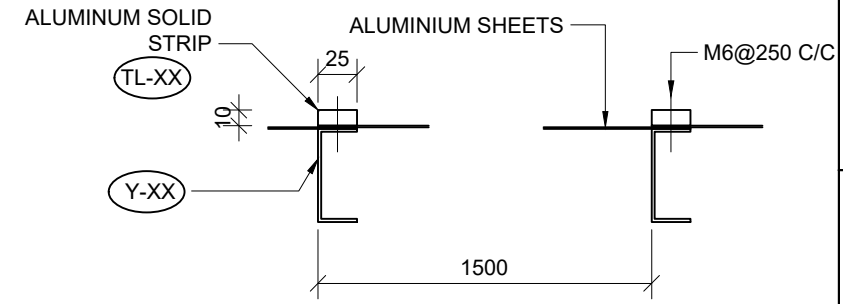
ALUMINIUM FRAMES

ALU.FRAME FIXING DETAIL

ITEM	LENGTH	QTY
Y1	5000	36
Y2	4790	04
Y3	3950	04
Y4	2735	04
Y5	920	04
Y6	2410	01
Y7	2200	01
Y8	2430	01
Y9	2430	01
Y10	345	02
Y11	670	02
Y12	770	01
Y13	670	02
Y14	670	02
Y15	880	01




PLAN VIEW



SECTION

ALU.SHEET FIXING DETAIL

DATE	NO.	DESCRIPTION
REVISIONS		
 CEYLON PETROLEUM STORAGE TERMINALS LIMITED OIL INSTALLATION - KOLONNAWA ENGINEERING FUNCTION		
DESIGNED	PRASANNA WARNASURIYA	PROJECT
DRAWN	L.D.N.K	TANK REPAIR WORKS MUTHURAJAWELA TERMINAL
CHECKED	H.M.U.BANDARA	TITLE
DATE	10th August 2020	INTERNAL FLOATING ROOF TANK NO-31 ALU. FRAME DETAILS
APPROVED		PROJECT NO
		DWG NO.
		REVISION
		1757-1
		0
	ENGINEERING MANAGER	PAPER
		A3
		SCALE
		1:100
		SHEET
		01 OF 01

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**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: **Ceylon Petroleum Storage Terminals Limited, Oil Installation, Kolonnawa, Wellampitiya, Sri Lanka.**

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 _____ of *[insert name of Contract]* under Invitation for Bids No. _____ *[insert IFB number]* ("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"); or
- (c) having been notified of the acceptance of its Bid by the Employer 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 the successful bidder furnishing the performance security, otherwise it will remain in force up **07.02.2025**

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

[Signature(s) of authorized representative(s)]

CHECK LIST FOR BIDDERS

CHECK LIST FOR BIDDERS

Bidders are advised to fill the following table.

ITEM	ITB Clause	YES (tick)	REFERENCE
Form of Bid			
Addressed to the Employer?	20		
Completed?	20		
Signed?	20		
Bid Security			
Address to the Employer?	17		
Format as required?	17		
Issuing Agency as specified?	17		
Amount as requested?	17		
Validity 28 days beyond the validity of Bid?	17		
Qualification Information			
All relevant information completed?	4		
Signed?	4		
Addendum			
Contents of the addendum (if any) taken in to account?	11		
Bid package			
All the documents given in ITB Clause 13 enclosed in the original and copy?	13		
ITB Clause 21 followed before sealing the Bid package?	21		