



REQUEST FOR QUOTATION (RFQ)

RFQ Reference: UNDP-TUR-RFQ(KFW)-2021/032	Date: 31 August 2021
---	----------------------

SECTION 1: REQUEST FOR QUOTATION (RFQ)

UNDP kindly requests your quotation for “**Construction Works of Prefabricated Office Building in Kilis**” within the scope of “*Employment and Skills Development Project*” as detailed in Annex 1 of this RFQ.

This Request for Quotation comprises the following documents:

Section 1: This request letter

Section 2: RFQ Instructions and Data

Annex 1: Schedule of Requirements

Annex 2: Quotation Submission Form

Annex 3: Technical and Financial Offer

Annex 4: General Terms and Conditions

Annex 5: Construction Drawings

Annex 6: Bill of Quantities (BoQ)

When preparing your quotation, please be guided by the RFQ Instructions and Data. Please note that quotations must be submitted using Annex 2: Quotation Submission Form and Annex 3 Technical and Financial Offer, by the method and by the date and time indicated in Section 2. It is your responsibility to ensure that your quotation is submitted on or before the deadline. Quotations received after the submission deadline, for whatever reason, will not be considered for evaluation.

Thank you and we look forward to receiving your quotations.

Issued by:

Signature: 

Title: Assistant Resident Representative (Operations)

Date: 31 August 2021

SECTION 2: RFQ INSTRUCTIONS AND DATA

Introduction	<p>Bidders shall adhere to all the requirements of this RFQ, including any amendments made in writing by UNDP. This RFQ is conducted in accordance with the UNDP Programme and Operations Policies and Procedures (POPP) on Contracts and Procurement</p> <p>Any Bid submitted will be regarded as an offer by the Bidder and does not constitute or imply the acceptance of the Bid by UNDP. UNDP is under no obligation to award a contract to any Bidder as a result of this RFQ.</p> <p>UNDP reserves the right to cancel the procurement process at any stage without any liability of any kind for UNDP, upon notice to the bidders or publication of cancellation notice on UNDP website.</p>
Deadline for the Submission of Quotation	<p>14 September 2021, 17:00 hrs. (GMT+3, Local time-Turkey)</p> <p>If any doubt exists as to the time zone in which the quotation should be submitted, refer to http://www.timeanddate.com/worldclock/.</p>
Method of Submission	<p>Quotations must be submitted as follows:</p> <p><input checked="" type="checkbox"/> Dedicated Email Address</p> <p>Bid submission address: tr.procurement@undp.org</p> <ul style="list-style-type: none"> ▪ File Format: PDF (<u>in addition to PDF, Bill of Quantities shall also be submitted in EXCEL (XLS) format</u>) ▪ File names must be maximum 60 characters long and must not contain any letter or special character other than from Latin alphabet/keyboard. ▪ All files must be free of viruses and not corrupted. ▪ Max. File Size per transmission: 35 MB and no more than five email ▪ Mandatory subject of email: UNDP-TUR-RFQ(KFW)-2021/032- Construction Works of Prefabricated Office Building in Kilis ▪ Multiple emails must be clearly identified by indicating in the subject line “email no. X of Y”, and the final “email no. Y of Y. ▪ It is recommended that the entire Quotation be consolidated into as few attachments as possible.
Cost of preparation of quotation	<p>UNDP shall not be responsible for any costs associated with a Supplier’s preparation and submission of a quotation, regardless of the outcome or the manner of conducting the selection process.</p>
Supplier Code of Conduct, Fraud, Corruption,	<p>All prospective suppliers must read the United Nations Supplier Code of Conduct and acknowledge that it provides the minimum standards expected of suppliers to the UN. The Code of Conduct, which includes principles on labour, human rights, environment and ethical conduct may be found at: https://www.un.org/Depts/ptd/about-us/un-supplier-code-conduct</p> <p>Moreover, UNDP strictly enforces a policy of zero tolerance on proscribed practices, including fraud, corruption, collusion, unethical or unprofessional practices, and obstruction of UNDP vendors and requires all bidders/vendors to observe the highest standard of ethics during the procurement process and contract implementation. UNDP’s Anti-Fraud Policy can be found at http://www.undp.org/content/undp/en/home/operations/accountability/audit/office_of_audit_an_dinvestigation.html#anti</p>
Gifts and Hospitality	<p>Bidders/vendors shall not offer gifts or hospitality of any kind to UNDP staff members including recreational trips to sporting or cultural events, theme parks or offers of holidays, transportation, or</p>

	<p>invitations to extravagant lunches, dinners or similar. In pursuance of this policy, UNDP: (a) Shall reject a bid if it determines that the selected bidder has engaged in any corrupt or fraudulent practices in competing for the contract in question; (b) Shall declare a vendor ineligible, either indefinitely or for a stated period, to be awarded a contract if at any time it determines that the vendor has engaged in any corrupt or fraudulent practices in competing for, or in executing a UNDP contract.</p>
Conflict of Interest	<p>UNDP requires every prospective Supplier to avoid and prevent conflicts of interest, by disclosing to UNDP if you, or any of your affiliates or personnel, were involved in the preparation of the requirements, design, specifications, cost estimates, and other information used in this RFQ. Bidders shall strictly avoid conflicts with other assignments or their own interests, and act without consideration for future work. Bidders found to have a conflict of interest shall be disqualified.</p> <p>Bidders must disclose in their Bid their knowledge of the following: a) If the owners, part-owners, officers, directors, controlling shareholders, of the bidding entity or key personnel who are family members of UNDP staff involved in the procurement functions and/or the Government of the country or any Implementing Partner receiving goods and/or services under this RFQ.</p> <p>The eligibility of Bidders that are wholly or partly owned by the Government shall be subject to UNDP's further evaluation and review of various factors such as being registered, operated and managed as an independent business entity, the extent of Government ownership/share, receipt of subsidies, mandate and access to information in relation to this RFQ, among others. Conditions that may lead to undue advantage against other Bidders may result in the eventual rejection of the Bid.</p>
General Conditions of Contract	<p>Any Purchase Order or contract that will be issued as a result of this RFQ shall be subject to the General Conditions of Contract</p> <p>Select the applicable GTC:</p> <p><input checked="" type="checkbox"/> General Terms and Conditions for Works</p> <p>Applicable Terms and Conditions and other provisions are available at UNDP/How-we-buy</p>
Liquidated Damages	<p>Will be imposed as follows:</p> <p>Percentage of contract price per day of delay beyond 60 days after given access to the Site: 0,50%</p> <p>Max. number of days of delay is 20, after which UNDP reserves the right to terminate the contract</p>
Eligibility	<p>A vendor who will be engaged by UNDP may not be suspended, debarred, or otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization. Vendors are therefore required to disclose to UNDP whether they are subject to any sanction or temporary suspension imposed by these organizations. Failure to do so may result in termination of any contract or PO subsequently issued to the vendor by UNDP.</p> <p>It is the Bidder's responsibility to ensure that its employees, joint venture members, sub-contractors, service providers, suppliers and/or their employees meet the eligibility requirements as established by UNDP.</p> <p>Bidders must have the legal capacity to enter a binding contract with UNDP and to deliver in the country, or through an authorized representative.</p>
Currency of Quotation	<p>Quotations shall be quoted in United States Dollars (USD).</p>
Joint Venture, Consortium	<p>Not allowed.</p>

or Association	
Only one Bid	<p>The Bidder shall submit only one Bid.</p> <p>Bids submitted by two (2) or more Bidders shall all be rejected if they are found to have any of the following:</p> <p>a) they have at least one controlling partner, director or shareholder in common; or b) any one of them receive or have received any direct or indirect subsidy from the other/s; or</p> <p>b) they have the same legal representative for purposes of this RFQ; or</p> <p>c) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about, or influence on the Bid of, another Bidder regarding this RFQ process;</p> <p>d) they are subcontractors to each other's Bid, or a subcontractor to one Bid also submits another Bid under its name as lead Bidder; or</p> <p>e) some key personnel proposed to be in the team of one Bidder participates in more than one Bid received for this RFQ process. This condition relating to the personnel, does not apply to subcontractors being included in more than one Bid.</p>
Duties and taxes	<p>Article II, Section 7, of the Convention on the Privileges and Immunities provides, inter alia, that the United Nations, including UNDP as a subsidiary organ of the General Assembly of the United Nations, is exempt from all direct taxes, except charges for public utility services, and is exempt from customs restrictions, duties, and charges of a similar nature in respect of articles imported or exported for its official use. All quotations shall be submitted net of any direct taxes and any other taxes and duties, unless otherwise specified below:</p> <p>All prices must:</p> <p><input checked="" type="checkbox"/> be exclusive of VAT and other applicable indirect taxes</p> <p>It is the Proposer's responsibility to learn from relevant authorities (Ministry of Treasury and Finance) and/or to review/confirm published procedures and to consult with a certified financial consultant as needed to confirm the scope and procedures of VAT exemption application as per VAT Law, Ministry of Treasury and Finance's General Communiqués. The Contractor to be selected shall not be entitled to receive any amount over its proposal price in relation to VAT. Overall contract amount to be paid to the contractor shall not exceed the offered Total Financial Proposal Price.</p> <p>UNDP will provide the contractor a VAT exemption certificate covering the subject procurement.</p>
Language of quotation	English
Previous Experience	<p>Minimum three years of experience in the Construction Field.</p> <p>In order to be considered qualified, the Bidder must have successfully completed, as the prime contractor, minimum one civil works contract of similar nature (i.e. construction of any kind of buildings) at minimum contract amount of USD 40,000 over the last three years counting back from the bid submission deadline. Bidders shall substantiate the claimed experiences by presenting copies of Satisfactory Work Completion Certificates from Clients demonstrating nature and value of the civil work successfully completed.</p> <p>Work Completion Certificate shall include following information at minimum:</p>

	<p>–Project name & Country of Assignment</p> <p>–Client & Reference Contact Details</p> <p>–Contract Value (in USD equivalent*)</p> <p>–Period (dates) of activity and status</p> <p>–Types of activities undertaken</p> <p>*Bidder shall convert the currency quoted in the Satisfactory Work Completion Certificates into USD, in accordance with the prevailing UN operational rate of exchange on the contract signature date. UN operational rates of exchange are available at the following website: https://treasury.un.org/operationalrates/OperationalRates.php#E</p> <p>UNDP reserves the right to request submission of originals of all proof documents (such as contracts, invoices, acceptance reports etc.) as well as further information/documentation from both the bidder and its clients.</p>
Financial Standing	Minimum average annual turnover of USD 40,000 for the last 3 years (2018, 2019 and 2020)
Bid security	Not required.
Performance Security	<p>The successful bidder will be asked to provide a performance security of 10% of the contract price at the signing of the contract. This security must be provided no later than 15 days after the bidder receives the award letter by the UNDP. If the selected bidder fails to provide such a security within this period, the contract will be void and a new contract may be drawn up and sent to the tenderer which has submitted the next cheapest compliant tender.</p> <p>The Performance Security must be issued by an accredited bank, in the format included in Appendix I to UNDP General Conditions of Contract for Civil Works and must be valid up to twenty-eight days after issuance of the Certificate of Final Completion. The Performance Security will only be released upon the issuance of Certificate of Final Completion in accordance with the Clause 10 of the UNDP General Conditions of Contract for Civil Works.</p>
Documents to be submitted	<p>Bidders shall include the following documents in their quotation:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Annex 2: Quotation Submission Form duly completed and signed <input checked="" type="checkbox"/> Annex 3: Technical and Financial Offer duly completed and signed and in accordance with the Schedule of Requirements in Annex 1 <input checked="" type="checkbox"/> Trade Registry Gazette showing the establishment and shareholder structure of the company; <input checked="" type="checkbox"/> Valid Chamber of Commerce Registration Certificate (Original documents may be requested by UNDP and shall be presented when requested) <input checked="" type="checkbox"/> Copy of Signature Circular/Power of Attorney (Original documents may be requested by UNDP and shall be presented when requested) <input checked="" type="checkbox"/> Work Completion certificate(s) demonstrating previous experience <input checked="" type="checkbox"/> CV and Diploma of proposed Key personnel <input checked="" type="checkbox"/> Latest audited financial statements for the last three years <input checked="" type="checkbox"/> Signed and Stamped copy of ANNEX 4- General Terms and Conditions for Contracts
Quotation validity period	Quotations shall remain valid for 90 days from the deadline for the Submission of Quotation.

Price variation	No price variation due to escalation, inflation, fluctuation in exchange rates, or any other market factors shall be accepted at any time during the validity of the quotation after the quotation has been received.
Partial Quotes	<input checked="" type="checkbox"/> Not permitted
Alternative Quotes	<input checked="" type="checkbox"/> Not permitted
Payment Terms	<p>The contract is based on unit price, and the final price of the Contract will be determined on the basis of actual quantities of work and materials utilized in the complete and satisfactory performance of the Works as certified by the Engineer and the unit prices contained in the Contractor's financial proposal. Such unit prices are fixed and are not subject to any variation whatsoever. Unless the technical specifications or the Bill of Quantities specifically and expressly state otherwise, only permanent works are to be measured and paid for by UNDP.</p> <p>The Contractor shall submit the invoice (reflecting the work performed and materials utilized as accepted by UNDP through the "Final Report"). UNDP shall effect payment of the invoices after receipt of the certificate of payment issued by the Engineer, approving the amount contained in the report and the invoice. The Engineer may make corrections to that amount, in which case UNDP may effect payment for the corrected amount. The Engineer may also withhold invoices if the work is not performed at any time in accordance with the terms of the Contract or if the necessary insurance policies or performance security are not valid and/or in order. The Engineer shall process the invoice submitted by the Contractor within 15 days of their receipt.</p> <p>Invoice will be paid within thirty (30) days of the date of their receipt and acceptance by UNDP.</p> <p>Payment shall be released after substantial completion of all works within the scope of the Contract. No advance, interim or partial payment will be made to the Contractor.</p> <p>Currency of Payment:</p> <p>If the Contractor is registered and operating in Turkey, the payment shall be realized in Turkish Liras (TRY). Contract price will be converted from United States Dollar (USD) to Turkish Liras (TRY) by the UN operational rate of exchange valid on the date of money transfer. Otherwise, the payments shall be affected in United States Dollar.</p> <p>Please refer to https://treasury.un.org/operationalrates/OperationalRates.php for UN Exchange Rate information</p>
Conditions for Release of Payment	<input checked="" type="checkbox"/> Written Acceptance of Works by the Engineer, based on full compliance with RFQ requirements
Contact Person for correspondence, notifications and clarifications	<p>E-mail address: tr.procurement@undp.org</p> <p>Att: Mr. Tunç Gürdal, Procurement Officer</p> <p>Any delay in UNDP's response shall be not used as a reason for extending the deadline for submission, unless UNDP determines that such an extension is necessary and communicates a new deadline to the Proposers.</p>
Clarifications	Requests for clarification from bidders will not be accepted any later than 4 days before the submission deadline.

Evaluation method	<input checked="" type="checkbox"/> The Contract or Purchase Order will be awarded to the lowest price substantially compliant offer
Evaluation criteria	<input checked="" type="checkbox"/> Full compliance with all requirements as specified in Annex 1 <input checked="" type="checkbox"/> Full acceptance of the General Conditions of Contract
Right not to accept any quotation	UNDP is not bound to accept any quotation, nor award a contract or Purchase Order
Right to vary requirement at time of award	At the time of award of Contract or Purchase Order, UNDP Turkey CO reserves the right to vary (increase or decrease) the quantity of services and/or goods, by up to a maximum twenty-five per cent (25%) of the total offer, without any change in the unit price or other terms and conditions.
Type of Contract to be awarded	<input checked="" type="checkbox"/> Contract for Works
Maximum expected duration of contract	60 days starting from the date on which the Contractor will be given Access to the Site and receive a notice from the Engineer to commence the Works.
Expected date for contract award.	September 2021
Publication of Contract Award	UNDP will publish the contract awards valued at USD 100,000 and more on the websites of the CO and the corporate UNDP Web site.
Policies and procedures	This RFQ is conducted in accordance with UNDP Programme and Operations Policies and Procedures
UNGM registration	<p>Any Contract resulting from this RFQ exercise will be subject to the supplier being registered at the appropriate level on the United Nations Global Marketplace (UNGM) website at www.ungm.org.</p> <p>The Bidder may still submit a quotation even if not registered with the UNGM, however, if the Bidder is selected for Contract award, the Bidder must register on the UNGM prior to contract signature.</p>
Site Visit	<p>Bidders are encouraged to visit the site and familiarize themselves with the existing conditions of the building prior to submitting their offer. UNDP shall not make any arrangements for a site visit. For bidders who would like to be informed about the location of the site, or visit the site at their own expense, the address is given below:</p> <p>Kilis Çalışma ve İş Kurumu Müdürlüğü Ekrem Çetin mahallesi, Vali Güner Özmen Bulvarı, 79000 Kilis Merkez/Kilis</p> <p>It is the bidders' responsibility to consider Covid-19 related risks in the case they visit the locations of the sites mentioned above. UNDP is not responsible for any Covid-19 related events and health issues that may arise during and after the site visits.</p>

Covid 19 Specific Measures	The Contractors shall review all local regulations, as well as that of UN and UNDP concerning the measures they must take during performance of the contract in the context of COVID-19, before they submit their bids and factor relevant costs, if any, to their bids. The Contractor shall take all measures against COVID-19 imposed by local regulations as well as by UN and UNDP during performance of the contract to protect health and social rights of its own personnel, as well as UNDP personnel, Project Stakeholders and third parties. Pursuant to “Clause 12- Indemnification” of UNDP General Terms and Conditions for Contracts* , the Contractor shall indemnify, defend, and hold and save harmless, UNDP, and its officials, agents and employees, from and against all suits, proceedings, claims, demands, losses and liability of any kind or nature brought by any third party against UNDP, including, but not limited to, all litigation costs and expenses, attorney’s fees, settlement payments and damages, based on, arising from, or relating to COVID-19 measures that must be taken by the Contractor in the context of the contract. UNDP shall not be held accountable for any Covid-19 related health risks or events that are caused by negligence of the Contractor and/or any other third party.
Contingency and variations	<p>The contingency allowance to manage variations for the unforeseen and unknown additional components of Works within the overall general scope is maximum 15% of the contract price. However, it shall only be accessed by the Contractor upon the approval by the Engineer, who will obtain prior approval from UNDP as the Employer.</p> <p>The project engineer (employer’s representative) may use this contingency with no additional procurement process to manage variations with the approval of UNDP. Any variation that utilizes the contingency but is not covered by rates in the BOQ or schedule of rates shall be subject to a value for money analysis by the Engineer and UNDP.</p> <p>The contingency allowance shall not be used to compensate the Contractor for its fault to include required items in the Bill of Quantities as per Schedule of Requirements/Technical Specifications or unreasonably low unit prices of one or more of the items included in the submitted Bill of Quantities.</p>
Insurance of work	For all risks stipulated by Clause 21 of UNDP General Conditions of Contract for Civil Works for the 110 % of the total estimated price of the Contract.
Liability Insurance	Minimum amount of liability insurance (Clause 23 of UNDP General Conditions of Contract for Civil Works) is 15% of the total estimated price of the Contract.

ANNEX 1: SCHEDULE OF REQUIREMENTS

1. GENERAL

1.1. INTRODUCTION AND BACKGROUND

UNDP Turkey has repositioned to contribute through four areas: 1) Inclusive and Democratic Governance (IDG); 2) Inclusive and Sustainable Growth (ISG); and 3) Climate Change and Environment (CCE); and 4) Syria Crisis and Resilience Response. In addition to these areas, UNDP Turkey is emphasizing the role of Strategic Partnerships that cut across the entire country programme regionally as well as globally.

UNDP supports the Government of Turkey through its Syria Crisis Response and Resilience Programme in Turkey to strengthen the resilience of refugees, host community members, local municipalities, and relevant national institutions to cope with and recover from the impact. UNDP's resilience response strategy is to invest in existing national and local systems to ensure they can adequately serve both host and refugee communities. Under Syria Crisis Response and Resilience Portfolio, The Employment and Skills Development Programme – Component 1 has been implemented with Turkish Employment Agency (İŞKUR) to strengthen the institutional capacity of İŞKUR and the active labour market services available for the impacted communities including Syrians under temporary protection and host communities facilitate access to the formal labor market. The project was designed to strengthen İŞKUR in terms of institutionalization and digitalization as well as physical capacities. As part of the physical capacity building works, UNDP will implement the **Construction Works of Prefabricated Office Building in Kilis İŞKUR Provincial Directorate in Kilis**.

1.2. DEFINITION AND SCOPE OF THE CONTRACT

1.2.1. Definition

This contract comprises; **Construction Works of Prefabricated Office Building in Kilis**.

1.2.2. Scope of Works

Scope of works basically includes construction of a steel structure container office building including all earthworks, civil and architectural works, finishes, electrical & mechanical works, plumbing etc.

The structure shall function as a prefabricated office consisting of a meeting room, conference room and toilets. With this respect, it must be noted that any complimentary and/or minor works associated with details necessary for the proper functioning of the building that should be foreseen by an experienced contractor are deemed to be included within the scope of works, even though they are not shown in drawings/details or explicitly noted within this Schedule of Requirements.

1.3. SPECIFICATIONS AND STANDARDS

Equivalency of Standards and Codes

Wherever reference is made in the Contract to specific standards and codes to be met by the goods and materials to be furnished, and work performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly stated in the Contract. Where such standards and codes are national or related to a particular country or region, other authoritative international standards that ensure substantially equal or higher quality than the specified standards and codes should be acceptable subject to the Engineer's prior review and written consent. Differences between the standards specified and the proposed alternative standards shall be fully described in writing by the Contractor and submitted to the Engineer at least 7 days prior to the date when the Contractor desires Engineer's consent. In the event the Engineer determines that such proposed deviations do not ensure substantially equal or higher quality, the Contractor shall comply with the standards specified in the documents.

During the implementation and management of all issues of the Works; the standards, specifications and principles shall be adhered to in the management, design, construction, testing and acceptance and commissioning of all works.

1.3.1. Standards

The Contractor shall comply with the last updated editions of the following standards, in the order of precedence as listed, in the design, implementation, testing, acceptance and operation of all works within the scope of the tender. In circumstances for which there is no description in the following standards, it shall be permitted to use the last updated editions of other national and international standards on condition that the Engineer accepts.

- a. Turkish Standards (TS),
- b. European Norm (EN),
- c. International Standards Organization (ISO),

1.3.2. Legislation

The Contractor shall execute and complete the Works in strict accordance with applicable legislation of **Turkey**.

1.3.3. Specifications

The Contractor shall execute and complete the Works in strict accordance with the last updated editions of;

- Republic of Turkey Ministry of Environment and Urbanization “Construction Works, Civil, Mechanical Works and Electrical Works General Technical Specifications”¹
- Republic of Turkey General Directorate of Highways “Highways Technical Specifications”
- Union of Chambers of Turkish Engineers and Architects, Chamber of Landscape Architects Publication; Technical Specifications for Landscape Works

1.4. SITE

Please refer to provisions stipulated in Clauses 11, 32, 33, 37, 39, 41 and Sub-Clauses 6.2, 34.2 of the General Conditions of Contract

Site is located within the premises of existing and currently operational Kilis Çalışma ve İş Kurumu Müdürlüğü

¹Applicable communiques:

- “Communique related to Construction Works, Civil, Mechanical Works and Electrical Works General Technical Specifications” issued by Ministry of Public Works and Settlement, published in Official Gazette of Republic of Turkey no: 29459, dated 28 August 2015(complementary version) available at <http://www.resmigazete.gov.tr/eskiler/2007/06/20070630M1-1.htm>
- “Communique related to making amendmends on communique related to Construction Works, Civil, Mechanical Works and Electrical Works General Technical Specifications” issued by Ministry of Public Works and Settlement, published in Official Gazette of Republic of Turkey no: 27853, dated 21 February 2011 available at: <http://www.resmigazete.gov.tr/main.aspx?home=http://www.resmigazete.gov.tr/eskiler/2011/02/20110221.htm&main=http://www.resmigazete.gov.tr/eskiler/2011/02/20110221.htm>
- “Communique related to making amendmends on communique related to Construction Works, Civil, Mechanical Works and Electrical Works General Technical Specifications” issued by Ministry of Environment and Urbanisation, published in Official Gazette of Republic of Turkey no: 30352, dated 06 March 2018 available at: http://sgb.csb.gov.tr/mevzuat/dosyalar/r_20180306093845756_03c559f6-993f-40e1-9009-6701e836970d.pdf

at Ekrem Çetin mahallesi, Vali Güner Özmen Bulvarı, 79000 Center of Kilis, on island 3423, Parcel 7.

As there is currently another operational building and trees closely adjacent to the subject building to be constructed, Contractor shall take all measures and provide all means to avoid any damage to surrounding buildings and existing trees.

Contractor shall take all necessary measures to avoid any hinderance of construction works to the operationality of existing İŞKUR (Turkish Employment Agency) building which provides public service.

1.4.1. Arrangement of the Site

The ground levels of the Site shall not be changed without the permission of the Engineer and no infrastructure, structure or tree shall be removed or permanent structure shall be built without the Engineer's prior approval.

The Contractor shall construct temporary parking areas, loading and unloading areas, open storage areas, approach and internal roads, temporary facilities to facilitate its methodology and order of construction of the Works, as appropriate.

1.4.2. Site Requirements

Provision of all the necessary utility requirements on site, such as electricity, water, gas, etc. during the execution of the works shall be under the responsibility of the Contractor.

Application to the relevant authorities for subscription to provide utility connections shall also be under the responsibility of the Contractor. All costs of the consumptions on site shall be covered by the Contractor. Any temporary fencing used by the contractor to protect the works shall be appropriate for the task to keep the public from danger and protect the workers.

The Contractor shall erect such fencing as soon as he is given possession of the relevant portion of the Site. The Contractor shall regularly inspect and maintain all such fencing, any defects being made good without delay.

Access shall be provided in temporary site fencing as necessary for the use of the occupiers of adjacent properties.

Temporary site fencing shall remain in position until the Works are sufficiently completed to enable that portion of the Site to be brought into use without danger to the public.

1.4.3. Site Temporary Buildings

The Contractor shall provide offices, dining halls and accommodation places for his own personnel, Subcontractors and furnish and maintain these places, as necessary.

1.4.4. Temporary Water Supply

The Contractor shall supply and distribute water both for the personnel and for the Works. All of the piping, storage and similar main and intermediate systems shall be established in accordance with drawings and specifications. In the event that the municipal water supply is not available in sufficient amounts or pressure, additional supplies shall be provided by the Contractor.

It is the responsibility of the Contractor to provide all necessary back-up, maintenance and repair works for the uninterrupted supply of water sufficient for construction of the Works.

1.4.5. Temporary Electricity Supply

Provision of all the necessary utility requirements on site, such as electricity and gas, etc. during the execution of the works shall be under the responsibility of the Contractor.

The Contractor shall be required to make all necessary arrangements with relevant local authorities and/or owners/occupiers of the properties in order to obtain the supply of necessary utilities and cover the expenses for supplying and consuming these services, where necessary.

The Contractor shall provide connection to the site from a suitable point.

The Contractor is obliged to take all precautions for the safety of employees and third parties both in the supply and distribution of the energy. It is the responsibility of the Contractor to provide all necessary back-up, maintenance and repair works for the uninterrupted performance of the temporary electrical supply.

The Contractor shall take necessary measures related to the unexpected cuts off of these services.

1.4.5.1. Temporary Sanitary Installation, Cleaning

The Contractor shall clean the site when necessary and in such a way as to preserve it in a hygienic state and shall comply with the relevant laws and instructions of the Engineer.

The Contractor shall establish temporary sanitary facility in the site in order to meet the requirements for the working personnel. For this purpose, the Contractor shall supply flushed W.C. in suitable places on the site. Domestic water connections of facilities shall be protected against frost. Sewerage drains shall be connected to the sewerage network as much as possible. In the event that this is not possible, connection shall be made to cesspools built in accordance with national specifications. Cesspools shall be drained at suitable intervals.

1.4.5.2. Employer's Equipment and Free-issue material

There is no Employer's Equipment available for the use of the Contractor in the execution of the Works.

Free-issue materials are not available on behalf of the Employer.

1.4.5.3. Temporary Project Sign Board

The Contractor shall, at his own cost, supply, erect and maintain 1 signboard (size 1.5 m x 2 m) of which location and content must be determined by the Engineer. The design of the sign board itself also requires the prior approval of the Engineer and the Employer.

1.4.5.4. Plant and Temporary Works

The property of all structures, materials, vehicles, tools, and equipment supplied and established by the Contractor for the performance of the Work belongs to the Contractor.

Temporary facilities shall be removed within the time and method to be decided by the Engineer after Substantial Completion and their places shall be cleared and reinstated. Fences, billboards, etc. that have been removed temporarily shall be reinstated.

1.4.5.5. Protection of Existing Structures and Utilities

The Contractor shall assume full responsibility for the protection of all buildings, structures, and roads existing in the area of the construction site, public or private, whether or not they are shown on the drawings. Any damage resulting from the Contractor's operations shall be repaired at Contractor's own expense.

The Contractor shall take all necessary precautions to avoid causing any unwarranted damage to roads, lands, properties, trees, and other features and, during the Contract, shall deal promptly with any complaints by owners, occupiers, or public.

Where any portion of the Works is close to, across, or under any existing apparatus of Statutory Undertakers, the Municipality or other parties, the Contractor shall temporarily support and work round, under or adjacent to all apparatus in a manner designed to avoid damage, leakage, or danger, and to ensure uninterrupted operation.

Should any leakage's or damage be discovered, the Contractor shall at once notify the Employer and the Statutory Undertaker, Municipality or owner concerned, as appropriate and the Contractor shall afford every facility for the repair or replacement of the apparatus affected.

Building interiors shall be adequately protected during the course of the works to ensure that they remain water-tight.

The Contractor shall adequately safeguard the buildings affected by the works against damage and theft.

All electrical installations shall comply with the relevant national regulations and shall be safe for the Contractor and members of the public. All Works shall be illuminated when daylight deems to be insufficient.

Before commencement of works nearby the existing structures, preconstruction photos shall be taken and recorded.

1.5. CONTRACTOR'S KEY PERSONNEL

The Contractor shall employ following key personnel with qualifications listed below on site in line with Programme of Work.

Project Manager/Construction Manager: Minimum 5 years of experience in erection of structural steel work and university degree (B.Sc. as a minimum) in Civil Engineering. Project Manager/Construction Manager shall be present on site on a full-time basis for the period starting from the date on which the Contractor will be given Access to the Site and receive a notice from the Engineer to commence the Works and ending on the date of substantial completion of Works stated in the Certificate of Substantial Completion.

Electrical Engineer: Minimum 3 years of experience in renovation and/or construction of any kind of structure, and university degree (B.Sc. as a minimum) in Electrical Engineering.

Mechanical Engineer: Minimum 3 years of experience in renovation and/or construction of any kind of structure, and university degree (B.Sc. as a minimum) in Mechanical Engineering.

1.6. MATERIALS

1.6.1. Conditions for Materials and Equipment

Materials and equipment within the scope of the Work shall comply with the conditions stated in this Schedule of Requirement and Specific Technical Specifications provided in work item definitions. Materials and equipment proposed to be used by the Contractor and which have not been specified shall only be incorporated in the Works after their equivalence with the Technical Specifications has been verified and approved by the Engineer.

Any material or equipment proposed by the Contractor for substitution from that specified shall be subject to prior approval of the Engineer.

1.6.2. Storage Facilities

The Contractor shall establish open and closed storage places in suitable and sufficient extent at his own expense for the storage of materials and equipment in the site. The Contractor is obliged to take all necessary protective precautions against damage, contamination inclement weather and theft.

1.6.3. Terms of Transportation

All of the materials and equipment shall be packaged in such a way to facilitate transporting in and out of the storage and to the Site and to be protected against damage.

Materials and equipment shall be loaded on vehicles conforming with international transportation rules. During transportation, all necessary additional precautions shall be taken, and adequate transportation insurance shall be provided at the sole responsibility and cost of the Contractor.

1.7. SETTING - OUT

All necessary application, measurement and instrumentation processes and equipment necessary for construction of the Works and for preservation of the environment in the vicinity of the Works are the responsibility of the Contractor at his own expense.

1.7.1. Application Works

The Contractor shall prepare application drawings showing the setting out of the structures on the site and based on the reference points and levels given in the Drawings and submit to the Engineer for approval. The accuracy of the setting out shall be the sole responsibility of the Contractor.

For application and measurement processes; the Contractor shall:

- Employ qualified and experienced surveyors.
- Use modern type and high-precision topography devices suitable for the works.

1.8. ACCOMODATION FOR THE ENGINEER

Before commencing the Contract, the Contractor shall supply and erect on the site an office of a minimum 10 m2 room for the exclusive use of the Engineer at a location to be agreed with the Engineer. This office shall be provided for the total construction period.

The washroom shall be provided with a washbasin, hot and cold-water supplies and a flush operated WC connected to the existing sewer. The Contractor shall be responsible for the security of the Engineer's office and all equipment therein until the office is finally closed.

The Contractor shall maintain, light, heat/cooling and clean the office for the duration of the contract. The Contractor shall be responsible for the insurance of the office for the duration of the contract. The Contractor shall insure the office and the contents provided by him, against fire, burglary and other risks ordinarily insured against during the period of the Contract. The electricity, water supply, and maintenance costs of this office shall be met by the Contractor(s) until substantial completion of the Works.

Material	Quantity
Desk	1
Chair	1
Guest Chair	2

The electricity, water supply, and maintenance costs of this office shall be met by the Contractor(s) until substantial completion of the Works.

The Contractor shall ensure that all equipment is kept in good condition and shall repair or replace, as directed by the Engineer, any equipment that becomes unserviceable.

1.9. COORDINATION

The Contractor is responsible for ensuring all coordination necessary for the execution of the works in accordance with the quality, cost and timing objectives foreseen by the Employer at the beginning of the work.

The Contractor shall prepare a Critical Path Method (CPM) work schedule, inspect the schedules according to the project timeframe, check the integrity of the schedules between infrastructure, superstructure constructions, electrical and mechanical works, combine the schedules and submit to the Engineer for approval.

The Contractor shall be responsible for ensuring administrative and technical coordination with the Employer, the Engineer and other parties who might directly affect the works along with the following parties who might have indirect effect:

- Relevant official institutions and organizations,
- Other authorized persons, institutions, and organizations

1.10. OBTAINING OF RELEVANT APPROVALS AND CERTIFICATES

The Contractor shall obtain all relevant approvals, permits, and certificates from local Authorities regarding construction and operation of the building and plants.

Permits, license and approval costs which are required by the Turkish laws/regulations as determined by the relevant authorities shall be borne by the Contractor.

1.11. AS-BUILT DRAWINGS AND OPERATION & MAINTENANCE MANUALS

This part of the Specifications covers the "As-built Drawings" to be prepared by the Contractor including Operation and Maintenance Manuals of the Plant incorporated in the Permanent Works, as applicable. Three complete draft sets of prints of Drawings showing all Works exactly as made shall be submitted to the Engineer for approval within one month following the substantial completion of the Works on site.

The Contractor shall record all information necessary for preparing as-built drawings during the execution of the Works on the Sites. Neatly marked-up drawings and other documents covering the Permanent Works as completed shall be available to the Engineer at any time during construction.

Marked-up drawings shall be kept up to date and submitted to the Engineer for approval, as the Works are completed.

The Contractor shall submit complete sets of instructions and manuals to Engineer for approval describing the installed Plant in order to facilitate operation and maintenance, together with the "As-built Drawings". The documents shall include but not be limited to:

- Layout drawings
- Schematic cabling diagrams
- Specific operation instructions
- Specific maintenance instructions
- Detailed record of all types of tests

All materials, as-built drawings, final finish schedules and plans, and all warranties, guarantees and certifications that are within Contractor's responsibility shall be submitted to the Engineer before final payments are made.

All information in these manuals shall apply specifically to the Plant and equipment being supplied, and they shall be free from irrelevant matters such as might be contained in the manufacturer's general literature.

The as-built documentation shall include all architectural and engineering disciplines including architectural/structural, electrical, and mechanical drawings, and operation and maintenance manuals. Final version of as-built drawings in two hard copies and one electronic (in Auto CAD and Microsoft Word, Excel, etc as appropriate) copy of each document shall be provided together with the notice for substantial completion incorporating Engineers' comments and all the modifications/revisions effected during construction. Operation and maintenance manuals shall be provided in Turkish.

All material except drawings shall be A4 size. Drawings shall be on international A size sheets, and drawings shall be marked as "AS-BUILT".

In addition to the above drawings, Contractor shall also prepare and submit detail/plan/section drawings as might be requested by the Engineer for measurement and verification of the completed amount of any work item.

1.12. IMPLEMENTING PARTNER AND FINAL BENEFICIARY

The Contractor shall establish coordination with implementing partner of the project, namely the **İŞKUR (Turkish Employment Agency)**. If deemed necessary by Employer, the representatives of implementing partner and final beneficiary may participate meetings, tests on completion, acceptance and inspection of materials and equipment etc. Representatives of the implementing partner and final beneficiary have right to access to site to monitor the progress of work, compliancy of the work to the requirements of the contract. The Contractor shall

ensure their access to site at any time requested by them. However, they have no legal authority in terms of contract terms and conditions.

2. PROJECT CONTROL DOCUMENTS

2.1. PROJECT MANAGEMENT

2.1.1. Project Management Obligation

The Contractor shall be responsible for effectively managing his efforts in carrying out the requirements of this Contract.

The Contractor shall be responsible for the management, performance, monitoring and coordination of the whole project in order to fulfil all requirements of the Contract and those given in this Schedule of Requirements.

The Contractor's management obligations shall include the efficient planning of work to be performed in cooperation with the Engineer and Employer along with their appointed representatives to ensure project progress visibility.

2.1.2. General Requirements

The Contractor shall establish a project organization in accordance with requirements included herein, having the necessary resources, qualification, and experience to fulfil all the Contractor's obligations.

The Contractor shall unambiguously define the tasks, responsibilities, and authorities of each individual role within the organization, at least at the management level.

The project organization shall have clear and well-defined command lines and channels for reporting, within and outside the project organization.

The Contractor shall describe which parts of the Contractor's organization are used for staffing the project, and how the project organization aligns with the Contractor's main organization.

The Contractor shall describe the support functions, which are available for the project organization in the Contractor's main organization and how such resources are put to the disposal of the project.

The Contractor shall describe the organizational interfaces towards any sub-contractor and supplier that shall be in or outside the project organization. Such interfaces shall provide a clear reference between the project management level within the Contractor's and the sub-contractor's/Supplier's organizations.

The Contractor shall appoint key staff members, and these shall to the highest possible extent remain unchanged by the Contractor for the entire project.

Any later changes in such appointments shall be informed to and approved by the Engineer and shall be agreed by the Contractor in order for the Engineer to assess the reasons and likely impact of such change.

The Contractor shall, unless this is not within the power of the Contractor, ensure that existing staff remains until suitable and acceptable replacements have been found.

2.1.3. Programme of Work

The programme of work shall comprise following as minimum:

- The proposed location of office on the site, stations (steel/concrete structures), warehouses, accommodation, etc. (sketches to be attached as required).
- A brief outline for completing the works in accordance with the required method of construction and stated time of completion.
- A critical milestone bar chart (schedule of execution) representing the construction programme and detailing relevant activities, dates, allocation of labour and plant resources, etc.
- If the Contractor plans to subcontract part of the works, he must provide the following details:
 - Details of works to be subcontracted.

2.1.4. Project Manager Responsibilities

The Contractor shall define a project management team and shall appoint a Project Manager in charge of the entire project.

The Contractor shall allocate the necessary competence and authority to the Project Manager, entitling the Project Manager to make decisions related to all aspects of the day-to-day management of the project.

Any restriction in the Project Manager's rights in this respect shall be clearly identified and described. Such restriction shall not impose management difficulties upon the project.

All official communication between the Engineer/ the Employer and the Contractor shall be conducted through the Contractor's Project Manager.

2.1.5. Engineer's Involvement

For the execution of this project, the Engineer reserves the right to be assisted by other agencies for technical, operational, and contractual matters.

The Contractor shall establish close coordination with the Engineer for the development of all planning activities related to the project, and shall forward relevant plans, procedures etc. for review and approval, prior to putting such plans or procedures into force.

Engineer's duties and responsibilities are defined within the UNDP General Conditions of Contract for Civil Works.

2.1.6. Project Plans

The Contractor shall prepare the following Project plans, which shall be reviewed and approved by the Engineer:

- a) Quality Control and Quality Assurance Plan
- b) Safety Management Plan

In coordination with the Engineer, the Contractor shall also unambiguously define which information is required from the Engineer and when during development and testing.

In addition, the Contractor shall prepare method statements for each activity. Any site activity (excavation, filling etc.) can be started after the approval of the method statements by the Engineer.

2.1.7. Reporting and Reports

The Contractor shall ensure that the Engineer and the Employer are kept informed about the status of all areas within the project, and as a whole to ensure that the Engineer can maintain a complete and detailed knowledge of the project.

The Contractor shall provide progress reports to the Engineer describing, but not limited to, achievements, problems, risks and containing updated schedules, WBS, cost/schedule control reports, status of contract variation proposals, and other data which are required for the efficient management of the project.

The Contractor shall agree with the Employer regarding dates for the submission of monthly Progress Reports. Unless agreed otherwise, these reports shall be submitted no later than 7 calendar days after the completion of each month.

Such reports shall provide information on the status of the Contract, and/or on any matters that could interfere with the timely achievement of any aspect of the Contract and the steps proposed by the Contractor to remedy such matters. The progress report will have minimum the following contents:

- Project progress
- Project management overview. Describes major results achieved, problems that have occurred, and corrective action that has been taken or is planned for solving the problems.
- Technical status: Identifies detailed status, including requirements definition status, design and development progress, problems encountered, corrective actions taken, and a summary of outstanding and approved change items during the period.
- Quality follow-up: Describes activities of the quality assurance program.

- Project Schedules: Shows activities completed (e.g., milestones and deliveries), status of ongoing activities, schedule changes (if any). This section also identifies the outlook for the next three months with an assessment of the major activity completion dates.
- Action item status: Describes outstanding action items and action items that have been closed during the reporting period.
- Risk assessment: Presents the current critical paths, critical activities, and technical risk, including assessment, impact, and containment plans.

2.1.8. Meetings

2.1.8.1. Progress Meetings

Progress meetings will be held at the times indicated on the schedule (at least monthly, unless agreed otherwise), and will take place at location, which shall be proposed by the Contractor and approved by the Engineer.

The following persons shall be present at progress meetings:

- The Contractor's representative (i.e. the project manager)
- The representatives of the Employer, the Engineer, and the Implementing Partner.
- Any other persons whom the above representatives consider should be present in an assistant/consulting capacity.

The major items to be addressed in the progress meetings are those identified for the progress reports and any other items, which are deemed necessary by the Engineer, the Implementing Partner, or the Contractor.

The Contractor shall prepare an agenda and forward it to the Engineer no later than 1 week prior to each meeting for review and approval.

The Contractor shall prepare and produce the minutes of the meetings. Draft minutes will be ready at the end of meetings and reviews. Minutes signed by the Engineer and the Contractor shall be attached to the contract file and shall become binding for both parties. All of these proceedings pertaining to progress meetings shall be conducted by the Contractor under the supervision of the Engineer.

2.1.8.2. Weekly Site Meetings

Site Meetings will be convened by the Contractor as mutually agreed between the Contractor and the Engineer, during the project to allow discussion on specific aspects of the execution, orientation, future arrangement, and coordination of the works and also for briefing. Site meetings may be held to formalize important technical discussions, generally prior to the Progress Meetings and record information and recommendations arising from these discussions.

Site meetings will be held at locations to be mutually agreed between the Contractor and the Engineer. The Contractor shall provide site meetings with the papers documenting the technical items for discussion and recommendations.

The agenda of site meetings shall be determined by the Engineer and the Contractor together. In addition to the Engineer, the Employer, and the Contractor, site meetings can also be attended by supply companies, manufacturer companies, subcontractors and other institutions and organizations related to the works as necessary.

Meeting minutes shall be recorded by the Contractor, kept carefully and these shall be distributed as minutes of site meetings to the Employer and the Engineer, participants and other persons, institutions and organizations to be found necessary by the Engineer. Minutes signed by the Engineer and the Contractor shall be attached to the contract file and shall become binding for both parties. Minutes shall be forwarded to the Employer for consideration at the next Progress Meeting. All of these proceedings pertaining to site meetings shall be conducted by the Contractor under the supervision of the Engineer.

The Contractor is also responsible for organizing additional meetings upon the instruction of the Employer or the Engineer.

2.1.9. Sub- Contractor Involvement

Except for cases where subcontracting is not allowed, it is the responsibility of the Contractor that all sub-contractors perform their part of the work in accordance with the rules laid down in the contract between the Employer and the Contractor.

This implies that the sub-contractors are subject to the same Project Management procedures and must follow the same standards as applied by the Contractor.

As part of the approval procedure for Sub-Contractors involved by the Contractor within the Project, the Contractor shall provide to the Engineer specified documents for each Sub-Contractor (means Sub-Contractor and Sub-Designer) as stated below.

- Registration for chamber of commerce
- Trade registry gazette
- Criminal records of the responsible people of the Sub-contractor
- Delivery statement of previous project accomplished by the sub-contractor.
- Authorized signatures list
- Relevant quality certificates
- No bankruptcy statement given by the commercial record authorities.
- A summary of the status of Sub-contractor with monthly progress payments needs for hand over to keep overview.

Obtaining approval of the Engineer for subcontractor(s) is a pre-condition of payment for works conducted by Sub-contractors.

The Engineer shall have the right to disapprove a proposed sub-contractor in case of objective evidence that the sub-contractor cannot comply with requirements within this contract, that be related to the delivery or the Project Management and Quality Assurance.

The Contractor shall keep a list of all sub-contractors and suppliers, which are used or are planned to be used within the project and shall forward such list to the Engineer every time it is updated.

The list shall include a precise identification of which parts or components the sub-contractor or supplier in question shall deliver to the Contractor.

The Contractor shall be fully responsible for the work performed by any sub-contractor as for the work performed by the Contractor himself.

2.2. SPECIFIC ON-SITE ACTIVITIES

2.2.1. Management and Planning

The Contractor shall have the full responsibility for the construction, installation and setting up the Works.

The planning of the construction, installation and setting up of the Works shall be developed in close cooperation with the Engineer.

The Contractor shall be responsible for the maintenance and operation of the system during its installation and setting up.

2.2.2. Installation Plan

At each site where installation is going to take place, the Contractor shall prepare an installation plan comprising:

- The Engineer`s activities
- Sub-contractors involved
- Tasks to be performed and who is responsible for each task

- Timing of the tasks
- Documentation of installation (e.g. instructions, specifications and drawings)
- and other information important for the final installation.

The installation plan shall be approved by the Engineer in due time before the final installation.

2.2.3. Installation

The Contractor shall, in due time before installation, submit instructions and specifications with detailed information concerning:

- façade
- interior
- finishes
- installation
- cabling, routing, grounding, power, communication
- other topics important for the installation of the Works.

The installation shall take into consideration local legislation, rules and procedures to (i.e.) cabling, power connection and working conditions.

The Contractor shall produce, procure, and supply all necessary equipment, tools, etc. consumable as well as non-consumable needed for the installation and setting-up.

2.2.4. Setting up

Setting up covers the activities after the physical installation to adjust and tailor system parameters, fine tuning, etc. to make the system 100% operational.

The Contractor shall specify which procedures will be used to set up the Works.

2.3. SAFETY

The Contractor is responsible for taking all necessary precautions in respect of Works, materials, machinery, equipment and current facilities, persons on site and neighbouring environment. All expenses including indemnities that might arise are the responsibility of the Contractor.

2.3.1. Safety of the Construction Site and Periphery

2.3.1.1. Safety Fence

Contractor shall determine the extent of site boundary fencing necessary to protect the site, works, materials, equipment, and facilities against unauthorized access and for safety of the public, to control entries-exits and prevent the entrance of unauthorized persons.

There shall be sufficient number of security officers provided by the Contractor at entrance-exit gates and locations where deemed necessary. There shall be adequate night lighting for ensuring supervision of security officers throughout the fence.

2.3.1.2. Fire Protection

The Contractor is responsible for taking necessary precautions for the protection of Works, Temporary Works and any kind of property and person during performance. All of the precautions, including raising the awareness of personnel, and the proceedings to be implemented in the event of a fire shall be determined working closely with the Fire Department.

During the Work, additional specific precautions that might be needed in the following cases shall be taken and implemented:

- Storage of materials that might easily inflame,

- Collection, storage and disposing of inflammable wastes,
- Operations performed with electric-arc welding and oxy-acetylene cutting machines,

In case a fire breaks out, the Contractor shall supply and get ready the following equipment:

- Dry chemical powder type fire extinguishers that can be installed to walls, carried manually with nitrogen pressurized in certain places
- Special extinguishing systems in sections where Fire Department cannot enter or access easily

2.3.1.3.Warning Marks, Lighting

All of the open excavations, material piles, structures, facilities, and equipment that might create hazard shall be surrounded by barricades with appropriate marks with the aim of protecting the employees and other people.

In the same manner, the roads and passages blocked due to Works shall be protected by barricades.

This kind of areas shall be marked with warning plates placed in appropriate distances and attract the attention of people. All of the barricades, obstacles and marks shall be illuminated from dusk to sunrise.

2.3.2. Safety at Work

It is the responsibility of the Contractor to take necessary precautions to prevent accidents that might cause damage to persons, materials, equipment and facilities during the work.

The Contractor shall assign a Safety Team under the leadership of an experienced Safety Manager for any kind of work on safety at work. The primary duties of this team shall include but not limited to:

- Training the employees in respect of actions and practices that shall cause accidents or damage, taking precautions in the site that shall at least meet the requirement of "TS 8983 General Safety Precautions that Should be Taken in Structures During Construction", Monitoring whether precautions and warning are obeyed or not,
- Taking additional precautions, warning orally, and giving punishment in the event that faults are detected.
- Stepping in and performing what should be done in the event of a harmful event.

The Contractor shall carry out the works in accordance with the Turkish Health and Safety regulations.

2.3.2.1. First Aid

Shall be arranged in accordance with the applicable Turkish Health and Safety Regulations.

2.3.2.2. Hazardous Substances

When the following are encountered, Works shall be ceased in the section where the event occurs:

- Buried known or unknown toxic substances,
- Unnaturally coloured ground water or soil,
- Asbestos,
- Volatile organic compounds measured with photo ionization detector,
- Chemical substances or oil products or other similar circumstances that are spilt and spread on the site.

Cleaning of the area in such a way not to damage employees and removal of the hazardous substance shall be performed by an expert team trained and equipped for this kind of works.

2.4. QUALITY CONTROL AND QUALITY ASSURANCE

2.4.1. Quality Responsibility

All of the Works shall be performed according to the most appropriate engineering practices and standards in respect of construction, material, equipment and workmanship.

It is the responsibility of the Contractor to control the quality of the work and to take samples and carry out necessary tests in respect of achieving conformity with specifications and approved materials at his own expense.

A Quality Control and Quality Assurance Manager to be assigned by the Contractor shall be responsible for all phases of quality control and sustain an efficient communication with the Engineer.

2.4.2. Material Quality and Equivalent Materials

All of the materials and equipment supplied to be used permanently within the scope of the works shall comply with current standards and specifications. The products of other Manufacturers instead of determined materials and equipment shall be accepted on condition that their equivalency is approved by the Engineer. In such events, the Contractor shall submit to the Engineer all of the evidence of the equivalency of the new product.

2.4.3. Quality Control and Quality Assurance Plan

After signature of the Contract, the Contractor shall submit to the Engineer a detailed Quality Control and Quality Assurance Plan within 14 days for approval. The plan shall cover quality control and assurance of all phases of works on the site.

The plan shall include at least the following items and shall be supported by additional information that might be needed by the Engineer.

The Plan shall cover the quality assurance of all aspects of the Works, and contain, as a minimum, the following items:

- Organization chart for quality control and quality assurance
- List of Contractor's staff to be engaged in quality control and materials testing together with details of their relevant experience
- List of facilities which will be inspected and tested by the Contractor at stages during implementation of the Works as part of his quality control, together with inspection procedures and test types
- Certificates of materials
- Specifications of equipment and work
- Tests
- Relevant certificates on supplied materials
- Detailed checklist for all installations. The checklist shall be for the Contractor's own use, documenting the Contractor's own quality control of the installation.

The Plan may be supplemented with additional items from time to time as requested by the Engineer.

The approved Quality Plan shall be followed throughout the performance of the Contract unless the Engineer issues specific instructions for certain works. Any approval of the Engineer shall not relieve the Contractor of his obligation to ensure that the Works comply with the requirements of the Contract.

Quality assurance records, test certificates, reports and daily records of on-site testing and inspection shall be kept on site during the works, and the results shall be certified by the responsible member of the Contractor's staff.

Quality Control and Assurance Plan shall enter into force after the approval of the Engineer.

2.4.4. Tests Samples, Materials and Equipment

The Contractor shall supply all of the samples including storage, packaging and transportation related to quality control and tests. The materials represented by these samples shall not be manufactured without the approval of the Engineer, brought to work place, or used in any work.

Approved material and equipment samples to be used on the site shall be kept carefully until they are permitted to be disposed by the Engineer.

2.4.5. Test Laboratory Services

Quality Control tests shall be done in the laboratory to be established by the Contractor as applicable. For the tests that cannot be done in such a manner, an independent laboratory that is approved by the Engineer shall be employed at the expense of the Contractor.

The Contractor shall ensure that both his own laboratory and the independent test laboratory perform the desired material inspection, sample receiving and test processes as fast as practically possible and conclude them.

Test results shall be immediately submitted to Engineer. In the event of detection of disorders or deficiencies that might affect the Work, the Contractor shall take any kind of corrective precaution that might be instructed by the Engineer immediately. In case of a safety concern, Contractor shall immediately initiate any measures he/she might consider suitable and inform the Engineer in writing of the nature and method of such measures. In case such measures are rejected by the Engineer, Contractor shall suspend any such activities and conduct reinstatement works.

2.4.6. Examinations and Manufacturer's Tests

The Contractor is responsible for ensuring that quality control and all relevant examinations and tests are carried out duly without taking into account whether they are on Site or in any other place and also for taking corrective precautions when necessary.

The Engineer can audit the work carried out in the Manufacturer Company's facilities and also the tests related to these works. The Contractor shall inform the Engineer on time so that this can be done as desired.

The manufactured items and materials that are delivered to the Site shall be examined by the Contractor on their arrival and any kind of fault shall be informed to the Engineer. The products with important faults shall be returned to the Manufacturer Company to be amended or replaced.

Examinations and tests carried out by the Engineer or on his behalf do not release the Contractor of his obligations related to quality control.

2.4.7. Construction Site Records and Tests Certificates

Quality Control records, test certificates, reports, daily construction site tests and examination records shall be kept on forms approved by the Engineer as part of Quality Control Plan.

All of the test certificates and examination records shall be subdivided into their relevant departments and kept and recorded. The processes shall be under the responsibility of qualified personnel of the Contractor and moreover the Contractor shall establish a comprehensive archive and library related to quality control.

The Contractor shall prepare details lists including tests, approvals, orders, and delivery information related to quality control and other materials and products depending on approval. These lists shall be submitted to Engineer as they are updated, save once in a month under any circumstance.

Test results shall be delivered to Engineer at the end of the test in respect of determining the necessary precautions, if any. Test certificates, on the other hand, shall be submitted to the Engineer

- When the tests of the Production Plant and Manufacturer Company are completed or not later than 7 days before the date on which products should be used in the Work under any circumstance,
- Within 7 days following the completion of the test for those conducted during or upon completion of the continuous work.

3. ENVIRONMENTAL MANAGEMENT

The Contractor shall comply with the provisions of the applicable Turkish legislation on environment protection that may affect the Project (the "Environmental Requirements"). In particular this shall include compliance with the following regulations (latest version of the below mentioned laws will be in placed):

Environment Law (no. 2872, date: 09.08.1983, published in the 11.08.1983 dated and 18132 y numbered Official Gazette, amended on 26.04.2006 no 5491),

Worker Health and Work Safety Act (published in the 11.01.1974 dated and 14765 numbered Official Gazette),
The Regulation for the Assessment and Control Air Pollution 2009

The regulation for the assessment and management of environmental noise (2008),

Water Pollution Control Regulation 2004

Solid Waste Control Regulation (published in the 14.03.1991 dated and 20814 numbered Official Gazette),

Hazardous Waste Control Regulation 2005

Cultural and Natural Assets Protection Law and relevant regulations

Waste Oil Control Regulation (21.01.2004 dated and 25353 numbered Official Gazette.)

Excavation Soil, Construction and Debris Waste Control Regulation (18.03.2004 dated and 25406 numbered Official Gazette)

Soil Pollution Control Regulation (31.05.2005 dated and 28831 numbered Official Gazette.)

The Contractor shall take all measures and precautions to avoid any nuisance or disturbance arising from the execution of Project Activities. This shall, wherever possible, be achieved by suppression of the nuisance at source rather than abatement of the nuisance once generated. The Contractor will also be required to compensate for any damage, loss, spoilage, or disturbance of the properties and health of the project affected people during construction. In conformance with the Contract Specifications of which these Environmental Provisions are a part, the Employer reserves the right to withhold payments and/or stop construction in the event of serious or repeated violations of the conditions stipulated herein.

The Contractor shall, at his own expense, obtain, retain in force and renew as necessary all Consents provided for by the Environmental Requirements of the Government of Turkey that are required to enable it to meet its obligations in designing and constructing the Project.

4. PARTICULAR TECHNICAL SPECIFICATIONS

Unless otherwise stated in particular technical specifications, the Contractor shall execute and complete the Works in strict accordance with the last updated editions of;

- Republic of Turkey Ministry of Environment and Urbanization “Construction Works, Civil, Mechanical Works and Electrical Works General Technical Specifications”
- Republic of Turkey General Directorate of Highways “Highways Technical Specifications”
- Union of Chambers of Turkish Engineers and Architects, Chamber of Landscape Architects Publication; Technical Specifications for Landscape Works

4.1. PARTICULAR TECHNICAL SPECIFICATIONS FOR CIVIL AND ARCHITECTURAL WORKS

All goods and materials used in the Works shall comply with international standards (EN, BS or ISO) or those of the appropriate national standards where no other standard is given, for both manufacturing and testing. Where no comment is made against an item, the Contractor shall assume that these standards are to be complied with.

All goods and materials to be provided by the Contractor and incorporated in the Works shall be new, unused, and of the most recent or current design and specification, and incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.

The Contractor shall submit to the Engineer a list of his proposed suppliers and sources of materials required for the execution of the Works. Samples shall also be submitted at the request of the Engineer, as practically applicable. The Contractor shall obtain written approval of the Engineer prior to use of the materials.

The materials subsequently supplied shall conform to the quality of samples which have been inspected by the Engineer.

Names of additional suppliers and sources may be submitted by the Contractor during the execution of the Contract, but no source of supply shall be changed without Engineer's approval.

Materials and components shall be stored in such a manner as to preserve their quality and condition to the standards required by the Contract.

Materials and components shall be handled in such a manner as to avoid any damage or contamination, and in accordance with all applicable recommendations of the manufacturers.

Unless otherwise described in the Contract, the use, installation, application or fixing of materials and components shall be in accordance with all applicable recommendations of the manufacturers. Where appropriate, the Contractor shall make use of any technical advisory services offered by manufacturers.

4.1.1. Earthworks

General

This specification consists of; excavation for all buildings backfill, compaction of backfill and transportation of excavated material under conditions written in this document and according to the drawings or with the directives of the Engineer.

All excavation, fill and soil bent works must comply with directions figured out in the drawings, slopes and elevations or the Engineer 's instructions shall be followed.

In case of redundant excavation, the contractor is responsible for redundant part with no payment. Addition to this the extra amount of excavation shall be filled according to the requirements with compacted soil, crushed stone, or concrete with the instructions of the Engineer, by the Contractor without any additional payment.

Contractor shall check the conformity of the levels of the land and the buildings.

Fill and Compaction

Fill material shall be laid in the form of horizontal layers and the thickness of the material laid shall not exceed 20 cm in the loose state. Then it shall be compacted. Fill material shall not be laid in muddy surfaces in any conditions. The fill shall be straight and compacted in a stabilized way to avoid the formation of eccentric loading and shear forces in the places adjacent to structures. The sloped surfaces consist of barriers and terraces shall be constructed to prevent sliding of fill materials. During the process of backfill and construction of barriers, machines that may exert additional loads to structures shall not be used for compaction.

In accordance with the Engineer's approval, compaction operation shall be done with vibrated cylinders, cylinders with steel wheels or other machines certified for that type of operation. If required, material shall be moisturized to obtain desired compaction degree and ventilated.

Removing Excavation Material

The excess of excavation material which the Engineer instructs to transport from the site area shall be carried to an adequate area arranged by the Contractor in consultation with local authorities. The permission for transporting materials from site to the selected area is under the Contractor's responsibility. After all the excavation is completed all temporary storage and stack areas must be cleaned, drainage slopes are set, and the site is remained in a good view according to the local authorities' rules; transportation and unloading procedures

shall be done without giving any disturbance to environment. The trucks shall be prepared covered to prevent rubble pouring, according to the traffic rules.

Very Hard Rock Excavation

If very hard rock is encountered during excavation, no additional payment shall be done to the Contractor with this respect. In rock excavations appropriate machines shall be used but explosives are not permitted.

Protection of Existing Service Lines and Structures

Contractor is responsible for protection of existing service lines and structures against damaging. In case of any damage occurrence its rehabilitation and repair are also under Contractor's guarantee.

Levelling

The areas outside the building shall be levelled according to project parameters and drainage shall be maintained. Finally, after the last control the area shall be kept clean.

The stored vegetable soil shall be placed into the ventilated, cleaned, and levelled layers.

All levelling costs belong to the Contractor without any additional payment.

Transportation of Earthworks

No additional or direct payment for transportation shall be made for any part of the work.

4.1.2. Concrete works

Concrete Works as specified hereunder shall include the supply of materials, mixing of concrete, formwork, reinforcement, placing, compaction and curing of concrete and site clearance after completion of works. In general, TS 1247 or DIN 1045 shall be respected when mixing, placing, and curing concrete.

Work items related to concrete works shall fully include the value of works described, shall cover the cost of all labour, subsidence, traveling, materials, admixtures, temporary works, yards and stockpiles, sampling and testing and any other expenses whatsoever together with all risks, liabilities and obligations set forth or implied in the Contract Documents.

4.1.2.1. Record of Concreting

The Contractor shall keep accurate and up to date records of concreting showing for each day when sections of the works were concreted:

- Date, time, weather, and temperature.
- Results of all concrete tests including identification for which part of works the sampled material is representative.
- Number of batches produced, weight and kind of cement used, volume of concrete placed, number of batches wasted or rejected.
- Class of concrete, volume of concrete placed, and number of batches used for each location.

The laboratory where concrete test must be carried out shall be approved by the Engineer and be accessible for him at any time.

4.1.2.2. Organization of Concrete Production at the Site

Concrete production at the site is **NOT allowed**, except for cement mortars. All the concrete used for the works shall be supplied as ready-mix concrete from certified plants as specified in this technical specification and in special technical specification for concrete works.

4.1.2.3. Materials and Testing

Type of Cement

The type of cement used in each of the various works shall be standard brand Portland cement from a single approved source conforming to the requirements of TS 19 Type I or II or approved equal, or Portland cement class PZ 25-NW or class PZ 35-L in accordance to DIN 1164.

Tests of Cement

The Contractor shall submit to the Engineer, test certificates showing conformance with TS 3114, relating to each consignment of cement. Each certificate shall show that a sample of the consignment has been tested by the manufacturer or by an approved laboratory.

When required by the Engineer, the Contractor shall supply samples of cement taken on delivery to site, or during storage on the site, for testing at a nominated laboratory free of charge. No cement from any consignment shall be used without the approval of the Engineer and the Contractor shall maintain a record of the locations of the concrete made from each consignment which record shall be available for inspection by the Engineer.

If for any reason the Contractor shall decide to vary the source of supply, country, or manufacture in respect of any type of cement already approved by the Engineer at any time during the Contract, then he shall give adequate notice of every such variation to the Engineer. The Contractor shall carry out all the tests called for by the Engineer's written approval of such variation before ordering any material from the new source or supplier.

If cement has been stored on the site for more than 40 days or in the opinion of the Engineer is of doubtful quality, new tests may be required, at the Contractor's expense, to check whether the cement is still conforming to the requirements.

Delivery and Storage of Cement:

Cement shall be delivered in quantities sufficient to ensure the proper progress of the Works and the quantities held in stock on site shall be to the approval of the Engineer. Such approval shall not in any way relieve the Contractor of his responsibilities for providing cement. Cement from abroad, shall be packed in sealed plastic bags and placed inside paper bags.

Cement when being conveyed to the site in lorries or other vehicles, shall be adequately protected from the weather and from contamination by dust, sand, or any organic materials. Any cement, which shall prove to have been exposed to damage by water, shall be rejected upon delivery. It is not permitted to store bags to a greater height than 2 meters.

After they have been approved by the Engineer, consignments shall be used in the order in which they were delivered.

Rejection of Cement

Notwithstanding the receipt of the test certificate and the approval of the Engineer, the Engineer may reject any cement as a result of further tests. The Engineer may also reject cement, which has deteriorated as a result of inadequate protection or other causes or in any other case where the cement is not to his satisfaction. The Contractor shall remove all rejected cement from the site without delay at his own expense.

Quality of Water

The water used for all purposes throughout the Works shall be potable, clean, fresh and free from objectionable quantities of silt, organic matters, alkali, salt or other impurities, and shall comply with the requirements of TS 1247 or DIN 1045 and DIN 4030.

The water used for mixing mortar, and for curing the concrete, shall be from an approved source and shall contain no deleterious matter which significantly affects the reinforcement, setting time, strength, or durability

of the concrete or which has any effect on the appearance of the hardened concrete by discoloration or efflorescence.

The Contractor shall deliver to the Engineer, free of charge, samples of the water proposed for use on the Works for the Engineer to carry out such tests he may require to confirm its suitability. Samples shall be delivered sufficiently in advance of the work for completion of the tests before the water is required for use and at such other times during the course of the Contract as the Engineer may direct. If required by the Engineer, the Contractor shall at no extra cost, treat the water taken from any other source to such a degree as may be necessary in order to render it suitable for mixing concrete and mortar.

Delivery of Samples

Samples of cement, water and fine and coarse aggregates called for in the foregoing Sections shall be delivered to the Engineer for testing by the Contractor before concreting. Specimen tests shall be completed before work is due to start.

Ready Mixed Concrete

Concrete obtained from a supplier of ready-mixed concrete shall be used in the Works after obtaining written approval of the Engineer. Such approval shall not be given until the Engineer is satisfied that the organization and control of the manufacture and delivery of all ready-mixed concrete is satisfactory. Ready mixed concrete shall comply with TS 206-1 and requirements given in special technical specifications for concrete works.

The Contractor must have taken the necessary steps, well ahead of the time of casting concrete to prove to the Engineer that the ready mixed concrete complies with these specifications, and capable of producing for each class of concrete the minimum specified strengths, by taking samples and testing. Such permission shall only be given for as long as the Engineer is satisfied that the concrete complies with the specification and the recommendations of TS 500.

The Engineer shall require a slump test, to be in conformity with TS EN 12350-2, and may require test cylinders from each truck load prior to the concrete being placed. Each load shall be accompanied by a delivery note stamped with the time of mixing and stating the consignee and quantities of each material including water and additives and class of concrete.

Concrete Mix Design

No concrete shall be placed in the Works until the relevant mix has been approved by the Engineer. Approval shall not be given to any concrete mix until it has been successfully subjected to Preliminary Mix Tests.

The Contractor shall carry out Preliminary Mix Tests as specified hereinafter in order to determine for each class of concrete the minimum practicable water/cement ratio and the required mix proportions of the fine and coarse aggregate the necessary allowance being made for the moisture content of the aggregate. After the value of the water/cement ratio and the mix proportions have been approved by the Engineer, Trial Mixes shall be carried out by the Contractor as specified hereinafter. The water/cement ratio and mix proportions which have been approved as a result of the Preliminary Mix Tests shall be used throughout the course of the Works. The Contractor shall ensure that specimen crushing strengths satisfies the compliance requirements specified hereinafter. Further tests shall be carried out if any feature of materials or mixes is changed during the course of the work.

Preliminary Mix Tests

The proportions of cement aggregate and water determined by the Contractor in his mix designs shall be used in preliminary mixes of concrete made in the presence of the Engineer and tested for strength, workability and surface finish under laboratory conditions observing the appropriate requirements of the heading herein entitled

“Concrete Testing” and to satisfy the Engineer on these qualities. Preliminary mixes shall be repeated with adjusted proportions as necessary until concrete mixes meeting the relevant requirements.

Trial Mixes of Concrete

Trial mixes of concrete shall be prepared and tested at the site by the Contractor with the presence of the Engineer after Preliminary Mix Tests have been completed and when the Engineer has approved the Contractor’s mix design for required class of concrete. Trial mixes of concrete shall be mixed for the same time and handled by means of the same type of plant as the Contractor proposes to use in the Works. Sampling and testing of trial mixes shall be in accordance with the relevant sections of the Section herein entitled “Concrete Testing”.

One separate batch of concrete shall be made for required class of concrete. Each batch shall comprise not less than 0.5 m³ of concrete, unless otherwise approved by the Engineer. Three specimens shall be made from each batch of concrete. The average strength of the specimens made for required class of concrete and tested after 28 days shall exceed the specified characteristic strength.

When a proposed mix has been approved, no variation shall be made in the mix proportions, or in the type, size, grading zone or source of any of the constituents without the consent of the Engineer, who may require further trial mixes to be made.

Where the Contractor intends to purchase factory-made pre-cast concrete units, trial mixes may be dispensed with, provided that evidence is given to satisfy the Engineer that the factory regularly produces concrete which complies with the Technical Specifications. The evidence shall include details of mix proportions, water /cement ratio, workability and strength obtained at 28 days.

Concrete Testing:

For the concrete all common site tests have to be carried out especially slump tests of the concrete must be taken. If the specimens fail to attain the required compressive strength as specified the concrete which they represent shall be cut out, removed, and replaced with concrete complying with the Technical Specifications to the satisfaction of the Engineer.

All specimens shall be marked at the time of casting, with the date, Class of concrete and other necessary markings to identify the part of the Works, from which they are taken. Specimens shall be made and cured in conformance with TS 3068 ISO 2736-2 and tested in conformance with TS 3114 ISO 4012.

The Contractor shall provide for test purposes one set of test specimens taken under the supervision of the Engineer. Each set shall consist of three test specimens and shall be made from a separate batch if applicable. Test specimens shall be evaluated by the Engineer for meeting strength level requirements for each class of concrete indicated and specified in conformance with TS 500. The standard age of test shall be 28 days, but 7 day test may be used with the permission of the Engineer provided that the relation between 7 day and 28 day strengths of the concrete is established by tests for the materials and proportions used.

Mix not Approved

Approval of a mix may be withheld or withdrawn under the following circumstances:

- The grading of the aggregate changes such that the fraction of aggregate retained on any sieve differs from the corresponding fraction of aggregate in the approved mix by more than 2% of the total quantity of fine and coarse aggregates.
- The source of supply of aggregate or cement is changed.

In the event that approval of a mix for any class of concrete is withdrawn for any reason the Contractor shall carry out such further trials and tests in order to achieve a satisfactory mix for that particular class of concrete.

Water Content

A check on the moisture content of the aggregate shall be made before concreting is commenced. For the purpose of assessing the amount of free water to be added at the mixer, the Contractor shall provide himself with a chart, a copy of which shall be given to the Engineer for approval, relating moisture content in the aggregate to water to be added at the mixer for all Classes of concrete in use.

The amount of water introduced into the mix shall be strictly controlled and shall be the minimum amount consistent with complete compaction. The device for measuring water shall show accurately the quantity and be so designed that the water supply shall be automatically cut off while water is being discharged into the mix.

Transporting Concrete

Concrete shall be handled from the place of mixing to the place of final deposit as rapidly as practicable by means, which shall prevent the segregation or loss of any ingredient. Wherever practicable concrete shall be emptied from a mixer directly into a skip which shall then be transported to the place of final deposit and the concrete shall be discharged as close as possible to its final position to avoid re-handling or flowing.

Should the Contractor propose to use concrete pumps for the transporting and placing of concrete he shall submit full details of the equipment and operating techniques he proposes to use for the approval of the Engineer.

Where concrete is conveyed by chuting or pumping the plant used shall be designed to ensure continuous and unimpeded flow in the chute or pipe. The delivery end of the chute or pump shall be thoroughly flushed with water before and after each working period and shall be kept clean. Water used for this purpose shall be discharged away from any permanent works.

4.1.2.4. Placing and Compaction of Concrete**Preparatory Work**

The Engineer's approval in writing shall always be obtained before any concrete is placed in the Works. All constructional plant and materials required, or which may be required during the concreting work and for curing shall be on site and the Contractor shall be fully prepared for the work. The Engineer's approval to place concrete shall only be given after such preparations and other relevant requirements of the Technical Specifications have been carried out and complied with.

If necessary and/or directed by the Engineer, the Contractor shall cool any formwork that has become overheated or exceptionally dry through prolonged exposure to the sun. The Contractor shall ensure that all formwork retains a sufficient amount of humidity and has not become shrunk or warped. All soaking or spraying of formwork shall be done with potable water.

When concreting in hot weather the requirements set out under the heading "Concreting in Hot Weather" shall be complied with. The Engineer may completely forbid the placing of concrete in any formwork, which he believes has become too substance that may be harmful to fresh concrete.

Depositing in Work:

The methods of conveying and depositing concrete shall be such as to prevent segregation of the materials and shall be approved by the Engineer before concreting begins. The placing and compaction of concrete shall be carried out under the direct supervision of a competent member of the Contractor's staff.

Concrete shall be placed directly in the Works as soon as possible without the need for re-handling and not more than 45 minutes after mixing and in any case, before the initial setting has taken place. If any delay has occurred after mixing and the concrete has begun to set, it shall not be used in the Works and shall be removed from the

site. Unless otherwise agreed by the Engineer on the basis of satisfactory site trials concrete shall not be dropped into place from a height exceeding 1,5 meters.

Concreting of any section or unit shall be carried out in one continuous operation up to the construction joints. No interruption of the concreting shall be allowed without the approval of the Engineer. Where deposition of concrete has to be interrupted, precautions shall be taken to ensure satisfactory adhesion of later batches of concrete to that previously placed.

Where delays of more than one hour has occurred between concreting operations in one section or unit of work, concreting shall only be resumed when, in the opinion of the Engineer, the previously placed concrete has had ample time to harden and the resulting joint shall be treated as a Construction Joint. At all times when concrete is being placed, a competent steel fixer shall be in continuous attendance to adjust and correct the position of any reinforcement, which may become displaced.

Transportation of concrete directly over fixed reinforcement steel during concreting shall not be allowed unless proper provisions are made to avoid displacing or damage to the reinforcement.

Depositing in Layers

Concrete shall be deposited in approved quantities and horizontal layers of such depth as to permit thorough incorporation with the layers below by vibration, spading, ramming, and working. If, for unforeseen reasons, it is necessary to stop concreting before completion of a section, then construction joints as specified shall be formed and further concreting shall be suspended for at least 24 hours.

Concrete Placed in Water

Concrete shall NOT be placed under water without the written approval of the Engineer. The Contractor shall submit his detailed proposals of the plant and method for underwater concreting.

Concreting in Hot Weather:

The Contractor's attention is drawn to TS 1248 or ACI 305 entitled "Hot Weather Concreting". The Contractor's methods shall comply with the recommendations in that document as modified and supplemented below.

The Contractor shall take great care during hot weather to prevent the cracking or crazing of concrete. The Contractor shall arrange for concrete to be placed in the early morning or late evening as directed by the Engineer.

The Contractor shall pay particular attention to the requirements specified herein for curing. Formwork shall be shaded from direct exposure to the sun both prior to placing of the concrete and during its settings. The Contractor shall take appropriate measures to ensure that reinforcement in the section to be concreted is maintained at the lowest temperature practicable.

Concrete at placing shall have a temperature of not more than 32°C. If necessary, the Contractor shall cool the aggregates and mixing water by methods approved by the Engineer.

Where necessary the Contractor shall design, install, and operate a cooling system by which cooling water is pumped through a piping system in order to decrease the heat of hydration during concreting. The proposal for such a cooling system shall be submitted to the Engineer for his approval well in advance of the concreting operations.

The temperatures of ambient air, concrete at various levels and intervals not exceeding 5 meters and cooling water where applicable shall be measured by means of thermocouples and recorded.

Concreting in Cold Weather:

Cold weather is defined as the situation existing at the Works, where either or both of the following conditions existing:

- The air temperature at the time considered is below 2°C;
- The mean daily air temperature over three or more successive days has dropped below 5°C.

Under no circumstances may concrete be placed in contact with frozen ground or formwork, or in contact with ice, snow, or frost on the ground or on formwork or reinforcement. Concrete shall not be made with frozen materials.

Concreting may proceed in cold weather provided special precautions are taken to ensure that the surface temperature of the concrete at the time of placing is not less than 5°C for a succeeding period of at least:

4 days when the cement used in the concrete is ordinary Portland cement;

2 days when the cement used in the concrete is rapid hardening Portland cement.

Such precautions may include the following:

- Warming the aggregates and heating the water, provided that the temperature of either does not exceed 60°C. Water and aggregates shall be mixed for a period sufficiently long for them to acquire a uniform temperature before cement is added.
- Completely surrounding the freshly placed concrete with a cover and heating the enclosed air, which shall be kept moist. Draughts of hot or dry air shall not be directed at surfaces.
- Insulating the formwork and finished concrete surfaces.
- Providing screens to protect the concrete from air currents.

The Contractor shall provide the Engineer with details of the precautions he proposes to take to protect the concrete from the effects of low temperatures and with details of the methods he proposes to use assess the correct timing at which such protection may be removed. No concreting shall be done in cold weather prior to the approval the Engineer for the proposed measures.

Concreting in Unfavourable Weather:

Concreting shall not be permitted during heavy rain or snowfall, or when the air temperature falls below 2°C, or when the concrete temperature rises above 32°C. When the air temperature exceeds 25°C, concreting shall only be permitted after special precautions, approved by the Engineer, have been taken to prevent early setting of the concrete, such as lowering the temperature of the water to be used in the mix or by means of a cooling-system, keeping the aggregates and formworks continuously sprayed with water and erection of temporary sun shades over the working area. During concreting operations, the temperature of the placed concrete shall be recorded.

Compaction of Concrete

The Contractor shall regard the compacting of the concrete to be of fundamental importance for the objects which he shall produce. A watertight concrete of maximum density and strength must be obtained.

Concrete shall be thoroughly compacted during the operation of placing and shall be thoroughly worked around the reinforcement and embedded fixtures and into corners of the formwork and moulds.

Mechanical vibrators shall be of the immersion type with a frequency of not less than 8000 vibrations per minute and as approved by the Engineer. A sufficient number of vibrators shall be used to handle the maximum rate of

concrete production with a 50% allowance for stand-by units during any period of concreting. All operators handling vibrators shall be trained in their operation.

Vibrators shall be inserted into the not compacted concrete vertically and at regular intervals. Where the not compacted concrete is in a layer above freshly compacted concrete the vibrator shall be allowed to penetrate vertically for about 100 mm into the previous layer. Vibrators shall be withdrawn slowly from the mass of concrete so as to leave no voids. Internal type vibrators shall not be placed in the concrete in a random or haphazard manner nor shall concrete be moved from one part of the work to another by means of the vibrators. Vibration shall not be applied directly or through the reinforcement to sections or layers of concrete which have hardened to the degree that the concrete flow in the formwork over distances so great as to cause segregation.

Every care shall be taken to see that reinforcement and fittings attached to the formwork are not disturbed, and that no damage is caused to concrete that has already set or to the internal face of the formwork by using immersion type vibrators. In areas of congested reinforcement, it may be necessary to use small diameter pokers and the Contractor shall supply suitable sizes of pokers for each part of the work. Vibration of concrete by hammering the formwork with hand tools is NOT permitted.

The duration of vibration shall be limited to that required to produce satisfactory compaction without causing segregation. Vibration shall not be continued after water or excess grout has appeared on the surface.

Concrete shall not be disturbed after compaction and placing in its final position. Concrete that has partially set before final placing shall not be used and shall be removed from the site.

Placing Concrete on Previously Executed Work:

Where concrete is to be poured against or on top of previously executed work, the surface of the old concrete shall be thoroughly wire brushed, hacked, and cleaned with water and air under pressure to expose the surface of the aggregate and to remove all laitance. Special care shall be taken to ensure that the new concrete is thoroughly compacted and rammed against the old.

Protection and Curing of Concrete:

Water used for curing shall comply with TS 1247 and TS 1248. Concrete shall be protected from damage by climatic conditions (direct sunlight, rain, snow or frost), running water or mechanical damage during curing. All methods to be used for curing and protection of freshly placed concrete shall be subject to the prior approval of the Engineer.

The maximum and minimum ambient temperatures and humidity shall be measured and recorded each day by the Contractor. The records shall be made available for the Engineer's inspection.

All exposed surfaces shall, as finishing proceed, be covered with a wet hessian sheet followed by a reflective polythene sheet. These shall be securely fastened around the edges and supported in order not to damage the finished concrete surface. As soon as practicable the hessian and polythene shall be lowered into close contact with the concrete and securely weighted or fastened down to prevent wind blowing underneath. The hessian sheet shall be maintained in a moist condition at all times and shall be inspected at intervals not exceeding 6 hours. Concrete shall be kept moist on exposed surfaces for a period of not less than 72 hours or as approved by the Engineer.

Alternative methods of protecting and curing concrete, such as ponding in which the water is to be maintained at least 50mm deep, may be approved by the Engineer. In any case liquid curing membranes shall not be used on exposed surfaces or where laitance is to be removed and aggregate exposed to provide satisfactory bond for placing further concrete or mortar screeds. Liquid curing membranes shall not be used where mortar, resin mortar, or joint sealant is to be applied.

Sufficient methods to afford full protection to a concrete pour shall be available at the place of work prior to the commencement of concreting.

During very hot weather conditions, the Contractor may be required to cool formwork containing concrete by spraying with water. This shall be carried out where directed notwithstanding and whatever other measures the Contractor may have employed for the curing of the concrete. All materials spray equipment and an ample supply of water for curing shall be ready on site before any concreting starts.

Faulty Work

Any portion of the work which is honeycombed or otherwise inferior shall on the written instruction of the Engineer, be immediately cut out and reconstructed in an approved manner without extra charge. Plastering of defective work shall NOT be permitted.

Loading of Concrete Structures:

No external load of any kind shall be applied to any part of a concrete structure until the concrete has matured for at least 7 days and then only with the approval of the Engineer and after confirmation those 7 days specimen strengths as agreed by the Engineer have been met.

4.1.3. Formwork and Concrete Finishes

General

Formwork shall include all temporary moulds for forming the concrete together with all temporary constructions required to support such moulds.

Drawings and Calculations

The Contractor shall submit Drawings showings details of the formwork he intends to use for the approval of the Engineer. The Drawings shall show the materials proposed and indicate details of construction such as size of members, pacing and position of walling, girders, struts, bolts, and wedges. Formwork shall not be constructed until the Drawings and calculations, (if applicable) have been approved by the Engineer. But such approval shall not relieve the Contractor of his responsibility for the adequacy and performance of the formwork. Any changes or modifications to the formwork required by any the Engineer shall be carried out at no extra cost.

Formwork shall be of suitable design and adequate construction to carry the loads without excessive bulging, distortion, or deflection. Formwork shall be constructed so as to prevent loss of water or grout from the concrete. Special attention shall be measured to formwork where poker or formwork vibrators are used to compact the concrete.

Materials for Formwork

Formwork shall be made from good quality timber, free from loose knots, shakes and warped surfaces. Timber for formwork shall not be less than 30 mm in thickness, and the board faces in contact with concrete and the board edges shall be planed smooth. Formworks used to have fair faced concrete shall be appropriate for this purpose.

Alternatively, with the approval of the Engineer, formwork may be made from with no additional cost:

- plywood or hardboard 5 mm in thickness supported by close boarded timber
- plywood not less than 17.5 mm in thickness. The plywood or hardboard shall be resistant to deterioration by water and shall be fixed and jointed in such a manner as to give a perfectly smooth and even finish to the concrete.

Fixing of Formwork

Formwork shall be fixed to perfect line and level and be truly plane with no crevices at joints, and shall be securely braced, supported, and wedged so as to retain its position without displacement or deflection during the placing and compaction of the concrete. All joints shall be either horizontal or vertical.

Coating to Prevent Adhesion

All formwork in contact with concrete shall be treated with an approved mould oil or solution before usage to prevent the adhesion of the concrete. Such oil or solution shall be carefully applied in such a manner that there is no contamination of the reinforcement or previously placed concrete by the oil or solution. Any materials which shall adhere to or discolour the concrete shall not be used.

Access Holes

Adequate access holes shall be left for the purpose of cleaning the formworks and for placing and compaction of the concrete.

Cleaning and Re-Using of Formwork

Before any concrete is placed, the formworks shall be properly cleaned and washed out with water and air under pressure to remove sawdust, shavings, and all other foreign matter. All water shall then be drained and mopped out from the formwork.

In no case shall concrete be placed in formwork before the formwork has been approved by the Engineer. If formworks or moulds are to be re-used, all surfaces shall be cleaned and shall be completely free from remnants of concrete or mortar. If in the opinion of the Engineer, formworks or moulds are not acceptable for reuse, they shall be either properly repaired or substituted with new formworks or moulds that comply with this specification.

Removal of Formworks

Formwork shall be designed as to permit easy removal without resorting hammering or levering against the surface.

The period of time elapsing between the placing of the concrete and the striking of the formwork shall be as approved by the Engineer and shall be in any case not less than the period stated in TS 500 or DIN 1045. If not otherwise directed, the striking times for side formwork for slabs shall be 3 days.

At all times the Contractor shall delay the removal of the formwork if in the opinion of the Engineer the concrete contained therein has not attained sufficient hardness.

In cases of average temperatures being below 4°C, the period of removal shall be extended by the number of days the temperature has been lower than 4°C. The periods given in days are days of 24 hours duration.

Finish to Concrete Surfaces

All surfaces shall be free from cracks, sand runs, honeycombing, porosity and grout/matrix loss.

Dimension and Surfaces of In-Site Concrete

Workmanship in formwork and concreting shall be such that concrete shall normally require no making good, surfaces being perfectly compacted, smooth and with no irregularities. Concrete surfaces for the various finishes shall in any event never exceed the maximum permitted tolerances stated below:

- Line and level: ± 12 mm
- Dimension: ± 12

Remedial Treatment of Concrete Surfaces

Any remedial treatment to concrete surfaces shall be agreed with the Engineer following inspection immediately after the stripping of formwork and shall be carried out without delay.

Any concrete surface which is found to have been treated before inspection by the Engineer shall be rejected.

Any minor surface blemishes shall be repaired to the satisfaction of the Engineer immediately after completion of curing. Remedial measures may include, but shall not be limited to, the following:

- Holes left for formwork supports shall be thoroughly cleaned out to remove all loose material and the sides shall be roughened, if necessary, to ensure a satisfactory bond. They shall then be filled with dry-pack mortar.
- Fins, pinhole bubbles, surface discoloration and minor defects may be rubbed down with sacking and cement immediately the formwork is removed.
- Abrupt and gradual irregularities may be rubbed down with carborundum and water after the concrete has been fully cured, where curing shall be applied in accordance with principles stipulated in the "Protection and Curing of Concrete" section
- Small defects and minor honeycombing shall be chipped out perpendicular to the face of the concrete to a depth of at least 25 mm and filled with dry-pack mortar.
- Fissures shall be repaired by using epoxy based materials or by using materials approved by the Engineer.

All other defects shall be regarded as too extensive to permit satisfactory repair and the concrete containing the defect shall be broken out and replaced.

4.1.4. Steel Reinforcement

4.1.4.1. Types, Quality and Storage

Steel reinforcement for concrete shall consist of steel bars or steel wire fabric. Steel bars shall consist of deformed bars of type ST III (S420a (with a characteristic tensile strength of 420 MPa)) as specified in TS 500 and TS 706 EN 12620 or DIN 488 T1 and DIN 488 T2. Steel wire fabric reinforcement shall be in accordance with TS 4559 or DIN 488 T4.

The Contractor shall submit reinforcement detail Drawings and calculations to the Engineer for his approval.

The Contractor shall prepare test specimens of steel reinforcement to be used in the Works. Test specimens shall be taken in the presence of the Engineer and shall be of a size sufficient to carry out the tests as described below. They shall be tested in an approved laboratory and the certified copies of the results of the tests shall be submitted to the Engineer. The specimens shall be tested for bending and tensile properties and the wire fabric also for weld shear strength. The methods and requirements for testing shall be carried out in accordance with TS 4559 and TS 802 or DIN 488 T3, 488 T5 and 488 T6. No steel reinforcement shall be used in the Works until the testing results have been approved by the Engineer. If ordered by the Engineer, test procedures shall be repeated at the Contractor's expense for any new supply of reinforcement during the course of the Works.

Storage of reinforcement shall be on racks or supports clear of the ground. Different types and sizes of reinforcement shall be kept separate.

4.1.4.2. Bending and Cutting Schedules

The Contractor shall prepare for his own use bar bending schedules and bar lists, cutting schedules and sheet lists for wire fabrics for each individual structure from the information given in the approved working Drawings, and shall be responsible for ensuring that correct information is given when ordering reinforcement. Copies of

these schedules lists, and orders shall be submitted to the Engineer for his approval. Steel bar supports shall be included in the bending schedules.

The approval of the bar bending and cutting schedules, list, and orders shall not relieve the Contractor of his responsibility to execute the reinforcement fixing in accordance with the Drawings and/or according to the requirements specified in TS 500 and DIN 1045.

4.1.4.3. Protection and Cleaning

Reinforcement shall be protected at all times from damage, and when placed in the structure shall be free from dirt, loose mill scale, rust scale, paint, oil, or other foreign substance. All reinforcing steel shall be carefully cleaned of all set or partially set concrete, formwork oil or paint which may have been deposited during the construction of adjacent works.

4.1.4.4. Bending of Bars

Steel reinforcement shall be cut from straight bars free from kinks and bends or other damage and shall be bent cold by experienced competent workmen. Bars of diameter greater than 12 mm shall be bent in a bending machine designed for the purpose and approved by the Engineer. Any reinforcing bar that has already been bent shall not be re-bent at the place of the previous bend.

4.1.4.5. Cutting of Wire Fabrics

Wire fabric reinforcement shall be cut straight from the sheets. The use of off-cuts shall not be permitted.

4.1.4.6. Lapping of Bars and Wire Fabrics

Lapping bars and wire fabrics is permitted when necessary and approved by the Engineer. No welding of reinforcement shall be carried out unless authorized by the Engineer, welding and testing for reinforcement shall comply with the requirements specified in TS 500 or DIN 4099 T1.

Unless otherwise specified, lap length of bars shall be at least forty (40) times the diameter of the larger bar, and laps shall be positioned in a staggered pattern.

Laps on adjacent section of wire fabrics shall generally be carried out as follows:

- End to end by lapping the two pcs one full mesh (measured from the ends of the longitudinal wires in the other piece) and securing the two pcs together with wire ties placed at intervals of about 450 mm.
- Side by side by placing the two selva wires (the longitudinal wires at the edges of the fabric) one alongside and lapping the other, and by securing the two pcs together with wire ties placed at intervals of about 900 mm.

Contractor shall also comply with the requirements given in special technical specification for wire meshes (wire fabric).

4.1.4.7. Fixing of Reinforcement

All reinforcement steel shall be accurately placed and fixed in position and retained in that position during the placing of the concrete.

Spacer blocks for holding the reinforcement from contact with the forms or adjacent reinforcement, shall be of dense pre-cast concrete blocks of approved shapes and dimensions. The blocks shall be fitted with a semi-circular hollowing and double bent poured-in binding wires. The water tightness of these blocks must be at least similar to the concrete into which they are concreted. The use of pebbles, pcs of broken stone or brick or other materials shall not be permitted. Steel shall be bound and tied in its correct position using steel wire. Apart from any other requirement, the reinforcement, the reinforcing steel shall be fixed in such a manner that it shall support its own

weight and any loads which may be imposed upon it during construction without displacement, deflection, or movement of any kind.

In slabs provided with two or more layers of reinforcement the parallel layers of steel bars or wire meshes shall be supported in position by the use of steel chairs. Spacer blocks shall be placed at each chair to support the layers of reinforcement from the blinding concrete or formwork.

The distance between any two parallel bars except at laps shall not be less than 5 mm greater than the nominal aggregate size.

All reinforcement exposed to the weather for long periods before concreting is commenced shall be covered with polythene blinding tape, cement grout or other materials to the surrounding concrete. Should in spite of these precautions rust staining occurs on any permanently visible surfaces, it shall be removed at once to the satisfaction of the Engineer.

4.1.4.8.Thickness of Cover

The thickness of cover for the reinforced concrete ground slab and columns shall be 50 mm. For the beams shall be 30mm. For the shell and floor shall be 25mm. For external works, reinforced concrete covers shall be 60 mm.

4.1.4.9.Tolerances

Tolerances in placing reinforcement shall be +/- 10 mm.

4.1.5. Structural Steelwork

4.1.5.1.General

Basis of Design

(If required) The structural steelwork shall be designed according to TS 648 and relevant local codes.

The following design parameters shall be used:

7.5 KN/m² Plant room - Live load

5.0 KN/m² Offices - Live load

1.0 KN/m² Service Load - Factory Areas

0.5 KN/m² Service Load - Utility Areas

0.5 KN/m² Ceiling and Service Load - Office Area

0.25 KN/m² Service Load - Leaf Stores

Seismic to TDY 2007 requirements.

Wind loading TS 498.

Design Constraints:

Unless required or permitted otherwise, following shall be complied with when completing the design and detailing of the work:

End craters shall be excluded when calculating lengths of welds.

Bolts shall be not less than 20 mm diameter for purlin elements.

Not less than two bolts shall be used in any connection.

Minimum weld according to design results and TS 648.

Drawings:

Contractor shall prepare all shop drawings prior to manufacturing and shall submit for Engineer's approval.

Proposals for Erection:

At least 14 days before starting erection of steelwork, following details shall be submitted:

- Method and sequence of erection.
- Temporary guys and bracing proposed for use during erection.
- Working areas for cranes (if required), and storage.
- Any special hardstanding requirement.

4.1.5.2.Fabrication

Materials and Workmanship:

Shall comply with BS 5950 unless specified otherwise.

Shall be in accordance with The National Structural Steelwork Specification for Building Construction latest edition (NSSS).

Accuracy of fabrication shall be controlled to ensure compliance with levels of accuracy specified for the erected structure.

Engineer shall be informed when fabrication is due to start. Steelwork for which the drawings have not been checked by Engineer shall not be fabricated.

Before fabricating, it shall be ensured that surface condition of steel which is to be coated complies with requirements specified for cleaning.

It shall be ensured that fabrication processes do not cause changes in properties of materials resulting in noncompliance with specified requirements.

Connections shall be of the same grade as the parent section.

Steelwork, Steel grade to: EN 10025, S235 S275 and S355

Storage and Handling:

Fabricated steelwork shall be stored clear of the ground and keep clean.

Storage and handling shall be done carefully to avoid damage to steelwork and any protective coatings.

Identification marks shall be visible when members are stacked.

Marking:

Details of proposed methods of identifying and recording materials and components shall be submitted to the Engineer to ensure correct use and location in the structure.

Marks shall be placed in positions which can be checked after erection.

Straightening and Flattening:

Hammering is not permissible. Heating to maximum 650 °C may be used applied after receiving Engineer's approval.

Accelerated cooling shall not be used without the approval of the Engineer.

Faying Surfaces for Hsfg Joints:

Faying surfaces in steel shall be checked, where 25 mm thick or more for deformities such as bowing, twist or rippling which may reduce slip factor below the design limit occurs, remedial measures shall be proposed for Engineer's approval.

Untreated surfaces which are in accordance with BS 4604 may be considered as having a slip factor of 0.45. Surfaces which have been machined or given any form of treatment shall have a slip factor determined by tests to BS 4604.

Compression Joints:

Abutting surfaces dependent on contact for transmission of load shall be milled, sawn or otherwise suitably prepared to ensure full and even distribution of load.

End Connections:

Angle cleats, if used, project beyond ends of simply supported members shall be ensured.

Hollow Sections:

Insides of sections shall be dry and clear of debris, before sealing ends and openings.

Base Plates:

25 mm diameter holes in all base plates more than 1 sqm in area shall be made to allow the escape of air when grouting after erection of columns.

Finishing:

Burrs and sharp edges shall be removed by grinding.

Welds shall be carefully dressed to remove slag by light hammering, wire brushing or other methods that do not deform the surface of the weld.

Shop Assembly:

Fit, profile and camber shall be checked before making connections in lattice girders and trusses which are to be assembled before delivery to site.

Shop Inspection:

7 working day notice shall be given to the Engineer before starting fabrication.

4.1.5.3.Welding

General

Welding tests should cover the frame & truss welding, the columns & base plate welding and should be reported during the fabrication at the work shop.

Welding on Site

Welding on site shall not be permitted unless shown on drawings or otherwise approved. When permitted, ensure suitable, safe conditions shall be ensured by the Contractor. Welding when the ambient temperature is below 0°C or surfaces are wet is not permissible.

Additional Welds

Any welds (including tack welds) that are not shown on drawings shall not be placed, without approval, even for temporary attachment or repair of faulty plates.

Butt Welds

Run on and run off plates shall be used to ensure full throat thickness at ends of butt welds as follows:

Material for plates shall be of the same grade as material being welded.

Plates shall be prepared in same manner as parts being joined.

After completion of welding, plates shall be removed by cutting and grind smooth the surfaces where they were attached.

Plates shall be retained and identified for inspection.

4.1.5.4.Bolt Assemblies

General

All bolts shall be Grade to DIN ISO898 and relevant DIN 6914, DIN 7990, DIN 7968.

Bolt length shall be such that one thread plus the thread runout will be clear between the unit and the unthreaded shank of the bolt after tightening and at least one clear thread shall show above the nut. All bolts shall be grade 4.6, 5.6, 8.8 and 10.9 to BS 4190 with anchorage bolt unless noted otherwise.

Sherardized Finish to Bolts

All bolts shall be compliant to BS 4921, Class 1 applied by fastening manufacturer and passivated.

Spring Washers

Shall conform with BS 4464.

Using Drifts

Holes shall be aligned carefully to prevent distortion or enlargement when using drifts.

Report any misalignment of holes to shall be reported to the Engineer. If faulty member is not rejected, ream hole to correct position.

Tapered Washers

In addition to the requirements of BS 5950: Part 2, suitably tapered washers shall be used prevented from turning when tightening.

Load Indicating Washers:

Manufacturer and reference: By the Contractor for Engineer's approval.

When placed under bolt head, bolt turning shall be prevented when tightening.

When placed under nut, nibs shall be protected with a hardened washer and both washers shall be prevented from turning when tightening.

Sealed Hollow Sections:

Bolt holes shall be sealed to prevent access of moisture. If method of sealing is not specified, proposals shall be submitted for Engineer's approval.

4.1.5.5.Erection

Before Commencing Erection

Not less than 10 days before proposed start date, foundations and other structures to which steelwork will be attached shall be checked for accuracy of setting out, and holding down bolts for position, protruding length, condition, and slackness.

Any inaccuracies and defects shall be reported to Engineer without delay.

Permission of Engineer shall be obtained to commence erection.

Erecting Steelwork

Steel work shall be set out and erected to Section 8 of NSSS.

All temporary erection bracing necessary to ensure stability of the building during erection shall be provided. They shall be removed only when it is safe to do so, timing shall be agreed with the Engineer.

Steelwork shall not be distorted, and stress limits shall not be exceeded during erection unless otherwise approved.

Setting Out

Shall comply with the requirements of BS 5950: Part 2.

Modifications

Engineer shall be informed of any defects due to detailing or fabrication errors.

Approval of methods of rectification shall be obtained before starting modification or remedial work.

Bolt Boxes

Mild steel 100 mm diameter 20 S.W.G.

Column Bases

Level shall be corrected raising or lowering using sawn steel packs or folding wedges not larger than necessary for the purpose.

Position packs symmetrically around perimeter of base plate; a single central pack shall not be used.

Engineer shall be notified when the space beneath any column base is less than 15 mm or more than 80 mm.

Accuracy of erection shall be checked, and all errors shall be corrected before grouting/casting in bases and carrying out any other adjacent work.

Bolt pockets and space beneath column base plates shall be completely filled with grout as follows:

Non-shrink grout mixed and poured that shall be according to manufacturer's instructions.

Movement Joints

Sliding surfaces shall be coated with molybdenum disulphide grease before connecting.

Bolts shall be in the centre of slotted holes after erection of structure and that the joint is free to move.

4.1.5.6. Inspection / Testing of Steelwork

Inspection

The Engineer and/or an independent inspection agency appointed by him, shall be allowed inspect the work at all reasonable times and at all places where it is being carried out. All facilities, hand tools, lighting, etc. as necessary shall be provided to ensure adequate inspection.

Testing

Testing capacity of bolts (torque values), which are used during the erection of steel assemblies shall be recorded. The contractor should submit torque values regularly to the engineer. Torching tests should be completed according to the instructions directed by the Engineer.

Manufacturing Plant

The Workshops should be approved by the engineer before the manufacture starts.

Testing Authority

All tests shall be carried out by a NATLAS (National Testing Laboratory Accreditation Scheme) Accredited Laboratory or locally approved laboratory.

Products:

Two copies of the test certificates for steel shall be submitted to Engineer.

Defective Work:

As soon as possible after any part of the work or any materials are known or suspected to be defective, proposals for further testing, inspection or replacement shall be submitted and instructions shall be obtained.

4.1.5.7. Protective Coating Work**Operators**

Operators shall be appropriately skilled and experienced in the use of specified materials and methods of application.

Coating Materials

Wherever possible, shall be from one manufacturing batch. Where more than one batch are to be used, shall be kept separate, shall be allocated to distinct parts or areas of the work, and the Engineer shall be informed accordingly.

It shall be checked whether all coating materials to be used are recommended by their manufacturers for the particular surface and conditions of exposure, and that they are compatible with each other.

Coating materials shall be obtained from one only of the following manufacturers unless specified otherwise. Engineer shall be informed of the selected manufacturer at an early date.

Preparation Materials and Ancillaries

They shall be the types recommended by their manufacturers and the protective coating manufacturer for the surfaces being prepared.

Galvanizing

All cutting, welding, and drilling shall be completed beforehand. Provide all necessary vent and drain holes shall be provided in approved locations and shall be sealed to approval after galvanizing.

Inspection

Coating manufacturers shall be allowed to inspect the work in progress and take samples of their products if required. Any directions or requests given by the coating manufacturer's representative shall not be complied with unless and until confirmed by the Engineer.

Engineer shall be notified of projected dates for start of surface preparation and coating.

At least 7 days notice shall be given to the Engineer before coated members or components leave the works.

Handling and Storing Coated Steelwork:

Methods and equipment which will minimise chafing, chipping, and other damage to coated components shall be used.

An adequate drying/curing period shall be ensured for each coat before handling.

Suitable packings, lashings, lifting harnesses, nylon slings, rubber protected chains and chocks, etc. shall be used

Coated components shall be stacked clear of the ground, separated by timber chocks, and so that ponding does not occur.

Protection

Freshly applied surface coatings shall be adequately protected from damage.

'Wet paint' signs shall be exhibited, and protective barriers shall be provided where necessary.

Surfaces adjacent to those being covered shall be adequately protected.

Remedial Work

Early degradation of coatings by blistering, peeling, flaking, cracking, lack of adhesion, etc. shall be made good by complete removal, preparation, and reapplication of all coats, as instructed.

Inadequate dry film thickness or surface defects due to inclement weather may, depending on the type of paint, shall be remedied by rubbing down and applying further coat(s), as instructed.

Mechanical damage to coatings shall be made good by local cutting back of coatings, preparation, and reapplication of all coats to leave a neat, continuous, and flat finish.

Where damage to coatings or subsequent surface preparation has exposed bare metal, it shall be thoroughly cleaned and primed within two hours.

4.1.5.8. Protective Coating System(s)**Galvanizing**

According to plant facilities and functions for steel parts if galvanizing needed.

Use/location: Any externally exposed steelwork and all steel in contact with external brick wall.

Preparation: Blast cleaning to BS 4232, second quality (for roughness) using chilled iron grit grade G24, followed by acid pickling.

Galvanizing: TS EN ISO 1461 and relevant TSE end EN codes.

2 coats of RIW liquid asphaltic composition 200 microns.

Zinc Phosphate 2 Pack Epoxy Primer

Use/location: All Internal Steelwork.

Paint manufacturer: International Paint Coatings or similar approved.

Shop preparation: Blast clean to BS 7079: Part A1 preparation grade SA 2 1/2

Shop primer: Intergard 251 zinc phosphate epoxy primer or similar approved

Dry film thickness: 50 microns (before fabrication).

Shop intermediate coat: Intergard 475HS MIO 2-pack epoxy primer, or similar approved.

Dry film thickness: 125 microns.

Shop top coat: Interthane 870 acrylic polyurethane, or similar approved.

Dry film thickness: 75 microns.

External Steelwork

Use/location: All external steelwork

Paint manufacturer: International Protective Coatings, or similar approved.

Shop preparation: Blast clean to BS 7079: Part A1, preparation grade 21/2.

Shop primer: Intergard 251 zinc phosphate epoxy primer, or similar approved

Dry film thickness: 50 microns (before fabrication)

Shop intermediate coat: Intergard 475HS MIO 2-pack epoxy, or similar approved.

Dry film thickness: 200 microns

Shop top coat: Interthane 870 acrylic polyurethane, or similar approved.

Dry film thickness: 100 microns

4.1.5.9.Preparation for Painting

Offsite Preparation and Painting

Offsite preparation and painting shall be carried out under cover in properly lit, heated, and ventilated conditions.

Sequence of working shall be selected from one of the following and the Engineer shall be informed before starting work:

- Fabricate - blast clean - prime as specified
- Blast clean - fabricate - prime as specified (Immediately before priming remove flash rust with a light overall sweep blast), or
- Blast clean - prime with a weldable prefabrication primer recommended by the manufacturer of the specified primer - fabricate - prime as specified (Thickness of post-fabrication priming coat may be reduced as recommended by manufacturer).

Inaccessible Surfaces

The sequence of working shall be such as to ensure that surfaces inaccessible after assembly receive the full specified treatment and coating system including, if necessary, local shop application of site coatings.

Blast Cleaning for Painting

Steel shall comply with BS7079: Part A1 at time of blasting as follows:

- Dry blasting: Initial rust grade A or B.
- Wet blasting: Initial rust grade A, B or C.

Thoroughly degrease shall be made. Mill scale shall be removed by chipping, grinding and/or heat treatment.

Blast clean shall be to the specified BS 7079 preparation grades, and quality of preparation shall be controlled in accordance with BS 5493, Appendix F. Abrasives of suitable type and size, free from contamination by dust, water and oil shall be used.

All surface defects likely to be detrimental to the protective painting system, including the following shall be removed:

- Defects in the steel, including cracks, surface laminations, shelling and deep pitting as required by BS EN 10029, 10113 and 10210.
- Defects resulting from fabrication, including fins at cuts, burrs, sharp edges and weld spatter.

- Rogue peaks remaining after blasting. Where extensive grinding is necessary to remedy defects, re-blast the dressed areas.

All dust shall be thoroughly cleaned off in a clean area of the works using a vacuum head fitted with edge brushes.

Primer shall be applied as soon as practicable and within four hours of blasting.

Manual Cleaning of New Steelwork

Steel shall comply with BS 7079 Part A1 grade St 2.

Surfaces shall be chipped, scraped, disc sand and grinded to remove all fins, burrs, sharp edges, weld spatter, loose rust, and loose scale. All crevices shall be cleaned out.

Thoroughly degreasing shall be made using emulsion cleaners followed by thorough rinsing with water.

Primer shall be applied when surface is dry and on the same day as cleaning.

Preparation for Site Welding of Shop Painted Steelwork:

Weld areas shall be blast clean and mask before coating the surrounding areas. If more than one coat will be applied to surrounding areas, each coat shall be stepped 30 mm back from edge of preceding coat. Masking shall be removed immediately before welding.

Weld areas shall be alternatively prepared and shop paint as specified, then shall be grinded off to bare steel immediately before welding.

Treatment of Site Welded Joints in Painted Steelwork

After welding, and without delay, all scale and weld spatter shall be removed from the weld areas by grinding or chipping, abrading shall be made to remove all traces of rust, washing with clean water shall be made and shall be allowed to dry.

Priming shall be made without delay and further coatings to the weld areas shall be applied to match the surrounding painted areas.

Bolted Joints (Non-Friction Grip)

Where steelwork will be shop painted, full shop specification shall be applied to joint faces.

Where steelwork will be erected with a mill finish then site painted, joint faces shall be prepared and primed before erection and shall be allowed to dry. Immediately before assembling bolted joints in externally exposed steelwork, a further coat of primer shall be applied, and the surfaces shall be brought together while still wet.

Before applying site coatings to externally exposed steelwork, all crevices to bolts and joint perimeters with shall be sealed with a compatible mastic.

Faying Surfaces of Friction Grip Joints

Blast clean and mask shall be made before coating surrounding areas. The masking shall adequately protect the faying surface from deterioration and contamination.

If more than one coat will be applied to surrounding areas, each coat shall be stepped 30 mm back from edge of preceding coat.

Masking shall be removed immediately before bolting; faying surfaces shall be free from adhesive and shall be cleaned with solvent if necessary.

Friction Grip Joints in Shop Painted Steelwork

After final tightening of bolts, and without delay, bare steel at joint edges shall be thoroughly degreased and cleaned and primed as specified.

All crevices to bolts and joint perimeters shall be sealed with a compatible mastic.

Further coatings to surrounding areas shall be applied to match adjacent shop painted areas before applying specified site coatings.

Uncoated Fastenings

After erection, thoroughly degrease and clean and, without delay, coating(s) shall be applied to match surrounding shop painted areas before applying specified site coating(s).

Galvanized Fastenings

After erection, thoroughly degreasing and cleaning shall be made and a suitable etch primer shall be applied before applying specified site coating(s).

Site Preparation of Shop Painted Steelwork

All necessary remedial work shall be carried out as specified. All surfaces shall be prepared by abrading and/or washing down as recommended by manufacturer before applying coats.

Site Preparation of Galvanized Surfaces for Painting

Thoroughly degreasing shall be made. If metal coating is defective instructions from the Engineer shall be obtained before proceeding. Any white corrosion products shall be removed with a stiff brush. Shall be washed off and allowed to dry before applying specified etching wash or primer.

4.1.5.10.Painting**Suitability of Conditions**

Coatings shall not be applied:

- To the surfaces affected by moisture or frost.
- When ambient temperature is below 5°C or the relative humidity is more than 80%.
- When heat is likely to cause blistering or wrinkling.

All necessary precautions shall be taken including restrictions on working hours, providing temporary protection, and allowing extra drying time, to ensure that coatings are not adversely affected by climatic conditions before, during and after application.

Applying Coatings

Adjacent coats of the same material (including any stripe coats) shall be of a different tint to ensure that each coat provides complete coverage.

Coatings shall be applied to clean, dust free, suitably dry surfaces in dry atmospheric conditions and after any previous coats have hardened. Coatings shall be applied evenly to give a smooth finish of uniform thickness and colour, free from brush marks, nibs, sags, runs and other defects.

All surfaces shall be kept clean and free from dust during coating and drying. Completed work shall be adequately protected from damage.

Film Thickness

Wet film thickness of each coat shall be not less than that required to give the specified dry film thickness. Before starting work, test samples shall be prepared and measured to verify the relationship between wet and dry film thicknesses and the results shall be submitted to Engineer.

Thickness of each coat shall be checked during application using a wet film thickness wheel or comb in accordance with BS 3900: Part C5.

After each coat has dried the total accumulated dry film thickness shall be measured using a magnetic or electromagnetic meter, checked against standard shims, and recalibrated regularly as recommended by the manufacturer, the number and position of measurements shall be as directed by the Engineer. All measurements shall be carried out in the presence of the Engineer unless otherwise directed.

Over any square metre of coating the average accumulated dry film thickness shall be equal or exceed the specified thickness, with no reading less than 90% of the specified thickness.

If at any stage the accumulated dry film thickness is deficient, the Engineer may require application of additional coat(s) at no extra cost. The full top coat thickness shall be maintained, notwithstanding any greater than specified undercoat thickness.

Stripe Coats

An additional narrow stripe coat of the same nominal thickness as the relevant full coat to all external angles shall be brush applied. Stripe coats of primer or undercoat shall be applied after the general coat. Stripe coats of top coat shall be applied before the general coat.

Colour of Top Coat

Colour shall be selected by the Beneficiary and informed by the Engineer (unless already specified in drawings). Colour of preceding coat shall be as recommended by the paint manufacturer to suit the top coat colour.

Junctions with Concrete

Where exposed steelwork is partially embedded or encased in concrete, two coats of an approved rubber/bituminous coating shall be applied locally to the steel/concrete junction as instructed by the Engineer.

4.2. WORK ITEM DESCRIPTIONS FOR CIVIL AND ARCHITECTURAL WORKS

Please be informed that whenever Turkish version of the specifications is given, it is for reference purpose only. In case of an inconsistency between Turkish and English versions, English version shall prevail.

Item no	Item	Unit
CAW.01	Excavation of soft and hard soil by machine (free excavation)	m ³
Description/ Specifications	<p>On soft and hard soil; 1m³ excavation price: including all kinds of materials and losses, labor, for excavation with machinery, loading on vehicles, transporting up to 25 meters, unloading, laying, filling the gaps left in excavation site after the construction, levelling and correcting the excavation site, warehouse and fill, labor:</p> <p>MEASURE: The volume of the excavation is calculated over the excavation project.</p> <p>NOTE: 1) This unit price does not include transportation, irrigation and compaction costs of the embankment outside of 25 meters.</p>	

	2)Depth hike is not paid. taken in terms of health and safety, for the approval of the Engineer prior to starting excavation works on site.	
Related official pose/item number, book	15.120.1001 Makine ile yumuşak ve sert toprak kazılması (serbest kazı) (Ministry of Environment and Urbanization)	
Item no	Item	Unit
CAW.02	By supplying gravel, laying, irrigation and compaction by machine	m ³
Description/ Specifications	The price of 1 m3 including all kinds of labor, material and loss, loading at the workplace, horizontal and vertical transportation, unloading, contractor general expenses and profit for the supply of the gravel, pouring it on the field, laying it with a motor grader watering it, compacting it layer by layer with vibratory roller: MEASURE : Its volume is calculated according to the dimensions in the project.	
Related official pose/item number, book	15.125.1004 Çakıl temin edilerek, makine ile serme, sulama ve sıkıştırma yapılması (Ministry of Environment and Urbanization)	
Item no	Item	Unit
CAW.03	Pouring normal ready-mixed concrete in C 16/20 pressure strength class, gray color, produced or purchased at the concrete plant and pressed with a concrete pump (including concrete transport)	m ³
Description/ Specifications	The price of 1 m ³ of normal ready mixed concrete in gray color with a compressive strength of C 16/20: In complete concrete facility suitable for concrete production (with a minimum capacity of 60m3/h, compressor with four-cell aggregate hopper and control cabinet, computer controlled, conveyor belt system with a cement silo with a minimum capacity of 50 tons, recycling unit, laboratory with the capacity to perform aggregate and concrete (tests), with a generator, sufficient transmixers and mobile concrete pumps a periodically calibrated concrete production facility with at least one loader, additive tank and additive weighing bunker, moisture meter and all kinds of similar teams and equipment) washed, sieved granulometric sand in accordance with the standard and project. - gravel and/or crushed stone, cement, water and, if necessary, additives and ready-mixed concrete mortar produced in C 16/20 class or purchased from a concrete plant with these qualities; conducting concrete quality controls, loading it into transmixers, transporting it to the workplace, pressing with a concrete pump to the casting site, placing it, compacting it with a vibrator, watering it, protecting and maintaining it from cold, heat and other external influences, taking samples for the necessary and sufficient number of tests and performing the necessary tests. All kinds of labor, materials and losses, machinery, equipment and laboratory expenses, all kinds of horizontal and vertical transports, loading and unloading in the workplace, granulometric sand, gravel or crushed stone and cement included in the concrete are supplied, produced or purchased to vehicles from the place where they are produced or purchased, loading, poured on site, including transportation to the concrete facility, unloading from vehicles, stowage, placing in the concrete facility, supply and	

	<p>transportation of water used within the concrete and for irrigation, supply and depreciation expenses of the concrete facility and all other equipment, and all kinds of other expenses and the contractor's general expenses and profit.</p> <p>MEASURE: It is calculated according to the dimensions in the project.</p> <p>NOTE:</p> <p>1) The facility where the produced or purchased concrete is produced must have the other documents required by the TSE and its legislation and submit these documents to the administration before starting production. Provided that the submitted documents are determined to be appropriate and its use is allowed, it will only be possible to use the concrete with a certificate of conformity produced or purchased in this facility and which also meets the market supply conditions according to the current legislation.</p> <p>2) In case the concrete is purchased and procured, a copy of the invoices on which the name of the work is stated must be attached to the payment documents.</p> <p>3) The cost of the additive material to be added to the concrete structure will be paid separately.</p> <p>4) If the pump is not used, the pump cost is deducted from the analysis.</p> <p><u>TSE certificate required for the material: TS EN 206+A2</u></p>
Related official pose/item number, book	15.150.1003 Beton santralinde üretilen veya satın alınan ve beton pompasıyla basılan, C 16/20 basınç dayanım sınıfında, gri renkte, normal hazır beton dökülmesi (beton nakli dahil) (Ministry of Environment and Urbanization)

Item no	Item	Unit
CAW.04	Making a flat surface reinforced concrete formwork with plywood	m ²
Description/ Specifications	<p>According to the project and its specification; the price of 1 m² including making flat-surfaced concrete and reinforced concrete formwork from 21 mm thick plywood (film-covered) artificial boards with oiled inner surface, reinforcing them to withstand the vibrations deemed necessary, dismantling the formwork, all kinds of materials required for these works and labor with their losses, horizontal-vertical in the workplace, transportation, loading-unloading, contractor general expenses and profit:</p> <p>MEASURE:</p> <p>Molded faces are calculated from the project or by measuring in place. Perimeter molds of manufacturing holes for which the void volume is not subtracted are not included in the measurement. The hole gap is not removed from the face of the hole on the mold side.</p> <p>NOTE :</p> <p>1) Framework scaffolding is paid separately.</p> <p>2) The material coming out of the mold belongs to the contractor</p>	
Related official pose/item number, book	15.180.1003 Plywood ile düz yüzeyli betonarme kalıbı yapılması (Ministry of Environment and Urbanization)	

Item no	Item	Unit
CAW.05	Pouring normal ready-mixed concrete in C 30/37 pressure strength class, gray color, produced or purchased at the concrete plant and pressed with a concrete pump (including concrete transport)	m ³

Description/ Specifications	<p>The price of 1 m³ of normal ready mixed concrete in gray color with a compressive strength of C 30/37: In complete concrete facility suitable for concrete production (with a minimum capacity of 60m3/h, compressor with four-cell aggregate hopper and control cabinet, computer controlled, conveyor belt system with a cement silo with a minimum capacity of 50 tons, recycling unit, laboratory with the capacity to perform aggregate and concrete (tests), with a generator, sufficient transmixers and mobile concrete pumps a periodically calibrated concrete production facility with at least one loader, additive tank and additive weighing bunker, moisture meter and all kinds of similar teams and equipment) washed, sieved granulometric sand in accordance with the standard and project. - gravel and/or crushed stone, cement, water and, if necessary, additives and ready-mixed concrete mortar produced in C 30/37 class or purchased from a concrete plant with these qualities; conducting concrete quality controls, loading it into transmixers, transporting it to the workplace, pressing with a concrete pump to the casting site, placing it, compacting it with a vibrator, watering it, protecting and maintaining it from cold, heat and other external influences, taking samples for the necessary and sufficient number of tests and performing the necessary tests. All kinds of labor, materials and losses, machinery, equipment and laboratory expenses, all kinds of horizontal and vertical transports, loading and unloading in the workplace, granulometric sand, gravel or crushed stone and cement included in the concrete are supplied, produced or purchased to vehicles from the place where they are produced or purchased, loading, poured on site, including transportation to the concrete facility, unloading from vehicles, stowage, placing in the concrete facility, supply and transportation of water used within the concrete and for irrigation, supply and depreciation expenses of the concrete facility and all other equipment, and all kinds of other expenses and the contractor's general expenses and profit.</p> <p>MEASURE: It is calculated according to the dimensions in the project.</p> <p>NOTE:</p> <p>1) The facility where the produced or purchased concrete is produced must have the other documents required by the TSE and its legislation and submit these documents to the administration before starting production. Provided that the submitted documents are determined to be appropriate and its use is allowed, it will only be possible to use the concrete with a certificate of conformity produced or purchased in this facility and which also meets the market supply conditions according to the current legislation.</p> <p>2) In case the concrete is purchased and procured, a copy of the invoices on which the name of the work is stated must be attached to the payment documents.</p> <p>3) The cost of the additive material to be added to the concrete structure will be paid separately.</p> <p>4) If the pump is not used, the pump cost is deducted from the analysis.</p> <p><u>TSE certificate required for the material: TS EN 206+A2</u></p>	
Related official pose/item number, book	15.150.1006 Beton santralinde üretilen veya satın alınan ve beton pompasıyla basılan, C 30/37 basınç dayanım sınıfında, gri renkte, normal hazır beton dökülmesi (beton nakli dahil) (Ministry of Environment and Urbanization)	

Item no	Item	Unit
CAW.06	Ø 8- Ø 12 mm ribbed cocnrete steel bar, cutting, bending and repositioning of bars	ton

Description/ Specifications	<p>The price of 1 ton, including the preparation of the ribbed concrete steel bar by cutting and bending according to the detail project, the iron, binding wire and all kinds of necessary materials and losses for its placement, binding, loading at the construction site, horizontal and vertical transportation, unloading, labor, contractor general expenses and profit:</p> <p>MEASUREMENT:</p> <p>1) According to the reinforced concrete detail pictures, the length of the iron is measured with the clasps.</p> <p>2) The weights of the steel bars are taken from the table below.</p> <p>3) Steel bars and attachments not shown in the project are not taken into the account.</p> <p>4) The weights (m) on the chart are essential to the calculation. No additional payment is made as the tie wire, the steels to be used between the steel bar and rows and the loss are taken into account in the analysis.</p> <p>Diameter (Ø) Unit Weight</p> <p>mm Kg/m</p> <p>8 0,395</p> <p>10 0,617</p> <p>12 0,888</p>	
Related official pose/item number, book	15.160.1003 Ø 8- Ø 12 mm nervürlü beton çelik çubuğu, çubukların kesilmesi, bükülmesi ve yerine konulması (Ministry of Environment and Urbanization)	

Item no	Item	Unit
CAW.07	Filling with tined sand, gravel or stabilizer, bending and putting in place	m ³
Description/ Specifications	<p>All kinds of materials, tools and tools, contractor profit and general expenses, including all labor for removing the sedimented sand and gravel or stabilizer from the quarry, loading and unloading to vehicles, at the filling site, leveling, (excluding transportation of the sedimented sand, gravel or stabilizer) 1 m³ price:</p> <p>MEASURE:</p> <p>It is measured over the m³ of filling made according to the project. Stinging and jamming are not accepted.</p>	
Related official pose/item number, book	74.013.0032 Tüvenan kum, çakıl veya stabilize ile dolgu yapılması (Ministry of Transport and Infrastructure)	

Item no	Item	Unit
CAW.08	Pouring normal ready-mixed concrete in C 25/30 pressure strength class, gray color, produced or purchased at the concrete plant and pressed with a concrete pump (including concrete transport)	m ³
Description/ Specifications	<p>The price of 1 m³ of normal ready mixed concrete in gray color with a compressive strength of C 25/30: In complete concrete facility suitable for concrete production (with a minimum capacity of 60m³/h, compressor with four-cell aggregate hopper and control cabinet, computer controlled, conveyor belt system with a cement silo with a minimum capacity of 50 tons, recycling unit, laboratory with the capacity to perform aggregate and concrete (tests), with a generator, sufficient transmixers and mobile concrete pumps a periodically</p>	

	<p>calibrated concrete production facility with at least one loader, additive tank and additive weighing bunker, moisture meter and all kinds of similar teams and equipment) washed, sieved granulometric sand in accordance with the standard and project. - gravel and/or crushed stone, cement, water and, if necessary, additives and ready-mixed concrete mortar produced in C 25/30 class or purchased from a concrete plant with these qualities; conducting concrete quality controls, loading it into transmixers, transporting it to the workplace, pressing with a concrete pump to the casting site, placing it, compacting it with a vibrator, watering it, protecting and maintaining it from cold, heat and other external influences, taking samples for the necessary and sufficient number of tests and performing the necessary tests. All kinds of labor, materials and losses, machinery, equipment and laboratory expenses, all kinds of horizontal and vertical transports, loading and unloading in the workplace, granulometric sand, gravel or crushed stone and cement included in the concrete are supplied, produced or purchased to vehicles from the place where they are produced or purchased, loading, poured on site, including transportation to the concrete facility, unloading from vehicles, stowage, placing in the concrete facility, supply and transportation of water used within the concrete and for irrigation, supply and depreciation expenses of the concrete facility and all other equipment, and all kinds of other expenses and the contractor's general expenses and profit.</p> <p>MEASURE: It is calculated according to the dimensions in the project.</p> <p>NOTE:</p> <p>1) The facility where the produced or purchased concrete is produced must have the other documents required by the TSE and its legislation and submit these documents to the administration before starting production. Provided that the submitted documents are determined to be appropriate and its use is allowed, it will only be possible to use the concrete with a certificate of conformity produced or purchased in this facility and which also meets the market supply conditions according to the current legislation.</p> <p>2) In case the concrete is purchased and procured, a copy of the invoices on which the name of the work is stated must be attached to the payment documents.</p> <p>3) The cost of the additive material to be added to the concrete structure will be paid separately.</p> <p>4) If the pump is not used, the pump cost is deducted from the analysis.</p> <p><u>TSE certificate required for the material: TS EN 206+A2</u></p>	
Related official pose/item number, book	15.150.1005 Beton santralinde üretilen veya satın alınan ve beton pompasıyla basılan, C 25/30 basınç dayanım sınıfında, gri renkte, normal hazır beton dökülmesi (beton nakli dahil) (Ministry of Environment and Urbanization)	
Item no	Item	Unit
CAW.09	Replacing the ribbed wire mesh 1,500-3,000 kg/m2 (including 3,000 kg(m2))	ton
Description/ Specifications	<p>Assembling the wire mesh, which is formed into a mesh by spot welding from 5.00 mm and larger St IV b bars, in accordance with the project, adding it by overlapping according to the specifications and details and forming the support, loading at the construction site, horizontal and vertical transportation, unloading, The price of 1 ton of mesh steel, including all kinds of materials and losses, labor, tools, equipment expenses, contractor general expenses and profit:</p> <p>MEASURE:</p>	

	<div>1) According to the reinforced concrete project, the calculated square meter of the steel mesh is multiplied by the weights shown in the table below, and it is calculated as tons.</div> <div>2) Steel and attachments not shown in the project are not taken into account.</div> <div>3) Tie wire, kg/m weight differences (relative to the scale) are not taken into account as the support iron is included in the loss in the analysis.</div> <div>TSE certificate required for the material: TS 4559</div> <div>STEEL MESH WEIGHT TABLE</div> <div>BY ROD BREAK Kg/m² (One direction)</div> <div>Diam. Kg/m. 50mm 75mm 100mm 150mm 200mm 250mm 300mm</div> <table><tr><td>4.0</td><td>0.099</td><td>1.97</td><td>1.32</td><td>0.99</td><td>0.66</td><td>0.49</td><td>0.39</td><td>0.33</td></tr><tr><td>5.0</td><td>0.154</td><td>3.08</td><td>2.06</td><td>1.54</td><td>1.03</td><td>0.77</td><td>0.62</td><td>0.51</td></tr><tr><td>5.5</td><td>0.187</td><td>3.73</td><td>2.49</td><td>1.87</td><td>1.24</td><td>0.93</td><td>0.75</td><td>0.62</td></tr><tr><td>6.0</td><td>0.222</td><td>4.44</td><td>2.96</td><td>2.22</td><td>1.48</td><td>1.11</td><td>0.89</td><td>0.74</td></tr><tr><td>6.5</td><td>0.260</td><td>5.21</td><td>3.47</td><td>2.60</td><td>1.74</td><td>1.30</td><td>1.04</td><td>0.87</td></tr><tr><td>7.0</td><td>0.302</td><td>6.04</td><td>4.03</td><td>3.02</td><td>2.01</td><td>1.51</td><td>1.21</td><td>1.01</td></tr><tr><td>7.5</td><td>0.347</td><td>6.94</td><td>4.62</td><td>3.47</td><td>2.31</td><td>1.73</td><td>1.39</td><td>1.16</td></tr><tr><td>8.0</td><td>0.395</td><td>7.89</td><td>5.26</td><td>3.95</td><td>2.63</td><td>1.97</td><td>1.58</td><td>1.32</td></tr><tr><td>8.5</td><td>0.445</td><td>8.91</td><td>5.94</td><td>4.45</td><td>2.97</td><td>2.23</td><td>1.78</td><td>1.48</td></tr><tr><td>9.0</td><td>0.499</td><td>9.99</td><td>6.66</td><td>4.99</td><td>3.33</td><td>2.50</td><td>2.00</td><td>1.66</td></tr><tr><td>9.5</td><td>0.556</td><td>11.13</td><td>7.42</td><td>5.56</td><td>3.71</td><td>2.78</td><td>2.23</td><td>1.85</td></tr><tr><td>10.0</td><td>0.617</td><td>12.33</td><td>8.22</td><td>6.17</td><td>4.11</td><td>3.08</td><td>2.47</td><td>2.06</td></tr><tr><td>10.5</td><td>0.680</td><td>13.59</td><td>9.06</td><td>6.80</td><td>4.53</td><td>3.40</td><td>2.72</td><td>2.27</td></tr><tr><td>11.0</td><td>0.746</td><td>14.92</td><td>9.95</td><td>7.46</td><td>4.97</td><td>3.73</td><td>2.98</td><td>2.49</td></tr><tr><td>11.5</td><td>0.815</td><td>16.31</td><td>10.87</td><td>8.15</td><td>5.44</td><td>4.08</td><td>3.26</td><td>2.72</td></tr><tr><td>12.0</td><td>0.888</td><td>17.76</td><td>11.84</td><td>8.88</td><td>5.92</td><td>4.44</td><td>3.55</td><td>2.96</td></tr></table>	4.0	0.099	1.97	1.32	0.99	0.66	0.49	0.39	0.33	5.0	0.154	3.08	2.06	1.54	1.03	0.77	0.62	0.51	5.5	0.187	3.73	2.49	1.87	1.24	0.93	0.75	0.62	6.0	0.222	4.44	2.96	2.22	1.48	1.11	0.89	0.74	6.5	0.260	5.21	3.47	2.60	1.74	1.30	1.04	0.87	7.0	0.302	6.04	4.03	3.02	2.01	1.51	1.21	1.01	7.5	0.347	6.94	4.62	3.47	2.31	1.73	1.39	1.16	8.0	0.395	7.89	5.26	3.95	2.63	1.97	1.58	1.32	8.5	0.445	8.91	5.94	4.45	2.97	2.23	1.78	1.48	9.0	0.499	9.99	6.66	4.99	3.33	2.50	2.00	1.66	9.5	0.556	11.13	7.42	5.56	3.71	2.78	2.23	1.85	10.0	0.617	12.33	8.22	6.17	4.11	3.08	2.47	2.06	10.5	0.680	13.59	9.06	6.80	4.53	3.40	2.72	2.27	11.0	0.746	14.92	9.95	7.46	4.97	3.73	2.98	2.49	11.5	0.815	16.31	10.87	8.15	5.44	4.08	3.26	2.72	12.0	0.888	17.76	11.84	8.88	5.92	4.44	3.55	2.96
4.0	0.099	1.97	1.32	0.99	0.66	0.49	0.39	0.33																																																																																																																																									
5.0	0.154	3.08	2.06	1.54	1.03	0.77	0.62	0.51																																																																																																																																									
5.5	0.187	3.73	2.49	1.87	1.24	0.93	0.75	0.62																																																																																																																																									
6.0	0.222	4.44	2.96	2.22	1.48	1.11	0.89	0.74																																																																																																																																									
6.5	0.260	5.21	3.47	2.60	1.74	1.30	1.04	0.87																																																																																																																																									
7.0	0.302	6.04	4.03	3.02	2.01	1.51	1.21	1.01																																																																																																																																									
7.5	0.347	6.94	4.62	3.47	2.31	1.73	1.39	1.16																																																																																																																																									
8.0	0.395	7.89	5.26	3.95	2.63	1.97	1.58	1.32																																																																																																																																									
8.5	0.445	8.91	5.94	4.45	2.97	2.23	1.78	1.48																																																																																																																																									
9.0	0.499	9.99	6.66	4.99	3.33	2.50	2.00	1.66																																																																																																																																									
9.5	0.556	11.13	7.42	5.56	3.71	2.78	2.23	1.85																																																																																																																																									
10.0	0.617	12.33	8.22	6.17	4.11	3.08	2.47	2.06																																																																																																																																									
10.5	0.680	13.59	9.06	6.80	4.53	3.40	2.72	2.27																																																																																																																																									
11.0	0.746	14.92	9.95	7.46	4.97	3.73	2.98	2.49																																																																																																																																									
11.5	0.815	16.31	10.87	8.15	5.44	4.08	3.26	2.72																																																																																																																																									
12.0	0.888	17.76	11.84	8.88	5.92	4.44	3.55	2.96																																																																																																																																									
Related official pose/item number, book	15.160.1001 Nervürlü çelik hasırın yerine konulması 1,500-3,000 kg/m2 (3,000 kg/m2 dahil) (Ministry of Environment and Urbanization)																																																																																																																																																

Item no	Item	Unit
CAW.10	Making two layers of waterproofing with 3 mm thick plastomer-based (-10 °C cold bending) polyester fet carrier polymer bitumen covers	m²
Description/ Specifications	The price of 1 m² including cleaning the surface prepared for insulation, in accordance with the approved detail project, and applying bitumen emulsion while it is dry, using at least 0,400 kg per m² as a primer, after the primer dries, without igniting the polymer bitumen cover with a torch flame, as the first layer, with plastomer-based 3 mm thick polyester felt carrier (-10 °C cold bending) polymer bituminous cover in strips with full bonding method by overlapping at least 10 cm from the joints; as the second layer, the plastomer-based 3 mm thick polyester felt carrier (bend at -10 °C cold) polymer bituminous cover is bonded in the same direction as the first layer, in strips, with the full bonding method, by overlapping the joints at least 10 cm, loading, horizontal vertical transportation and unloading at the construction site, all kinds of materials and losses, labor equipment and equipment expenses, installation and dismantling of work benches when necessary, and contractor's general expenses and profit: MEASURE: All insulated surfaces are calculated according to the dimensions in the project.	

	NOTE: Necessary protection measure should be taken for the indulation covers and their costs should be paid at teir own. TSE certificate required for the material: Bitumen emulsion TS 113	
Related official pose/item number, book	15.255.1005 3 mm kalınlıkta plastomer esaslı (-10 °C soğukta bükülmeli) polyester keçe taşıyıcılı polimer bitümlü örtüler ile iki kat su yalıtımı yapılması (Ministry of Environment and Urbanization)	
Item no	Item	Unit
CAW.11	Two layers of waterproofing with 5 cm thick plates with smooth surface (xps - 200 kpa pressure resistant) and thermal insulation on the horizontal (on the ground or intermadiate floor concrete, e	m ²
Description/ Specifications	According to the project and details approved by the administration, the price of 1 m ² including laying of 5 cm thick XPS boards on the floor on which the thermal insulation boards will be laid, without gaps between them, loading at the construction site, horizontal and vertical transportation, unloading, all kinds of materials and casualties, labor, tools and equipment expenses, contractor general expenses and profit: MEASURE :All insulated surfaces are calculated according to the dimensions in the project. NOTE: 1) The thickness of the extruded polystyrene foam will be determined according to the heat calculation to be made. 2)XPS used in thermal insulation applications on floor concrete; It should have a density of min.30 kg/m3 and a compression strength of min. 200 Kpa.	
Related official pose/item number, book	15.335.1603 5 cm kalınlıkta yüzeyi düzgün levhalar (xps - 200 kpa basınç dayanımlı) ile yatayda (zemin yada arakat döşeme betonu üzerinde vb.) ısı yalıtımı yapılması (Ministry of Environment and Urbanization)	
Item no	Item	Unit
CAW.12	Laying 250 gr/m ² of geotextile felt	m ²
Description/ Specifications	Laying the 250 gr/m ² geotextile felt with at least 10 cm overlapping the joints in order to protect the insulation on the foundation or on the terrace in accordance with the project and its details approved by the administration, loading at the construction site, horizontal vertical transport and unloading, all kinds of materials and losses, labor tools and equipment expenses , the price of 1 m ² , including the installation and dismantling of work benches when necessary, and the contractor's overheads and profits: MEASURE: All surfaces on which felt is laid are calculated according to the dimensions in the project. NOT:This specification does not apply in cases where different measurable properties are sought according to the tesy standards other than weight in the project and specification.	
Related official pose/item number, book	15.245.1002 250 gr/m ² ağırlıkta geotekstil keçe serilmesi (Ministry of Environment and Urbanization)	
Item no	Item	Unit

CAW.13	Making screed with a thickness of 2.5 cm and 400 kg of cement	m ²
Description/ Specifications	<p>According to the project and detail project, it is necessary to clean and wash the surface to be screed, to make an average 2.5 cm thick trowel-polished screed, watering, cleaning and washing when necessary, for the anodes made with the mortar obtained by adding 400 kg of cement to 1 m³ of sand, with planed laths in 2x2 cm section. the price of 1 m², including all kinds of materials and losses, labor, loading at the construction site, horizontal and vertical transportation, unloading, contractor's general expenses and profit:</p> <p>MEASURE : The area of the screed is calculated over the project.</p>	
Related official pose/item number, book	15.250.1101 2.5 cm kalınlığında 400 kg çimento dozlu şap yapılması	
Item no	Item	Unit
CAW.14	Carcass, (frame) construction with all kinds of profiles, steel bars and steel sheets, fixing in place (structure frame, beams from profile iron in bridges, caps, connections and similar manufacture	Ton
Description/ Specifications	<p>Carcass construction with all kinds of profiles, steel bars, steel, sheets at every height and opening according to the project, adding the parts with rivets, bolts and welding, assembling all the parts in place, all kinds of materials and losses, loading at the construction site, horizontal and vertical transport, carrier Construction and replacement of scaffolding or lifting device, including unloading, labor, contractor general expenses and profit (excluding paint cost), price of 1 ton:</p> <p>MEASURE:</p> <p>1)Weighing is essential in the measurement, the profile iron rivets, bolts, additional plates and similar fasteners are weighed and attached to the attachment before they are painted together and assembled.</p> <p>2) However, if the administrations deem it necessary, they can verify the weight of the scales over the project dimensions compared to the weights of all profiles and joint point plates in the table. As a result of this weighing; Payment is made up to 7% more by weight compared to the tables. More than 7% of the weight is not taken into account. Rivet and bolt holes are taken as full in account verification. If the weight found as a result of this scale is less than the one in the chart, the scale is taken as the basis, provided that the production is accepted by the administration.</p> <p><u>TSE certificate required for the material: (S235JR) (TS 910, TS 912, TS 911 EN 10055)</u></p>	
Related official pose/item number, book	15.165.1003 Her çeşit profil, çelik çubuk ve çelik sacarla karkas, (çerçeve) inşaat yapılması, yerine tespiti (yapı karkası, köprülerde profil demirlerinden kirişler, başlıklar, bağlantılar ve benzeri imalatlar)	
Item no	Item	Unit
CAW.15	Flooring with 60x60 cm nominal size, rectified, all kinds of colors, patterns and surface features, first quality, glossy, unglazed porcelain tile with 3 mm joint gaps (with tile adhesive)	m ²

Description/ Specifications	<p>The price of 1 m², including cleaning and moistening the smooth surface in accordance with the approved detail project from dirt, dust, burrs and similar residues that prevent adhesion, applying cement-based, high-performance, slip-reduced, extended open time tile adhesive on the surface and grooving with a special comb, 60 x 60 cm Laying of first quality, glossy, unglazed porcelain tiles in nominal sizes, rectified, with all kinds of colors, patterns and surface features, in accordance with the gauge and leveling, leaving 3 mm joint gaps, the joints are cement-based in the desired color, high performance, high wear resistance, filling with joint filler material with reduced water absorption, cleaning the coated surface, all kinds of materials and losses, labor tool and equipment expenses, loading at the workplace, horizontal and vertical transportation, unloading, contractor general expenses and profit:</p> <p>Measure: It is calculated according to the dimensions on the coated surface and the skirting project, if any.</p> <p><u>TSE certificate required for the material: TS EN 14411</u></p>	
Related official pose/item number, book	<p>15.390.1028 60 x 60 cm anma ebatlarında, rektifiyeli, her türlü renk, desen ve yüzey özelliğinde, kalite, parlak, sırsız porselen karo ile 3 mm derz aralıklı döşeme kaplaması yapılması (karo yapıştırıcısı ile) (Ministry of Environment and Urbanization)</p>	
Item no	Item	Unit
CAW.16	Wall construction with 20 cm thick non-equipped gas concrete wall blocks (with gas concrete glue) (g2 class) (2,50 n/mm ² and 400 kg/m ³)	m ²
Description/ Specifications	<p>For the construction of walls using unequipped aerated concrete wall blocks and aerated concrete glue according to the project, the price of 1 m², including loading, horizontal and vertical transportation, unloading, all kinds of material and losses, labor, tools and equipment expenses, contractor general expenses and profit at the construction site:</p> <p>MEASURE: Calculated over the dimensions in the project. Spaces smaller than 0.10 m² are not deducted.</p> <p><u>TSE certificate required for the material: TS EN 771-4+A1</u></p>	
Related official pose/item number, book	<p>15.225.1010 20 cm kalınlığındaki techizatsız gazbeton duvar blokları ile duvar yapılması (gazbeton tutkalı ile) (g2 sınıfı)(2,50 n/mm² ve 400 kg/m³)</p> <p>(Ministry of Environment and Urbanization)</p>	
Item no	Item	Unit
CAW.17	Buildings walls with 19 cm thick load-bearing pumice concrete wall blocks (with pumice concrete glue) (min 5 n/mm ² and min 900 kg/m ³)	m ²
Description/ Specifications	<p>For the construction of walls using unequipped aerated concrete wall blocks and aerated concrete glue according to the project, the price of 1 m², including loading, horizontal and vertical transportation, unloading, all kinds of material and losses, labor, tools and equipment expenses, contractor general expenses and profit at the construction site:</p> <p>MEASURE: Calculated over the dimensions in the project. Spaces smaller than 0.10 m² are not deducted.</p> <p><u>TSE certificate required for the material: TS EN 771-3+A1</u></p>	

Related official pose/item number, book	15.230.1103 19 cm kalınlığındaki taşıyıcı bimsbeton duvar blokları ile duvar yapılması (bimsbeton tutkalı ile) (min. 5 n/mm ² ve min. 900 kg/m ³) (Ministry of Environment and Urbanization)	
Item no	Item	Unit
CAW.18	Buildings walls with 10 cm thick load-bearing pumice concrete wall blocks (with pumice concrete glue) (min 5 n/mm² and min 900 kg/m³)	m ²
Description/ Specifications	<p>For the construction of walls using unequipped aerated concrete wall blocks and aerated concrete glue according to the project, the price of 1 m², including loading, horizontal and vertical transportation, unloading, all kinds of material and losses, labor, tools and equipment expenses, contractor general expenses and profit at the construction site:</p> <p>MEASURE: Calculated over the dimensions in the project. Spaces smaller than 0.10 m² are not deducted.</p> <p><u>TSE certificate required for the material: TS EN 771-3+A1</u></p>	
Related official pose/item number, book	15.230.1101 10 cm kalınlığındaki taşıyıcı bimsbeton duvar blokları ile duvar yapılması (bimsbeton tutkalı ile) (min. 5 n/mm ² ve min. 900 kg/m ³) (Ministry of Environment and Urbanization)	
Item no	Item	Unit
CAW.19	Covering with perlite plaster plaster and satin plaster (on concrete, brick walls, etc.)	m ²
Description/ Specifications	<p>The price of 1 m², including Concrete, brick wall etc. applying a single layer of plaster with 15 mm thick perlite plaster on the faces, applying the second layer of 5 mm thick with 1/2 perlite plaster + 1/2 satin plaster mix mortar, plastering corner profiles, different materials, beams, columns and wall junctions / transitions on plaster centers, all kinds of materials and losses for placing the mesh, 1 mm thick satin plaster coating on it, sanding, cleaning from dust, workplace loading, horizontal and vertical transportation, unloading, labor, contractor general expenses and profit:</p> <p>MEASURE :</p> <p>1) According to the dimensions in the project, all plastered faces (including the gap sides) are calculated.</p> <p>2) Joinery moldings and plaster surfaces under wooden skirting, if any, are taken into account.</p> <p>3) All cavities and other types of pavement surfaces are deducted.</p> <p><u>TSE certificate required for the material: TS EN 13279-1,2</u></p>	
Related official pose/item number, book	15.280.1009 Perlitli sıva alçısı ve saten alçı ile kaplama yapılması (Beton, tuğla duvar vb. yüzeylere) (Ministry of Environment and Urbanization)	
Item no	Item	Unit

CAW.20	Applying two coats of water-based silk matte paint to new plaster surfaces by applying putty and primer (interior)	m ²
Description/ Specifications	<p>1 m2 price, including , on the surface to be painted; after sanding, grinding and cleaning, 0.075 kg of water-based primer is applied and after 0.350 kg of putty, the surface is sanded. For applying 0.100 kg 1st layer, 0,100 kg 2nd layer water-based silk mat paint in the desired color, on 0.075 kg water-based primer, all kinds of materials and losses, labor, contractor's general expenses and profit:</p> <p>MEASURE: The surfaces painted over the project are measured. All spaces are deducted.</p> <p>NOTE : For walls and ceilings higher than 3 m, additional work scaffolding is provided. If there is a scaffolding for plaster, it is not given to paint separately.</p>	
Related official pose/item number, book	15.540.1217 Yeni siva yüzeylere macun ve astar uygulanarak iki kat su bazlı ipekmat boya yapılması (iç cephe) (Ministry of Environment and Urbanization)	
Item no	Item	Unit
CAW.21	Rough plastering with cement lime mixture mortar (interior)	m ²
Description/ Specifications	<p>1 m² price including rough plastering with an average thickness of 2 cm with a mortar prepared by adding 200 kg of cement and 0.128 tons of bagged slaked lime to 1 m³ of toothed sand, watering when necessary, cleaning the wall surface, all kinds of materials and losses, workmanship, work stands, loading at the construction site, horizontal and vertical transportation , unloading, including profit of contractor general expenses:</p> <p>MEASURE: All plastered surfaces are calculated over the project.</p>	
Related official pose/item number, book	15.275.1107 Çimento Kireç karışımı harç ile kaba siva yapılması (iç cephe) (Ministry of Environment and Urbanization)	
Item no	Item	Unit
CAW.22	Wall and facade cladding with 30x60 cm nominal size, rectified, all kinds of colors, patterns and surface features, first quality, glossy, unglazed porcelain tile with 3 mm joint gaps (with tile adhesive)	m ²
Description/ Specifications	<p>1 m² price including cleaning and moistening the smooth surface in accordance with the approved detail project from dirt, dust, burrs and similar residues that prevent adhesion, applying cement-based, high-performance, slip-reduced, extended open time tile adhesive on the surface and grooving with a special comb, 30 x 60 cm Laying of first quality, glossy, unglazed porcelain tiles in nominal sizes, rectified, with all kinds of colors, patterns and surface properties, in accordance with the gauge, leaving 3 mm joint gaps, the joints are cement-based, high performance, high abrasion resistant, water resistant, in the desired color, filling with joint filler material with reduced absorption, cleaning of the coated surface, all kinds of materials and losses, labor tool and equipment expenses, loading at the workplace, horizontal and vertical transportation, unloading, contractor general expenses and profit:</p>	

	MEASURE: The coated surfaces are calculated according to the dimensions on the project. <u>TSE certificate required for the material: TS EN 14411</u>	
Related official pose/item number, book	15.390.1070 30 x 60 cm anma ebatlarında, rektifiyeli, her türlü renk, desen ve yüzey özelliğinde, ı.kalite, parlak, sırsız porselen karo ile 3 mm derz aralıklı duvar ve cephe kaplaması yapılması (karo yapıştırıcısı ile (Ministry of Environment and Urbanization)	
Item no	Item	Unit
CAW.23	60*60 cm dimensions, 0.70 mm thickness, min 20 micron electristatic powder coated (polyster based) perforated aluminum plate (en az 3000 series) with acoustic fabric on the back side, suspended system suspended ceiling	m ²
Description/ Specifications	<p>According to the project approved by the administration and its details, The price of 1 m2, including 24 mm wide T main and intermediate carrier profiles are suspended with 40 cm long and 4 mm diameter specially adjusted galvanized steel hanger sets at 60 cm intervals and at the desired level, leveling L profiles with 0.50 mm thickness on the ceiling edges. Placement of aluminum plates (en aw 3000 series) in desired color (60x60) cm size (0.70 mm thick aluminum plate with 20 micron thick polyester-based electrostatic powder painted on both sides) on T main and intermediate carrier profiles, electrical fixtures or installation specifications, all kinds of materials and losses, workshop costs, horizontal and vertical transportation in the workplace, unloading, labor, contractor's general expenses and profit, for the construction of suspended ceilings by opening the places according to their requirements:</p> <p>MEASURE: 1) Surfaces on which suspended ceilings are made are measured. 2) Spaces smaller than 0.25 m2 for ventilation and electrical fixtures and other spaces are not deducted</p> <p><u>TSE certificate required for the material: TS EN 13964</u></p>	
Related official pose/item number, book	15.535.1003 60*60 cm ebadında 0.70 mm kalınlığında min.20 mikron elektrostatik toz boyalı (polyester esaslı) arka yüzü akustik kumaş kaplı delikli alüminyum plakadan (en aw 3000 serisi) oturmali sistem asma tavan yapılması (Ministry of Environment and Urbanization)	
Item no	Item	Unit
CAW.24	Construction of suspended ceiling with double skeleton suspension system with gypsum boards (Agraf mes. 900 mm in the same direction, with axis intervals of main carried profile of 1000mm, of secondary carrier profile of distance of 500mm) (with 12.5mm single layer of gypsum wall board with increased fire resistance)	m ²
Description/ Specifications	<p>According to the project approved by the administration and its details; Attaching 50 mm insulation tape to the parts of the ceiling U-profile (TU28) in contact with the wall and fixing it to the existing wall using screws and plastic dowels, starting at a distance of approximately 5 cm from the ends of both profiles, and 60 cm intervals, the first main carrier axis from the existing wall to the ceiling surface. cm distance, marking the lines where successive axes will be fixed at maximum 100 cm intervals, fixing 20 cm braces on the marked lines with steel dowels at maximum 90 cm intervals, adjusting the hooks by bending them according to the</p>	

	<p>suspended ceiling gap distance, ceiling C-profile (TC60) cutting, placing the TC60 profiles between the two wings of the brackets and leveling them, fixing the brackets to both wings of the TC60 profiles with bracket screws and thus forming the main carrier, fixing the secondary carrier TC60 profiles perpendicular to the main carrier TC60 profiles with clips at 50 cm intervals, add-on parts The use of gypsum plasterboard and staggering the profile joints, sizing the gypsum boards when necessary and correcting the cut edges using a grater, chamfering artificially at an angle of approximately 45° with the appropriate apparatus to the cut edges and the non-beveled edges of the gypsum boards, screw heads of gypsum boards to TU28 and TC60 profiles are flush with the gypsum board to be fixed with trumpet screws at a maximum distance of 30 cm, staggering the short side joints of the board at least 40 cm from each other, pre-filling the gaps of more than 3 mm with joint filler plaster, closing the screw heads with joint filler plaster, jointing tape with plaster wall plate attachment. The price of 1 m², including all kinds of materials and losses, labor, workplace loading, horizontal and vertical transportation, unloading, and contractor general expenses and profits:</p> <p>NOTE :</p> <p>1- Spaces smaller than 0.50 m² are not deducted .</p> <p>2- The application rules specified in the TS 1475-1 application standard should be followed.</p>	
Related official pose/item number, book	15.530.1903 Alçı levhalar ile çift iskeletli askı sistemli asma tavan yapılması (Agraf mes. aynıyönde 900mm, ana taşıyıcı profil mes.1000mm, tali taşıyıcı profil mes. 500mm aks aralıkları ile)(12,5mm tek kat yang. dayanımı artırılmış alçıduvar levhası ile) (Ministry of Environment and Urbanization)	

Item no	Item	Unit
CAW.25	Making a satin plaster coating (average 1 mm thickness)	m ²
Description/ Specifications	<p>1 m2 price, including carefully cleaning and deburring the surfaces to be satin polished, applying the satin gypsum mortar prepared after cleaning to the surface with an average of 1 mm thickness using a steel trowel, sanding, cleaning from dust, all kinds of materials and losses, workplace loading, horizontal and vertical transportation, unloading, labor, contractor general expenses and profit:</p> <p>MEASURE :</p> <p>1)According to the dimensions in the project, all plastered faces (including the gap sides) are calculated.</p> <p>2) Joinery moldings and plaster surfaces under wooden skirting, if any, are taken into account.</p> <p>3) All cavities and other types of pavement surfaces are deducted.</p> <p><u>TSE certificate required for the material: TS EN 13279-1,2</u></p>	
Related official pose/item number, book	15.280.1011 Saten alçı kaplaması yapılması (ortalama 1 mm kalınlık) (Ministry of Environment and Urbanization)	

Item no	Item	Unit
CAW.26	Applying two coats of water-based silk matte paint by applying a primer to satin plaster and gypsum board surfaces (interior)	m ²

Description/ Specifications	1 m2 price, after cleaning the surface to be painted, 0.150 kg water-based primer is applied, on top of which 0.100 kg 1st coat, 0,100 kg 2nd coat water-based silk matte paint is applied, including all kinds of materials and losses, labor, contractor general expenses and profit: MEASURE : Surfaces painted over the project are measured. All spaces are deducted. NOTE : Work scaffolding is also provided for walls and ceilings higher than 3 m. If there is a scaffolding for plaster, it is not given to paint separately.	
Related official pose/item number, book	15.540.1219 Saten alçılı ve alçıpanel yüzeylere astar uygulanarak iki kat su bazlı ipekmat boya yapılması (iç cephe) (Ministry of Environment and Urbanization)	
Item no	Item	Unit
CAW.27	Roofing with 60mm rockwool insulated (0.50mm thick painted galvanized sheet at the top and 0.50mm thick painted galvanized sheet at the bottom) on the existing steel purlins	m ²
Description/ Specifications	1 m2 price, including Placing the 60 mm rockwool insulated (painted galvanized sheet on top and bottom) roof panel on the existing steel purlin on the purlins as specified in the project, specification and details, over each rib at the ridge, eaves and overlapping places, over each transverse overlap in other sections. fastening each row to the purlin with screws, sealing with two rows of plastic-based tapes at the longitudinal overlapping places, lower ridge, upper ridge, side shield, eaves profile, streams, eaves sponge, wall, chimney, edge coating etc., installation of accessories and sealing with silicone, loading at the construction site, horizontal and vertical transportation, unloading, all kinds of materials and losses, labor, tools and equipment expenses, contractor's general expenses and profit: MEASURE: Sloped areas are calculated on the project. Spaces of 0.10 m2 and smaller are not deducted. NOTE: 1-Panel assembly starts from the opposite direction of the prevailing wind direction and the screw frequency can be increased according to the calculation to be made. 2-Appropriate mounting screws are selected according to whether the purlins are wooden, reinforced concrete or steel. (Drill-tipped, wood-tipped, triphone screw) 3-In the case of panels, longitudinal overlapping places should be on roofs with a slope of 15% and below (min. 30cm), roofs with a slope of 15% (min. 20cm). 4-Panel ribs should face the outer surface and mounting screws should be applied over the ribs. 5-- Heat insulation should be provided with appropriate insulation materials in the ridge accessory combination <u>TSE certificate required for the material: TS EN 14509</u>	
Related official pose/item number, book	15.320.1010 Mevcut çelik aşıklar üzerine, 60 mm taşıyıcı yalıtımlı (üstü 0.50 mm kalınlıkta boyalı galvanizli sac ve altı 0.50 mm kalınlıkta boyalı galvanizli sac) çatı paneli ile çatı örtüsü yapılması(Ministry of Environment and Urbanization)	
Item no	Item	Unit
CAW.28	Plastering with 250/350 kg cement dosed coarse and thin mortar (exterior plaster)	m ²

Description/ Specifications	1 m2 price including, making rough plaster with an average thickness of 2 cm with a mortar prepared by adding 250 kg of cement to 1 m3 of toothed sand, making an average of 0.8 cm thick plaster with a mortar prepared by adding 350 kg of cement to 1 m3 of mil sand, cleaning the wall surface, watering it when necessary, all kinds of material and loss, workmanship, work benches, loading at the construction site, horizontal and vertical transportation, unloading, contractor general expenses and profit: MEASURE: All plastered surfaces are calculated over the project.	
Related official pose/item number, book	15.275.1101 250/350 kg çimento dozlu kaba ve ince harçla sıva yapılması (dış cephe sıvası) (Ministry of Environment and Urbanization)	
Item no	Item	Unit
CAW.29	5 cm thick carbon black-graphite based expande polystyrene sheets (eps-16 kg/m3 density) external thermal insulation and thermal insulation plaster on the outer walls (sheating)	m ²
Description/ Specifications	Plastic joinery and accessories and glazing beads made of rigid PVC profiles made according to the project and details approved by the administration should be resistant to all weather conditions and their surfaces should be smooth. The main profile made of PVC (according to the standard, the wall thickness is class "A" and the wall thickness should be 2.8 mm on visible surfaces and 2.5 mm on invisible surfaces) in the sections, both heat and sound insulation and a front chamber system designed to accelerate water discharge will be. The required strength of the metal reinforcement profiles and the main profiles (case, wing, middle register) will be provided. Metal reinforcement profiles are U or box profiles made of hot-dip galvanized steel and protected against rust. In both cases, the sheet thickness shall not be more than 1.5 mm in the case and wings and 2 mm in the middle register. (However, if the moment of inertia is higher than the above-mentioned sheet thicknesses as a result of the calculation made on very wide registers and wings, sheet metal with a thickness compatible with the result should be used.) Metal-reinforced PVC profiles are combined with plastic corner welding, screws, wing fastening and other means, and all kinds of window joinery, door, window and similar production are made with the help of auxiliary joinery profiles, plates and other profiles. In accordance with the system recommended by the manufacturer, the gaps of the blades will be insulated with two rows of EPDM rubber, neoprene or tpe gaskets. The installation of glass of all types and thicknesses is done with the help of glass laths. Glass fixation will be provided by gasket, mastic and other methods in accordance with the system recommended by the manufacturer. Each window sash frame (jointing) is fixed to the joinery frame with at least 2 (two) hinges and the door wing frame is fixed with at least 3 (three) hinges. According to the project and details approved by the Administration, The price of 1 m ² including , the hinges are attached to the wall with thermal insulation board adhesive with a thickness of 5 cm, carbon black - graphite based expande polystyrene foam thermal insulation boards, 4 kg per m ² , on the outer walls prepared for sheathing, according to the project and details approved by the Administration. Fixing it to the surface with a thermal insulation dowel, applying the 1st layer of thermal insulation plaster on the plate with a consumption of 3 kg per m ² , placing the plaster mesh on it so that the joints are overlapped by at least 10 cm, and the second layer is 2 kg per m ² , the thermal insulation plaster, loading at the construction site,	

	<p>horizontal and vertical transportation, unloading, all kinds of material and losses, labor, tools and equipment expenses, contractor's general expenses and profit:</p> <p>MEASURE: All insulated surfaces are calculated according to the dimensions in the project.</p> <p>NOTE:1) The thickness of the expanded polystyrene foam will be determined according to the heat calculation to be made.</p> <p>2) The anchor to be used will be determined according to the material properties on the façade to be sheathed.</p> <p>3) Exterior thermal insulation systems must comply with the criteria specified in the TS EN 13499 system standard or ETAG 004.dır</p> <p><u>TSE certificate required for the material: TS EN 13163+A2</u></p>	
Related official pose/item number, book	15.335.1203 5 cm kalınlıkta karbon siyahı - grafit esaslı expande polistren levhalar (eps - 16 kg/m3 yoğunlukta) ile dış duvarlarda dıştan ısı yalıtımı ve üzerine ısı yalıtım sıvası yapılması (mantolama) (Ministry of Environment and Urbanization)	
Item no	Item	Unit
CAW.30	Applying a silicone-based grainy/textured coating to exposed concrete, plastered or old painted surfaces (exterior)	m ²
Description/ Specifications	<p>1 m2 price, including for smoothing the surfaces to be painted with sandpaper or mosaic wiping stone, applying 0.150 kg primer after removing the burrs and excess grainy parts, applying the desired color silicone-based grainy/textured paint to the surface, to hit 0.600 kg on the 1st layer and 0.500 kg on the 2nd layer, all necessary materials and losses, labor, contractor's general expenses and profit:</p> <p>MEASURE : Surfaces painted over the project are measured. All spaces are deducted.</p> <p>NOTE : Work scaffolding is also provided for walls and ceilings higher than 3 m. If there is a scaffolding for plaster, it is not given to paint separately.</p>	
Related official pose/item number, book	15.540.1305 Brüt beton, sıvalı veya eski boyalı yüzeylere, astar uygulanarak silikon esaslı grenli/tekstürlü kaplama yapılması (dış cephe) (Ministry of Environment and Urbanization)	
Item no	Item	Unit
CAW.31	FACADE COVERING WITH MINERAL FILLED COMPOSITE ALUMINUM PLATES (Without Thermal Insulation)	m ²
Description/ Specifications	<p>According to the project, the price of 1 m² including, Aluminum Composite Panel with 4 mm wall thickness (0.50mm+3mm+0.50mm) Between 0.50 mm thick (EN AW 3000 Series) aluminum plates, 3mm thick mineral filled Aluminum sheets, visible outer surface of minimum 28 micron thickness PVDF painted, Production of facade cladding with primer-painted composite panel (Fire Class: A2 S1 d0) plates between aluminum plates and filler, anchoring the main carrier system made of box profile, plumb anchor to the wall surface, painting against corrosion with anti-rust, 28 micron-thick PVDF painted, aluminum plates, making the connection to the joint elements, closing the main carrier joint gaps with aluminum plates with joint strips and siliconizing them, all kinds of materials and losses, labor, tool and equipment expenses and manufacturing and/or transportation of the</p>	

	material to the workplace, loading, horizontal and vertical transportation, unloading at the workplace installation, contractor's profit and general expenses:	
Related official pose/item number, book	77.105.1001 MİNERAL DOLGULU KOMPOZİT ALÜMİNYUM LEVHALAR İLE CEPHE KAPLAMASI YAPILMASI (Isı Yalıtımsız) (General Directorate of PTT)	
Item no	Item	Unit
CAW.32	Making external windowsill with 3 cm thick colored marble plate (3cmx30-40-50cmxfree length) (honed or polished)	m ²
Description/ Specifications	1 m2 price, including cleaning and wetting the existing surfaces made in accordance with the specifications, making a base with 400 kg cement dosed mortar, covering the outer windowsill made of 3 cm thick honed or polished marble slabs, prepared in one piece with a slope and dropper, instead of covering, cleaning, wiping, and doing all the necessary works, all kinds of labor, material and losses, loading-unloading at the workplace, horizontal-vertical transportation, contractor's general expenses and profit: MEASURE: The surfaces on which the cating is made are calculated over the project. <u>TSE certificate required for the material: TS EN 12057, TS EN 1467, TS EN 1468</u>	
Related official pose/item number, book	15.410.1403 3 cm kalınlığında renkli mermer levha ile dış denizlik yapılması (3cmx30-40-50cmxserbest boy) (honlu veya cilalı) (Ministry of Environment and Urbanization)	
Item no	Item	Unit
CAW.33	Stair tread covering with colored marble slabs (step 3cm, pier 2 cm thick) (all kinds of surface treatment except honed and polished)	mt
Description/ Specifications	1 meter price including cleaning and wetting the existing concrete step surfaces made in accordance with the specifications, making a base with 400 kg cement dosed mortar, 3 cm thick marble slab (all kinds of surface treatment except honed and polished) and steps and 2 cm thick marble slabs (except honed and polished) all kinds of workmanship, materials and losses, workplace loading-unloading, horizontal-vertical transportation, contractor general expenses and profit, required for the preparation and covering, cleaning, wiping and performing these works in one piece with the dock separately: MEASURE :The length of the outer edge is calculted from the skirting of the step to the tip of the step over the project . NOTE : Skirting and conservatory coverings are not included in this price. <u>TSE certificate required for the material: TS EN 12057, TS EN 1467, TS EN 1468</u>	
Related official pose/item number, book	15.410.1304 3 cm kalınlığında renkli mermer levha ile dış denizlik yapılması (3cmx30-40-50cmxserbest boy) (honlu veya cilalı) (Ministry of Environment and Urbanization)	
Item no	Item	Unit
CAW.34	Floor covering with 3cm thick colored marble slabs (3cmx30-40-50xfree length) (honed or polished)	m ²

Description/ Specifications	<p>1 m² price including cleaning and wetting the surface of the leveling concrete made in accordance with its specifications, making a base with 400 kg cement dosed mortar in 4 cm thickness, laying honed or polished marble slabs with 2 mm spacing on it, leveling it according to the shape and division in the project, cement-based jointing of joints and all surfaces. plastering with putty, cleaning and wiping the putty on the slab surface after half an hour and performing these works, all kinds of labor, material and loss, loading-unloading at the workplace, horizontal-vertical transportation, contractor general expenses and profit, (except for leveling concrete) :</p> <p>MEASURE : The surfaces on which the cating is made are calculated over the project.</p> <p><u>TSE certificate required for the material: TS EN 12057, TS EN 1467, TS EN 1468</u></p>	
Related official pose/item number, book	<p>15.410.1103 3 cm kalınlığında renkli mermer levha ile döşeme kaplaması yapılması (3cmx30-40-50cmxserbest boy) (honlu veya cilalı) (Ministry of Environment and Urbanization)</p>	
Item no	Item	Unit
CAW.35	Making and replacing various iron works from flat and profile irons	kg
Description/ Specifications	<p>1 kg price, including Iron rivets, bolts, welding and all kinds of materials and losses for the construction of all kinds of stairs, balcony bridge railings, window and garden railings, stairs made to the roof, cesspool and similar places, grills and similar works made of various steel bars, flat bars and profile irons, loading, horizontal and vertical transportation, unloading, labor, contractor general expenses and profit (excluding paint cost) at the workplace:</p> <p>Measure: It is weighed before painting and assembly together with manufacturing and fixing material, if any.</p> <p>Note: However, if the administrations deem it necessary, they can verify the weight of the scales over the project dimensions compared to the weights of all profiles and joint point plates in the table. As a result of this weighing; 7% more weight is paid compared to the tables, more than 7% weight is not taken into account. If the weight found as a result of this scale is less than the one in the chart, the scale is taken as the basis, provided that the production is accepted by the administration.</p> <p><u>TSE certificate required for the material: TS EN 10058, TS 910, TS 912, TS 911 EN 10055</u></p>	
Related official pose/item number, book	<p>15.550.1202 Lama ve profil demirlerden çeşitli demir işleri yapılması ve yerine konulması (Ministry of Environment and Urbanization)</p>	
Item no	Item	Unit
CAW.36	Electrostatic powder coated heat insulated aluminum joinery manufacturing and replacement	kg
Description/ Specifications	<p>According to the project approved by the administration, its detail pictures and the sample;</p> <p>1 kg price, including carrier aluminum joinery profiles (case, record, wing profiles) shaped by extrusion in accordance with current standards and technical specifications in terms of classification, chemical composition, mechanical properties, design, size and thickness tolerances, with electrostatic powder coated aluminum profiles; any kind of single or biaxial, normal opening or sliding etc. window, window, door leaf and casing, etc. Manufactured in the factory, installed in place with all kinds of assembly materials (EPDM wick, PVC film (bituminous foil tape), mounting dowel, etc.) to provide heat, water and air tightness insulation between the place of assembly (blind casing, etc.) and delivery in working</p>	

	<p>condition, transportation to the workplace, all kinds of material losses, workmanship, horizontal and vertical transportation expenses at the workplace, contractor general expenses and profit:</p> <p>MEASURE:</p> <p>1) Aluminum is weighed together with the manufactured parts (including screws, rivets, protective packaging). If weighed together; locks and attachments, window handles, door handles, hinges, transom scissors and strikers, bolts, under-door brushes, hydraulic mechanisms, pivot mechanisms, sliding and double axis mechanisms, etc. If there are accessories such as paid separately, their weight is deducted. Accessory costs, if any, are paid at their own market price, if not, 25% contractor's profit and general expenses are added to the invoice price certified by the competent authorities.</p> <p>2) If the Administration deems it necessary, it can verify the weighing weight according to the weights of the profiles in the table over the project dimensions. As a result of this weighing, a payment is made up to 7% more than the tables. In case the weight found as a result of the weighing is less than the weights in the table, the scale is taken as the basis, provided that the production is accepted by the administration.</p> <p>NOTE:</p> <p>1) Carrier aluminum profiles will have a wall thickness of 2 mm ($\pm 10\%$) provided that they provide the necessary strength according to the static calculation. (This condition is not required for complementary profiles such as non-bearing glazing beads, T-bin profiles, adapter profiles, brackets, etc.)</p> <p>2) Corner fasteners made of aluminum profile (in case of heat insulation, on both corners of the heat insulated profile) will be used in the corner joints of the joinery and the corners will be pressed</p> <p>3) Heat insulated aluminum profiles will have at least three chambers.</p> <p><u>TSE certificate required for the material: TS 4922, TS EN 12020, TS EN 755</u></p>	
Related official pose/item number, book	15.460.1010 Elektrostatik toz boyalı ısı yalıtımlı alüminyum doğrama imalatı yapılması ve yerine konulması (Ministry of Environment and Urbanization)	
Item no	Item	Unit
CAW.37	Installing a double-glazed window unit with a 4+4mm thickness, 12mm gap, with a heat control coating on the first glass, with a profile on the PVC and aluminum joinery	m ²
Description/ Specifications	<p>The price of 1 m² including preparation of the 4+4 mm thick, 12 mm gap, heat control coated, double glazed window unit according to the size of the place where it will be mounted, placing wedges in the glass slot and placing the glass in the slot, placing the profile and its wick, balancing the unit with glazing wedges, centering on the joints of the profiles, neutral (acid-free) silicone in the form of withdrawal, loading at the construction site, horizontal vertical transportation and unloading, all kinds of materials and losses, labor tool and equipment expenses, contractor general expenses and profit:</p> <p>MEASURE: Glass installed areas are calculated according to the dimensions in the project.</p> <p>NOTE: Profile and roving cost is paid from its own joinery pose.</p> <p><u>TSE certificate required for the material: TS EN 1279</u></p>	

Related official pose/item number, book	15.470.1211 Pvc ve alüminyum doğramaya profil ile 4+4 mm kalınlıkta 12 mm ara boşluklu ilk camı ısı kontrol kaplamalı çift camlı pencere ünitesi takılması (Ministry of Environment and Urbanization)	
Item no	Item	Unit
CAW.38	Making solid wooden interior door frame and sill and replacing it	m ²
Description/ Specifications	According to the project, 1 m ² price (excluding paint and varnish), including interior doors are made of first quality white pine (fir), a solid frame with a thickness of at least 45 mm and a two-sided sill with a thickness of at least 22 mm, fixing it on three wedges to be placed on the wall, placing a lath on the side of the frame or frame, if necessary, all kinds of materials and losses required for these works, tools, equipment, labor, horizontal and vertical transportation at the workplace, unloading, contractor general expenses and profit MEASURE: The frame and sill area made according to the project is calculated. NOTE : The lath is not included in the measurement.	
Related official pose/item number, book	15.510.1001 Ahşaptan masif tablalı iç kapı kasa ve pervazı yapılması yerine konulması (Ministry of Environment and Urbanization)	
Item no	Item	Unit
CAW.39	Laminate-coated, pressed, kraft-filled interior door leaf made of wood fiber boards (mdf) on both sides, installing and replacing	m ²
Description/ Specifications	According to the project; 1 m ² price, including the interior door leaf is made of white pine wood by pressing 4 mm wood fiber board (MDF) on both sides of the skeleton, which is made of at least 42 mm thick, clean at least 32 mm thick and 32 mm kraft filling between the frame made of the spar heads. All kinds of materials and losses, such as nails, screws, glue and similar materials and losses, labor, workplace loading, horizontal and vertical transportation, unloading and replacement of metal parts, fitting and lapping of the door leaf, contractor's general expenses, profit (excluding hardware cost): MEASURE : 1) The area is calculated by multiplying the width and length of the door leaf from outside to outside. Door frames are not included in this measurement. 2) If the door wings in the gap are duplicated, all of the opened or fixed wings will be measured as closed. (Fixed, if the wings are finished in the form of a telaro case, they are included in the wing size, and the case fee is not paid). NOTE : 1) In general, the metal parts to be used in door joinery consist of all kinds of locks and lock handles, mirrors, bolts, stop rubber bumpers, hinges and spring hinges, provided that the administration approves. 2) The labor of fixing the metal parts is included in the prices of the joinery.	
Related official pose/item number, book	15.510.1103 Laminat kaplamalı, iki yüzü odun lifinden yapılmış levhalarla (mdf) presli, kraft dolgulu iç kapı kanadı yapılması, yerine takılması (Ministry of Environment and Urbanization)	

Item no	Item	Unit
CAW.40	Replacing the transom kit (steel scissors, chrome plated handle)	pcs
Description/ Specifications		
Related official pose/item number, book	15.465.1103 Vasistas takımının yerine takılması (çelik makas, kromaj kol tutanak) (Ministry of Environment and Urbanization)	

Item no	Item	Unit
CAW.41	Replacing the espagnolette set (handle, iron and detailed)	pcs
Description/ Specifications		
Related official pose/item number, book	15.465.1101 İspanyolet takımının yerine takılması (kol, demir ve teferruatlı) (Ministry of Environment and Urbanization)	

Item no	Item	Unit
CAW.42	Replacing the hinge (Wood, Metal. Plastic)	pcs
Description/ Specifications		
Related official pose/item number, book	15.465.1010 Menteşenin yerine takılması (Ahşap, Metal. Plastik) (Ministry of Environment and Urbanization)	

Item no	Item	Unit
CAW.43	Replacing door handles and mirrors (chrome) (Wood, Metal. Plastic)	pcs
Description/ Specifications	<u>TSE certificate required for the material: TS EN 12209</u>	
Related official pose/item number, book	15.465.1008 Kapı kolu ve aynalarının yerine takılması (kromajlı) (Ahşap, Metal. Plastik) (Ministry of Environment and Urbanization)	

Item no	Item	Unit
CAW.44	Replacing the mortise interior door leaf lock (wide type) (Wood,Metal. Plastic)	pcs
Description/ Specifications	<u>TSE certificate required for the material: TS EN 12209</u>	

Specifications		
Related official pose/item number, book	15.465.1001 Gömme iç kapı kanadı kilidinin yerine takılması (geniş tip)(Ahşap, Metal. Plastik) (Ministry of Environment and Urbanization)	
Item no	Item	Unit
CAW.45	Replacing the cylindrical shaved exterior door lock(Wood, Metal. Plastic)	pcs
Description/ Specifications	<u>TSE certificate required for the material: TS EN 12209</u>	
Related official pose/item number, book	15.465.1007 Silindirli traşlı dış kapı kilidinin yerine takılması (Ahşap, Metal. Plastik) (Ministry of Environment and Urbanization)	
Item no	Item	Unit
CAW.46	Replacing the bolt (vertical fixing kit) (Wood,Metal. Plastic)	pcs
Description/ Specifications		
Related official pose/item number, book	15.465.1012 Sürgünün yerine takılması (düşey tespit takımı) (Ahşap, Metal. Plastik) (Ministry of Environment and Urbanization)	
Item no	Item	Unit
CAW.47	Making seamless grooves from 0.50 mm thick, hot-dip galvanized and painted flat sheet and assembling in place (Sheet width is 30cm in total)	mt
Description/ Specifications	1m price including processing 0.50 mm thick hot-dip galvanized painted sheet with a seamless gutter machine and making it ready for assembly, moving the gutters to the area where they will be mounted, installing gutter clamps at maximum 50 cm intervals, adjusting the slope of the gutters and nailing the clamps, at least 20 cm wide roof with the same characteristics as the gutter. tape in accordance with the details, drilling holes for connection to downpipes, cutting corner joints and sticking them together, ensuring sealing at all joints, loading at the construction site, horizontal and vertical transportation, unloading, all kinds of materials and losses, labor, tools and equipment expenses and contractor general expenses and profit: MEASURE : Measured over the length of the installed groove axis.	
Related official pose/item number, book	15.315.1101 0.50 mm kalınlıkta, sıcak daldırma galvaniz üzeri boyalı düz sacdan eksiz oluk yapılması ve yerine montajı (Sac genişliği toplam 30 cm) (Ministry of Environment and Urbanization)	

Item no	Item	Unit
CAW.48	Supply and laying of andesite borders of 10x20x50cm	mt
Description/ Specifications	Price for 1 m including installation of 10x20x50cm andesite borders in accordance with the project and technique, closing the joints between two borders with 400-dose cement mortar, all kinds of materials and losses, loading, horizontal and vertical transportation, unloading, tool and equipment expenses, contractor general expenses and profit: MEASURE : The curb length is calculated over the project. <u>TSE certificate required for the material: TS 10835</u>	
Related official pose/item number, book	15.435.1206 10x20x50 cm boyutlarında andezit bordür temini ve yerine döşenmesi (Ministry of Environment and Urbanization)	

Item no	Item	Unit
CAW.49	Floor covering with 4cm thick andesite board (30cmxfree length)	m ²
Description/ Specifications	1 m2 price of cleaning and wetting the surface of the leveling concrete made in accordance with the specification, making a 4 cm thick layer of 400 kg cement dose on it, laying on it, mucarta andesite slabs of 4 cm thickness, 30 cm x free length, according to the shape and scale in the project, with a maximum spacing of 2 mm , filling the joints with normal or colored cement grout, replacing the cracked plates broken during laying, cleaning and wiping the floor surface from the mortar gaps, all kinds of materials and losses, workplace loading, horizontal and vertical transportation, unloading, labor, contractor general expenses and profit: MEASURE : It is calculated over the entire surface and baseboards projects, if any.	
Related official pose/item number, book	15.420.1001 4 cm kalınlığında andezit levha ile döşeme kaplaması yapılması (30cmxserbest boy) (Ministry of Environment and Urbanization)	

Item no	Item	Unit
CAW.50	Stainless Steel Stair Railing Making	mt
Description/ Specifications	According to the project, Ø6 cm stainless steel pipe handrail to the sides of the landing and stairs with a height of 90 cm, 40x40x2 mm stainless steel box profile strut, yhorizontal Ø 30 mm stainless steel pipe, with stainless steel rosettes at the points where the uprights meet the floor, Making 304 quality stainless steel stair railing, all kinds of materials and losses, labor, tool and equipment expenses, manufacturing and/or transportation of materials to the workplace, loading, horizontal and vertical transport in the workplace,unloading, assembly, including contractor profits and overheads 1 m. is the price.	
Related official pose/item number, book	77.135.1005 3 cm paslanmaz çelik merdiven korkuluğu yapılması (General Directorate of PTT)	

Item no	Item	Unit
CAW.51	Fully secure consisting of-pre built components, construction of exterior work scaffolding (0,00-51,50 m between)	m ²
Description/ Specifications	<p>To be used as fixed for the productions to be made on the exterior of the buildings,references, (occupational health and safety law, occupational health and safety regulation in construction works, regulation on health and safety conditions in the use of work equipment, communiqué on exterior scaffolding consisting of wood and pre-made steel and aluminum alloy components, etc. all legislation) in accordance with material and design standards, project, Establishment and dismantling of the fully-safe exterior scaffolding, consisting of pre-built components and having a load class of minimum 4, by taking the necessary safety precautions, manufacturing and/or transportation of materials to the workplace, loading, horizontal and vertical transport in the workplace,unloading, assembly, including contractor profits and overheads 1 m² is the price,</p> <p>Measure:</p> <p>The surface of the scaffolding, upper elevation the length at the base is taken as the width and calculated as the scaffolding area by multiplying the width and height.</p> <p>NOTE:</p> <p>1)If there is a production that will require a work scaffold on the ceiling in the area surrounding the area; scaffolding fee is paid for the ceiling, additionally, scaffolding fee is not given for the walls.</p> <p>2)The scaffolding established in a location is considered to be established for the construction of all the works that will be made at that location and that require the establishment of a scaffolding, and the scaffolding fee is paid once for this location.</p> <p>3)This pose applies to the construction of walls higher than 3.00 meters and to individual constructions of this nature.</p> <p>4) Scaffolding fee is not paid for constructions with a height of 3.00 meters and less than 3.00 meters.</p> <p>5)Where necessary, net, tarpaulin, etc. with security measures. Also, no fee is paid.</p> <p>6)The fact that the scaffolding was built in accordance with the standards, legislation and project will be recorded with the building inspection officer and the contractor and this report will be submitted for the approval of the administration. In addition, the scaffolding will be transferred to CD in a way to show the general and detailed status and this CD will be attached to the minutes. This report and CD must be attached to the payment documents, and the scaffolding fee is not paid until these issues are fulfilled.</p>	
Related official pose/item number, book	15.185.1011 Ön yapımlı bileşenlerden oluşan tam güvenli, dış cephe iş iskelesi yapılması. (0,00-51,50 m arası) (Ministry of Environment and Urbanization)	

Item no	Item	Unit
CAW.52	Construction of work scaffolding for ceilings with full security consisting of pre-made components. (0,00-21,50 m arası)	m ³
Description/ Specifications	To be used as fixed for the productions to be made on the ceilings of the buildings, references, (occupational health and safety law, occupational health and safety regulation in construction works, regulation on health and safety conditions in the use of work	

	<p>equipment, communiqué on exterior scaffolding consisting of wood and pre-made steel and aluminum alloy components, etc. all legislation) in accordance with material and design standards, project, consisting of pre-built components and load class min. 4 Installation and dismantling of the scaffolding by taking the necessary safety precautions for fully secure ceilings, manufacturing and/or transportation of materials to the workplace, loading, horizontal and vertical transport in the workplace,unloading, assembly, including contractor profits and overheads, 1 m³ price:</p> <p>Measure:</p> <p>The minus 1.50 m of the height between the surface on which the scaffold sits and the ceiling is accepted as the height of the scaffolding, and the product of this height and the surface area on which the scaffold sits is calculated as the volume of the scaffolding.</p> <p>NOTE:</p> <p>1) If there is a production that will require a work scaffolding on the ceiling in the area surrounding a space; scaffolding fee is paid for the ceiling, additionally, scaffolding fee is not given for the walls.</p> <p>2)The scaffolding established in a location is considered to be established for the construction of all the works that will be made at that location and that require the establishment of a scaffolding, and the scaffolding fee is paid once for this location.</p> <p>3) This pose applies to ceiling constructions higher than 3.00 meters and to individual constructions of this nature.</p> <p>4) Scaffolding fee is not paid for constructions with a height of 3.00 meters and less than 3.00 meters.</p> <p>5)Where necessary, net, tarpaulin, etc. with security measures.Also, no fee is paid.</p> <p>6)The fact that the scaffolding was built in accordance with the standards, legislation and project will be recorded with the building inspection officer and the contractor and this report will be submitted for the approval of the administration. In addition, the scaffolding will be transferred to CD in a way to show the general and detailed status and this CD will be attached to the minutes. This report and CD must be attached to the payment documents, and the scaffolding fee is not paid until these issues are fulfilled.</p> <p>7)The material coming out of the scaffold belongs to the contractor.</p>
Related official pose/item number, book	15.185.1012 Ön yapımlı bileşenlerden oluşan tam güvenli, tavanlar için iş iskelesi yapılması. (0,00-21,50 m arası) (Ministry of Environment and Urbanization)

4.3. PARTICULAR TECHNICAL SPECIFICATIONS FOR MECHANICAL AND ELECTRICAL WORKS

The contractor shall be responsible from the materials and the installations until the substantial completion of the work. The contractor is also responsible from installing all the systems present at the building and other structures in an operative condition free of any deficiency and immediately repairing any failures free of cost for defect liability period, except for the usage faults. If the required repair works cannot be completed within one month, the parts that have not been repaired within this period shall be repaired by the Employer on behalf of the contractor and shall be deducted from the Performance Guarantee of the Contractor.

Prior to commencement of any electrical or mechanical works on site, Contractor shall prepare and submit to Engineer shop drawings showing all related applications and installations which might be in the form of riser diagrams, plans, sections, and similar.

Eye examination

All materials to be used for mechanical installations shall be subject to eye examination by the Engineer to verify that the materials are not broken, rusted, cracked, old, or defective in any regard.

Functioning examination

All materials to be used for mechanical installations shall be subject to functioning examination through tests without any cost impact to the Employer.

Warranty period

All materials to be used for mechanical installations shall have two (2) years of commercial warranty from the manufacturers starting from substantial completion of works.

4.4. ITEM DESCRIPTIONS FOR MECHANICAL WORKS

Item no	Item	Unit
MW.01	Panel radiator (type 22) 600	mt
Description/ Specifications	Structural construction complies with TS EN 442-1 standard, proves its thermal power with a laboratory report by the notified body, on water-permeable surfaces Fe P01 quality and minimum 1.11 mm according to TS EN 10130 standard. thickness cold drawn sheet, tested at a pressure of at least 1.3 times the maximum working pressure (at least 520 kPa) according to the TS EN 442/1 standard, tested according to the TS EN 442/2 standard and their thermal power determined, zinc or iron phosphate Supply and installation in the workplace, including the radiator mounting elements, air vent, as packaged, with primer painted and top coat electrostatic powder paint on it. (Type XY, X number of panels, Y convector.)	
Related official pose/item number, book	25.225.3025 Panel radyatör (tip 22) 600 (Ministry of Environment and Urbanization)	

Item no	Item	Unit
MW.02	Straight type radiator tap ø15 mm (1/2")	pcs
Description/ Specifications	Supply and installation of radiator tap and connection union (with thermostat, thermostatic head and adapter connection union) in the workplace in accordance with TS EN 215 or TS 579, as deemed appropriate by the administration.	
Related official pose/item number, book	25.230.1101 Düz tip radyatör musluğu ø15 mm (1/2") (Ministry of Environment and Urbanization)	

Item no	Item	Unit
MW.03	Min 20.000 kcal/h hermetic, electronic, natural gas and lpg fueled condensing combi boiler	pcs
Description/ Specifications	Manufactured in accordance with the 2009/142/CE Directive on Gas Burning Appliances and the efficiency of 92/42/CEE water boilers, CE Conformity Marked; "Safety equipment with premix type (full premixed) gas burner in accordance with TS EN 677, TS EN 483, TS EN	

	<p>625 standards, modulating fan, high and/or low temperature heating circuits, gas and air adjustment modulation, compatible with the control system. It has a hermetic flue structure, can be connected in accordance with any of the flue types B23, C13, C33, C53 suitable for the hermetic flue structure and has a condensate drain connection, hermetic type, prepared in two separate heat exchangers for heating and domestic water supply, with electronic ignition device, against overheating, overheating, and over pressure, chimney blocking, waterless operation, automatic gas shut-off against flame extinction, safety devices, flame modulation, heating and utility water temperatures can be adjusted separately, circulation pump, closed expansion tank, automatic vent, safety valve, together with the manufacturing date, heating capacity, fuel type, brand, label and instructions for use. Supply, installation and delivery in working condition.</p> <p>Note:</p> <p>1-As the capacity of the device, the capacity it can give at 50 ° / 30 ° C return water temperatures will be taken as basis.</p> <p>2-Unit prices of intermediate capacities will be found by interpolation.</p>	
Related official pose/item number, book	25.212.1101 15 Ø mm (1/2"), Min 20.000 kcal/h'lik hermetik, elektronik, doğalgaz ve lpg yakıtlı yoğunmalı kombi (Ministry of Environment and Urbanization)	

Item no	Item	Unit
MW.04	Heating pipe oxygen (EVOH according to DIN 4726) barrir pipe 16x2,0 mm with minimum 70% crosslink ratio, peroxide additive	mt
Description/ Specifications	ISO A Series 5; for application classes 4 and 5; It can operate at a maximum temperature of 95° C, an operating pressure of 6 bar, has a minimum cross-linking rate of 70%, peroxide added; Supply and installation of polyethylene (PE-Xa) pipes with oxygen barrier (EVOH) in accordance with DIN 4726, in accordance with the project, by performing the necessary tests.	
Related official pose/item number, book	25.305.8101 15 Ø mm (1/2"), Isıtma borusu oksijen (DIN 4726 gereği EVOH) bariyerli boru 16x2,0 mm asgari %70 çapraz bağ oranına sahip, peroksit katkılı polietilen (PE-Xa) borular (TS 579) (Ministry of Environment and Urbanization)	

Item no	Item	Unit
MW.05	Pn 20 polypropylene 3/4" Ø25/4,2 mm clean water pipes	mt
Description/ Specifications	According to TS EN ISO 15874-2, polypropylene (PPR- C), Type; It is made of 3rd metal and certified by the Ministry of Health that there is no harm in using it as a drinking water pipe, supplying the pipes in the workplace, cutting them in accordance with the project, welding the fittings by squeezing at 260 ° C with a physiotherm welding machine. (Including all kinds of materials and labor for welding.) Costs of assembly materials will be paid separately.	
Related official pose/item number, book	25.305.2102 Pn 20 polipropilen 1" Ø32/5,4 mm temiz su boruları (Ministry of Environment and Urbanization)	

Item no	Item	Unit
MW.06	Pn 20 polypropylene 1" ø32/5,4 mm clean water pipes	mt
Description/ Specifications	According to TS EN ISO 15874-2, polypropylene (PPR- C), Type; It is made of 3rd metal and certified by the Ministry of Health that there is no harm in using it as a drinking water pipe, supplying the pipes in the workplace, cutting them in accordance with the project, welding the fittings by squeezing at 260 ° C with a physiotherm welding machine. (Including all kinds of materials and labor for welding.) Costs of assembly materials will be paid separately.	
Related official pose/item number, book	25.305.2103 Pn 20 polipropilen 1" ø32/5,4 mm temiz su boruları (Ministry of Environment and Urbanization)	

Item no	Item	Unit
MW.07	Rigid pvc plastic waste water pipe outer diameter ø 50-40/3,0 mm (Plug-in joint)	mt
Description/ Specifications	Supply and installation of rigid PVC plastic waste water pipes in accordance with TS EN 1329-1 in the workplace	
Related official pose/item number, book	25.305.6101 TS EN 1329-1'e uygun, sert PVC plastik pis su borularının işyerinde temini ve geçme muflu olarak yerine montajı (Ministry of Environment and Urbanization)	

Item no	Item	Unit
MW.08	Rigid pvc plastic waste water pipe outer diameter ø 75-70/3,0 mm (Plug-in joint)	mt
Description/ Specifications	Supply and installation of rigid PVC plastic waste water pipes in accordance with TS EN 1329-1 in the workplace	
Related official pose/item number, book	25.305.6102 Sert pvc plastik pis su borusu dış çap ø 75-70/3,0 mm (Geçme muflu) (Ministry of Environment and Urbanization)	

Item no	Item	Unit
MW.09	Rigid pvc plastic waste water pipe outer diameter ø 100-110/3,0 mm Plug-in joint)	mt
Description/ Specifications	Supply and installation of rigid PVC plastic waste water pipes in accordance with TS EN 1329-1 in the workplace	
Related official pose/item number, book	25.305.6103 Sert pvc plastik pis su borusu dış çap ø 100-110/3,0 mm (Geçme muflu) (Ministry of Environment and Urbanization)	

Item no	Item	Unit
MW.10	Antibacterial 50x60 cm consold handicapped washbasin tiles verified tile extra class	pcs
Description/ Specifications	If the washbasins in 071-100 comply with the definition defined in the TS 13420 standard, have the ABY (Anti-Bacterial Surface) logo and are antibacterial in the visible area on the product, the assembled unit prices will be increased by 10%, and the installation costs will be applied without increasing.	
Related official pose/item number, book	25.100.2016 Antibakteriyel 50x60 cm konsollu bedensel engelli lavabo fayans camlaşmış çini ekstra sınıf (Ministry of Environment and Urbanization)	

Item no	Item	Unit
MW.11	Antibakteriyel 45x60 cm under or over counter oval washbasin tiles verified tile extra class	pcs
Description/ Specifications	If the washbasins in 071-100 comply with the definition defined in the TS 13420 standard, have the ABY (Anti-Bacterial Surface) logo and are antibacterial in the visible area on the product, the assembled unit prices will be increased by 10%, and the installation costs will be applied without increasing.	
Related official pose/item number, book	25.100.2015 Antibakteriyel 45x60 cm tezgah altı veya üstü oval lavabo fayans camlaşmış çini ekstra sınıf (Ministry of Environment and Urbanization)	

Item no	Item	Unit
MW.12	Antibacterial flushin toiled and installation with a self-reservoir with a self-reservoir of approximately 35c70 cm for the physically handicapped	set
Description/ Specifications	<p>If the European toilets in 079-100, 200, 300, 400, 500 comply with the definition described in the TS 13420 standard, have the ABY (Anti-Bacterial Surface) logo, and have antibacterial properties, the prices of the assembled units will be increased by 25%. will be applied without increasing the installation costs.</p> <p>A quality certified stone made of white color (glazed ceramic) with intermittent spaces on which a reservoir can be placed; Complete reservoir made of tiles of at least 13 liters, seat and cover made of hard plastic; Supply, installation and delivery in working condition of 15 lt brass chromed quality certified cistern, intermediate and bidet faucets with copper pipe, rosettes and chrome plated fixing screws and wedges.</p> <p>Note: In case of using colored tiles, glazed tiles, the assembled prices will be increased by 15%, and the installation costs will be applied without increasing.</p>	
Related official pose/item number, book	25.112.2103 Antibakteriyel bedensel engelli için, takriben 35 x 70 cm kendinden rezervuarlı alafranga hela ve tesisatı (Ministry of Environment and Urbanization)	

Item no	Item	Unit
MW.13	Grab bar for the disabled	pcs
Description/ Specifications	Chrome plated on stainless steel, approx. 600mm, min Ø 30 mm (in case of spray painted instead of chrome plated, the assembled prices are reduced by 10%, and the mounting costs are paid without any reduction.)	
Related official pose/item number, book	25.135.4001 Engelliler için tutunma barı (Ministry of Environment and Urbanization)	
Item no	Item	Unit
MW.14	Toilet grab bar for the disabled	pcs
Description/ Specifications	Chrome plated on stainless steel, approximately 700x 740 mm, min Ø 30 mm (In case of spray painted instead of chrome plated, the assembled prices are reduced by 10%, and the installation costs are paid without deduction.)	
Related official pose/item number, book	25.135.4003 Engelliler için klozet tutunma barı (Ministry of Environment and Urbanization)	
Item no	Item	Unit
MW.15	Stainless steel paper holder for the disabled	pcs
Description/ Specifications	Supply and installation of the stainless steel sheet holder in the workplace with chrome plated fixing screws and special wedges or dowels.	
Related official pose/item number, book	25.135.2003 Engelliler için paslanmaz çelik kağıtlık (Ministry of Environment and Urbanization)	
Item no	Item	Unit
MW.16	Floor drain hard plastic 15x15 cm	pcs
Description/ Specifications	Supply and installation of floor drain with self-odor trap, grate and cleaning plug in the workplace.	
Related official pose/item number, book	25.138.1022 Yer süzgeci sert plastik 15x15 cm (Ministry of Environment and Urbanization)	
Item no	Item	Unit
MW.17	Cold water meter with 1" screw 25Ømm.	pcs

Description/ Specifications	It will have the CE conformity mark as per the Measuring Instruments Regulation (2004/22/AT).
Related official pose/item number, book	25.142.1102 40 Ø mm (1 1/2"), Soğuk su sayacı 1" vidalı 25Ømm. (Ministry of Environment and Urbanization)

4.5. ITEM DESCRIPTIONS FOR ELECTRICAL WORKS

Item no	Item	Unit
EL.01	Normal sortie, line and sortie lines are made of lead-free antigron material.	pcs
Description/ Specifications	Line and sortie lines are made of lead-free antigron material. (Measure: Piece)	
Related official pose/item number, book	35.160.1231 Normal sorti, Linye ve sorti hatları kurşunsuz antigron nevinden malzeme ile (Ministry of Environment and Urbanization)	

Item no	Item	Unit
EL.02	Commutator sortie, line and sortie lines with lead-free antigron material	pcs
Description/ Specifications	Line and sortie lines are made of lead-free antigron material. (Measure: Piece)	
Related official pose/item number, book	35.160.1232 12 Komütatör sorti, Linye ve sorti hatları kurşunsuz antigron nevinden malzeme ile (Ministry of Environment and Urbanization)	

Item no	Item	Unit
EL.03	Parallel sortie, line and sortie lines with lead-free antigron material	pcs
Description/ Specifications	Line and sortie lines are made of lead-free antigen material. (Measure: Piece)	
Related official pose/item number, book	35.160.1234 Paralel sorti, Linye ve sorti hatları kurşunsuz antigron nevinden malzeme ile (Ministry of Environment and Urbanization)	

Item no	Item	Unit
EL.04	Recessed, min 30x30 sized LED ceiling luminaire (with a luminous flux of at least 1000 lm, luminous efficiency of at least 100 lm/w).	pcs
Description/ Specifications	LED Ceiling Luminaires (Dimension: Pieces) Supply at the workplace of luminaires with a body of at least 0.5 mm, frame made of DKP sheet metal of at least 0.7 mm, with a minimum 1 mm thickness opal PMMA diffuser, with at least IP 40 protection degree, each delivery in working condition, including material, labor and assembly. All led fixtures; A driver with an	

	<p>ENEC certificate or TSE product certificate or a product certificate by an accredited certification body will have a PFC value of at least 0.95. The leds used will be IESNA LM-80 certified. According to the TM-21 calculation table, the lifetime of the luminaires will be at least 50000 (L70) hours, the luminaire color rendering value (CRI) will be at least 80 and it will have homogeneous light distribution. Luminaires TS EN 60598-1, TS 8698 EN 60598-2-1, TS EN 60598-2-2 standards, armature drivers TS EN 61347-1 and TS EN 61347-2-13 standards and (2014/35/EU) Specific It will be supplied to the market with CE conformity mark in accordance with the regulation on Electrical Equipment Designed for Voltage Limits. Luminaires will have a photometric measurement report in accordance with IESNA LM-79 standards obtained from an accredited laboratory, IP protection degree tests will be made according to TS 3033 EN 60529 standard, HR protection degree tests will be made according to TS EN 62262 standard. In addition, the luminaires will be produced in accordance with the Waste Electrical and Electronic Equipment Control Regulation. Note: The luminous flux (lm) values specified in the LED luminaire poses are the output value of the luminaire, and the consumption power represents the total power drawn by the luminaire from the network.</p>	
Related official pose/item number, book	<p>35.170.1102 Sıva altı, min. 30x30 ebatlarında LED li tavan armatürü (ışık akısı en az 1000 lm, armatür ışıksal verimi en az 100 lm/w olan). (Ministry of Environment and Urbanization)</p>	
Item no	Item	Unit
EL.05	Recessed, min 30x60 sized LED ceiling luminaire (with a luminous flux of at least 1000 lm, luminous efficiency of at least 100 lm/w).	pcs
Description/ Specifications	<p>LED Ceiling Luminaires (Dimension: Pieces) Supply at the workplace of luminaires with a body of at least 0.5 mm, frame made of DKP sheet of at least 0.7 mm, with a minimum 1 mm thickness opal PMMA diffuser, with at least IP 40 protection degree, each Delivery in working condition including material, labor and assembly. All led luminaires; A driver with an ENEC certificate or TSE product certificate or a product certificate by an accredited certification body will have a PFC value of at least 0.95. The leds used will be IESNA LM-80 certified. According to the TM-21 calculation table, the lifetime of the luminaires will be at least 50000 (L70) hours, the luminaire color rendering value (CRI) will be at least 80 and it will have homogeneous light distribution. Luminaires TS EN 60598-1, TS 8698 EN 60598-2-1, TS EN 60598-2-2 standards, armature drivers TS EN 61347-1 and TS EN 61347-2-13 standards and (2014/35/EU) Specific It will be supplied to the market with CE conformity mark in accordance with the regulation on Electrical Equipment Designed for Voltage Limits. Luminaires will have a photometric measurement report in accordance with IESNA LM-79 standards obtained from an accredited laboratory, IP protection degree tests will be made according to TS 3033 EN 60529 standard, HR protection degree tests will be made according to TS EN 62262 standard. In addition, the luminaires will be produced in accordance with the Waste Electrical and Electronic Equipment Control Regulation. Note: The luminous flux (lm) values specified in the LED luminaire poses are the output value of the luminaire, and the consumption power represents the total power drawn by the luminaire from the network.</p>	

Related official pose/item number, book	35.170.1104 Sıva altı, min. 30x60 ebatlarında LED li tavan armatürü (ışık akısı en az 1500 lm, armatür ışıksal verimi en az 100 lm/w olan). (Ministry of Environment and Urbanization)	
Item no	Item	Unit
EL.06	Recessed, min 60x60 sized LED ceiling luminaire (with a luminous flux of at least 3300 lm, luminous efficiency of at least 100 lm/w).	pcs
Description/ Specifications	LED Ceiling Luminaires (Dimension: Pieces) Supply at the workplace of luminaires with a body of at least 0.5 mm, frame made of DKP sheet of at least 0.7 mm, with a minimum 1 mm thickness opal PMMA diffuser, with at least IP 40 protection degree, each Delivery in working condition including material, labor and assembly. All led luminaires; A driver with an ENEC certificate or TSE product certificate or a product certificate by an accredited certification body will have a PFC value of at least 0.95. The leds used will be IESNA LM-80 certified. According to the TM-21 calculation table, the lifetime of the luminaires will be at least 50000 (L70) hours, the luminaire color rendering value (CRI) will be at least 80 and it will have homogeneous light distribution. Luminaires TS EN 60598-1, TS 8698 EN 60598-2-1, TS EN 60598-2-2 standards, armature drivers TS EN 61347-1 and TS EN 61347-2-13 standards and (2014/35/EU) Specific It will be supplied to the market with CE conformity mark in accordance with the regulation on Electrical Equipment Designed for Voltage Limits. Luminaires will have a photometric measurement report in accordance with IESNA LM-79 standards obtained from an accredited laboratory, IP protection degree tests will be made according to TS 3033 EN 60529 standard, HR protection degree tests will be made according to TS EN 62262 standard. In addition, the luminaires will be produced in accordance with the Waste Electrical and Electronic Equipment Control Regulation. Note: The luminous flux (lm) values specified in the LED luminaire poses are the output value of the luminaire, and the consumption power represents the total power drawn by the luminaire from the network.	
Related official pose/item number, book	35.170.1106 Sıva altı, min. 60x60 ebatlarında LED li tavan armatürü (ışık akısı en az 3300 lm, armatür ışıksal verimi en az 100 lm/w olan). (Ministry of Environment and Urbanization)	
Item no	Item	Unit
EL.07	Emergency lighting kit price difference for led lighting fixtures	pcs
Description/ Specifications	Emergency lighting kit price difference for LED lighting fixtures (Dimension: Pieces) High temperature type Ni-cd battery, which is mounted on the fixtures to ensure that the fixtures work in emergency situations, and provides the emergency lighting light intensity value specified in the project for up to 3 hours, according to the project, charging Unit and status led, compatible with led luminaire drivers, manufactured in accordance with TS EN 61347-2-7, TS EN 60598-2-22 standards, supplied to the market with CE conformity mark, supply in the workplace, including all kinds of materials and labor working delivery.	

Related official pose/item number, book	35.170.3050 Led aydınlatma armatürleri için acil durum aydınlatma kiti fiyat farkı (Ministry of Environment and Urbanization)	
Item no	Item	Unit
EL.08	Up to 0.20-0.30 m ² (including 0.30 m ²), Recessed type galvanized sheet panels	pcs
Description/ Specifications	Recessed type galvanized sheet panels (Dimension: Pieces) Supply of recessed type galvanized sheet metal panel with a minimum depth of 150 mm and a fixing frame made of galvanized sheet for recessing the panel to the wall, which is the same as BFT No 35.100.2100 in terms of other features, transportation to the workplace and its assembly, all materials, terminals and delivery, including labor. Measure: Same as BFT No 35.100.2100. Note: The panels will be produced in accordance with the 2014/35/EU Regulation on Electrical Equipment Designed for Certain Voltage Limits, TS EN 61439-1/2 standards and will be presented to the market with the CE conformity mark. In addition, according to the TS EN 62262 standard, the degree of protection against mechanical impacts will be at least IK 08. According to TS EN 61439-1/2 standards, "Type tests" will be made and the test results will be given to the Administration.	
Related official pose/item number, book	35.100.2203 0,20-0,30 m ² 'ye kadar (0,30 m ² dahil), Gömme tip galvaniz sac panolar (Ministry of Environment and Urbanization)	
Item no	Item	Unit
EL.09	From 3x10A to 3x63A, Icu: 35 kA, I1 (0.8-1) In, 3-pole, at 400 V AC at least Icu: 35 Thermic Protection adjustable, Magnetic Protection Fixed, Compact type thermal magnetic shielded switches	pcs
Description/ Specifications	Compact type thermal and magnetic protective switches (Dimension: Pieces) Compact type, cuts in air, has an independent opening mechanism, has thermal overcurrent and magnetic short circuit protection, has current limiting feature, Ics value equal to at least 50% Icu, Supply and installation of compact switches, which are supplied to the market with CE conformity mark in accordance with TS EN 60947-2 standard (I1: Adjustable thermal protection opening current, I3: Fixed or adjustable magnetic protection opening current, In: Rated current, Icu: Short-circuit breaking capacity, Ics: Operational short-circuit breaking capacity) Note: Type tests will be done.	
Related official pose/item number, book	35.110.1101 3x10A'den 3x63A'e kadar, Icu: 35 kA, I1 (0,8-1) In, 3 kutuplu, 400 V AC'de en az Icu: 35 kA, Termik Koruma ayarlı, Manyetik Koruma Sabit, Kompakt tip termik ve manyetik koruyuculu şalterler (Ministry of Environment and Urbanization)	
Item no	Item	Unit
EL.10	Up to 4x40 A (30 mA), Residual current circuit breakers (TS EN 61008-1/TS 61008-2-1)	pcs

Description/ Specifications	Leakage current protection switches (Dimension: Pieces) When there is any leakage in electrical installations made in accordance with Electrical Indoor Installation Regulations, specifications and standards, 10-30 ms. It provides safety of life and property by cutting the circuit in time, with differential coil operating at 220 V in single-phase circuits and 380 V in three-phase circuits, with a test button on it to check whether the system is working, protected against external influences that can be mounted on the carrying rails inside the table, for life protection Supply and installation of a residual current circuit breaker with a CE conformity mark in accordance with TS EN 61008-1, TS EN 61008-2-1 standards, which can operate at 30 mA, 300 mA for fire protection, even when the neutral line is disconnected, delivery in working condition, including all kinds of materials and labor.	
Related official pose/item number, book	35.115.1021 4x40 A'e kadar (30 mA), Kaçak akım koruma şalterleri (TS EN 61008-1/TS EN 61008-2-1) (Ministry of Environment and Urbanization)	

Item no	Item	Unit
EL.11	Up to 16 A (3 kA), Switched MCBs (3 kA breaking capacity)	pcs
Description/ Specifications	Switched Automatic Fuses (3 kA breaking capacity) (Dimension: Pieces) 3 kA short circuit breaking capacity, which also acts as a switch, 2 and 4 poles with neutral and phase breaking feature, B or C curve, TS 5018-1 EN 60898-1 The supply and installation of the automatic fuse manufactured in accordance with the standards and placed on the market with the CE conformity mark, including all kinds of materials and labor.	
Related official pose/item number, book	35.105.1110 16 A'e kadar (3 kA), Anahtarlı Otomatik Sigortalar (3 kA kesme kapasiteli) (Ministry of Environment and Urbanization)	

Item no	Item	Unit
EL.12	Up to 25 A (3 kA), Switched MCBs (3 kA breaking capacity)	pcs
Description/ Specifications	Switched Automatic Fuses (3 kA breaking capacity) (Dimension: Pieces) 3 kA short circuit breaking capacity, which also acts as a switch, 2 and 4 poles with neutral and phase breaking feature, B or C curve, TS 5018-1 EN 60898-1 The supply and installation of the automatic fuse manufactured in accordance with the standards and placed on the market with the CE conformity mark, including all kinds of materials and labor.	
Related official pose/item number, book	35.105.1111 25 A'e kadar (3 kA), Anahtarlı Otomatik Sigortalar (3 kA kesme kapasiteli) (Ministry of Environment and Urbanization)	

Item no	Item	Unit
EL.13	4x6 mm ² , 1 kV underground cables and column and supply line facility YVV (NYY) (TS 1178 IEC 60502)	mt

Description/ Specifications	Column and supply line installation with YVV (NYY) type 1 kV underground cables (Dimension: m) Establishment of column and supply line with YVV (NYY) type 1 kV underground cables in accordance with TS IEC 60502-1+A1 standards. Supply of underground cable in the workplace, passage and safety pipes, all kinds of materials, including crochet and workmanship, for laying on the plaster inside the building, on the wall, ceiling or in channels over consoles or clasps, and in channels outside the building. Measurement: The length of the cable between the headboard and the headers is measured. More than one cable laid in the same duct will be kept in conduits or pipes of the required diameter and length separately at the transition points. Headboard, junction box, console, cable duct and manhole are paid separately. Iron manufacturing is paid from BFT No 15.550.1202. Up to a total of 10 meters, no additional fee is paid for transition auger and pipes. Note: It shall have the performance declaration of the manufacturer and the Performance Constancy Certificate obtained from the institutions accredited by the European Union, produced in accordance with TS EN 50575 and TS EN 50575/A1 standards, 305/2011/EU Construction Materials Regulation, presented to the market with the CE conformity mark.
Related official pose/item number, book	35.140.3223 4x6 mm ² , 1 kV yeraltı kabloları ile kolon ve besleme hattı tesisi YVV (NYY) (TS 1178 IEC 60502) (Ministry of Environment and Urbanization)

Item no	Item	Unit
EL.14	Supply line facility with 2x1.5 mm ² , Lead-free PVC insulated cables (NHXMH, at least 300/500 V)	mt
Description/ Specifications	Supply line facility with NHXMH type halogen-free flame-proof insulated multi-core cables (Dimension: m) NHXMH in accordance with TSE K 328 standard, column or supply line facility with at least 300/500 V, including all kinds of material supply and labor.	
Related official pose/item number, book	35.150.1501 2x1.5 mm ² , Kurşunsuz PVC izoleli kablolar ile besleme hattı tesisi (NHXMH, en az 300/500 V) (Ministry of Environment and Urbanization)	

Item no	Item	Unit
EL.15	Supply line facility with 3x2.5 mm ² , Lead-free PVC insulated cables (NHXMH, at least 300/500 V)	mt
Description/ Specifications	Supply line facility with NHXMH type halogen-free flame-proof insulated multi-core cables (Dimension: m) NHXMH in accordance with TSE K 328 standard, column or supply line facility with at least 300/500 V, including all kinds of material supply and labor.	
Related official pose/item number, book	35.150.1531 3x2.5 mm ² , Kurşunsuz PVC izoleli kablolar ile besleme hattı tesisi (NHXMH, en az 300/500 V) (Ministry of Environment and Urbanization)	

Item no	Item	Unit
---------	------	------

EL.16	Line and sortie lines with lead-free antigron material, normal socket sortie, Waterproof socket sort (with safety line)(with TS conformity certified material)	pcs
Description/ Specifications	Normal socket outlet with ligne and sortie lines, leaded antigron material.	
Related official pose/item number, book	35.160.1611 Linye ve sorti hatları kurşunsuz antigron nevinden malzeme ile normal priz sortisi, ETANJ PRİZ SORTİSİ (Güvenlik hatlı) (TS uygunluk belgeli malzeme ile) (Ministry of Environment and Urbanization)	

Item no	Item	Unit
EL.17	Normal plug sortie with ligature and sortie lines of lead-free antigron (NHXMH) type material.	pcs
Description/ Specifications	Waterproof socket outlet (with safety line) (Dimension: Quantity, Preparation: 60%) Installation of all waterproof material (junior junction box, terminal block, etc.) with the form of the line and sortie lines below, and sockets with outer covers and safety lines, line sortie including watertight socket sortie with lines of at least 2.5 mm ² in cross section in accordance with TS EN 60332-1-2, TS EN 60754-1/2 and TS EN 61034-2 standards, supply of all kinds of materials, transportation to the workplace and labor. Size: Unit price no: 35.160.3400. Note: The conductors are colored according to TS EN 60445. Note: It shall have the performance declaration of the manufacturer and the Performance Constancy Certificate obtained from the institutions accredited by the European Union, produced in accordance with TS EN 50575 and TS EN 50575/A1 standards, 305/2011/EU Construction Materials Regulation, presented to the market with the CE conformity mark.	
Related official pose/item number, book	35.160.3503 3x2.5 mm ² , Linye ve sorti hatları kurşunsuz antigron (NHXMH) nevinden malzeme ile normal priz sortisi. (Ministry of Environment and Urbanization)	

Item no	Item	Unit
EL.18	20x5mm ² Copper Bar (0.89 kg/m)	kg
Description/ Specifications	a) Material: Electrolytic copper busbars with rectangular or circular cross-sections, hollow or solid, in accordance with the specification and standard in every cross-section. The material cost of the flexible spacer to be used when necessary is paid from the material price of the copper busbar. b) Assembly: Transportation of the busbars, insurance costs required for transportation, cutting and bending, drilling, painting and lacquering of the busbars in accordance with the specifications and mounting, placing flexible (elastic) spacers where necessary for assembly (material cost is paid separately) brass bolts, terminal blocks, cable lugs and serfil (bar holder) etc. for connecting to post insulators. material, material and assembly cost are included in the assembly unit price..	
Related official pose/item number, book	03.1.1-002 20x5mm ² Bakır Bara (0.89 kg/m)	

Item no	Item	Unit
EL.19	Galvanized steel sheet, 30x3.5 mm in size, coated with min 50μ zinc, in accordance with the specification, Building enclosing conductor installation	mt
Description/ Specifications	Building containment conductor installation (Dimension: m, Preparation: 60%) Making a building containment conductor installation from conductors, opening a channel in all kinds of soil at a depth of at least 60-80 cm around the outside of the building, closing the conductor ferrule and channel, connecting to the electrodes with rivets or welding. including minor materials and labor.	
Related official pose/item number, book	35.750.3002 30x3,5 mm ebadında şartnamesine uygun,min 50μ çinko ile kaplanmış galvanizli çelik lama, Bina ihata iletkeni tesisatı (Ministry of Environment and Urbanization)	
Item no	Item	Unit
EL.20	Earth electrode (rod) electrolytic copper: (Size: Piece:)	pcs
Description/ Specifications	Earth electrode (rod) electrolytic copper (Dimension: Pieces) Supply of electrolytic copper rod with Ø 20 mm diameter, at least 3.5 m long, in accordance with TS 435/T1 standard, screwing a cone-shaped cap to its end so that it can be driven into the ground, the rod is made of 2 pieces If it will consist of 4 cm long threads, the connection will be provided by drilling at least 60 cm from the ground level, it will be buried at least 60 cm from the ground level, it will be connected to the down conductors and building enclosing conductors with silver welding or a special red clamp, including all kinds of small materials and labor. Note: In case the ground is rocky suitable soil is sought in the vicinity.	
Related official pose/item number, book	35.750.4002 Toprak elektrodu (çubuk) elektrolitik bakır: (Ölçü: Ad.:) (Ministry of Environment and Urbanization)	
Item no	Item	Unit
EL.21	Up to 10 pairs, Telephone distribution boxes	pcs
Description/ Specifications	Telephone distribution boxes (Dimension: Quantity, Preparation: 60%). Hinged and lockable cover, 1 mm thick DKP sheet metal, surface-mounted or embedded in the wall, gun-painted distribution boxes in the desired color and their small fixings to be installed one on each floor. and connection material, special telephone terminal, duly opening and shaping the ends of the cables coming into the box, connecting them with solder, including all kinds of minor materials and labor.	
Related official pose/item number, book	35.510.1601 10 Çifte kadar, Telefon dağıtım kutuları (Ministry of Environment and Urbanization)	
Item no	Item	Unit

EL.22	Utp Cat6H HALOGEN FREE 4x2x23 AWG, COPPER DATA CABLES	mt
Description/ Specifications	Utp Cat6H HALOGEN FREE 4X2X23 AWG Size: Arms: 60% For horizontal installations in local area networks, 250 Mhz bandwidth and 250 Mbps speed data communication between computers, 4-pair 4 color-coded unshielded twisted pairs (unshielded spiral twisted) and all-encompassing HFFR outer sheath IEC 60332-1 IEC 60754 test conformity certificate; 4-pair cable ISO class D-CAT6e standard, 23 AWG 0.57 mm bare copper plating, including the supply of the cable, its transportation to the workplace, and all kinds of minor materials, labor, assembly and testing. During the application, under which condition the cable is installed, the cost of the material belonging to the production is also paid from the relevant item (Payment of the pipe price if it is passed through the pipe, the cost of the duct if it is passed through the cable tray from the relevant item)	
Related official pose/item number, book	35.515.7030 Utp Cat6H HALOGEN FREE 4x2x23 AWG, BAKIR DATA KABLOLARI (Ministry of Environment and Urbanization)	
Item no	Item	Unit
EL.23	Utp Cat 6 Recessed Single Socket	pcs
Description/ Specifications	Utp Cat 6 Recessed Single Socket (Dimension: Quantity, Supply: 60%) For horizontal installations in local area networks (LAN), 250 Mhz bandwidth and 250 Mbps speed data communication between computers used in CAT6 Standards, RJ-45 8-contact core, Jack Contact The point will be covered with a material with high conductivity. Unshielded, ANSI/TIA/EIA-568B.2, ISO/IEC -11801 Standards, ISO certified, Flush-mounted, single port, PVC Frame, Socket Box, spring-loaded socket cover, Label, labor, assembly, testing, shipping included	
Related official pose/item number, book	35.505.6200 Utp Cat 6 Sıva Altı Tekli Priz (Ministry of Environment and Urbanization)	
Item no	Item	Unit
EL.24	EMERGENCY ROPE CALL BUTTON AND OVERDOOR WARNING LAMP FOR DISABLED WC	set
Description/ Specifications		
Related official pose/item number, book	PTT-ÖZEL.120 ENGELLİ WC İÇİN ACİL DURUM İPLİ ÇAĞRI BUTONU VE KAPIÜSTÜ İKAZ LAMBASI (PTT)	

ANNEX 2: QUOTATION SUBMISSION FORM

Bidders are requested to complete this form, including the Company Profile and Bidder's Declaration, sign it and return it as part of their quotation along with Annex 3: Technical and Financial Offer. The Bidder shall fill in this form in accordance with the instructions indicated. No alterations to its format shall be permitted and no substitutions shall be accepted.

Name of Bidder:	Click or tap here to enter text.	
RFQ reference:	UNDP-TUR-RFQ(KFW)-2021/032	Date: Click or tap to enter a date.

Company Profile

Item Description	Detail
Legal name of bidder or Lead entity for JVs	Click or tap here to enter text.
Legal Address, City, Country	Click or tap here to enter text.
Website	Click or tap here to enter text.
Year of Registration	Click or tap here to enter text.
Legal structure	Choose an item.
Are you a UNGM registered vendor?	<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, insert UNGM Vendor Number
Quality Assurance Certification (e.g. ISO 9000 or Equivalent) <i>(If yes, provide a Copy of the valid Certificate):</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does your Company hold any accreditation such as ISO 14001 or ISO 14064 or equivalent related to the environment? <i>(If yes, provide a Copy of the valid Certificate):</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does your Company have a written Statement of its Environmental Policy? <i>(If yes, provide a Copy)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does your organization demonstrate significant commitment to sustainability through some other means, for example internal company policy documents on women empowerment, renewable energies or membership of trade institutions promoting such issues <i>(If yes, provide a Copy)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is your company a member of the UN Global Compact	<input type="checkbox"/> Yes <input type="checkbox"/> No
Bank Information	Bank Name: Click or tap here to enter text. Bank Address: Click or tap here to enter text. IBAN: Click or tap here to enter text. SWIFT/BIC: Click or tap here to enter text. Account Currency: Click or tap here to enter text. Bank Account Number: Click or tap here to enter text.

Bidder's Declaration

Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	Requirements and Terms and Conditions: I/We have read and fully understand the RFQ, including the RFQ Information and Data, Schedule of Requirements, the General Conditions of Contract, and any Special Conditions of Contract. I/we confirm that the Bidder agrees to be bound by them.
<input type="checkbox"/>	<input type="checkbox"/>	I/We confirm that the Bidder has the necessary capacity, capability, and necessary licenses to fully meet or exceed the Requirements and will be available to deliver throughout the relevant Contract period.
<input type="checkbox"/>	<input type="checkbox"/>	Ethics: In submitting this Quote I/we warrant that the bidder: has not entered into any improper, illegal, collusive or anti-competitive arrangements with any Competitor; has not directly or indirectly approached any representative of the Buyer (other than the Point of Contact) to lobby or solicit information in relation to the RFQ ;has not attempted to influence, or provide any form of personal inducement, reward or benefit to any representative of the Buyer.
<input type="checkbox"/>	<input type="checkbox"/>	I/We confirm to undertake not to engage in proscribed practices, , or any other unethical practice, with the UN or any other party, and to conduct business in a manner that averts any financial, operational, reputational or other undue risk to the UN and we have read the United Nations Supplier Code of Conduct : https://www.un.org/Depts/ptd/about-us/un-supplier-code-conduct and acknowledge that it provides the minimum standards expected of suppliers to the UN.
<input type="checkbox"/>	<input type="checkbox"/>	Conflict of interest: I/We warrant that the bidder has no actual, potential, or perceived Conflict of Interest in submitting this Quote or entering a Contract to deliver the Requirements. Where a Conflict of Interest arises during the RFQ process the bidder will report it immediately to the Procuring Organisation's Point of Contact.
<input type="checkbox"/>	<input type="checkbox"/>	Prohibitions, Sanctions: I/We hereby declare that our firm, its affiliates or subsidiaries or employees, including any JV/Consortium members or subcontractors or suppliers for any part of the contract is not under procurement prohibition by the United Nations, including but not limited to prohibitions derived from the Compendium of United Nations Security Council Sanctions Lists and have not been suspended, debarred, sanctioned or otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization.
<input type="checkbox"/>	<input type="checkbox"/>	Bankruptcy: I/We have not declared bankruptcy, are not involved in bankruptcy or receivership proceedings, and there is no judgment or pending legal action against them that could impair their operations in the foreseeable future.
<input type="checkbox"/>	<input type="checkbox"/>	Offer Validity Period: I/We confirm that this Quote, including the price, remains open for acceptance for the Offer Validity.
<input type="checkbox"/>	<input type="checkbox"/>	I/We understand and recognize that you are not bound to accept any Quotation you receive, and we certify that the goods offered in our Quotation are new and unused.
<input type="checkbox"/>	<input type="checkbox"/>	By signing this declaration, the signatory below represents, warrants and agrees that he/she has been authorised by the Organization/s to make this declaration on its/their behalf.

Signature: _____

Name: Click or tap here to enter text.

Title: Click or tap here to enter text.

Date: Click or tap to enter a date.

ANNEX 3: TECHNICAL AND FINANCIAL OFFER

Bidders are requested to complete this form, sign it and return it as part of their bid along with Annex 2: Quotation Submission Form. The Bidder shall fill in this form in accordance with the instructions indicated. No alterations to its format shall be permitted and no substitutions shall be accepted.

Name of Bidder:	Click or tap here to enter text.	
RFQ reference:	UNDP-TUR-RFQ(KFW)-2021/032	Date: Click or tap to enter a date.

TECHNICAL OFFER

Technical offer of the bidder shall comprise the following information/sections:

Section 1: A brief description of your qualification and capacity that is relevant to the Scope of Works;

1.1. General organizational capability which is likely to affect implementation: management structure, financial stability and project financing capacity, project management controls, etc.

1.2. Relevance of specialized knowledge and experience on similar engagements done in the region/country. Note: For demonstrating previous relevant experience, bidders shall use the following table and attach Work Completion Certificate which should include the information recorded in the table at minimum.

Please list only previous similar assignments (i.e. construction of any kind of buildings) successfully completed as the prime contractor in the **last 3 years** at a minimum contract amount of **USD 40,000**.

List only those assignments for which the Bidder was legally contracted by the Client as a company or was one of the Consortium/JV partners. Assignments completed by the Bidder's individual experts working privately or through other firms cannot be claimed as the relevant experience of the Bidder, or that of the Bidder's partners or sub-consultants, but can be claimed by the Experts themselves in their CVs. **The Bidder shall provide proof documents for the claimed experience by presenting copies of relevant documents and references with the Bid.**

Project name & Country of Assignment	Client & Reference Contact Details	Contract Value (in USD equivalent*)	Period of activity and status	Types of activities undertaken

*Bidders shall convert the currency quoted in the "Certificate of Completion" into USD, in accordance with the prevailing UN operational rate of exchange on the contract date stated by "Certificate of Completion". UN operational rate of exchange are available at the following website: <https://treasury.un.org/operationalrates/OperationalRates.php#E>

Section 2: Financial Standing

Annual Turnover for the last 3 years	Year	USD
	Year	USD
	Year	USD
Latest Credit Rating (if any), indicate the source		

Financial information (in USD equivalent)	Historic information for the last 3 years		
	Year 1	Year 2	Year 3
	<i>Information from Balance Sheet</i>		
Total Assets (TA)			
Total Liabilities (TL)			
Current Assets (CA)			
Current Liabilities (CL)			
	<i>Information from Income Statement</i>		
Total / Gross Revenue (TR)			
Profits Before Taxes (PBT)			
Net Profit			
Current Ratio			

For USD Equivalent; Bidders shall convert the currency into USD by using the UN operational rate of exchange which was effective for 31st December of each corresponding year. UN operational rate of exchange are available at the following website: <https://treasury.un.org/operationalrates/OperationalRates.php#E>

Bidders shall submit copies of the audited financial statements (balance sheets, including all related notes, and income statements) for the years required above complying with the following condition:

- Must reflect the financial situation of the Bidder or party to a JV, and not sister or parent companies;
- Historic financial statements must be audited by a certified public accountant;
- Historic financial statements must correspond to accounting periods already completed and audited. No statements for partial periods shall be accepted.

Section 3: A brief method statement and implementation plan;

2.1. Description of how the Bidder will complete civil works, keeping in mind the appropriateness to local conditions and project environment.

2.2. Implementation plan including a Gantt Chart or Project Schedule indicating the detailed sequence of activities that will be undertaken and their corresponding timing.

Section 4: Team Composition and CVs of key personnel

3.1. Include an organization chart for the management of the project describing the relationship of key positions and designations.

3.2. Provide CVs for key personnel using the format below. Bidders should also submit the Diplomas of proposed Personnel.

Format for CV of Proposed Key Personnel

Name of Personnel	[Insert]
Position for this assignment	[Insert]
Nationality	[Insert]
Language proficiency	[Insert]
	[Summarize college/university and other specialized education of personnel member, giving names of schools, dates attended, and degrees/qualifications obtained.]

Education/ Qualifications	[Insert]
Professional certifications	[Provide details of professional certifications relevant to the scope of goods and/or services]
	Name of institution: [Insert] Date of certification: [Insert]
Employment Record/ Experience	[List all positions held by personnel (starting with present position, list in reverse order), giving dates, names of employing organization, title of position held and location of employment. For experience in last five years, detail the type of activities performed, degree of responsibilities, location of assignments and any other information or professional experience considered pertinent for this assignment.]
	[Insert]
References	[Provide names, addresses, phone and email contact information for two (2) references]
	Reference 1: [Insert] Reference 2: [Insert]

I, the undersigned, certify that to the best of my knowledge and belief, the data provided above correctly describes my qualifications, my experiences, and other relevant information about myself.

Signature of Personnel Date (Day/Month/Year)

FINANCIAL OFFER

Price Schedule Form / Bill of Quantities

This Bill of Quantities is an itemized breakdown of the works to be carried out, indicating a quantity for each item and the corresponding unit price. The quantities set out in this Bill of Quantities are estimated quantities.

The amounts due shall be determined through the measurement of the actual quantities of the works executed and by applying the unit rates to the quantities actually executed for the respective items.

The prices inserted in the Bill of Quantities are to be the full inclusive values of the works described under the items, including all costs and expenses which may be required in and for the construction of the works described together with any temporary works and installations which may be necessary, and all general risks, liabilities and obligations set forth or implied in the documents on which the tender is based. It will be assumed that establishment charges, profit and allowances for all obligations are spread evenly over all the unit rates.

No specific payment will be made against transportation of materials to the site.

Unless the technical specifications or the Bill of Quantities specifically and expressly state otherwise, only permanent works are to be measured and paid for by UNDP.

No allowance will be made for loss of materials or volume thereof during installation, transport or compaction.

UN and its subsidiary organs are exempt from all taxes. Therefore, the prices shall exclude Value Added Tax (VAT). The Contractor to be selected shall not be entitled to receive any amount over the prices in relation to VAT, Special Consumption Tax and any other applicable taxes.

In the bill of quantities, rates and prices shall be entered by the Contractor in the appropriate columns in USD. In the Unit Price column in the Bill of Quantities Unit Rates shall include the overheads. "Overheads" shall be deemed to cover:

- i. Profit
- ii. Head Office charges
- iii. Site Supervision and Site Staff costs and expenses
- iv. Transport of labour and travelling allowances
- v. Use of protective clothing or equipment
- vi. Any statutory or incidental charges levied on the employment of labour
- vii. Overtime, unless specifically ordered or subsequently sanctioned in writing by the Engineer
- viii. Time lost due to inclement weather
- ix. Insurances of whatsoever nature
- x. Holiday and sickness pay or benefits
- xi. Use, repair and sharpening of small tools
- xii. All non-mechanically operated equipment, erected scaffolding, staging and trestles, protective clothing, artificial lighting, storage facilities and the like that may be in general use on the site
- xiii. All other liabilities and obligations whatsoever

The works described in this section include all the necessary materials and losses, loading, horizontal and vertical transportation, unloading, workmanship, transportation of material to the site, contractor's profit and general expenses for the successful completion of the specified items.

Whenever item/pose is related to an item/pose number from the official books published by Turkish public institutes, the definition in this specification shall prevail for any inconsistency. In case of vagueness/absence of an issue in the item definition in this specification, the official definition shall prevail for only the vagueness/absence.

The units of measurement used in the items/pose definitions are those of the International System of Units (SI). No other units may be used for measurements, pricing, detail drawings etc. (Any units not mentioned in the technical documentation must also be expressed in terms of the SI.) Abbreviations used are to be interpreted as follows:

m means metre
 m² means square metre
 m³ means cubic metre
 kg means kilogram
 ton means tons
 pcs means pieces
 L.s. means Lump sum

Note: Manufacturing descriptions in the bill of quantity were prepared by using the pose descriptions in Ministry of Urban and Environmental Planning, General Directorate of Foundations, Ministry of Culture and Tourism, and TEDAŞ unit price books. In case of any dispute between the contractor and UNDP during construction, the poses of any above-mentioned institutions will be based on. In addition, In the technical and financial applications of the above construction poses, the analysis of the poses in the relevant standards of institutions will be considered and implemented too.

Currency of the Quotation: US Dollars (USD)					
Section 1: CIVIL AND ARCHITECTURAL WORKS					
Item No	Description	Unit	Quantity	Unit price (USD)	Total price (USD)
CAW.01	Excavation of soft and hard soil by machine (free excavation)	M3	96.80		
CAW.02	By supplying gravel, laying, irrigation and compaction by machine	M3	6.94		
CAW.03	Pouring normal ready-mixed concrete in C 16/20 pressure strength class, gray color, produced or purchased at the concrete plant and pressed with a concrete pump (including concrete transport)	M3	11.02		
CAW.04	Making a flat surface reinforced concrete formwork with plywood	M2	45.68		
CAW.05	Pouring normal ready-mixed concrete in C 30/37 pressure strength class, gray color, produced or purchased at the concrete plant and pressed with a concrete pump (including concrete transport)	M3	9.10		
CAW.06	Ø 8- Ø 12 mm ribbed concrete steel bar, cutting, bending and repositioning of bars	TON	0.700		
CAW.07	Filling with tinned sand, gravel or stabilizer, bending and putting in place	M3	79.32		
CAW.08	Pouring normal ready-mixed concrete in C 25/30 pressure strength class, gray color, produced or purchased at the concrete plant and pressed with a concrete pump (including concrete transport)	M3	11.79		
CAW.09	Replacing the ribbed wire mesh 1,500-3,000 kg/m2 (including 3,000 kg(m2))	TON	0.229		
CAW.10	Making two layers of waterproofing with 3 mm thick plastomer-based (-10 °C cold bending) polyester felt carrier polymer bitumen covers	M2	111.30		
CAW.11	Two layers of waterproofing with 5 cm thick plates with smooth surface (xps -200 kpa pressure resistant) and thermal insulation on the horizontal (on the ground or intermediate floor concrete, etc.)	M2	111.30		
CAW.12	Laying 250 gr/m ² of geotextile felt	M2	111.30		
CAW.13	Making screed with a thickness of 2.5 cm and 400 kg of cement	M2	98.72		

CAW.14	Carcass, (frame) construction with all kinds of profiles, steel bars and steel sheets, fixing in place (structure frame, beams from profile iron in bridges, caps, connections and similar manufactures)	TON	3.720		
CAW.15	Flooring with 60x60 cm nominal size, rectified, all kinds of colors, patterns and surface features, first quality, glossy, unglazed porcelain tile with 3 mm joint gaps (with tile adhesive)	M2	103.77		
CAW.16	Wall struction with 20 cm thick non-equipped gas concrete wall blocks (with gas concrete glue) (g2 class) (2,50 n/mm ² and 400 kg/m ³)	M2	162.01		
CAW.17	Buildings walls with 19 cm thick load-bearing pumice concrete wall blocks (with pumice concrete glue) (min 5 n/mm ² and min 900 kg/m ³)	M2	74.77		
CAW.18	Buildings walls with 10 cm thick load-bearing pumice concrete wall blocks (with pumice concrete glue) (min 5 n/mm ² and min 900 kg/m ³)	M2	24.43		
CAW.19	Covering with perlite plaster plaster and satin plaster (on cocnrete, brick walls, etc.)	M2	243.46		
CAW.20	Applying two coats of water-based silk matte paint to new plaster surfaces by applying putty and primer (interior)	M2	243.46		
CAW.21	Rough plastering with cement lime mixture mortar (interior)	M2	106.61		
CAW.22	Wall and facade cladding with 30x60 cm nominal size, rectified, all kinds of colors, patterns and surfce features, first quality, glossy, unglazed porcelain tile with 3 mm joint gaps (with tile adhesive)	M2	106.61		
CAW.23	60*60 cm dimensions, 0.70 mm thickness, min 20 micron electrstatic powder coated (polyster based) perforated aluminum plate (en az 3000 series) with acoustic fabric on the back side, suspended system suspended ceiling	M2	74.69		
CAW.24	Construction of suspended ceiling with double skeleton suspension system with gypsum boards (Agraf mes. 900 mm in the same direction, with axis intervals of main carried profile of 1000mm, of secondary carrier profile of distance of 500mm) (with 12.5mm single layer of gypsum wall board with increased fire resistance)	M2	23.22		
CAW.25	Making a satin plaster coating (average 1 mm thickness)	M2	23.22		

CAW.26	Applying two coats of water-based silk matte paint by applying a primer to satin plaster and gypsum board surfaces (interior)	M2	23.22		
CAW.27	Roofing with 60mm rockwool insulated (0.50mm thick painted galvanized sheet at the top and 0.50mm thick painted galvanized sheet at the bottom) on the existing steel purlins	M2	116.60		
CAW.28	Plastering with 250/350 kg cement dosed coarse and thin mortar (exterior plaster)	M2	174.02		
CAW.29	5 cm thick carbon black-graphite based expanded polystyrene sheets (eps-16 kg/m3 density) external thermal insulation and thermal insulation plaster on the outer walls (sheating)	M2	174.02		
CAW.30	Applying a silicone-based grainy/textured coating to exposed concrete, plastered or old painted surfaces (exterior)	M2	146.80		
CAW.31	FACADE COVERING WITH MINERAL FILLED COMPOSITE ALUMINUM PLATES (Without Thermal Insulation)	M2	43.70		
CAW.32	Making external windowsill with 3 cm thick colored marble plate (3cmx30-40-50cmxfree length) (honed or polished)	M2	2.66		
CAW.33	Stair tread covering with colored marble slabs (step 3cm, pier 2 cm thick) (all kinds of surface treatment except honed and polished)	MT	4.00		
CAW.34	Floor covering with 3cm thick colored marble slabs (3cmx30-40-50xfree length) (honed or polished)	M2	5.00		
CAW.35	Making and replacing various iron works from flat and profile irons	KG	95.82		
CAW.36	Electrostatic powder coated heat insulated aluminum joinery manufacturing and replacement	KG	298.64		
CAW.37	Installing a double-glazed window unit with a 4+4mm thickness, 12mm gap, with a heat control coating on the first glass, with a profile on the PVC and aluminum joinery	M2	18.08		
CAW.38	Making solid wooden interior door frame and sill and replacing it	M2	12.96		
CAW.39	Laminate-coated, pressed, kraft-filled interior door leaf made of wood fiber boards (mdf) on both sides, installing and replacing	M2	13.20		
CAW.40	Replacing the transom kit (steel scissors, chrome plated handle)	PCS	4.00		

CAW.41	Replacing the espagnolette set (handle, iron and detailed)	PCS	8.00		
CAW.42	Replacing the hinge (Wood, Metal. Plastic)	PCS	28.00		
CAW.43	Replacing door handles and mirrors (chrome) (Wood, Metal. Plastic)	PCS	8.00		
CAW.44	Replacing the mortise interior door leaf lock (wide type) (Wood, Metal. Plastic)	PCS	6.00		
CAW.45	Replacing the cylindrical shaved exterior door lock (Wood, Metal. Plastic)	PCS	1.00		
CAW.46	Replacing the bolt (vertical fixing kit) (Wood, Metal. Plastic)	PCS	4.00		
CAW.47	Making seamless grooves from 0.50mm thick, hot-dip galvanized and painted flat sheet and assembling in place (Sheet width is 30cm in total)	MT	39.20		
CAW.48	Supply and laying of andesite borders of 10x20x50cm	MT	40.00		
CAW.49	Floor covering with 4cm thick andesite board (30cmxfree length)	M2	27.20		
CAW.50	Stainless Steel Stair Railing Making	MT	4.32		
CAW.51	Fully secure consisting of pre built components, construction of exterior work scaffolding.. (0,00-51,50 m between)	M2	189.99		
CAW.52	Construction of work scaffolding for ceilings with full security consisting of pre-made components. (0,00-21,50 m arası)	M3	260.63		
TOTAL AMOUNT FOR SECTION 1 – CIVIL AND ARCHITECTURAL WORKS					

Currency of the Quotation: US Dollars (USD)					
Section 2: MECHANICAL WORKS					
Item No	Description	Unit	Quantity	Unit price (USD)	Total price (USD)
MW.01	Panel radiator (type 22) 600	MT	6.20		
MW.02	Straight type radiator tap ø15 mm (1/2")	PCS	16.00		
MW.03	Min 20.000 kcal/h hermetic, electronic, natural gas and lpg fueled condensing combi boiler	PCS	1.00		
MW.04	Heating pipe oxygen (EVOH according to DIN 4726) barrir pipe 16x2,0 mm with minimum 70% crosslink ratio, peroxide additive	MT	179.00		
MW.05	Pn 20 polypropylene 3/4" ø25/4,2 mm clean water pipes	MT	16.24		
MW.06	Pn 20 polypropylene 1" ø32/5,4 mm clean water pipes	MT	18.40		
MW.07	Rigid pvc plastic waste water pipe outer diameter ø 50-40/3,0 mm (Plug-in joint)	MT	4.00		
MW.08	Rigid pvc plastic waste water pipe outer diameter ø 75-70/3,0 mm (Plug-in joint)	MT	5.32		
MW.09	Rigid pvc plastic waste water pipe outer diameter ø 100-110/3,0 mm Plug-in joint)	MT	29.82		
MW.10	Antibacterial 50x60 cm consoled handicapped washbasin tiles verified tile extra class	PCS	2.00		
MW.11	Antibacteriyel 45x60 cm under or over counter oval washbasin tiles verified tile extra class	PCS	2.00		
MW.12	Antibacterial flushin toiled and installation with a self-reservoir with a self-reservoir of approximately 35c70 cm for the physically handicapped	SET	2.00		
MW.13	Grab bar for the disabled	PCS	2.00		
MW.14	Toilet grab bar for the disabled	PCS	2.00		
MW.15	Stainless steel paper holder for the disabled	PCS	2.00		
MW.16	Floor drain hard plastic 15x15 cm	PCS	2.00		
MW.17	Cold water meter with 1" screw 25ømm.	PCS	1.00		
TOTAL AMOUNT FOR SECTION 2 – MECHANICAL WORKS					

Currency of the Quotation: US Dollars (USD)					
Section 3: ELECTRICAL WORKS					
Item No	Description	Unit	Quantity	Unit price (USD)	Total price (USD)
EL.01	Normal sortie, line and sortie lines are made of lead-free antigrion material.	PCS	4.00		
EL.02	Commutator sortie, line and sortie lines with lead-free antigrion material	PCS	3.00		
EL.03	Parallel sortie, line and sortie lines with lead-free antigrion material	PCS	8.00		
EL.04	Recessed, min. 30x30 sized LED ceiling luminaire (with a luminous flux of at least 1000 lm, luminous efficiency of at least 100 lm/w).	PCS	4.00		
EL.05	Recessed, min. 30x60 sized LED ceiling luminaire (with a luminous flux of at least 1500 lm, luminous efficiency of at least 100 lm/w).	PCS	2.00		
EL.06	Recessed, min. 60x60 sized LED ceiling luminaire (with a luminous flux of at least 3300 lm, luminous efficiency of at least 100 lm/w).	PCS	12.00		
EL.07	Emergency lighting kit price difference for led lighting fixtures	PCS	9.00		
EL.08	Up to 0,20-0,30 m ² (including 0,30 m ²), Recessed type galvanized sheet panels	PCS	1.00		
EL.09	From 3x10A to 3x63A, Icu: 35 kA, I1 (0,8-1) In, 3-pole, at 400 V AC at least Icu: 35 kA, Thermic Protection Adjustable, Magnetic Protection Fixed, Compact type thermal and magnetic shielded switches	PCS	2.00		
EL.10	Up to 4x40 A (30 mA), Residual current circuit breakers (TS EN 61008-1/TS EN 61008-2-1)	PCS	1.00		
EL.11	Up to 16 A (3 kA), Switched MCBs (3 kA breaking capacity)	PCS	7.00		
EL.12	Up to 25 A (3 kA), Switched MCBs (3 kA breaking capacity)	PCS	2.00		
EL.13	4x6 mm ² , 1 kV underground cables and column and supply line facility YVV (NYY) (TS 1178 IEC 60502)	MT	20.00		
EL.14	Supply line facility with 2x1.5 mm ² , Lead-free PVC insulated cables (NHXMH, at least 300/500 V)	MT	4.00		
EL.15	Supply line facility with 3x2.5 mm ² , Lead-free PVC insulated cables (NHXMH, at least 300/500 V)	MT	30.00		

EL.16	Line and sortie lines with lead-free antigron material, normal socket sortie, WATERPROOF SOCKET SORT (with safety line) (with TS conformity certified material)	PCS	2.00		
EL.17	Normal plug sortie with line and sort lines lead-free antigron (NHXMH) type material.	PCS	11.00		
EL.18	20x5mm ² Copper Bar (0.89 kg/m)	KG	0.445		
EL.19	Galvanized steel sheet, 30x3,5 mm size, coated with min 50μ zinc, in accordance with the specification, Building enclosing conductor installation	MT	52.00		
EL.20	Earth electrode (rod) electrolytic copper:	PCS	1.71		
EL.21	Up to 10 pairs, Telephone distribution boxes	PCS	1.00		
EL.22	Utp Cat6H HALOJEN FREE 4x2x23 AWG, COPPER DATA CABLES	MT	350.00		
EL.23	Utp Cat 6 Recessed Single Socket	PCS	12.00		
EL.24	EMERGENCY ROPE CALL BUTTON AND OVERDOOR WARNING LAMP FOR DISABLED WC	SET	2.00		
TOTAL AMOUNT FOR SECTION 3 – ELECTRICAL WORKS					

SUMMARY TABLE:

Section	Description	TOTAL PRICE (USD)
1	CIVIL AND ARCHITECTURAL WORKS	
2	MECHANICAL WORKS	
3	ELECTRICAL WORKS	
(A) TOTAL ESTIMATED PRICE (Section 1 + 2 + 3)		
(B) CONTINGENCY (15% of A)		
TOTAL ESTIMATED PRICE (A+B)		

Compliance with Requirements

	You Responses		
	Yes, we will comply	No, we cannot comply	If you cannot comply, pls. indicate counter - offer
Minimum Technical Specifications and requirements stipulated in the Bill of Quantities and Schedule of Requirements	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
Substantial Completion of works (60 calendar days after given access to the site)	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
Validity of Quotation	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
Payment terms	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.

I, the undersigned, certify that I am duly authorized to sign this quotation and bind the company below in event that the quotation is accepted.

<i>Exact name and address of company</i> Company Name: Click or tap here to enter text. Address: Click or tap here to enter text. Click or tap here to enter text. Phone No.: Click or tap here to enter text. Email Address: Click or tap here to enter text.	Authorized Signature: Date: Click or tap here to enter text. Name: Click or tap here to enter text. Functional Title of Authorised Signatory: Click or tap here to enter text. Email Address: Click or tap here to enter text.
---	--