



RISM QS

Virtual Symposium 2020 E-BOOK

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TEKNOLOGI
MARA

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WELCOMING SPEECH

**BY PROFESSOR DATO DR JAMIL BIN HAJI HAMALI,
RECTOR OF UNIVERSITI TEKNOLOGI MARA (UiTM)
SARAWAK IN CONJUNCTION WITH 5TH ANNUAL ROYAL
INSTITUTION OF SURVEYORS MALAYSIA (RISM) QS
VIRTUAL SYMPOSIUM 2020**



Assalamualaikum warahmatullahi warabakatuh and a very Good Morning.

It is my pleasure and honour to welcome you to the 5th Annual RISM QS Virtual Symposium 2020. We are indeed very proud to be the host of this inaugural virtual symposium. I am very proud that UiTM Sarawak has been given the opportunity to be the host for this RISM QS symposium. Thank you very much to the Royal Institution of Surveyors Malaysia, also known as RISM, for this great opportunity to co-host this symposium in our campus.

UiTM Sarawak welcomes any academic event that can be a platform for lecturers and students to collaborate and learn from the industry players. Our students are the future generation who will be entering the industry and we need to polish these diamonds to bring out the shine and smooth finishing. Only then, you can see them sparkle. We want a future workforce that is highly educated and exceptionally proficient in what they do and we cannot do this on our own. We need the industry's help. We need to have industrial linkages in order to stay relevant and progressive. This symbiosis relationship between the university and the industry is crucial as the connection can foster economic development of a nation.

Over the past four years, the topics covered in this symposium were focused on current issues related to QS scope of work at that point in time. For this year, I have been informed that the topics given to all participants are associated with the current pandemic circumstances. The construction industry, as a significant growth driver of the economy, was also badly affected after an astounding spike in COVID-19 cases. Nobody knows for sure what will happen after this. Therefore, it is important, for us the academics and industry players to get exposure and brainstorm for ideas, in order to address the impact of the pandemic and to prepare for any future possibility in laying out our future plans.

I am sure you are all encouraged by the positive momentum of this symposium. By getting yourself involved in this event shows that you are all hyped up to learn and exchange ideas to face this pandemic head-on. On a final note, I would like to extend my deep appreciation to the organizing committee, Professor Dr Firdaus Abdullah, Deputy Rector of Academic & International Affairs of UiTM Sarawak, Sr Dr Ahmad Faiz Abdul Rashid, Head of Centre of Studies, Faculty of Architecture, Planning and Surveying of UiTM Sarawak, Sr Dr Asmah Alia Mohamad Bohari, The Lead Committee from UiTM Sarawak and the Quantity Surveying Department from UiTM Sarawak, for initiating, engineering and choreographing this symposium in this new norm environment. Thank you very much, and well done!

Apart from that, I would also like to thank YBhg. Dato' Sr Aziz bin Abdullah, Vice President (QS), Royal Institution of Surveyors Malaysia for making time to join us. There are others from RISM that I need to mention like, Dr Felicia Yong Yan Yan and Ts Sr Nadzirah Zainordin, Co-organiser Representatives from Young QS Subcommittee and Sr Eric Khoo Sui Lai. Thank you for your involvement in making this symposium a success.

To all symposium participants, once again, let me extend a very warm welcome. I sincerely hope you will enjoy this symposium. I am confident that you will benefit immensely, thank you for your support and do join us again for future events.

Thank you.
Wabillahi Taufiq Walhidayah,
Assalamualaikum Waramatullahi Wabarakatuh.

MESSAGE FROM THE RISM

**DATO SR AZIZ ABDULLAH,
CHAIRMAN,
ROYAL INSTITUTION OF SURVEYORS MALAYSIA,
QUANTITY SURVEYING DIVISION IN CONJUNCTION WITH
5TH ANNUAL ROYAL INSTITUTION OF SURVEYORS
MALAYSIA (RISM) QS VIRTUAL SYMPOSIUM 2020**



Assalamualaikum Warahmatullahi Wabarakatuh dan Salam Sejahtera

1. YBhg. Professor Dato Dr Jamil Hj Hamali, Rector, UiTM Cawangan Sarawak
2. YBhg. Professor Dr Firdaus Abdullah, Deputy Rector of Academic & International Affairs, UiTM Cawangan Sarawak
3. Sr Eric Khoo Sui Lai, Chair of YQS, RISM Quantity Surveying Division
4. Dr. Felicia Yong Yan Yan, RISM Representative
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7. Sr Syed Saiful Nizam Syed Mubarat, RISM Chair of Sports and Social
8. Sr Richard Ooi, RISM Chair of Membership
9. Sr Dr Asmah Alia Mohamad Bohari & Organising Team Members of UiTM Cawangan Sarawak

A very good morning to the built environment especially the quantity surveying fraternity from far and wide present here this morning. It gives me great pleasure to welcome you to the RISM annual event this year - the RISM QS Virtual Symposium 2020. Firstly, I would like to take this opportunity to thank the organising committee of the RISM QS Virtual Symposium 2020 – UiTM Sarawak and RISM YQS for inviting me to deliver the opening speech of this symposium. It is indeed a great pleasure and a privilege to be amongst this distinguished audience this morning, comprising experts, professionals, academicians, and students in the fields of quantity surveying, to deliver the opening speech and officially declare open the RISM QS Virtual Symposium 2020.

Despite the Covid-19 pandemic that we are all currently facing, I am glad that it did not hampered the effort of the Organising Committee to organise this symposium. I am very pleased to note that there are about 135 students along with their advisors from various higher learning institutions all over Malaysia. I would like to cordially thank all of you for participating in this symposium. I am very pleased at the initiative by RISM to hold this symposium, which has received such an enthusiastic response from all the Partnering Institutions. My sincere congratulations to the Organising Committee for their efforts in making this symposium a resounding success in terms of participating and organisational professionalism.

Education 4.0 is a response to the needs of Industrial Revolution 4.0 where human and technology are aligned to enable new possibilities. The advancement of technologies is changing and transforming the teaching method and the setting of the learning process. As such, classes and events can be held virtually via online platforms, with the aid of advance technologies – just like the RISM QS Virtual Symposium 2020 today. The symposium provides a platform for Quantity Surveying undergraduates with an opportunity to exhibit their ideas on Professional Practice, besides working together as a team with their lecturers and industry mentor(s) in enhancing the current quantity surveying core competencies in the construction industry. In addition, the symposium also seeks to holistically improve the quantity surveying skills and knowledge required for success in the workplace apart from communication skills, quantitative reasoning, critical thinking, teamwork, and technology. Also, knowledge sharing in bridging the gap between theories and practices in Quantity Surveying.

Quantity surveyors are the cost managers of construction. We are initially involved with the capital expenditure phase of a building or facility, which is the feasibility, design and construction phases, but are also involved with the extension, refurbishment, maintenance and demolition of a facility. The construction industry is global and extends across all real estate and infrastructure markets. Quantity surveyors work in all sectors of the construction industry worldwide. In real estate, this covers residential, commercial, industrial, leisure, agricultural and retail

facilities. In infrastructure, it covers roads, railways, water ways, airports, seaports, coastal defences, power generation, utilities and the like. Quantity surveyors may also work in process engineering, such as chemical engineering plants or oil rigs. We must understand all aspects of construction over the whole life of a building or facility. We must have the ability to manage cost effectively, equating quality and value with individual client needs. Hence, it is important that students, who soon will be graduating and joining the industry to understand and master the quantity surveying core competencies as well as the needed skillsets. These reflects your judgement and the work you do in your day-to-day environment besides your professionalism.

This symposium is an opportune time for all of us especially the quantity surveying undergraduate students to make the first step towards the sharing and exchanging of knowledge, ideas and experiences that can improve our quantity surveying education and profession thereby making the world a better place to live in. We must fervently embrace innovation and the advancement of technologies as well as our profession. I sincerely believe this can be achieved from this Symposium.

I would sincerely like to wish the RISM QS Virtual Symposium 2020 success in achieving its goal. On this note, I take great pleasure in declaring the RISM QS Virtual Symposium 2020 officially open.

Thank you.

PREFACE

RISM QS Symposium is an annual event organised by RISM QS Division. In 2020, the RISM QS Symposium was held on 11th November 2020 virtually due to the Covid-19 pandemic outbreak. The symposium was jointly organised by UiTM Cawangan Sarawak and RISM QS Division.

The theme for this year is “Back to The Principles” which highlights the essential core QS services to the undergraduates towards professional QS in the future. Understanding the Standard Operating Procedure (SOP) of the core QS services could be challenging, mainly for beginners.

RISM QS Virtual Symposium 2020 aims to provide a platform for QS undergraduates to exhibit their ideas with regards to Professional Practice. The objectives are to provide a holistic understanding of QS core competency, applying classroom knowledge and the inputs from the industry on Professional Practice apart from knowledge required to be successful in the workplace, besides holistically improving communication, quantitative reasoning, critical thinking, teamwork, and technology skills.

This year’s RISM QS symposium successfully gathered thirteen universities and institutions in Malaysia offering quantity surveying course. Approximately 140 registered participants via Cisco Webex and more than 1000 viewers via YouTube live streaming were recorded. This further indicated the successful delivery of the symposium’s aim and objectives.

The participating universities comprises of Universiti Sains Malaysia (USM), Universiti Malaysia Sarawak (UNIMAS), Universiti Teknologi MARA Cawangan Sarawak, Universiti Teknologi MARA Cawangan Perak, Universiti Teknologi MARA Cawangan Shah Alam, Taylor’s University, Herriot Watt University, Universiti Tunku Abdul Rahman (UTAR), University of Reading Malaysia, Politeknik Sultan Abdul Halim Mu’adzam Shah, Tunku Abdul Rahman University College (TARUC), INTI International University and Politeknik Kota Kinabalu

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PREPARATION OF PRELIMINARIES

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Abstract

Standard Operating Procedure (SOP) is a procedure to specify a set of step-by-step instructions to ensure the preparation of work is carried out smoothly and effectively. In the construction industry, various SOPs have been developed to help the stakeholders including quantity surveyors to perform the allocated task. A comprehensive SOP would benefit the company's operation as it provides guidelines and sufficient information to perform the specific task. The paper focuses on preparing SOP for the preparation of preliminaries in the main scenario and preparing SOP for the assessment of Extension of Time (EOT) and Loss and Expense (L&E) in the special scenario.

Keywords: Standard Operating Procedure; Preliminaries; Extension of Time; Loss and Expenses

Introduction

In the main scenario, a Standard Operating Procedure (SOP) for preparation of preliminaries is requested by the client for the proposed private development of a mixed commercial project in Kuching, Sarawak, which is to be constructed under traditional procurement. Preliminaries is a documentation which covers all items that are necessary and related to the construction project but not forming part of the building itself such as the employer's requirement, contractor's obligation and others (Ashworth & Hogg, 2007). It is essential to have an SOP for the preparation of preliminaries to avoid quantity surveyor (QS) consultants overlooking any cost significant items in the preliminaries which are required within the whole of works but not in parts of works only. Therefore, an SOP for preparation of preliminaries is proposed in this paper.

In the special scenario, the client's mixed commercial project in Kuching, Sarawak was progressing well but stopped unexpectedly due to the Movement Control Order (MCO) implemented by the government in order to control the spread of the Covid-19. It is expected that the contractor appointed for this project would apply for Extension of Time (EOT) and Loss and Expense (L&E) under this circumstance. Anticipating such event, the client has instructed the formation of new SOP for EOT and L&E application due to MCO and Covid-19 conditions. Thus, this paper consists of the SOP for the assessment of EOT and L&E and detailed explanations are given for each step.

Main Scenario: Standard Operating Procedure (SOP) for Preparation of Preliminaries

Purpose: Ensure all preliminaries items required for the works are accounted for and to maintain consistencies

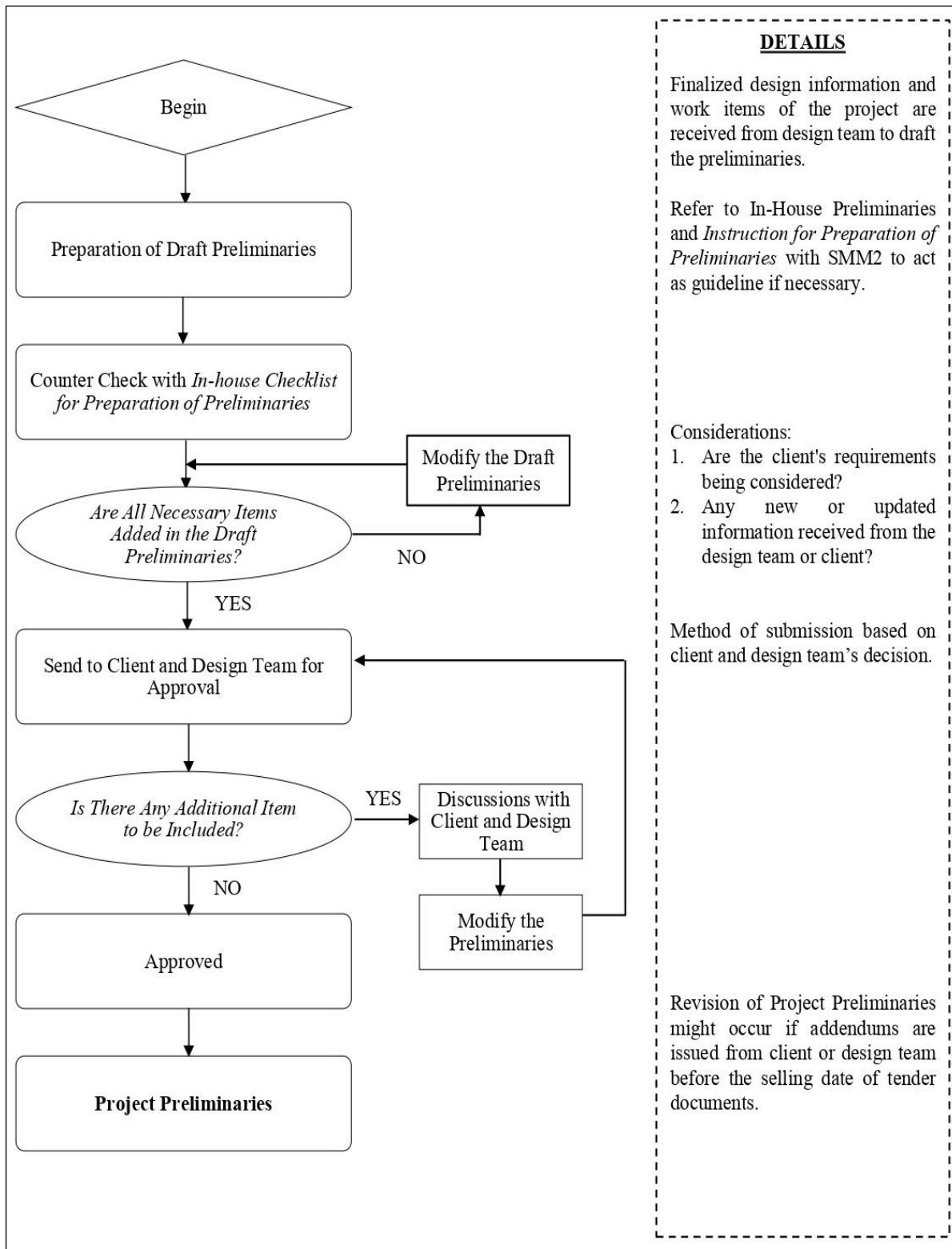


Figure 1. The SOP Flowchart of Preliminaries Preparation

This section provides detail of the SOP based on each step in the flowchart shown in Figure 1. There are several steps to prepare a complete preliminary that is agreed and verified by all parties involved in the construction project that will then be used as the project preliminaries. In practice, the quantity surveyor (QS) consultant is responsible to prepare the preliminaries. The preparation of preliminaries begins when the QS consultant receives the finalised design information and work items of the project from the design team.

Basically, the SOP for the preparation of preliminaries is divided into three main parts. The detailed description for each main part is explained below:

Preparation of Draft Preliminaries

In this step, the QS consultant will draft the Preliminaries by referring to the In-House Preliminaries. In-House Preliminaries is a standard format of the preliminaries in the organisation for the QS consultant to prepare the preliminaries which include all the core work items and necessary items in the preliminaries. This is to ensure that all cost significant items required within the whole of works is accounted for. The items of preliminaries in the In-House Preliminaries are grouped into 10 sections which could refer to *Instruction for Preparation of Preliminaries* as attached in Appendix I. It is developed as a reference to ease the QS consultant to draft the preliminaries based on the In-House Preliminaries.

The instructions stated for each section of the preliminaries provide a detailed guideline in which information or general condition should be specified while drafting the preliminaries for the private mixed commercial project based on the In-House Preliminaries. Therefore, the *Instruction for Preparation of Preliminaries* would allow the items of preliminaries to be drafted by complying to the client and project's requirement. If there is any information which is not sufficient or not available, QS consultants would send a questionnaire to request for the information. The Standard Method of Measurement 2 (SMM2) will be used as a guideline for preparing all the work items in the draft preliminaries, whenever necessary. (RISM, 2000)

Counter Check with In-house Checklist for Preparation of Preliminaries

After drafting the preliminaries, the QS consultant will cross-check the content with the *In-house Checklist for Preparation of Preliminaries* as attached in Appendix II. It is a list of items in the In-House Preliminaries to ensure all necessary items of preliminaries are included in the draft preliminaries. While cross-checking the draft preliminaries with the checklist, there are 2 considerations:

- Are the client's requirements being considered?
- Any new or updated information received from the design team or client?

If there are still items to be added, it will then proceed to continue to modify and amend the draft preliminaries. On the other hand, if there are non-additional items to be added, then the QS consultant will proceed to send the draft preliminaries to the client and the design team for approval.

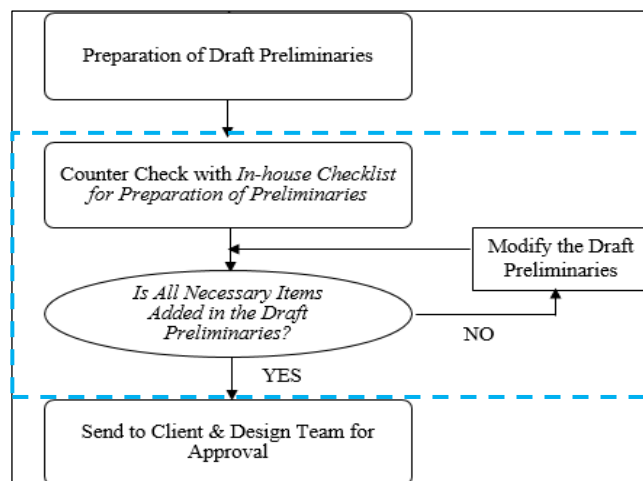


Figure 2. Outcomes of Cross Check

Send to Client & Design Team for Approval

Once the draft preliminaries have been submitted to the client and design teams for further approval, the client and design team will then check and ensure any additional items to be included. If there are any items yet to be included, there will be a discussion held between the QS consultant with the client and design team to justify and make the further modification to the preliminaries. If there are no more additional items to be added to the Preliminaries, then it will be approved and proceed as the Project Preliminaries.

The preliminaries is deemed as the final preliminaries which is the project preliminaries at the selling date of the tender document. However, if there are any new information and requirement from the client and design team, the QS consultant has the obligation to amend or modify the preliminaries and send to the client and design team again for approval. An addendum will be issued following this change.

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APPENDIX

INSTRUCTION FOR PREPARATION OF PRELIMINARIES

Purpose: To provide a detailed guideline and reference to draft the preliminaries based on the In-House Preliminaries together with SMM2 if necessary.

Brief Description of Section	Instructions
Section A – General Requirement Items are related to the general information & scope of the project and may refer to SMM2 under Section B.1 & Section B.2.	Information MUST include in Section A: Name & address of client & consultants Name, nature & location of the project General description of the works Work included in the contract Any existing work done by other contractor Description of the site
Section B – Measurement & Pricing Items are related to the general conditions of the pricing & information regarding the measurement	Specify claim for fluctuation is allowed/ not allowed Any additional requirement/ limitation imposed by the client in pricing & measurement
Section C – Temporary Work & Services Specify the required temporary works & services in the project together with the requirement/ restrictions. Some example of the temporary works & services is mentioned under Section B.7.1 & Section B.12.1 in SMM2. Generally, the temporary works & services are: Temporary accommodation for the use of employer & contractor Temporary utilities for works such as water supply, lighting, electrical supply & telephone service Temporary fencing & hoarding Others	General information required to recognize: Limitation of space for the temporary buildings, storage & plant List of facilities/ requirement for consultant's site office and contractor's storage, welfare & office accommodation Model & number of the computer, printer & photocopier required in the project Any special temporary works/ services required for the project purpose such as external temporary platform for pods construction Any additional obligations/ restrictions imposed by employer to the temporary works/ services Temporary works/ services are fixed charge or time relate charge
Brief Description of Section	Instructions
Section D – Materials, Workmanship & Testing Specify the quality standards/ control for the material/ goods. Description for the material & work testing and sample of material.	Any additional requirement/ restriction imposed by the client in the method statement & regulations in material, goods & testing
Section E – Contract Administration Items are related to the contractor's liability that is not covered in the construction contract and could refer to Section B.5 in SMM2	Information required to specify: Working hour of the site workers & resident supervisory staff List of Drawings from Architect & Engineers Year of warranty for specific material & workmanship Payment method to the NSC/ nominated supplier Insurance: Validity of the Insurance Time limit to submit the actual Contractor's All Risk and Workmen's Compensation Policies Contractor's all risks policy in respect of third liability & damage to the works Percentage of Workmen's Compensation Insurance/Contract Sum after deducting P.C Sums
Section F – Conditions of Contract Provide information about the form, type & conditions of the contract and may refer to the Section B.4 in SMM2	Information MUST include in Section F: Form of contract

	Amendments made to the standard conditions Schedule of the clause headings in the contract Appendix to the conditions of contract Works, goods and materials by others mention under Section F.3 Supplementary Clause to Conditions of Contract.
Brief Description of Section	Instructions
Section F – Conditions of Contract (Cont'd)	Information Required to Specify: Definition of “Attendance” & “Fix Only” List of items provide for NSC by contractor List of items provide for specialist by contractor
Section G – Site Organisation & Management Items are related to the site administration. Some example of the preliminaries may refer to Section B.12 in SMM2. Example of items in Section G: Shop Drawings Progress Photographs Plant, tools & equipment Others	General information required to recognize: Number of copies required for as-built drawings, shop drawings & works programme List of specialists’ work/ services to prepare the shop drawings by contractor Time limit to submit works programme after receipt of Letter of Award Any additional requirement for the progress report & progress photographs List of survey instruments required in project List of plants & equipment required in project Qualification of the site agent
Section H – Regulations & Restrictions Items are related to the law, regulations, local authorities & government regulations.	General information required to recognize: Number of safety helmets & safety shoes Determine the necessary regulation to be included in the preliminaries based on the In-House Preliminaries Any additional regulation should include for this project such as COVID-19 Prevention Measure
Section I – Maintenance & Protection Specify the requirements & manual for the maintenance & protection works and may refer to Section B.12.e in SMM2	Determine the necessary maintenance & protection works to be included in the preliminaries based on the In-House Preliminaries
Brief Description of Section	Instructions
Section I – Maintenance & Protection (Cont'd)	Any additional maintenance & protection required for this project due to the condition of site/ client’s requirement such as floor level signage
Section J – Contingencies Any contingencies shall be given as a provisional sum in preliminary based on SMM2 under Section B.13	Specify the percentage of contingencies if required to include in the project

**QS CONSULTANCY FIRM**

(Registration No: PT7564960)

E08, Jalan Ilmu,

10500, Georgetown, Penang

Job No: _____**Date:** _____**Drafter:** _____**Checker:** _____**BASIC INFORMATION OF PROJECT****Project Title:** _____**Location:** _____**Client:** _____

Notes: Please (✓) in column 'Yes' if the section is in the Preliminaries OR (✓) in column 'No' if the section is NOT in the Preliminaries. If NOT REQUIRED to include in the Preliminaries, please write N/A in 'Remarks' column

CHECKLIST FOR PREPARATION OF PRELIMINARIES

Bil	Title	Yes	No	Remarks
A	General Requirement			
	A.1 Generally			
	A.1.1 General Notes			
	A.1.2 Definitions			
	A.1.3 Documents Forming Bills of Quantities			
	A.1.4 Parties			
	A.1.5 Location of Site			
	A.1.6 Inspection of Site			
	A.1.7 Site Conditions			
	A.1.8 Access & Egress			
	A.1.9 Discrepancies in Contract Documents			
	A.1.10 Neglect to Obtain Reliable Information			
	A.2 Scope of Contract			
	A.2.1 Object of Contract			
	A.2.2 Brief Description of Works			
	A.2.3 Existing Works			
	A.2.4 Other Contractors On Site			
	A.2.5 Quality Assurance			
	A.2.6 Fixed Completion Time			
B	Measurement & Pricing			
	B.1 Generally			
	B.2 Pricing			
	B.3 Unspecified Items			
	B.4 Complying with the Specification			
	B.5 Dimension			
	B.6 Fluctuations of Prices, Wage Rate, Etc.			
	B.7 P.C. Rated Items			

CHECKLIST FOR PREPARATION OF PRELIMINARIES (CONT'D)				
Bil	Title	Yes	No	Remarks
C	Temporary Works & Services			
	C.1 Area of Operations			
	C.2 Consultant's Site Office			
	C.3 Contractor's Storage, Welfare & Office Accommodation			
	C.4 Hoardings & Fencings			
	C.5 Signboard			
	C.6 Temporary Telephone & Facsimile Service			
	C.7 Wireless Broadband Access			
	C.8 Desktop Computer & Printer			
	C.9 Photocopier			
	C.10 Temporary Wash Trough with Water Jet & Sedimentation Pond			
	C.11 Temporary Water Supply			
	C.12 Temporary Lighting			
	C.13 Temporary Electricity Supply			
	C.14 Temporary Mechanical Ventilation			
	C.15 General Scaffolding, Staging & Safety Net			
	C.16 Catch Platform/ Mid way Platform			
	C.17 Temporary Roads			
	C.18 Underground Services			
D	Materials, Workmanship & Testing			
	D.1 Ordering of Material			
	D.2 Imported Material			
	D.3 Approved Equivalent			
	D.4 Substitute Material			
	D.5 Shipment of Material			
	D.6 Delivery Notes			
	D.7 Samples			
	D.8 Import Duty, Taxes & Customs Regulations			
	D.9 Material Tests			
	D.10 Ponding Test Waterproofing Works			
E	Contract Administration			
	E.1 Site Working Hours			
	E.2 Working Hours for Resident Supervisory Staff			
	E.3 Drawings			
	E.4 Manufacturer's Warranties			
	E.5 Payment to Nominated Sub-contractor/ Nominated Supplier			
	E.6 Reimbursement for Power Consumed by Sub-contractors			
	E.7 Insurance			
	E.7.1 Insured Period for All Insurance Policy			
	E.7.2 Contractor's All Risks Policy in Respect of Third Parties			
	Liability & Damage to the Works			
	E.7.3 Workmen's Compensation Insurance			

	E.7.4 Employee's Social Security Act (SOCSO)			
CHECKLIST FOR PREPARATION OF PRELIMINARIES (CONT'D)				
Bil	Title	Yes	No	Remarks
F	Conditions of Contract			
	F.1 Form of Contract			
	F.2 Conditions of Contract			
	F.3 Supplementary Clause to Conditions of Contract			
	F.3.1 Attendance Upon Nominated Sub-Contractors			
	F.3.2 Nominated Sub-Contractor's Responsibilities			
	F.3.3 Responsibility for Specialists			
	F.3.4 Attendance on Nominated Supplier			
	F.3.5 Specialists Employed by Employer			
	F.3.6 Taxation			
	F.3.7 Contract Rates			
	F.4 Appendix to Conditions of Contract			
G	Site Organisation & Management			
	G.1 As Built Drawings & Operating & Maintenance Instructions			
	G.2 Shop Drawings			
	G.3 Works Programme			
	G.4 Site Meetings			
	G.5 Progress Reports			
	G.6 Dilapidation Survey Report			
	G.7 Progress Photographs			
	G.8 Invoices, Receipts, Etc			
	G.9 Records of Hidden Work			
	G.10 Daily Site Records			
	G.11 Survey Instruments			
	G.12 Plant & Equipment			
	G.13 Contractor's Plant Attached to Buildings			
	G.14 Passenger Hoists			
	G.15 Tower Cranes			
	G.16 Debris Chutes			
	G.17 Site Management & Supervision			
	G.18 Site Agent			
	G.19 Deputy Site Agent			
	G.20 Loading in Excess of Design Load			
	G.21 Work Area			
	G.22 Discipline			
H	Regulations & Restrictions			
	H.1 Registration of Workmen with Department of Labour			
	H.2 Employment of Foreign Workers			
	H.3 Labour-On-Costs			
	H.4 Safety Regulations			
	H.5 Safety Measures for Construction of Building			

[illegible]

PREPARATION OF PRELIMINARIES

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Abstract

Preliminaries are considered as one of the vital sections in the bills of quantities on which it transcribes the works and specifies the general conditions upon execution, this shall include items such as approvals, completion, subcontracting and testing. Due to its cruciality in nature, estimation for items that fall under preliminaries are commonly complicated due to various projects in term of the scale of the development. Therefore, it is appropriate that a specific Standard Operating Procedure (SOP) for the Preliminaries Works shall be proposed and executed accordingly. Throughout the comprehensive literature review, the findings suggested that preliminaries furnish information such as general information, law, form of contracts, contract administration, materials and samples, temporary works etc. Nonetheless, it is vital for the main contractor to determine the amount of oversight to be provided, together with the works regarding to maintenance executed by subcontractors for a preliminary price build-up. Primary contractors shall also be required to differentiate between the costs borne under design & management responsibilities, this is due to various factors that affect the preliminary costing such as main work value, the size of the project, location, availability of resources, complicated of the work and duration of the project. All of these are important to ensure that the goods are not over-priced, and uncertainties could be avoided.

Keywords: *Construction, Preliminaries, Standard Operating Procedure*

Introduction

Preliminaries are items that are often left out by some contractors when calculating the costs of a proposed development. In short, preliminaries shall be known as the cost of the site-specific overheads in any project, this shall compromise on the costs that are not accountable for the labour and material during the development (Marie, 2019). Since contractors are held accountable to bear the costs of preliminaries items during the initiation and the whole process of the development, it is important that the awareness of this item shall be widely shared amongst subcontractor. In the same time, this shall reduce the matters of underclaimed made by the main contractor. In the other hand, extension of time was also discussed on what situation that it could be granted by the Architect.

Preparation Of Preliminaries

General Information

Preliminary items aim at providing the tenderer with the detailed information, general obligations and liabilities of the project, the tenderer shall then set prices for various items provided under this section (Keng, 2016). In addition to that, Hyari (2016) also stated that the definition of each of the project team, inclusive of the client, architect, quantity surveyor and others shall be expressed in this sector. Strickland (2017) supported this by uttering that information shall ensure that each party has their own role to conduct. Other than that, information regarding the extent of contract, discrepancies in contract document, access and visit to the site, working with other contractor, working space as well as the avoidance of nuisances shall also be included under this section of the preliminaries.

Law, Regulation and Requirements

The contractor shall comply with the Lembaga Pembangunan Industri Pembinaan Malaysia Act 1994 and the Construction Industry Regulation 1996 and submit a notification on Form CIDB to the Lembaga not later than 14 days before the commencement of the works. Abas *et al.* (2017) stated that preliminaries normally constitute a sum of 10% of the whole tender sum, hence the contractor should also pay all the charges and fee for permits and licenses that required by the local authority in carrying out the works. Liquidation of the payment may made by the authorities when the contractor fails to do so. Other items such as Sales and Services Tax (SST) and stamp duty shall be all paid by the contractor and the client respectively (Malconlaw, 2012).

Form of Contract

The contractor enters into a form of contract or agreement, such as Agreement and Conditions of PAM 2018 (PAM, 2018). The amendments or additional clause are inserted under this section. Also, the clauses in the Standard Form of Contract is summarized under this section. Example clauses are contractor obligations, architect instruction, site staff, access to the works, variation, provisional and prime cost sums, contract sums, insurance, extension of time and also the materials and goods.

Contract Administration

Contract administration may include the start-up procedures, site management cost, working hours, overtime to keep up with the progress of the works, setting out, planning and scheduling, rate of progress, projected cash flow, progress report, project photograph, project diary, daywork forms, date line for submission of overtime and dayworks sheets, application extension of time, conveyance of plant and materials on site, safeguarding the works by the contractor, attendance, employment of foreign workers, contractor's plant, control of workmen at site, particulars of employees and lastly is shop drawing that approved by the architect, the structural engineer and mechanical engineering (Dean, n.d.).

Materials and Samples

The materials and workmanship shall be based on the drawing and specifications that approved by architect which stated under clause 6.1 PAM form of contract 2018. The contractor shall submit a Schedule of ordering of Materials within one month after accepting the tender. All dimensions of the materials shall be checked and verified by the contractor on site before ordering. The materials and fittings' samples shall be submitted for approval and compliance with the standard. The contractor shall then provide instruments, machine and labours at his own expense for testing any work, quality, weight and quantity of any good and materials. Furthermore, the contractor shall allow any import duty, excise and all forms of taxation on any goods or materials supplied. Lastly, the contractor shall submit warranty certificates issued by the manufacturer to the employer in which the warranty shall include guarantee for materials and installation (Ghani, 2006).

Equipment for Project Team

The contractor shall ensure the safety boost and safety helmet are in sufficient quantity to be used by all the site workmen, sub-contractor, site supervisor and all authority's visitor to the site and make it available at all times (Saeed, 2017). The contractor also shall ensure the person who is entering the site are wearing their safety helmets at all times when they are within the site. The adequate notices and warnings shall be place at strategic locations and stern action shall be taken against those who do not comply with the notices and warnings in order to avoid the any unnecessary accident.

Temporary Works

Temporary works is a part of the construction project which allow the permanent works to be built and is removed after use. It may include temporary building, temporary lighting and power, temporary water supply, plant and machinery, project sign board, wash trough, desilting, existing services, facilities and public in the vicinity, maintenance of existing irrigation and drainage system, access and temporary roads, temporary access for existing properties, temporary hoarding and gantries, temporary scaffolding and staging, dilapidation survey and protection of existing, adjoining and adjacent buildings or properties, protection of the works and adjoining properties, preservation of earth slopes, temporary lightning protection of structures (Cunningham, 2015).

Health, Safety, Security & Environmental

The contractor shall take precautions for the prevention of breeding of mosquitoes and may pay for any charges by the local authorities for anti-dengue fever measure taken. First aid kit shall also be provided and kept in the contractor's site office. The contractor shall also comply with Occupational Safety and Health Act 1994 and any other relevant act where applicable. The safety at work site shall be ensured by the contractor that all personnel must be attired with safety boots and safety helmets (Shamsuddin *et al.*, 2015). All necessary protective measures shall be provided and install by the contractor for the safety of the workmen and also the public from all risks of injury especially by falling objects throughout all the stages of construction. Besides, the contractor shall keep the site dry, noise and vibration control, dust and smoke pollution control, security, environmental protection and enhancement.

Completion of Works

Completion of works may include clearing away equipment including demolition and site clearance, appliances and all temporary works are removed and also the temporary services are disconnected. All holes are to be filled in a proper manner and levelled off the site in a clean and orderly condition. The site is clean up, grasses are trimmed, clear and removed from the site. Such example, the contractor shall submit 1 set blue print with tracing and 1 set in CD of as-built drawings to the architect within 30 days after issuance of the Certificate of Practical Completion (CPC). The contractor shall submit 6 copies of all warranties, manufacturer's literature and other information for materials and equipment as listed in the specifications. Also, submit 4 copies of maintenance manual to and approved by architect as a precondition of Practical Completion of Works. The joint-inspection with the architect of the works shall be carried out by the contractor to ensure the that they are completely finished in every respect before offered to hand over. The contractor shall replace materials, fittings, damaged during construction before the final inspection and also shall remove temporary protection and make good defects before commencing final cleaning. Final cleaning including remove dust, stains, paint spots, grease, fingerprint and accumulation of construction materials inside and outside the structures. The contractor shall also provide all necessary things for the protection of materials and completed works including of nominated contractors and suppliers and shall comply with all directions of the architect in this respect and bear any damages or loss arising at his own cost.

Local and other Authorities Notices and Fees

The contractor shall price some item in preliminaries. Some items which must be included, particularly the ordering of materials, recording of worker's timesheets, general supervision of the project local and other authorities acts, notices apply for all necessary permits, licenses, non-productive labour, supervision of tradespeople, telephone costs, staff facilities, maintenance, tools, display permits, licenses, etc. In many cases it is acceptable to include the preliminary costs as a percentage rather than a fixed cost for each item. As contractor shall pay and compensate the client for any or charges required by the law in respect of the work (John, 2018).

Standard Operating Procedure (SOP)

Since the commencement of the Movement Control Order (MCO) that was imposed on 18th March 2020 by the government of Malaysia, all activities had to be halted which includes the construction industry itself. Indirectly, this shall affect the whole duration of the project, hence incurring extra costs towards the project since there is more time required in completing the whole development.

The contractor shall be full responsible on the standard operating procedure on the construction site. Such action contractor should responsible on are employee/workers, movement of workers, announcement and information of SOP, contact tracing toilet management, break time management and the record of workers (MLGH, 2020). Based on the Figure 2.1, preliminaries classified into two section which are information & requirements and pricing schedule. The first section provides information which will help the Tenderer/Contractor in pricing the Preliminaries. It includes project particulars, drawings referred for quantity take off, describes the site and any existing buildings and services, any known constraints which may impact the construction methodology, the form of contract, any special methods of measurement, employer's specific requirements. Further, the second section is for the Tenderer/Contractor to price for their cost items and for the employer's specific requirements based on the information provided in the first section. The SOP flowcharts indicate on the action needed for preparation of preliminaries.

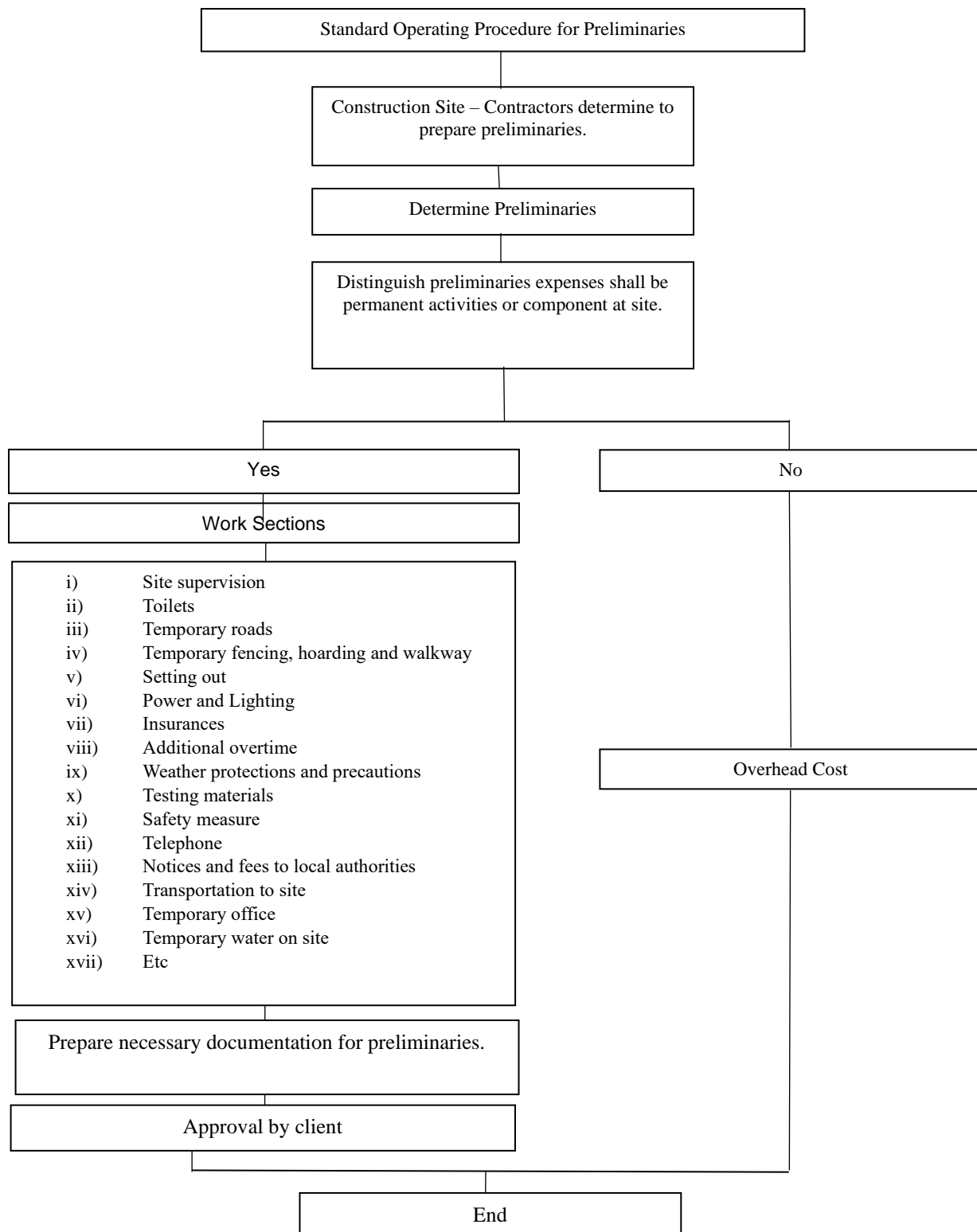


Figure 2.1: Standard Operating Procedure (SOP) for preliminaries documentation

Conclusion

After the completion of the whole project, there are two things that can be concluded. The first aspect was the importance of preliminaries in the bills of quantities. Moreover, all the procedures stated in SOP shall be adhered so that there shall no misinterpretation with the contract itself. The next part shall be the understanding of different situations on where loss and expense and extension of time shall be granted. In this case, the pandemic was considered as one of a neutral events that was unable to be controlled, therefore the contractor shall be only able to claim for extension of time and not be entitled for loss and expense.

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CALLING OF TENDERS

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Abstract

The purpose of this paper is to study the preparation or calling of tenders on a normal basis, despite the current pandemic situation that is hitting the world. It is also aimed to study on the extension of time as well as loss and expense throughout the first periods of Movement Control Order that has been implemented by the Government of Malaysia since March 18, 2020. Pandemic has hit our construction industry very badly. This paper is to analyse differences in the undertakings during normal period and MCO period. This is a qualitative research where most information is obtained through interviews and consultations with professionals. This research took part in the city of Kuching, Sarawak. Based on the literature review, there are slight differences on the process of claiming extension of time as well as loss and expense throughout the first few phases of Movement Control Order. As a result, there is a need to assess these differences in order to be prepared with the future undertakings in construction industry, specifically in Kuching, Sarawak.

Keywords: Tenders, Extension, Time, Loss, Expense

Introduction

Tendering includes contractors who are engaged in bidding for the particular works involved in construction. Contractors are asked to make an offering where the tender will have to be prepared and submitted, with the costing for the works where the bidding price will be the price estimate. Offer for the job and delivery of materials at the specified price deemed by the contractor to the employer consider an offer. An employer who accepted the offer proposed by a specific contractor will form a binding contract that agrees between both parties. Construction involves a process of constructing which realizing the ideas and needs of the client into a physical structure by completing the building (Rahman, 2018).

It should be feasible to achieve standard construction efficiency within the time frame and budget prepared by employers, including the management of capital such as equipment, labor, raw materials, and work methods. The contractor is responsible for ensuring the execution of construction works is done as required by the client because the client is the owner of the project. Selecting a liable contractor by the employer is an essential task during the tendering because the contractor is involved in all aspects of the construction. The client and the consultants carry the tasks to select and contract with the contractor who has the skills needed for constructing the works. The tendering process is the way of choosing the most suitable contractor by the client with advice from consultants. Tendering can help the client to select the appropriate contractor for certain parts of the project because the construction project cannot rely on one contractor only since the construction industry is a vast and complex sector. Some of the contractors having specific skills only for parts of the project. Meanwhile, other contractors have the skills for different parts of the work. During the tendering stage, there are various ways to select the

tenderers such as open tender, selective tendering, and negotiated to tender (Kamaruddeen et al., 2019).

Method of Tendering

The purpose of the tendering process is to obtain for the client an acceptable tender that suits price, completion time, and experience from contractors who would be appropriate for the proposed project which tender forms the basis for a contract between client and contractor. When bidding on the project, the contractor can estimate how much the structure will cost using the architect's drawing and specification as a basis for the calculation. The contractor then adds a reasonable profit to this cost and guarantee to do the entire job within the agreed price. Tender normally restricted or open, an invitation or prequalify. The consultant on behalf of the client is normally responsible for inviting the tenders from the interested contractors. They would evaluate the tender received and prepared for a tender report with a recommendation to the client. Once the client has approved the award, the contract would be award to the building contractor (Adnan et al., 2011).

Open Tendering

Commonly used by the government agencies to ensure the accountability of the public and publicly advertise to attract interested contractors to tender. This process includes complete design documentation needed to enable those contractors to have accurate bidding. This method also helps those new firms the chance to take part in tendering for work since a variety of contractor backgrounds would try to bid for the project. The outcome from this method attracts a number of tenders and the bid is expected to be a more competitive yet inefficient use of industry resources. The lowest price will be obtained, although the experience and the financial standing of such contractors are suspected, and this is a risky choice. Low tenders from the contractor as a consequence of making mist errors or cut price at the initial stage with a view of recouping the losses employing corner-cutting and claims. Tendering can be expensive, and the costs of unsuccessful tenders tend to inflate the price for future work and there is no assurance about the quality of the competitors. A higher cost of administration of tenders in terms of copying the document from master copy and problem on selecting the best tender from a wide range of tenders. It generally accepted that except for very small and standard projects, an open tender deters serious bidders, unwilling to undertake the cost preparation of considered tender, with the low bid likely to be submitted by the inexperienced contractor and with the possibility that their bid may be accepted (Adnan et al., 2011).

Selective Tendering

Selective tendering consists of a limited number of the contractor that who fulfil certain criteria sets by the consultant's team are invited to tenders for the project. The selection is done before the tender invitation which most important criteria are general experience on the type of project contemplated, financial ability, and good management/technical abilities. Suitable firms are invited from client/consultant approved list made thru their best reputation, the previous project with client and consultant as well the recommendation from the client itself. Selective tendering can be approached through two stages where in the first stages of tendering, an advertisement will be published inviting the necessary firms to pre-qualify for the tendering. The tenderers will have a supply of information about their previous work, physical resources, and financial standing thru bank statements. After that next stage, the client would invite-only a small group of pre-qualified contractors to submit their tenders. A maximum of six tenderers is enough to provide the best environment to compete and sufficient description of work were given through tenderers enables them to appraise the work. If the tenderers are reliable enough and the client fixes the construction time, then the selection might be resolved thru question which has the best value for money alone. This selective tendering omits the lease experience and only consists of capable and approved firms to have the best quality of work to submit the tenders (Shehu et al., 2015).

Negotiation

Negotiation is a process whereby the client will select the contractor directly and then negotiates with the terms of agreement and form of payment which ignore all call for competition. This approach may be appropriate when the client has trust and believed that the contractor possesses skill or experience that is related to the project based on latter reputation, recommendation, and previous experience project working with the same client. Negotiation may be based on a schedule of price, approximate bills, or mutually agreed to cost together with profit margins. The client can invite a contractor to prepare the budget quotation for the work based on the limited information provided. The contractor and client's representative may negotiate on the rates and prices which may lead to an

agreed tender price. In negotiations with the chosen contractor, the main item can be roughly quantified and priced as a basis of agreement along with the additional less costly item agreed later in the consensual rather than adversarial negotiation (Ismail & Harris, 2014).

This negotiation process might be established when there is a business relationship between the client and contractor are in the good term. Quality is the vital aspect while the economy is not the major consent from the client. This negotiation is occurring from the continuation of the contract based on the first project and additional contract where the contractor already possesses the site together with the equipment and site office. The contractor might have special expertise in the field acquire for the project and his contribution is required to a relation if design and programming are required. Sometimes negotiation is the best option since it reduces the competitiveness of tendering process when the contractor can have an early start on the site even the detail for the final scheme is incomplete and their variation might occur during the process. Completion design documentation is not necessary for the work to start and the contractor skill might be needed to bring into the design process. Since there is a cut down cost and time on tendering, there might increase the tender price sum since there is the absence of competition and no best value for money can be achieved. But the client thinks that is the best option and worth paying more in return for a quicker job, or better quality than others can provide (Abul Hassan et al., 2020).

Notice to Tenderer

The tender invitation should be in written form either in advertisement or letter, describing the general scope of work briefly and informing the pre- of tenderers the specific time and place for the document will be available for distribution. Local tenders in Malaysian must be published in at least one local newspaper in the Malaysian language, whereas one advertising in local newspapers in the Malaysian language and one advertising in English for international tenders. Unless a pre-qualification is used, all tenderers must be handled equally and allowed to bid under the same terms and conditions. Open tendering is initiated by advertising the notice of tender in the local newspapers, tendering websites, or other media to invite contractor companies into applying for the tender documents and submitting complete tender of the works. The ad is commonly known as the notice to tenderers. In the tender documents, which contain information to tenderers, a form of request, general contract terms, requirements, sketches, and quantity bills, the unpriced tender is given. In the tender document, the specifications and project details of the client are also explicitly specified. Besides, before calling for tenders, the contract papers need to be organized appropriately. The purpose of generating design documents is to receive planning and construction permits, to receive pertinent details for the contractor to build, to allow the contractor to pay the price of the work properly, and to provide the basis for contractual and administrative relationships, after completing the tender document, required to return to the client for evaluation purposes (Love, 2002).

Pre-tender Meeting

Standard practice is to have a pre-tender meeting on the set of the tender date for general orientation, to present the tenderers to the site, to answer questions, and to explain any problems that bidders might have with application documents, the scope of work, and other required information. Before formally reacting to the request for clarification, it is most useful to hold pre-bid meetings, so that the answers to the demand for clarification can be submitted along with the results of the pre-bid meeting, including a copy of the minutes of the pre-bid meeting. On appointment, the contractor will take notes so that any questions asked on the day or resolved later can be included in an addendum to address to all tenderers. The explanation for this choice is that bidders may have additional questions after the site visit and these can be answered at the pre-bid meeting and formally submitted. Prospective bidders who showed interest in the requirement or those who shortlisted through a pre-qualification exercise or selective bidding procedure (Jeffrey & Suhaida, 2016).

It is essential to strictly follow the times and dates for returning the sealed paper. Revision on the tender document or master copy can release during the tendering process. These can be a result of errors and inconsistencies, questions posed by the tenders, and changes in the employer's requirements. There could be needed to extend the bid or proposal submission date as a result of the site visit and pre-bid meeting by inserting the request documents to allow bidders ample time to discuss any improvements made to the request documents as a result of the site visitor pre-bid meeting. The amendment must number and pinout, a copy sent to each tenderer with a request to accept the receipt of the tenderer if any question is made by the tenderer or telephone called as RFI (request for information). The reply provided contains additional or explicit information, this information must confirm in writing, and the same information needed to share with all the other tenderers. However, the identity of the tenderers must confirm in writing (Hui et al., 2011).

Fee and Deposit

The fee is imposed on tenderers who are interested, and the amount is either determined by consultants or obtained from clients. Here, the employer aims to partially recover the actual cost of production for tender papers, the cost of tender ads, and the expensive effort involved in the tendering process. Alternatively, each tenderer can be requested by the client to place a deposit, which is refundable. Offer made can be revoked at any time before the acceptance made for a certain period called tender validity period and upon this expiry period, the offer lapses and can no longer accepted. But, even within the period, the offer can be withdrawn at any time by the tenderer even though the period stipulated in the invitation has not expired. The reason is simply that the client has not considered a promise to create consideration and in effect turn the offer into an option, the client can pay nominal value. The warranty is the amount of the deposit minus the paperwork fee if the tenderers return the document in good condition. The document containing the commercial and technical requirements of each tender is available for the contractor to fill out their price in the tender form (Ismail et al., 2020).

To deter frivolous tenders, the invitation usually requires the tenderers to provide a tender deposit, bid bond, banker 's check. If the tender is withdrawn or the selected tenderer fails to accept the contract, the deposits will be forfeited or bid bonds will be called in. This to protect the client against the abortive cost which might incur in these cases. After that, the client should release the securities of all but the successful tenderer. Upon the reward, the contractor will have to provide the insurance and bonding. All these are readily price and added to the tender price, so they wind up being paid by the client (Masrom et al., 2015).

Tendering Period

The tendering period is the period starting with the issuance of tender documents and ends at the pre-described tendering time. Depending on the type of procurement used by the client either open tendering, selective or direct negotiation. Most kind of procurement provides enough time for the contractor to do pricing and evaluate their scope of work. If there is little time available for the contractor to prepare his tender estimate, the contractor will make expensive errors and deceive the contractor against money-term value. Contractors are aware of this reality and provide a higher mark-up price when the bid time is short or reduced to reduce the risk of loss in terms of profit gains in the project. More time spent on calculating means it is possible to obtain economic rates because the contractor has enough time to find the correct supplier, and there would be less volatility in the bid of the contractor. Unfortunately, most clients are reluctant to give long bidding periods because this is seen as potentially delaying the beginning of construction and the customer's benefit gains on project completion (Masrom et al., 2015).

It will take ample time for tenderers to review records, visit and examine the site, decide their material and labour specifications, contract with sub-bidders, arrange their financial details, and prepare proposals. They often take time to work out the sequences, procedures, and techniques of their construction. They also need a preliminary proposed construction schedule to be prepared. The flowchart for tendering process is shown in Figure 1.

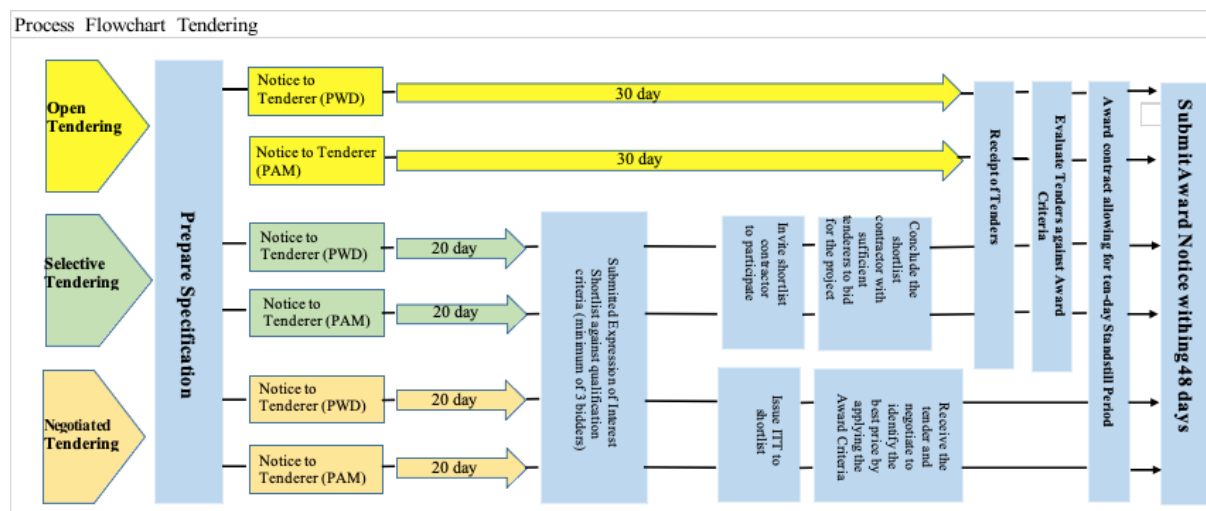


Figure 1. Flowchart process for tendering

By considering the scale and complexity of the work, the tenderers must have sufficient time to schedule their submissions. The number of subcontractors, subcontractors, and others needed to submit contributions. Tenderers notified if the tendering period needs to extend. Before the closing date, the tenderers are asked by the client to present their quotations for the works.

Receive of Tender

The tender needed to be submitted strictly in accordance with the condition of tendering. Tenderers must be delivered in sealed and unmarked envelopes except for the title of the project concerned before the time and date specified in the advertisement/invitation to tender. Any late submission must be rejected and received after the specified time should be returned unopened. Tenders must be submitted on the same basis where alternative offers based on alternative contract periods may be admitted if requested by a client. The tenders should be submitted on tender forms provided by the client and needed to be signed by the authorized person. If the tenderers are a partnership, the entire name and address of the partnership should be given. In other cases where the tenderer is a corporation, the tender should be signed by appropriate officers and the corporate seal should be attached (Yong & Mustaffa, 2011).

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PROCEDURES OF TENDER EVALUATION AND TENDER REPORT PREPARATION IN MALAYSIA

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Abstract

Tender evaluation is a process that occurs in the tendering stage. During this stage, the tender evaluation committees evaluate tenders by assisting Quantity Surveyor (QS) as part of recommending their clients with the ideal tenderer. As the success of a project depends on the proper decision-making outcome in the tendering stage, it is essential to have a standard procedure in order to prepare a tender evaluation and tender report. The authors have developed procedures that include tender screening, tender compliance all the compulsory documents, and the tenderer's experience and capabilities base on experience, progress of current project, financial condition, technical staffs and machineries by referring to secondary data. The Tender Report has to be prepared by the Quantity Surveyor, in which it consists of providing general information regarding the project, analysing the tender evaluation result and proposing the best tenderer to the client.

Keywords: Procedures, Tender evaluation, Tender Report.

Introduction

The tendering processes in the construction industry are different from other domains involving tendering practices. According to Mohamed et al. (2010), a successful construction project execution is heavily impacted by making the right decision during the tendering processes. Table 1 describes five (5) tendering processes are being practiced in Malaysia.

One of the tendering processes practiced in Malaysia is tender evaluation. Ismail et al. (2017) define tender evaluation as one of the most critical tasks conducted by clients to identify qualified contractors and select the most competitive offer from prospective tenderers. The practical evaluation ensures that the selected contractor can deliver successful construction projects. The tender evaluation procedures are conducted by contracting the authority (tender evaluation committee).

Table 1: Tendering processes in Malaysia

TENDERING PROCESS	DESCRIPTION
Tender preparation	Determine the project type and scope of work. Determine the type of tender Prepare tender document preparation
Call for tender	Tender advertisement Tender closing
Tender evaluation	Technical & financial evaluation Prepare tender briefing document Present tender briefing document to the Agency Procurement Board Release letter of intent. Negotiate and reach an agreement
Tender conclusion	Release letter of acceptance Contract signing
Tender administration	Contract administration Payment

Source: Ismail et al. (2017)

Tender Evaluation Process

The tender evaluation process begins immediately after the tenderer submits the completed priced tender. Figure 1 shows the process beginning with tender opening and tender evaluation, which involve three (3) main stages, as well as a tender report's production that further aids in proposing the best tenderer to the client. The whole process must be completed within the Tender Validity Period. The Tender Validity Period is a period allocated for the client to accept a tenderer's tender offer. The Tender Validity Period starts from the closing date of the tender until the day of the project is award to a successful tenderer. The tender validity period is usually allocated for 30 days, 60 days, 90 days, or more based on each project and the client's decision.

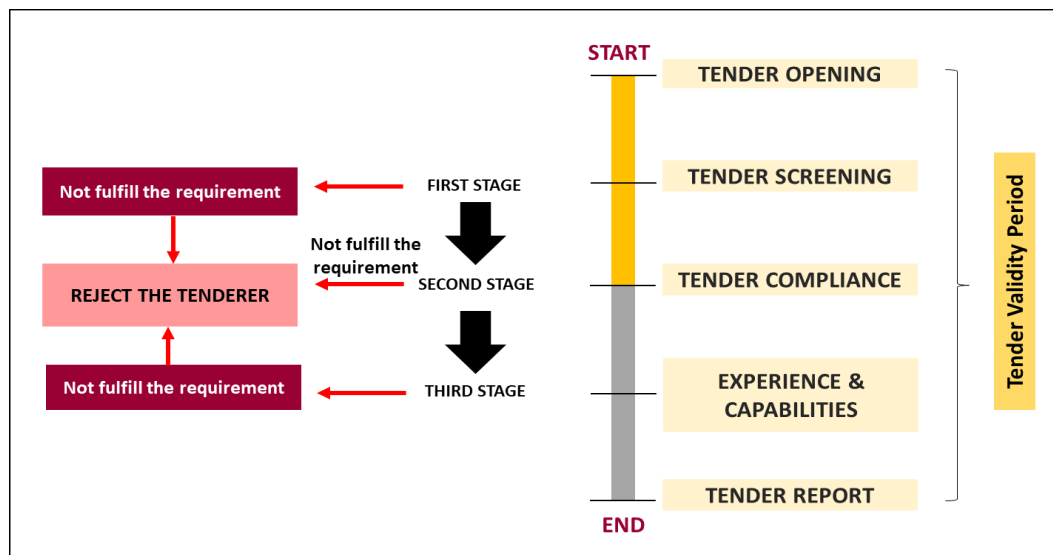


Figure 1. Tender Evaluation Process (Source: Abdul Rahman, 2013)

Tender opening

The client forms the committee members. After the tender opening procedures are completed, the tender evaluation committee members is then included. The open tender committee will list all the tenders received in the tender table before delivering it over to the Quantity Surveyor for the evaluation process.

First Stage: Tender Screening

The tender prices will be listed from lowest to highest, and the tender prices that do not adhere to the client's requirement will be cut-off. The quantity surveyor will provide a shortlist of qualified tenders for the next stage of evaluation. Refer to Table A1 in Appendix for the sample of stage 1 evaluation. Figure 1(a) shows the process involved in tender screening.

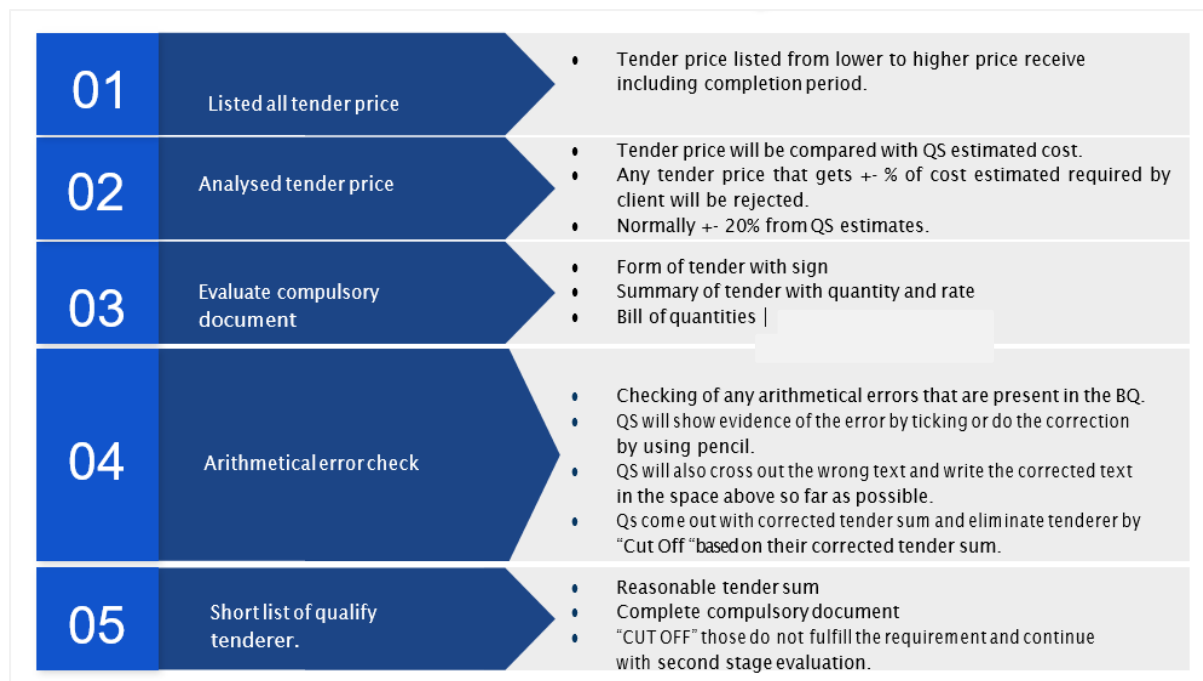


Figure 1(a). The process of tender screening.

Second Stage: Tender Compliance

In this stage, the Quantity Surveyor will analyze the document's completeness, adequacy of minimum capital required, and the on-going project status. There are four aspects to be explored in this stage (Refer to Figure 2). The tenderers must fulfill all requirements as mentioned in each of the elements to proceed to the next step.

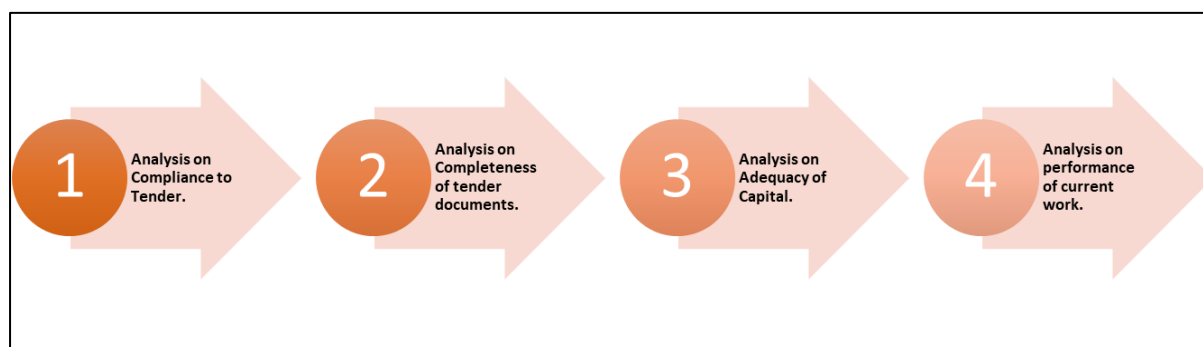


Figure 2. Four aspects to be analysed in the second stage.

The following are the documents that must be accessed in each aspect of tender compliance.

i. Analysis on Compliance to Tender. Figure 3 shows the items that need to be checked in compliance with the tender.

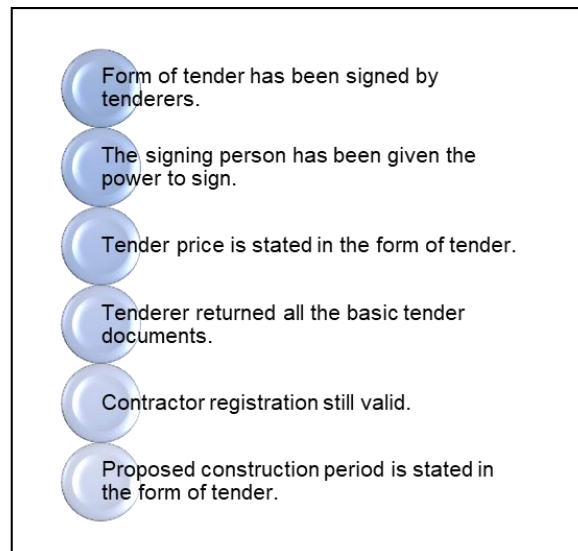


Figure 3. Item checklist in compliance with the tender

The common mistake made by the contractors includes Form of Tender not signed, period and tender price not stated, discrepancies between tender prices stated in words and figures and sign the wrong form. Refer to Figure A1-A4 in Appendices on the common mistakes made by the tenderer.

ii. Analysis on the completeness of tender documentation. The analysis on the completeness of tender documentations refers to the mandatory tender documents listed in Figure 4.

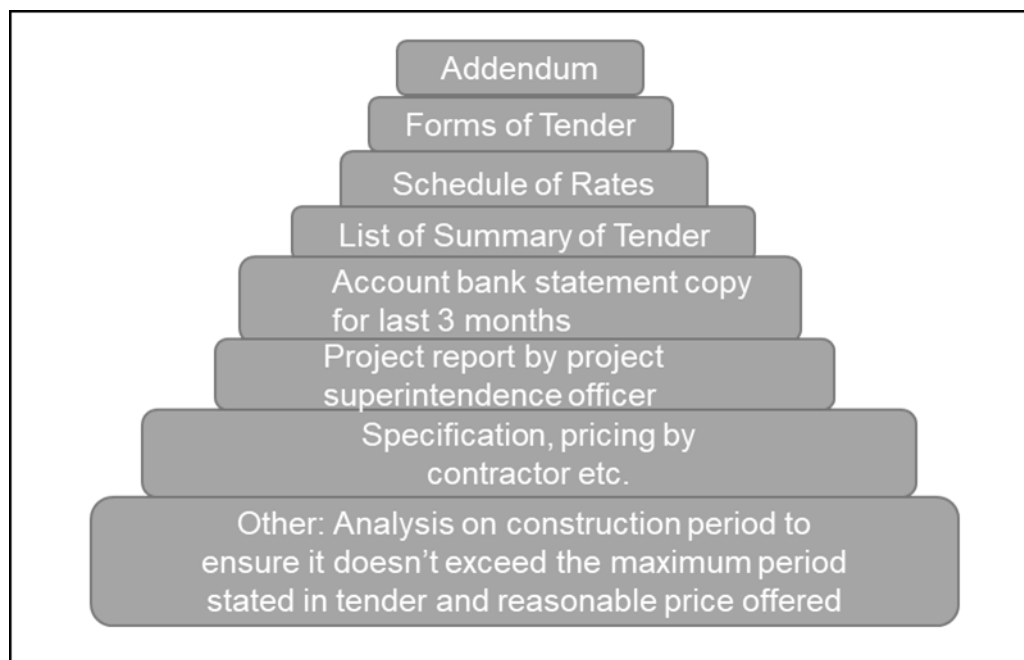


Figure 4. Item checklist for the completion of tender documentation.

iii. Analysis on the Capital Adequacy

Cameron (2016) defines capital as a form of cash and other financial assets held by an individual or business and it is the total of all financial resources used to leverage growth and to build a financial stability.

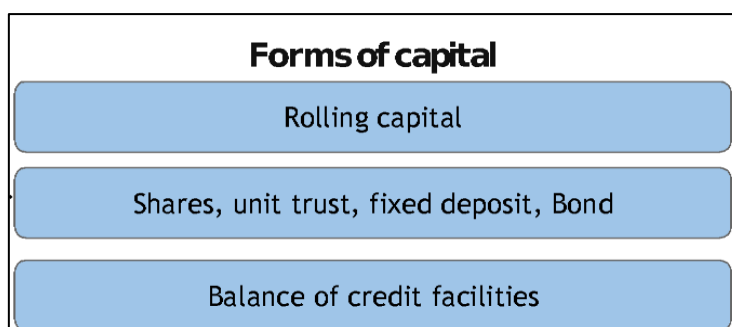


Figure 5. Forms of capital

Method of calculation for minimal capital as follows:

- (i) Rolling capital = asset liability - current liability
- (ii) Bank account = average for the last 3 months
- (iii) Making a comparison between rolling capital (i) and bank account (ii).
- (iv) Selecting the higher amount of the capital that is included in the credit facilities report

Add item iii and iv = total liquidated capital (**3% from the value of construction work**, refer to Figure 6)

Tender price	= RM	1,000,000.00
Prime Cost Sum	= RM	50,000.00
Provisional Sum	= RM	50,000.00
Construction work value	= RM	900,000.00
(Tender Price - (Prime Cost Sum and Provisional Sum))		
So, 3%		RM27,000.00
MINIMA CAPITAL 3% from value of construction works		

Figure 6. Identify the minimum capital (3% from the value of construction work)

iv. Analysis of the performance of current work.

The performance of the current work is checked through the certified project report. The tenderer will put 'NIL', if there is no project in hand. Following are the checklist items for checking of performance on the current works:

- The work still on progress during the tender process.
- No sick project (project with below 30% of work schedule).
- No termination records.

Refer to Table A2 in Appendix for the sample of stage 2 evaluation.

Third Stage: Experience and Capabilities

At this stage, the tenderers' experience in project and technical personnel is analyzed. The analysis is made based on the tenderers' current and previous projects. Refer to Table A3 and A4 in Appendix for the sample of staff personnel and tenderer's asset form.

Table 2: Evaluation criteria in Stage 3

Staff or Key Personnel	Tenderer's Asset (Machinery or Plant)	Working Experience and Workload
<p>Tenderers should list the total number of technical staff and their working experience.</p> <p>The staff must be employed during the tender process.</p>	<p>The tenderer's assets such as plants or machineries owned or hire-purchased before closing the tender shall be stated.</p> <p>The plant and machinery must be functioning well.</p>	<p>Tenderer's completed total work value for the past five years.</p> <p>Tenderers with a similar project as the proposed project will have an advantage and it is easier to assess the tenderers' current workload.</p>

Tender Report

The report prepared by the Quantity Surveyor provides a recommendation on a suitable tenderer for the project based on the tender evaluation. The Quantity Surveyor will prepare a tender report based on all the assessments completed. The tender report as proposed by the Quantity Surveyor will provide a recommendation on suitable tenderers for the project based on their analysis.

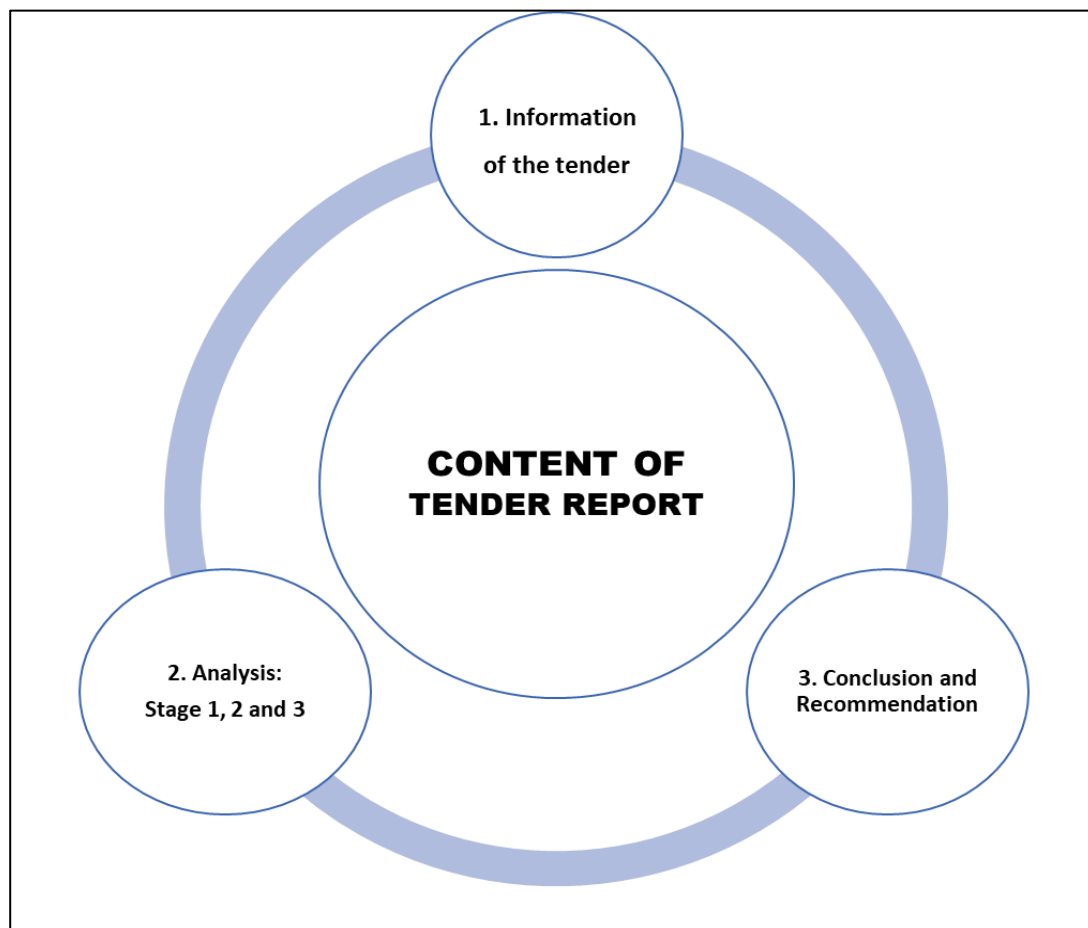


Figure 7. Content of tender report

Referring to Figure 7, the content of the tender report includes three (3) main headings; (i) necessary information of the tender, (ii) tender evaluation analysis, and (iii) conclusion and recommendation.

Basic information of the tender report includes the following:

- Tender detail
- Tender invitation detail

- Condition of tender submission
- Scope of work
- Tender validity period
- Site visit
- Quantity Surveyor's (QS) estimated cost

The content of the Tender Report comprises of the analysis from Stage 1, 2, and 3. Stage 1 includes a list of tender received, sum of tender and proposals of a construction period from the lowest to highest sum of tender, including the estimated cost for comparison based on the Quantity Surveyor report. The shortlist of the qualified tender is based on $\pm 20\%$ of the tender sum from the Quantity Surveyor estimate and arithmetical error.

The analysis in Stage 2 consists of the results of the document completion and required capital adequacy. The checklist will be made in the table format. The Quantity Surveyor will evaluate each of the tenderers based on the completed list. The evaluation from Stage 3 concludes the tenderers' experience in project and technical personnel based on the tenderers' current and previous projects.

The checklist from each stage will be tabulated in the table format. The Quantity Surveyor will evaluate each of the tenderer based on the list completed. At the end of each stage of analysis, the Quantity Surveyor will provide a report on the tenderers that fulfill the requirement and advance to the next stage, as well as the tenderers that have been rejected due to failure in fulfilling the requirement.

To conclude the tender report, the Quantity Surveyor will recommend the best tenderer based on the evaluation.

Conclusion

The establishment of the preliminary procedure on tender evaluation can assist clients in decision-making and avoid conflicts of interest, as well as unethical behaviors, that can lead to an unhealthy relationship between client and contractor.

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APPENDICES

Table A1: Stage 1 of Sample Evaluation

TENDER: PROPOSED CONSTRUCTION AND COMPLETION OF A MIXED COMMERCIAL PROJECT IN KUCHING SARAWAK						
NO	REF NO.	TENDER EVALUATION RESULT FOR STAGE 1				
		TENDERER NAME	GRADE	TENDER SUM	%± BUILDERS WORK	COMPLETION PERIOD (WEEKS)
1	4/7	IKATAN MEGAH SDN. BHD	G7	RM14,687,900.00	(22.19)	72
2	5/7	MEDIAVAL FLOW SDN. BHD	G7	RM14,758,900.00	(19.31)	72
3	7/7	KONTRASA UTAMA SDN. BHD	G7	RM14,888,700.00	(18.71)	72
4	6/7	GR CONSTRUCTION SDN. BHD	G7	RM14,998,700.00	(18.06)	72
5	3/7	INAI GANDI SDN. BHD	G7	RM15,060,700.00	(9.28)	72
6	2/7	BERKAT JAYA SDN. BHD	G7	RM15,160,700.00	(9.25)	72
7	1/7	INTEGRATED BUILD SDN. BHD	G7	RM15,200,700.00	(9.23)	72
8	-	QUANTITY SURVEYOR ESTIMATED	-	RM15,400,000.00		

Table A2: Stage 2 of Sample Evaluation

TENDER: PROPOSED CONSTRUCTION AND COMPLETION OF A MIXED COMMERCIAL PROJECT IN						
NO	REF NO.	TENDER EVALUATION RESULT FOR STAGE 2				
		Compliance of Tender	Completeness of Mandatory document	Minimum Capital	Performance of current works	Result
1	4/7	√	√	√	√	ACCEPTED
2	5/7	√	√	√	√	ACCEPTED
3	7/7	√	X	X	√	FAIL
4	6/7	√	√	√	√	ACCEPTED
5	3/7	√	√	√	√	ACCEPTED
6	2/7	√	√	√	√	ACCEPTED
7	1/7	√	X	√	√	FAIL

Table A3: Sample of Staff Personnel Form

No	Position	Total Works Similar Experience (Years)	Total Works Similar Experience (No. of Project)
1	Site Engineer	7 years	3 projects
2	Site Supervisor	10 years	4 projects
3	Safety Officer	7 years	5 projects

Table A4: Sample of Equipment's Form

No	Types of Equipment and Characteristics	Minimum No Required
1	Excavator	2
2	Bachoe	5
3	Bulldozer	5
4	Trencher	2
5	Loader	5

in the event that the Tender having been accepted, the undersigned refuses and fails to execute the formal Contract Agreement or to deposit the Performance Bond (if the tenderer opts for Bank/Islamic Bank/BPMB/Insurance/Takaful or Finance Company Guarantee) as required by the Conditions of Contract or fails to proceed with the Works, then, in any of such event, without prejudice to any other rights it may possess, the Government reserves the right to take disciplinary action against the under signed or to cancel the registration of the undersigned as a Government contractor, as the Government deems fit.

Bertarikh pada..... hari bulan..... 20....
Dated this..... day of..... 20....

**FORM OF TENDER
NOT SIGNED**

Tandatangan Pentender
Signature of Tenderer

Nama Penuh : SAMUD E.M. LAZIM
Name in full

Atas sifat : PENGARAH UKURAN
In the capacity of

yang diberikuasa dengan sepenuhnya
untuk menandatangani Tender ini untuk
dan bagi pihak:
duly authorised to sign this Tender for and
on behalf of:

Meterai atau cap Pentender
Tenderer's seal or stamp

Saksi : [Signature]
Witness

Nama Penuh : AMINAH BT. AHMAD
Name in full

Pekerjaan : KERANI
Occupation

Alamat :
Address

6

MR 304C

Figure A1. Form of Tender Not Signed

2. Yang bertandatangan di bawah ini bersetuju menjadi terikat oleh dan tunduk kepada Syarat-Syarat Kontrak dan Spesifikasi tersebut dan bersetuju bahawa jika Tender ini disetujui, harga dan kadar harga dalam Jadual Kadar Harga dan Ringkasan Tender hendaklah diteliti dan diselaraskan oleh Pegawai Penguasa tentang kemunasabahan tetapi jumlah wang pukal yang ditenderkan di bawah ini hendaklah tetap tak-berubah. Jadual Kadar Harga, diselaraskan sebagaimana yang diperuntukkan dalam Syarat-Syarat Kontrak, hendaklah menjadi asas bagi menilaikan apa-apa perubahan yang mungkin diarahkan oleh Pegawai Penguasa dari semasa ke semasa, tetapi jika sesuatu perubahan itu melibatkan peninggalan atau pertambahan menyeluruh sesuatu butiran kerja yang terhadapnya harga ada diberikan dalam Ringkasan Tender, maka harga dalam Ringkasan Tender itu hendaklah menjadi asas bagi menilaikan perubahan itu. Yang bertandatangan di bawah ini selanjutnya bersetuju bahawa Ringkasan Tender itu hendaklah juga menjadi asas bagi menilaikan Perakuan Bayaran Sementara.

The undersigned agrees to be bound by and submit to the Conditions of Contract and specification and agrees that if this Tender is accepted, the prices and rates in the Schedule of Rate and Summary of Tender shall be scrutinized and adjusted by the Superintending Officer as to their reasonableness but the lump sum tendered herein below shall remain unaltered. The Schedule of Rates after adjustment as by the Conditions of Contract provided, shall form the basis of valuation of any variation which may from time to time be ordered by the Superintending Officer, but where a variation involves the omission or addition of the whole of any item of work against which the price is given in the Summary of Tender, then such price in the Summary of Tender shall form the basis of valuation of such variation. The undersigned agrees that the Summary of Tender shall also form the basis for the valuation of Interim Payment Certificate.

3. Dan selanjutnya, yang bertandatangan di bawah ini bersetuju menyiapkan Kerja-Kerja itu dalam masaminggu dari tarikh pemilikan tapakbina atau dalam apa-apa tempoh lanjutan yang diperuntukkan dalam Syarat-Syarat Kontrak.

And further, the undersigned agrees to complete the Work within weeks from the date of possession of site or within such extended time as by the Conditions of Contract provided.

4. Jumlah amaun Tender ini ialah jumlah wang pukal sebanyak Ringgit Malaysia

The total amount of the Tender is the lump sum of Ringgit Malaysia,

.....

.....

ieitu, RM.

i.e.

5. Yang bertandatangan di bawah ini berharap dibenarkan membuat tender, dalam sedikit masa lagi bagi kerja berikut yang mana dijalankan secara langsung oleh yang bertandatangan di bawah ini dalam perjalanan biasa perniagaannya dan yang baginya Wang Kos Prima atau Wang Peruntukan Sementara telah dimasukkan dalam amaun Tender ini.

The undersigned desires to be permitted to tender in due course, for the following work which the undersigned in the ordinary course of business directly carries out and for which Prime Cost or Provisional Sums have been included in the amount of this Tender:

.....

.....

.....

.....

3

JKR 203C

VALIDITY
PERCONTRACT
PERIOD NOT
STATED

TENDER PRICE
NOT STATED

Figure A2. Period and Tender Price Not Stated

2. Yang bertandatangan di bawah ini bersetuju menjadi terikat oleh dan tunduk kepada Syarat-Syarat Kontrak dan Spesifikasi tersebut dan bersetuju bahawa jika Tender ini disetujui, harga dan kadar harga dalam Jadual Kadar Harga dan Ringkasan Tender hendaklah diteliti dan diselaraskan oleh Pegawai Penguasa tentang kemunasabahannya tetapi jumlah wang pokai yang ditenderkan di bawah ini hendaklah tetap tak-berubah. Jadual Kadar Harga, diselaraskan sebagaimana yang diperuntukkan dalam Syarat-Syarat Kontrak, hendaklah menjadi asas bagi menilai apa-apa perubahan yang mungkin disarakan oleh Pegawai Penguasa dari semasa ke semasa, tetapi jika sesuatu perubahan itu melibatkan peninggalan atau pertambahan menyeluruh sesuatu butiran kerja yang terhadapnya harga ada diberikan dalam Ringkasan Tender, maka harga dalam Ringkasan Tender itu hendaklah menjadi asas bagi menilai perubahan itu. Yang bertandatangan dibawah ini selanjutnya bersetuju bahawa Ringkasan Tender itu hendaklah juga menjadi asas bagi menilai Perakuan Bayaran Sementara.

The undersigned agrees to be bound by and submit to the Conditions of Contract and specification and agrees that if this Tender is accepted, the prices and rates in the Schedule of Rate and Summary of Tender shall be scrutinized and adjusted by the Superintending Officer as to their reasonableness but the lump sum tendered herein below shall remain unaltered. The Schedule of Rates after adjustment as by the Conditions of Contract provided, shall form the basis of valuation of any variation which may from time to time be ordered by the Superintending Officer, but where a variation involves the omission or addition of the whole of any item of work against which the price is given in the Summary of Tender, then such price in the Summary of Tender shall form the basis of valuation of such variation. The undersigned agrees that the Summary of Tender shall also form the basis for the valuation of Interim Payment Certificate.

3. Dan selanjutnya, yang bertandatangan di bawah ini bersetuju menyiapkan Kerja-Kerja itu dalam masaminggu dari tarikh pemilikan tapak/bina atau dalam apa-apa tempoh lanjutan yang diperuntukkan dalam Syarat-Syarat Kontrak.

And further, the undersigned agrees to complete the Work within weeks from the date of possession of site or within such extended time as by the Conditions of Contract provided.

4. Jumlah amaun Tender ini ialah jumlah wang pokai sebanyak Ringgit Malaysia

The total amount of the Tender is the lump sum of Ringgit Malaysia

DUA JUTA, TIGA RATUS EMPAT
PULUH TUJUH RIBU SAHABA
itu, M. 2374,000.00

i.e.

5. Yang bertandatangan di bawah ini berharap dibenarkan membuat tender, dalam sedikit masa lagi bagi kerja berikut yang mana dijalankan secara langsung oleh yang bertandatangan di bawah ini dalam perjalanan biasa perniagaannya dan yang baginya Wang Kos Prima atau Wang Peruntukan Sementara telah dimasukkan dalam amaun Tender ini:

The undersigned desires to be permitted to tender in due course, for the following work which the undersigned in the ordinary course of business directly carries out and for which Prime Cost or Provisional Sums have been included in the amount of this Tender:

.....

.....

.....

3 JER 2010

PRICE IN WORDS

PRICE IN FIGURES

Figure A3. Discrepancies between Tender Prices Stated in Words and Figures.

(K.R. 201C-Pn.2/2002)

BORANG INI HENDAKLAH DIGUNAKAN JIKA PELAN DAN SPESIFIKASI
MENJADI SEBAHAGIAN DARIPADA KONTRAK

(THIS FORM IS TO BE USED WHERE DRAWINGS AND SPECIFICATION
PART OF THE CONTRACT)

Kontrak No. tahun 20...
Contract No. Of

bagi Kerja-Kerja tersebut di bawah ini yang dibuat pada
harian 20... oleh pihak-pihak yang bertandatangan di bawah ini,
adalah berhubung dengan Borang Tender ini yang menjadi sebahagian daripada Kontrak tersebut dan yang
hendaklah dibaca dan ditandakan sedemikian.
for the under-mentioned Works entered into on the day of
parties, refers to this Form of Tender which it and shall be read and construed as part of the said
Contract.

by the undersigned

Tandatangan Pengerusi
Signature of Tenderer

Nama Penuh : SUWIL B.M. LAZIM
Name in full
Alas sifik : PEYAPAKAH UJULAH
In the capacity of

yang diberikan dengan sempunya
untuk menandatangani Tender ini untuk
dan bagi pihak:
daily authorised to sign this Tender for and
on behalf of:

Meterai atau cap Pengerusi
Tender's seal or chop

Saksi : AMINAH BT. AHMAD
Witness

Nama Penuh : AMINAH BT. AHMAD
Name in full
Pekerjaan : KEPADA
Occupation
Alamat :
Address

Tandatangan Kontraktor
Signature of Contractor

Nama Penuh : SUWIL B.M. LAZIM
Name in full
Alas sifik : PEYAPAKAH UJULAH
In the capacity of

yang diberi kuasa dengan sempunya
untuk menandatangani untuk dan bagi
pihak
duly authorised to sign for and on
behalf of

Meterai atau cap Kontraktor
Contractor's seal or chop

Saksi : AMINAH BT. AHMAD
Witness

Nama Penuh : AMINAH BT. AHMAD
Name in full
Pekerjaan : KEPADA
Occupation
Alamat :
Address

6

JUN 201C

SIGNED ON WRONG FORM

Figure A4: Sign the wrong form.

TENDER EVALUATION REPORT

Sangeetha Arjinan¹, Nik Fatma Arisya Nik Yahya¹, Anis Sabrina Kamarulhisham¹, Athienaa Isabelle Mariaselinar¹, Cecilia Tan See Lei¹, Chan Wei Kieat¹, Chew Li Ying¹, Frederick Jong Gek Hiung¹, Sharilyn Chia Ai Ling¹, Teoh Yi Kang¹, and Tong Ka Men¹

¹Department of Quantity Surveying, INTI International University, Nilai, Malaysia

Abstract

The purpose of this paper is to explain and illustrate the Standard Operating Procedure (SOP) for a project's Tender Evaluation Process and the typical content of Tender Report. Furthermore, it also explores the SOP in the event of an unexpected stopped work as a result of Movement Control Order (MCO) enforcement due to the COVID-19 Pandemic. The SOP is explored in the view of whether the contractor can claim for Extension of Time (EOT) and also Loss and Expense (L&E) when the work is stopped. The research methodology adopted is a Documentation review where the relevant articles and standard guides were referred to prepare the report. The findings are the complete Tender Report preparation process and its typical content. As for the EOT and L&E, the contractor would be eligible for the EOT, however not entitled to claim for L&E as it falls under the clause of Force Majeure.

Keywords: tender evaluation report, loss, and expense, extension of time, movement control order, standard operating procedure

Introduction

INTI IU has been appointed by a private client as their QS consultant to advise them on quantity surveying-related matters pertaining to a proposed private development of a mixed commercial project in Kuching, Sarawak. The project shall be procured using the traditional route. The Memorandum of Agreement requires the QS to provide services to the client based on the following Figure 1 (ACQS, 2019).

The client has specifically requested the Standard Operating Procedure (SOP) for one (1) QS service as a formal contractual process for the company's adherence. The SOP that will be prepared by INTI IU would be on the Preparation of Tender Evaluation Reports.

In another scenario, after the project was commenced and progressing well, the project had to be stopped unexpectedly because of the Movement Control Order (MCO) to control the spread of the Covid-19. The client is anxious about the possibility of Loss and Expense (L&E), and Extension of Time (EOT) which may be requested by the contractor appointed for this project. The client has asked INTI IU to advise the company on the SOP involved in the L&E, and EOT. This ensures that the company prepares well ahead of the contractor in the event of their submission if any.

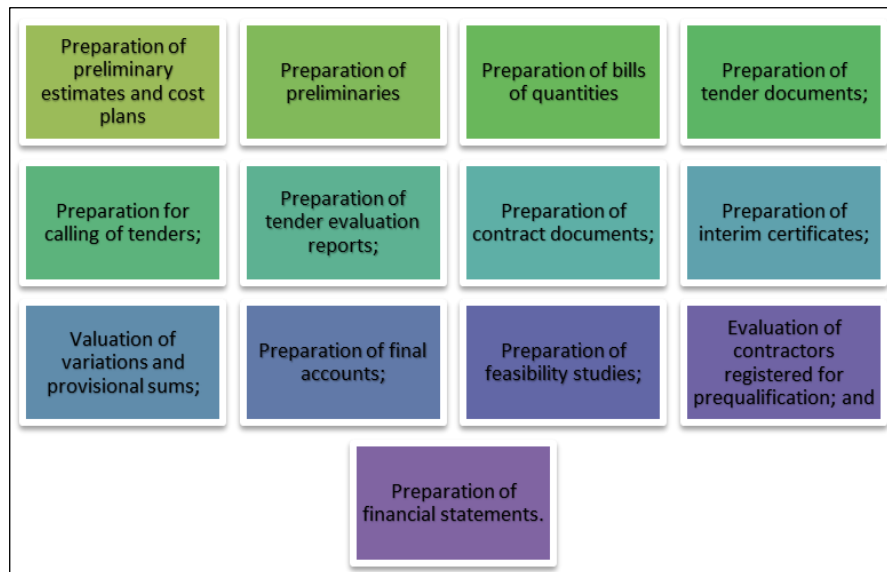


Figure 1: List of QS Services based on Memorandum of Agreement (ACQS, 2019)

SOP for Tender Evaluation

Generally, there are three (3) stages involved in the evaluation stage (Jabatan Kerja Raya, 2010). The first stage is the preliminary stage. The second stage is on compliance evaluation, and the third stage is work experience and technical capabilities. The SOP for the tender evaluation is explained in the following sub-sections.

Preliminary Stage

In this stage, the tender price is arranged from the lowest to the highest accordingly. The price quoted should be reasonable and based on the budget estimate that was set by the client beforehand. The number of tenderers to be evaluated is also considered at this stage. Figure 2 will further illustrate this stage in detail.

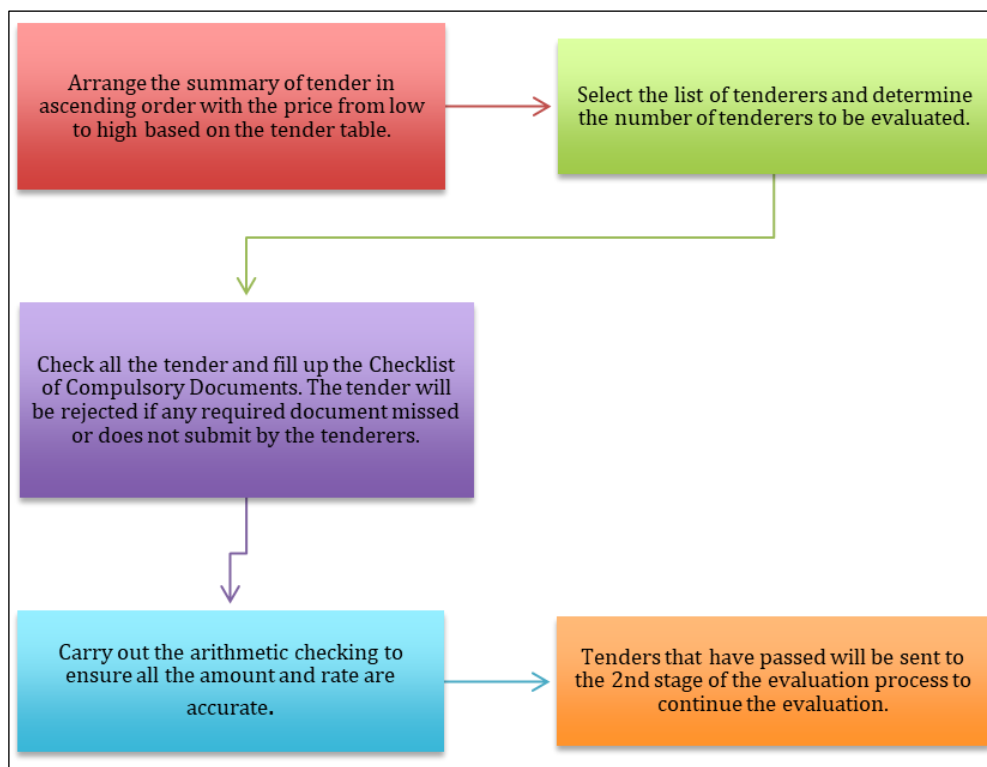


Figure 2 : Flowchart of Activities in Preliminary Stage (Rahman, 2017)

Compliance Evaluation

At this stage, the Compliance Evaluation is an evaluation system based on a set of pre-determined conditions to determine whether the tenderers are eligible for further assessment before the tendering process. The detailed activities in this stage are illustrated in Figure 3.

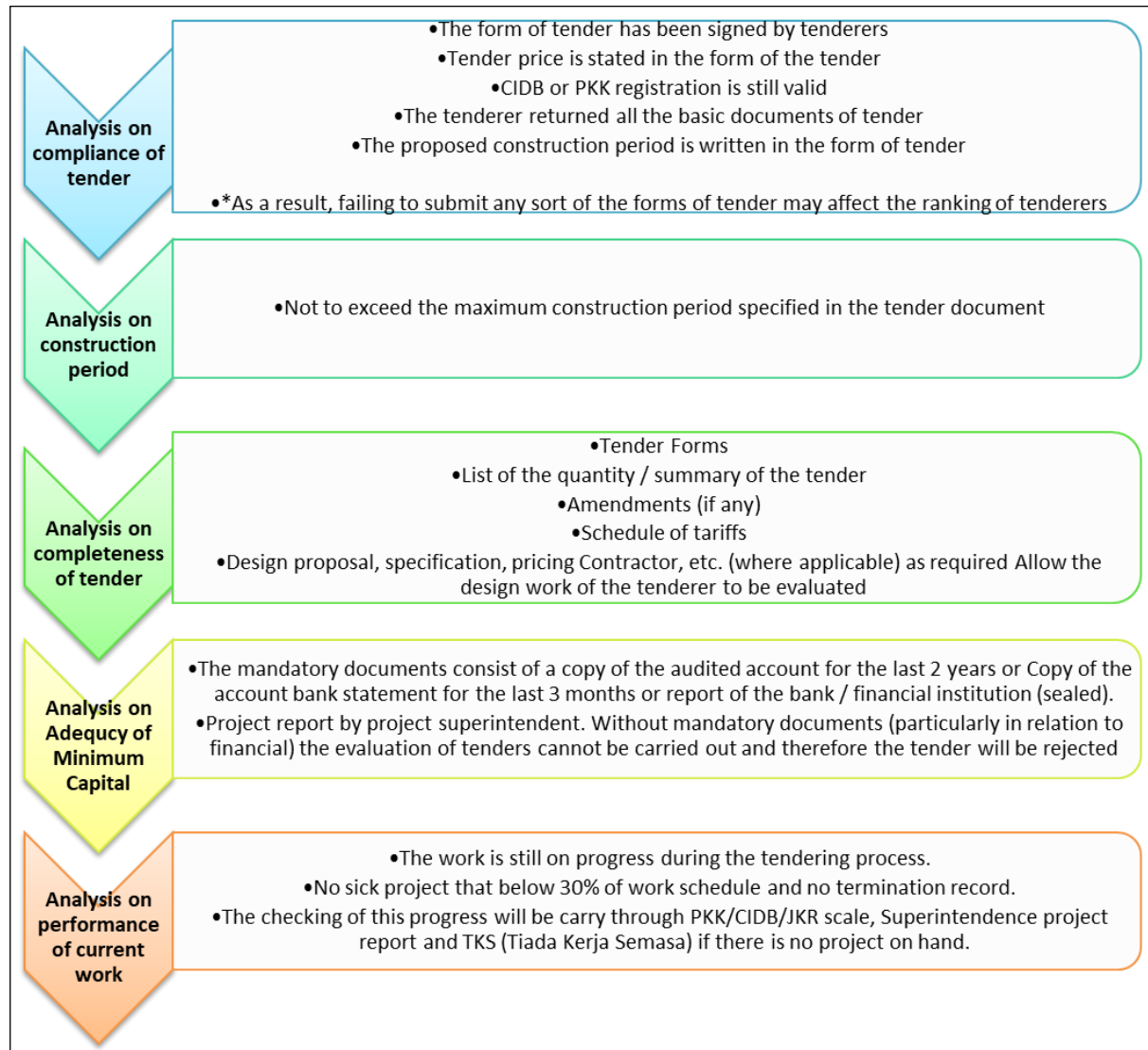


Figure 3 : Flowchart of Activities in Compliance Evaluation (Rahman, 2017)

Experience and Capabilities Evaluation

The third stage is the evaluation of the technical capabilities of the tenderer i.e. work experience, technical personnel, and plants & equipment. The detailed activities in this stage are further illustrated in Figure 4.

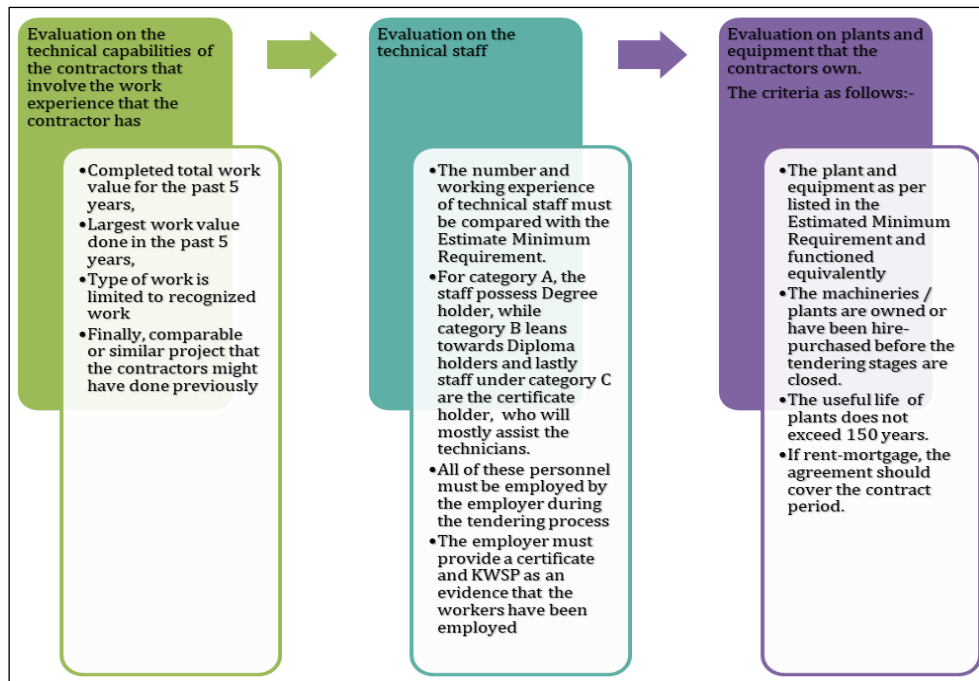


Figure 4 : Flowchart of Experience and Capabilities Evaluation (Rahman, 2017)

Tender Report

After all the three stages of evaluation are done, the Tender Report will be prepared to summarize the evaluation and propose the qualified tenderer. Figure 5 will further illustrate the typical content of the Tender Report.

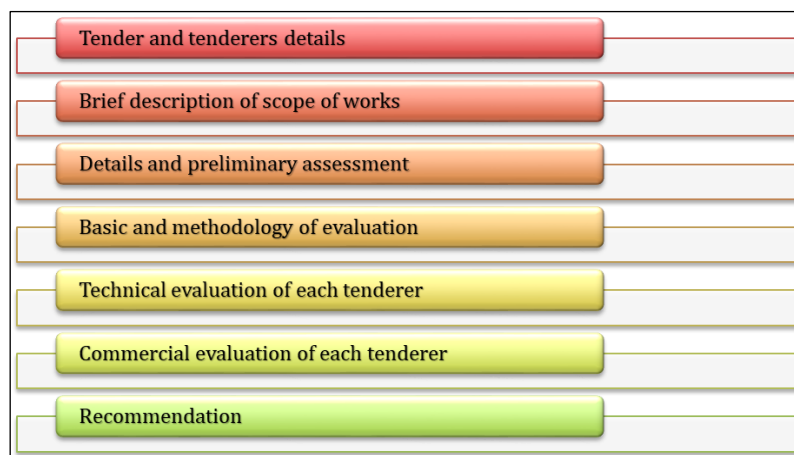


Figure 5: Typical Content of Tender Report (Rahman, 2017)

Conclusion

In conclusion, the Tender Evaluation process is an essential part of any construction project to find the most qualified tenderer. This report has compiled all the necessary information required for the tender evaluation and the criteria involved in a typical tender evaluation. Regarding the commercial project that was forced to stop due to the MCO, the contractor of the project is eligible and can apply for EOT under Clause 23.8 of PAM Contract 2018 which is force majeure. Last but not least, the L&E may not be claimed by contractors since force majeure is considered to be a neutral event instead of a relevant event due to no party's fault. Therefore, any associated costs might be incurred by the respective party which is most likely to be the contractor or/and the sub-contractor(s) for the project.

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PREPARATION OF CONTRACT DOCUMENTS

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Abstract

This research aims to develop and determine a good Standard Operation Procedure (SOP) for the preparation of contract documents in the construction industry. It was found in the study that some construction projects ignore the correct SOP for the sake of convenience, resulting in incomplete data, low quality of work and output, and some projects even have no corresponding SOP. To reduce the losses and the problems above, the correct SOP for the preparation of contract documents is determined in this study. The required documents are also highlighted in the section. To conduct this study effectively, several internet sources will be used as references. We also asked for advice from some professionals in the construction industry for a better understanding of the research. The significance of this research is to increase people's understanding of the preparation of contract documents and promote the adoption of SOP for the preparation of contract documents in the construction industry.

Keywords: Contract Document; PAM 2018

Introduction

Victory Development is the Employer for a mixed development project in Kuching. After a thorough tender exercise, Victory Development accepted the tender submission by SRWK Builder Sdn Bhd. As the Consultant Quantity Surveyor (CQS) appointed by the Developer, we are required to prepare the Standard Operating Procedure (SOP) to advise the Employer on the Contract formation. The Contract documents require to prepare based on the following information:

Contract Sum as RM300,000,000.00; Date of Commencement on 15 January 2020 and Date of Completion on 15 January 2023. Although the total completion period is 36 months, this mixed development will be having sectional completion, whereby Section 1 (Retail & Podium), Lift Shaft and Mock-Up Unit will be done within 24 months while Section 2 (Service Apartment) will be done within 36 months. The Liquidated Damages (LD) imposed to Section 1 is RM15,000 per day, while for Section 2 is RM20,000 per day, for Lift Shaft and Mock-Up Unit will be RM500 per day.

The Scope of works for this project are the Main Building Works which exclude piling, pile cap and basement construction, the Mechanical & Electrical (M&E) Works which are placed under Prime Cost Sum and Local Infrastructure Works. The construction contract documents are a legal agreement between the Employer (client) and Contractor. It is used to set out the obligations and responsibilities of the parties involved. Upon the issuance of the Letter of Award (LA) to the Contractor, a pre-contract meeting will take place which will involve all the relevant parties to plan their future activities. At the same time, the result of the discussion as agreed by both parties will form part of the contract documents. The Contractor will be required to submit the relevant documents as stated in the Letter of Award

Procedure in Preparing Contract Document

Before proceeding to the preparation of Contract Documents, several documents will be required from the Contractor. Upon the signing of LA, the Contractor has to submit the Insurance, Contractors' All Risk (CAR) Insurance, Workmen's Compensation, Performance Bond, etc. All these documents are crucial as they indicate the Contractor is trustable and financially capable to perform.

<u>Date</u>	<u>Duration</u>	<u>Stage</u>	<u>Content of Contract</u>
01/12/2019	1 day	1. Issued Letter of Award to Contractor	1. Letter of Award
02/12/2019 to 13/12/2019	12 days	2. Prepare the Contract Documents	2. PAM Contract 2018
		3. Check and Compile Contract Documents	3. Specification and Preambles
		4. Correctly mark the "Original" and "Duplicate"	4. Bills of Quantities
14/12/2019 to 27/12/2019	14 days	5. Sign on the Contract Documents	5. Appendices
28/12/2019	1 day	6. Stamping of Contract Documents	6. Contract Drawings
29/12/2019	1 day	7. Distribution of Contract Documents	
30/12/2019	1 day		

Step 1 - Issued Letter of Award to Contractor

Upon the Employer with his rigorous and mutual consideration in the selection of the contractor, the Architect will on behalf of the Employer draft a LA with relevant information (Mah Weng Kwai & Associates, 2021). The draft LA will then be sent to the Contractor to check and comment. When both the Employer and Contractor accept all the terms, the official LA will be issued with the Employer's letterhead to the Contractor. This letter serves as a notice to the Contractor that the Employer would like to award and enter a contract with the Contractor based on the tender. All the Contract Documents will start to be prepared right after the Letter of Award was issued. According to PAM Contract 2018 Clause 3.3, the Architect or Quantity Surveyor shall provide 2 copies of contract drawings and 2 copies of unpriced contract bills to the Contractor without any charges. This action shall be taken within 14 days after the Letter of Award is issued.

Step 2 – Prepare the Contract Document

Element 1 - Letter of Award

This letter will form part of the contract award, which is the process of formally notifying a tenderer that they have been selected as the Contractor for a particular contract (ibid,2021). The letter will typically contain details such as the Contract Sum, Mobilization Period, Date of Commencement, amount of Liquidated Damages, Completion Date and amount of Performance Bond. Once the letter is signed, it is deemed that the Contractor has agreed to all the listed terms and conditions and will immediately have contractual relationships with the Employer.

Element 2 - Form of Contract (The Agreement)

Form of Contract is one of the most essential elements in the process of preparation of the contract (Othman, 2008). It states the terms and conditions that should be complied with by both parties. The use of the standard form of contract is solely dependent on the preference of the Employer. Refer to the project background as stated in Introduction, PAM Contract 2018 (With Quantities) (2018) will be used. Several items should be taken note of when filling the PAM Contract 2018:

Articles of Agreement

- Date of Agreement is made, Name and Address of Employer and Contractor
- Project title and Site address
- Drawing Nos.

The drawing numbers identifies the provided drawings and used to refer to all parties involved in the contract.

Article 2: Contract Sum

- Contract sum refers to the rationalized, adjusted and agreed on the amount of total sum by both parties. The amount is deemed to be a lump sum and a fixed amount which is not allowed to make any adjustment after the contract has been signed unless any condition occurred as stated in the contract which allowed to make such adjustment.

Article 3 - Article 6

- These articles are mainly filled with the consultant details of those who are involved in the construction project. Normally, the Architect, Engineer, Quantity Surveyor and any other specialist consultants are hired by the Employer.

Substitute or Delete Clause

- PAM Contract 2018 is allowed to make any amendment on the Clause. However, it should be clearly stated and agreed by both parties to have such an amendment which included any substitution or cancellation on any part of the PAM Contract 2018.

Appendix

- It will be on the second last printed page in PAM Contract 2018 which is required to state all the relevant information to avoid dispute afterwards. As an example, the amount of Liquidated Damages, Date of Commencement, Completion Date, Amount of Performance Bond and other details.

Last page of the Agreement and Condition of PAM Contract 2018 (with Quantities)

Element 3 – Specifications

The specification is the written requirements for the materials, products or services for the project. It shall include a description of the types and quality of every product required in this project. It shall also describe the requirements for works such as erection, application, installation etc. (Ellis, 2020). We shall take note that there is a section format that is nationally approved to provide the guidelines on the arrangement of information, which are General, Products and Execution. Under the General Section, it will briefly discuss the national standards, design requirements, quality control requirements and product handling requirements; for Products Section, it will describe in detail the individual structural and performance requirements of each product; the Execution Section will include the preparation of materials and installation of the products including testing requirements to be followed (Archtoolbox, 2020).

Element 4 - Bills of Quantities (BQ)

The Bills of Quantities used in Contract Documents will include the rate provided by the selected Contractor during the tender stage (Trainor, 2019). The addendum issued during the tender stage or post tender stage will also be included here. There will no longer any issuance of addendum when the tender has closed and published to Post Contract. The Contract Bills shall be free from any arithmetic error, the inconsistency of rates, front-loaded pricing strategy and blank in rate for any item. The rate shall have been rationalized and agreed by both parties, thus there shall have no other changes that can be made after it has been signed and bind into the contract. The Bills of Quantities shall be prepared following the principles of Standard Method of Measurement of Building Works sanctioned by the Royal Institution of Surveyors Malaysia.

Element 5 - Appendices

The Appendices section will be included:

1. Performance Bond
2. Schedule of Finishes
3. Schedule of Rates
4. List of Drawings
5. Indemnity of Particular Works such as waterproofing, external painting works etc.

Element 6 - Contract Drawings

Contract Drawings is the general term used to depict the proposed construction. It shall be included as part of the Contract Documents as modified by Addenda and Change Orders to the Contract. It provides a graphic representation of how the building will be constructed (Architecture, 2019). The Architect and Engineer are required to submit the final tender drawings named Contract Drawings to CQS for safekeeping. A complete set of drawings will consist of floor plans, elevations, sections, detailed drawings and some information set out in specifications. There will be separate trade drawings such as Architectural drawings, Structural drawings, etc.

Step 3 - Check and Compile Contract Documents

The CQS will be required to compile and prepare the final draft of the contract documents for all the parties. All relevant contract parties are allowed to check through before the contract is printed out and binding for distribution.

Step 4 - Correctly mark the 'Original' and 'Duplicate' documents

After the draft Contract Document is checked by every single party, the CQS will print out and bind together all the elements according to the volume. There will be two copies for the Employer and Contractor. One of the contract documents will be marked 'Original' and another contract document will be marked 'Duplicate'. The reason to put this stamp is to show that the 'Duplicate' copy is officially made at the same time as the 'Original' copy.

Step 5 - Sign on the Contract Documents

After all the Contract Documents have been prepared and printed out, CQS will be required to arrange a signing session with the Employer and Contractor signing on the prepared Contract Document. The Article of Agreement, Form of Tender, and Summary of Tender will be signed by both parties. On the other hand, the Schedules of Rates and Day Work Rates will be signed by the Contractor. Once all the Contract Documents are signed, it is deemed that all the terms and conditions listed are agreed upon by both parties.

Step 6 - Stamping of Contract Documents

Stamp duty is required on the Contract Documents to legally record by the government. The Inland Revenue Board of Malaysia (known as LHDN) will impose duty at the rate of 0.1% of the Contract Sum. According to the scenario, the Contractor is required to pay RM 300,000.00 for stamp duty. The period to stamp is within 30 days from the date of the Letter of Award (PwC, 2020). If there is a stamping after the period as said 30 days, the fine will start to be imposed depending on the period of delays. The stamp duty and fine (if any) need to be borne by the Contractor, as in the Preliminaries section, items provided by the Contractor to price.

Step 7 - Distribution of Contract Documents

There are at least 7 sets of Contract Documents that need to be prepared and distributed to the relevant parties. The Employer and Contractor will be given the Original set and Duplicate set respectively. The Architect, Engineers and CQS will take the Photocopy set respectively. Lastly, the financial institution that provides loans to the Employer will be given 1 Photocopy set. According to PAM 2018 Clause 3.3, the Architect or Quantity Surveyor shall without charge to the Contractor provide him with the signed copy of the Contractor Document within 14 days after the execution of the Contract.

Conclusion

To conclude, there are many documents needed to form a complete set of Contract Documents and the procedure itself is long since there are confirmations and approvals needed to complete the process. Hence, it is important to make sure that terms and conditions are properly and professionally prepared and understood by both parties of the contract, otherwise, the ambiguity in the Contract Documents may lead to any misunderstandings and disputes in a later stage.

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STANDARD OPERATING PROCEDURE (SOP) ON THE PREPARATION OF FINAL ACCOUNT

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Abstract

The Final Account is a detailed summary of work done by the Contractor over the project's duration and may state the amount of money agreed to be paid by the Client to the Contractor at the end of the contract. This paper examined the standard operating procedure (SOP) in preparing the Final Account for a mixed commercial project located at Kuching, Sarawak. It begun with an introduction of Final Account, followed by the clauses in PAM 2018 that govern the preparation and the items under the Final Account. The detailed process and SOP on the preparation of Final Account for this project were scrutinized in this paper. Lastly, the process of disputing the Final Account via arbitration was discussed.

Keywords: Final Account, Construction Contract, Standard Operating Procedure (SOP), PAM 2018.

Introduction

The project is a mixed commercial project located at Kuching, Sarawak to be procured via the traditional procurement method of design-bid-build and with adherence to the terms stated under Agreement and Conditions of PAM Contract 2018 (With Quantities) (PAM 2018). Under the Memorandum of Agreement, the Quantity Surveyor attached to the project is required to provide the Client with a standard operating procedure (SOP) of preparing the Final Account in relation to this project, which shall adhere strictly to the good practices and conditions as laid out in the contract. The subsequent sections of this paper will examine and discuss the SOP in preparing the Final Account as required. A sample of the Final Account has been included as appendices.

PAM 2018 Clauses in Relation to Final Account

Final account is a detailed summary of all the work done by the Contractor, including contractual and variation work, or a statement of the amount of money agreed to be paid by the Client to the Contractor at the end of the contract.

The clauses within PAM 2018 that govern the Final Account for this project include Clause 25.6, Clause 26.6 as well as Clauses 30.10 to Clause 30.12. The subject of Final Account is also defined by Article 7 (ab) and the period is provided in the Appendix. The contents of the clauses are provided in Table 1.

Table 1. Final Account Clauses in PAM 2018

Clause	Item	Summary of Content
Article 7 (ab)	Final Account	Definition
25.6	Final Account upon Determination	Final account preparation upon the determination of Contractor's employment by Client
26.6	Settlement of Account	Final account preparation upon the determination of own employment by Contractor
30.10	Final Account	Final Account preparation after Practical Completion of Works
30.11	Items in Final Account	Items shall be included and excluded from the Final Account.
30.12	Conclusiveness of Final Account	Explanation on the conclusiveness of the Final Account.
Appendix	Period to complete Final Account	The period to complete Final Account from the date of Practical Completion will be stated

(Source: Agreement and Conditions of PAM Contract 2018 (With Quantities))

Items in Final Account

Clause 30.11 of PAM 2018 details several key items of the principal contents of a Final Account that is applicable for this project.

Adjustments made to Contract Sum

The Final Account in this project should include the adjustment made to the contract sum such as addition or omission due to variation works undertaken over the construction period and any Contractor's claims such as direct loss and expenses as per Clause 30.11 (a).

Amounts to which the Architect considers the Contractor is entitled to under the express provisions

The Final Account in this project shall also include any other amounts which the Architect approved under the contract as stipulated in Clause 30.11 (b). It could be any other amount that is required by the contract to be added or deducted from the contract sum as recommended by the Architect.

Omission of original and substitution of the revised amount paid to Nominated Sub-Contractor (NSC)

The Final Account in this project shall also include the omission of all Prime Cost (PC) Sums and the related profit provided by the Contractor in the Contract Documents and the substitution of the amount payable by the Client to the NSC and Nominated Suppliers together with the prorated amount for profit, as per Clause 30.11 (c). This includes four relevant items, including:

- (a) The omission of original PC sum in contract document
- (b) The substitution of the actual cost involved
- (c) Any adjustment of profit using pro rata basis, by applying the same percentage to the actual cost or adjusted pro rata to the actual cost
- (d) Any adjustment of attendance, which is normally regarded as fixed sums

As the amount and type of attendance work is unlikely to vary significantly with variations in the actual cost in this project, they are not adjustable on a pro rata basis to the actual work. On occasions, the Contractors insert percentages against attendance items in the same way as for profit.

Adjustment to Provisional Sum and omission of Provisional Sum if not expended

The adjustment of Provisional Sums and omission of any Provisional Sum if not expended in this project, as per Clause 30.11(d), should be expounded in the Final Account. Provisional sums are typically included in a contract for works that have not been fully designed.

Usually, there are several provisional quantities outstanding at the conclusion of the contract, including items related to statutory utilities and external work. These are quantities that form part of the Final Account process. Any unused provisional sums should also be formally deducted.

It is generally good practice for provisional quantities to have a design deliverables date agreed so that they can easily be converted into a fixed price at any opportune time during the contract period. Proper management of provisional sums throughout the project would imply that by the time the Final Account process takes place, most of the provisional sums would have already been converted into fixed prices. It is also good practice to report earlier provisional sums to the Client.

Items not included under Final Account

According to Clause 30.11(e) to Clause 30.11 (g), several items should be omitted from the Final Account and resolved separately between the Client and Contractor. Thus, the Final Account for this project shall not include any Liquidated Damages imposed by the Client under Clause 22.1, set-off by the Client emphasized under Clause 30.4, and interest payable by either of the party to the other party under Clause 30.17.

Preconditions to Final Account

In order for the Final Account process to begin, two conditions need to be fulfilled. Firstly, the works in this project must have achieved practical completion and secondly, the Certificate of Practical Completion (CPC) must have been issued. It should be an appreciated fact that practical completion does not mean that the work has been completed in its entirety and there may be certain minor defects left incomplete on '*de minimis*' principles. The works are deemed to have achieved practical completion when the Architect of this project deems the work to be fit for their intended use by the Client.

Where the Architect is of the opinion that the works have not achieved practical completion, the Architect shall notify the Contractor stating the grounds for his opinion. Otherwise, the Architect shall issue the CPC, which carries the effect of triggering the commencement of the period of final measurement and valuation of the works under the contract and the obligation of the Contractor to submit all relevant documents necessary for the finalisation of the account.

It should also be noted that the CPC may not be issued if there are any patent defects found in this project. However, the works can be practically complete notwithstanding that there is any latent defect found. Under Clause 30.10, the Contractor is required to submit all documents necessary for the preparation of the Final Account within six (6) months of the issuance of CPC.

Process of Final Account

Under PAM 2018, the process of Final Account is governed by the Clauses 30.10 to 30.12. The procedure for settling the Final Account is similar for both contracting and nominated subcontracting parties in this project as illustrated in Figure 1.

1.5.1 Submission of Relevant Documents by Main Contractor

In order to finalise the contractual account in this project, several relevant documents must be submitted for the purposes of preparation. Under Clause 30.10, the Contractor shall send all the necessary documents for preparing the Final Account to the Architect and Quantity Surveyor. Such documents should include:

- Latest construction drawings and details
- Details of all quantities, rates and prices
- Any adjustments to the Contract Sum
- Any additional payment or compensation claimed by the Contractor under the contract, complete with explanation and supporting evidence and calculations.

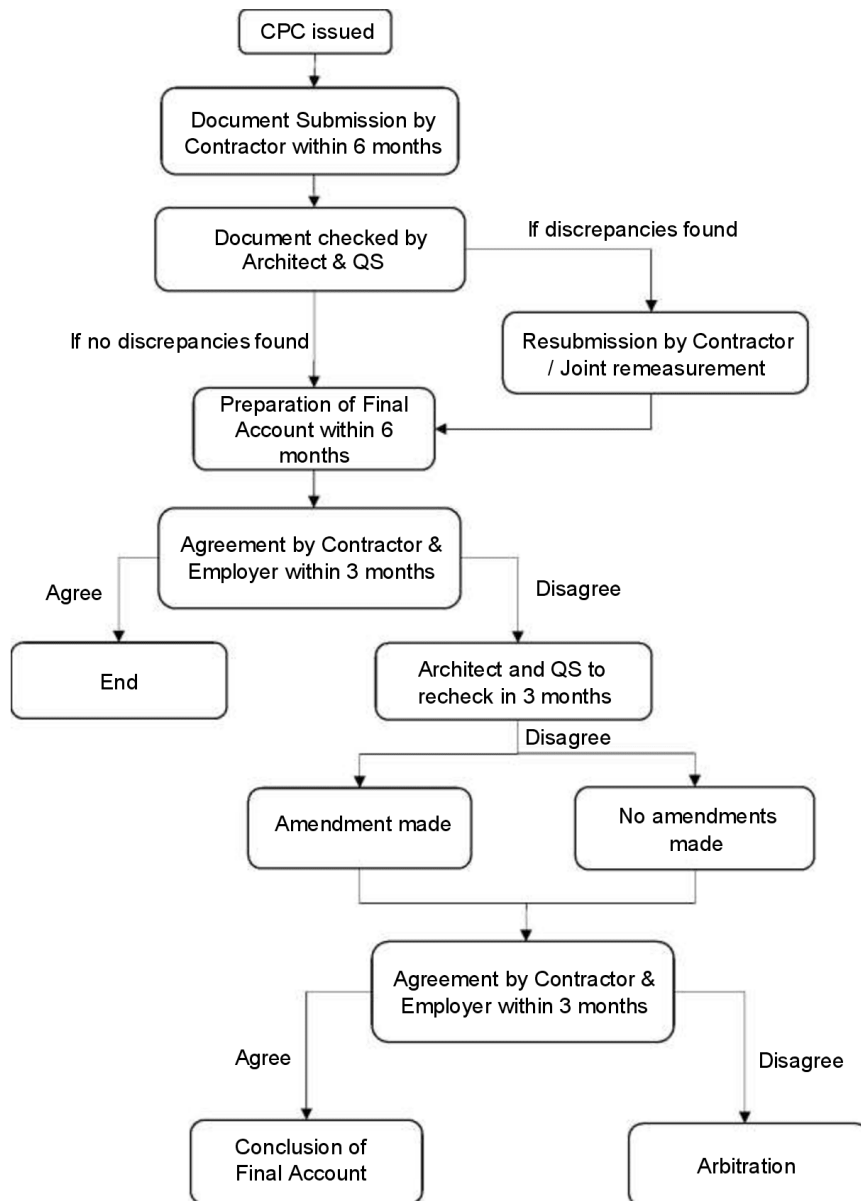


Figure 1. Procedure for Final Account

In this project, the standard time frame granted for the preparation of the Final Account under PAM 2018 is a period of six (6) months from the date of Practical Completion of the Works. In practice, the relevant documents may be submitted at any point within this stipulated time frame. The furnishing of such documents to the Architect and Quantity Surveyor is a condition precedent for the Final Account process and it remains the Contractor's obligation to perform this contractual responsibility.

The same applies for Nominated Sub-Contracting parties in this project who are required to submit the relevant documents for their respective sub-contracts upon Practical Completion of their sub-contracted works. Generally, the Final Account for sub-contracts would be completed much earlier than that for the main Contractor.

Checking of Submitted Documents

Upon receipt of the submitted documents, the architect and quantity surveyor for this project should look over the documents to identify any discrepancies that would hamper the preparation of the final account. the architect and quantity surveyor will keep their own contemporaneous records of the documents that can be used at this stage to verify if the contractor's sums and figures are accurate. Where there are no inconsistencies found within the documents, the architect and quantity surveyor may proceed to prepare a draft version of the final account. Where there are discrepancies between the contractor and consultant documents, the architect and quantity surveyor should arrange for a joint measurement on-site with the contractor to obtain clarification. Where the source of the

discrepancy comes due to the fault of the contractor, they will be required to make the necessary amendments and resubmit the relevant documents. Otherwise, the architect and quantity surveyor are required to update their records. Alternatively, the architect and quantity surveyor may call on the contractor to undertake negotiations to resolve any discrepancies found.

Preparation of Final Account

For this project, the architect and the quantity surveyor shall have a period of six (6) months to complete the final account. In this period, the architect and quantity surveyor will evaluate, complete and issue the relevant certificate based on the information provided by the contractor. The architect is given the right to adjust the period of completion of the final account in the event of delays by the contractor in submitting the necessary documents. In addition, the period of completion will also be adjusted with mutual agreement from both parties.

The contractor shall furnish the relevant document within the agreed time, within a period of time as mutually agreed or within a reasonable time by reasonable request by the architect. Where the contractor fails to do so, the architect and quantity surveyor shall nevertheless complete and issue the same based on the information available within the period to complete the final account as stated in the appendix, of which if not stated, would mean a period of fifteen (15) months from the date of practical completion.

The architect and quantity surveyor can proceed and prepare the final account on their own based on whatever information and/or documents in his possession and to which he is privy. In such cases, the contractor has lost their right to object to the valuation thus reached unless they are able to challenge on grounds of negligence or fraud on the part of the architect and quantity surveyor.

Agreement of Final Account

Upon finalisation of the final account by the architect and quantity surveyor, a copy of the document shall be sent to the client and contractor as stipulated under Clause 30.10 of PAM 2018. This includes the summary of the final valuation of all variations and the total sum by which the contract sum is to be adjusted. Upon receipt of said documents, the client and contractor for this project are given a period of three (3) months to evaluate the Final Account and raise any disputes.

Under Clause 30.10 (a), where the parties do not raise any disputes within the stipulated time period, the Final Account shall be conclusive and deemed agreed by the parties. On the other hand, Clause 30.10 (b) states that if any dispute is raised by either party within the time, the party disputing can appeal by writing to the other within three (3) months, setting out any disagreements complete with particulars. A copy of the documents shall also be sent to the architect and quantity surveyor to alert them of any such disputes.

The architect and quantity surveyor shall, within three (3) months from the receipt of the grounds of dispute, evaluate and either amend or not amend the Final account, following which they shall send a copy of the latest documents to the client and contractor. If no further dispute is raised within another three (3) months from the receipt of the latest architect decision, the latest Final account for this project shall be deemed conclusive and agreed by the parties as per stated in Clause 30.12.

However, if any party in this project still remains dissatisfied with the latest decision, the said party may refer the dispute to arbitration under Clause 37.0 in PAM 2018 within three (3) months from the receipt of the architect's decision. Failure to refer the dispute to arbitration implies that the decision made has been deemed to be conclusive and agreed by the parties and no further challenge on the final account can be made by the parties. The subsequent section discusses the process of resolving disputes in relation to the final account for this project.

Arbitration for resolving dispute in relation to Final Account

PAM 2018 necessitates the use of arbitration as a means of resolving any disputes in relation to the final account for this project. Clause 30.10 (b) under PAM 2018 states that any parties disputing the final account may refer the matter to arbitration within three (3) months of receiving the amended final account. This is further validated by Clause 37.1, which lists the circumstances in which the client and contractor may refer to arbitration.

The procedure for appointing the arbitrator is laid out in Clause 37.2. Any parties in this project may serve a written notice, which is a condition precedent for the arbitration to proceed, upon the other party, referring their

dispute to an arbitrator. Clause 37.2 (b) further provides that in the event of any failure to appoint an arbitrator after expiration of twenty-one (21) days from the date of serving the notice, during which the parties are required to concur on the appointment of the arbitrator, the initiating party shall refer to the president of Pertubuhan Arkitek Malaysia (PAM) to appoint the arbitrator, who shall be deemed to have been appointed with consent from both parties.

It is crucial for the parties in this project to take note that arbitration under PAM 2018 shall proceed in accordance with the rules as stated in the Arbitration Act 2005 and the current edition of the PAM Arbitration Rules or any modifications and revisions to the said Act or Rules. The arbitrator's award under Clause 37.7 is deemed to be final and binding on both parties, whereby the parties may not appeal to overturn the decision unless appeal is made to the Courts.

Conclusion

The preparation of a Final Account follows a standard operating procedure requiring the input of both Consultant and Contractor parties. The process starts off with the submission and review of relevant documents by the Contractor and Consultants respectively. If no discrepancies are found, the Final Account is prepared and a period is provided for either Client or Contractor to dispute the Final Account, during which if no disputes is raised, the Final Account is deemed to be conclusive. Any disputes raised would require the consultants to either amend or not amend the Final Account and any further disputes to this amended Final Account requires the disputing parties to refer the case to arbitration.

References

Pertubuhan Arkitek Malaysia (2018). Agreement and Conditions of PAM Contract 2018. (With Quantities). Kuala Lumpur, Malaysia.

Appendix – Sample of Final Account

STATEMENT OF FINAL ACCOUNT

FOR

**CONSTRUCTION AND COMPLETION OF A MIXED
COMMERCIAL DEVELOPMENT AT LOT 1234, KUCHING,
SARAWAK**

FOR

RISM DEVELOPMENT SDN BHD

Quantity Surveyor :

UTAR JURUKUR BAHAN SDN BHD
2B JALAN AMPANG
KAWASAN PERINDUSTRIAN
AMPANG
56000 KUALA LUMPUR
WILAYAH PERSEKUTUAN KUALA
LUMPUR
TEL : 05-313 8888
FAX : 05-313 8888

DATE : 15th October 2020

STATEMENT OF FINAL ACCOUNT

Project Title : **CONSTRUCTION AND COMPLETION OF A MIXED COMMERCIAL DEVELOPMENT AT LOT 1234, KUCHING, SARAWAK**

Original Contract Amount : RM 10,790,000.00

Less : Contingencies : RM -

Adjustment as per the following :-

<u>Description</u>	<u>Total Omission (RM)</u>	<u>Total Addition (RM)</u>
(i) Adjustment for Prime Cost Sum	-	-
(ii) Adjustment for Provisional Sum	-	-
(iii) Variation Orders	-	
(iv) Remeasurement Works		-
(v) Contractual Claims	-	-

NETT ADDITION /
OMISSION

-
0

**FINAL CONTRACT
AMOUNT :**

RM 10,790,000.00

<u>STATEMENT OF FINAL ACCOUNT</u> (Cont'd)	
-	-
-	-
Project Title : CONSTRUCTION AND COMPLETION OF A MIXED COMMERCIAL DEVELOPMENT AT LOT 1234, KUCHING, SARAWAK	
We declare that the items contained in the Final Account in respect of works executed on the above Contract have been authorised and verified by us in accordance with the Conditions of Contract.	
Signature : _____	Signature : _____
UTAR JURUKUR BAHAN SDN BHD	
Name : _____	Name : _____
We, the undersigned hereby acknowledge receipt of the above Statement of Final Account and agreed to the Final Contract Amount of RM10,790,000.00 as shown above that no further claim will be made under this Contract.	
Contractor : _____	Client : _____
Name of Contractor : _____	Name of Client : _____
Address of Contractor : _____ _____	Address of Client : _____ _____
Date : _____	Date : _____
Signature of Witness : _____	Signature of Witness : _____
Name of Witness : _____	Name of Witness : _____
Address of Witness : _____ _____	Address of Witness : _____ _____
Date : _____	Date : _____

<u>STATEMENT OF FINAL ACCOUNT</u> (Cont'd)	
-	-
Project Title :	CONSTRUCTION AND COMPLETION OF A MIXED COMMERCIAL DEVELOPMENT AT LOT 1234, KUCHING, SARAWAK
<u>BALANCE OF AMOUNT DUE</u>	
FINAL CONTRACT SUM :	RM 10,790,000.00
<u>LESS</u>	
<u>Certificate No.</u>	<u>Amount (RM)</u>
1	Progress Payment No. 1 700,000.00
2	Progress Payment No. 2 800,000.00
3	Progress Payment No. 3 950,000.00
4	Progress Payment No. 4 799,170.57
5	Progress Payment No. 5 866,586.72
6	Progress Payment No. 6 1,283,563.26
7	Progress Payment No. 7 942,199.29
8	Progress Payment No. 8 1,188,952.99
9	Progress Payment No. 9 798,786.52
10	Progress Payment No. 10 334,038.18
11	Progress Payment No. 11 265,507.90
12	Progress Payment No. 12 333,467.83
13	Progress Payment No. 13 (Penultimate Payment No.1) 512,282.77
14	Progress Payment No. 14 (Penultimate Payment No.2) 163,622.05
	RM 9,938,178.08
AMOUNT NOW DUE TO MAIN CONTRACTOR	
	RM 851,821.92

FINANCIAL STATEMENT: STEP BY STEP PREPARATION & TEMPLATE

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Abstract

Standard Operating Procedures (SOPs) are extensively prepared documents that guide the users in completing tasks orderly and smoothly in an organisation. Usually prepared by the consultants Quantity Surveyor, SOPs comprise of step-by-step instructions to provide directions and explain the workflow in conducting routine activities while adhering to the regulations and standards of a certain industry. As the construction industry thrives as one of the major contributing sectors in the socio-economic development of Malaysia, the role of SOPs in regulating guidelines and policies within the construction supply chain becomes eminent to ensure consistency and effectiveness of daily operations. Consequently, this report was constructed to provide a suitable SOP as part of the Quantity Surveying (QS) services for typical private construction projects in Malaysia, which will inform the Client on the course of action of a specific stage of a project and facilitate the contractual process. The first part of this report sets out the SOP for the preparation of financial statements.

Keywords: SOP, financial statement, claims, variation orders, COVID-19

Introduction

Purpose

Financial statements are generally prepared by the Quantity Surveyor which serves as the starting point towards the preparation of Final Account. Financial statements are regular records that convey the activities and financial status for that period and will serve as a tool for cost control and cost monitoring of the project. The Standard Operating Procedure (SOP) serves as a general guideline for all construction parties to adhere strictly to the good practice based on the contract provision.

Scope

The scope of this document covers the Standard Operating Procedure (SOP) for Main Scenario and Special Scenario. The Main scenario covers the periodical financial reporting and the special scenario SOP caters for the claims of Extension of Time (EOT) and Loss and Expense during the Movement Control Order (MCO) period. The SOPs are prepared based on the information below with appropriate amendments made accordingly based on different organisations practices and Form of Contract used and according to their respective procedures and requirements.

Development Type	: Private Mixed Commercial Development
Location	: Kuching, Sarawak
Procurement Method	: Traditional Procurement
Contract Form	: PAM Form of Contract with Quantities 2018
Contract Period	: 1 st January 2020 to 1 st January 2024

Principle of Financial Statement

Currency shall be expressed in Ringgit Malaysia (RM) with rounding adjustments to the nearest two (2) decimal points unless otherwise stated in the Contract. Financial Statement shall be prepared on a monthly basis or upon Employer's request. Definitions and Instructions shall be as stated in this manual. Financial Statement excludes professional fees, land cost, construction cost escalation, finance charges, administration expenses, all legal costs and disbursements, tax and/or other pertinent items.

Definition and Abbreviation

Table 1. Definition and Abbreviation

Abbreviation	Definition
AI	Architect's Instruction
CAI	Confirmation of Architect's Instruction
EI	Engineer's Instruction
EOT	Extension of Time
FS	Financial Statement
L&E	Loss and/or Expense
M&E Engineer	Mechanical & Electrical Engineer
MCO	Movement Control Order
QS	Quantity Surveyor
S&C Engineer	Structural & Civil Engineer
SOP	Standard Operating Procedure
VO	Variation Order

This section provides a visual overview of the process. The process flow diagram should be read in conjunction with the "Process Details" documented in section 2.1 in order to get a complete view of the process.

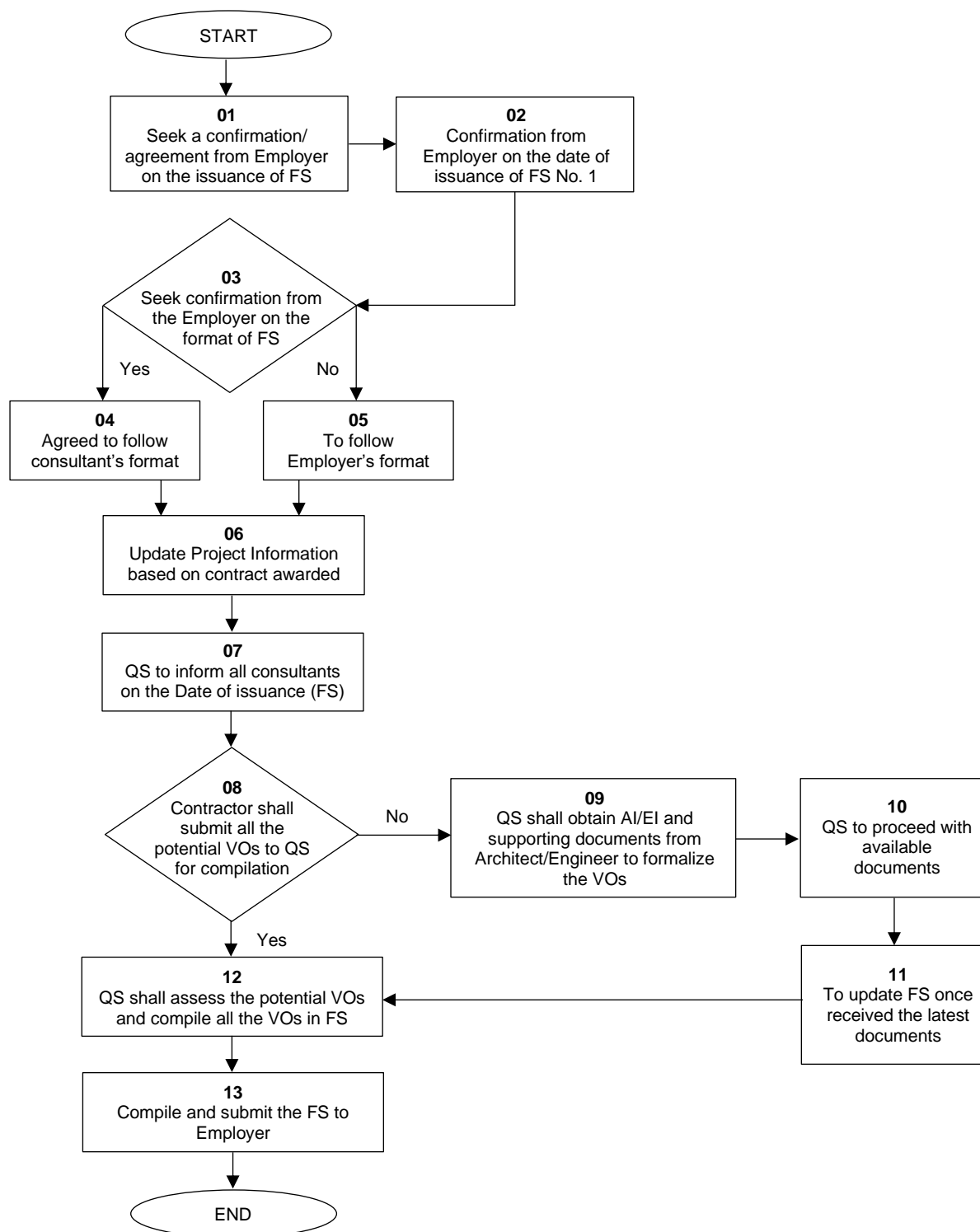


Figure 1. Standard Operating Procedure (SOP) for Preparation of Financial Statement based on Main Scenario
(For typical private project only)

Process Details

This section is to be read in conjunction with Section 2.0 “Flow Chart for Main Scenario” and describes a series of activities relating to the process of preparing a Financial Statement. Additional details such as activity timeline and responsible party/ies are stipulated herein.

Table 2. Process Details for Main Scenario

Step	Process Activities:	Duration (day)	Responsibility
01	Seek a confirmation / agreement from Employer on the issuance of FS	1	Employer Quantity Surveyor
02	Confirmation from Employer on the date of issuance of FS No.1. The FS shall be prepared within 30 days after confirmation from Employer	1	Employer Quantity Surveyor
03	QS to seek agreement from Employer on the Format of FS	1	Employer Quantity Surveyor
04	Agreed to follow Employer's format	1	Employer
05	Agreed to follow Consultant's format		Quantity Surveyor
06	Update Project Information based on contract awarded.	1	Quantity Surveyor
07	Inform all consultants on the Date of issuance (FS). Consultants shall include: a) Architect b) Structural & Civil Engineer c) Mechanical & Electrical Engineer	3	Architect Structural & Civil Engineer Mechanical & Electrical Engineer Quantity Surveyor
08	Contractor shall submit potential Vos to QS for compilation. QS shall make sure the VOs include drawings, rate/cost breakdown and daywork sheets (if applicable).	4	Contractor Quantity Surveyor
09	Qs shall obtain AI/EI and supporting documents (eg. drawings) from Architect/Engineer to formalize the VOs.	7	Architect Engineers
10	If QS does not receive the said documents within stipulated time, QS shall proceed with available documents.		M&E Consultant Quantity Surveyor
11	To update FS once QS receives the latest documents and shall reflect the latest update in the coming month.	N/A	N/A
12	QS shall assess the potential VOs and compile the VOs in the FS and to perform arithmetical checks.	10	Quantity Surveyor
13	Compile and submit the FS to Employer.	1	Quantity Surveyor
TOTAL DAYS		30	

Conclusion

Financial statements are essential since it provides a regular snapshots of the financial status of construction project. It is vital to the Employer and the design team that the project costs are effectively managed throughout the construction stage of the project. As Quantity Surveyors, we keep the Employer informed of the financial position of the contract at agreed regular intervals, usually monthly. The Employer is concerned not only with the current cost position but also the likely pattern of future payments over the contract period and the probable final total cost, in order that he may have sufficient funds available to finance and pay for the whole project.

References

- Theveritasdesigngroup.com. 2020. PAM Form of Contract 2018. [http://theveritasdesigngroup.com/global_files/pdf/tnc-pam-contracts-2018\(with%20quantities\).pdf](http://theveritasdesigngroup.com/global_files/pdf/tnc-pam-contracts-2018(with%20quantities).pdf)
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