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**وزارة الأشغال**  
**Ministry of Works**

**Kingdom of Bahrain**  
**Ministry of Works**

# **Project Management System – Procedures**

**Construction Projects**

**REFERENCE: PMO-WI-013**  
**REVISION: 1**

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## DOCUMENT CONTROL

### Revision History

DATE	REV#	SECTION	CHANGE BY	DESCRIPTION OF CHANGE
15-Dec-09	0		Georges B. Abrial (PMO)	Initial release
18-Mar-10	1	-1. Origination Phase  -8. Closeout Phase -Appendix-A	Saliha Ismail (PMO)  -Hammad Khaliq	Pg#5 Added Origination Phase its Input Out and text  Pg#15 Amended Overview Diagrams Updated  -Replaced <i>Tender &amp; Award (Consultation) to Consultant Selection</i> -Replaced <i>Construction Implementation to Implementation</i> -Replaced <i>Tender &amp; Award (Procurement Implementation to Tender &amp; Award</i>

Reviewed by	Role	Date
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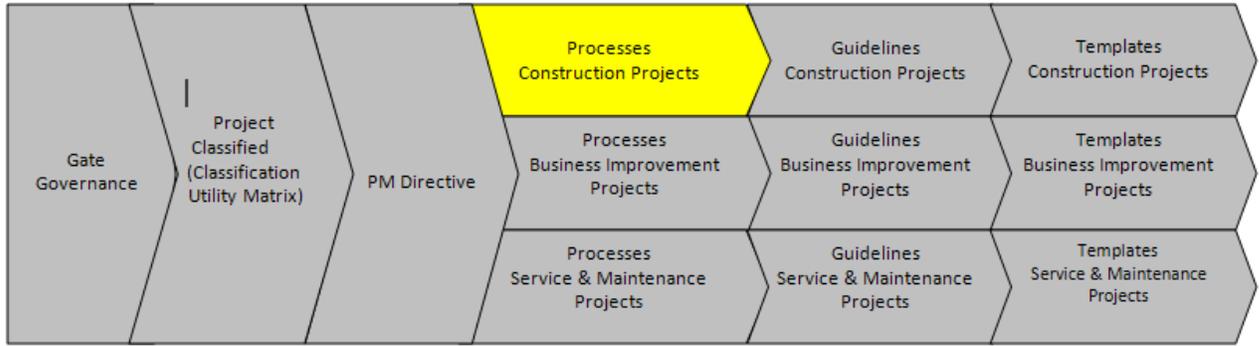
Approved by	Date	Signature
PMO Board	September, 2010	

Reference:	PMO-WI-013
Rev:	1
Date of Impl:	18-Oct-10

## Table of Contents

0.	Introduction .....	4
1.	Origination Phase .....	5
	Overview .....	5
2.	Initiation Phase .....	6
	Overview .....	6
	Inputs .....	6
	Outputs .....	7
	Process Flow .....	7
3.	Planning Phase .....	8
	Overview .....	8
	Inputs .....	8
	Outputs .....	8
	Process Flow .....	9
4.	Consultant Selection Phase .....	9
	Overview .....	9
	Inputs .....	10
	Process Flow .....	10
5.	Analysis & Design Phase .....	10
	Overview .....	10
	Inputs .....	10
	Outputs .....	11
	Process Flow .....	11
6.	Tender & Award Phase .....	12
	Overview .....	12
	Inputs .....	12
	Outputs .....	12
	Process Flow .....	12
7.	Implementation Phase .....	13
	Overview .....	13
	Inputs .....	13
	Outputs .....	14
	Process Flow .....	14
8.	Close-out Phase .....	14
	Overview .....	14
	Inputs .....	15
	Outputs .....	15
	Process Flow .....	15
9.	APPENDIX A .....	17

Reference:	PMO-WI-013
Rev:	1
Date of Impl:	18-Oct-10



## 0. Introduction

This document defines the process flow required for each phase of the Construction Project Life Cycle as outlined and discussed in documents:

- PMS Generic Life Cycles
- PMS Gate Governance
- PMS Project Classification
- PMS PM Directive
- PMS - Guidelines: Construction.

Each section provides an overview of the project life cycle phase, the associated inputs / outputs and process flow.

Reference:	PMO-WI-013
Rev:	1
Date of Impl:	18-Oct-10

## 1. Origination Phase

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### Overview

The Origination Phase formally recognizes the existence of an initiative that may result in the development of a project. The initiative should be linked to the strategic business objectives of the Ministry. A MoW project begins with the identification of a need, problem or opportunity to be addressed by the Ministry, its departments or branches. Included in the Origination phase are the development of a high-level business case; identification of a Sponsor and a Business Developer; identification of key stakeholders; project classification, the application for funding the project; submission for financial or technical to the appropriate authorities. It concludes with a documented decision to proceed to the Initiation phase.

The development of a Business Case should include but not be limited to the following:

- Rationale/background for the project
- Identification of the strategic fit to MoW overall strategy/objectives
- High level assumptions, constraints and risks
- Preliminary budget estimate
- Schedule
- Dependencies
- Master Plan
- Key project stakeholders and project organization (governance) structure
- Project strategy or approach, which determines which phases, will be performed by MoW staff and which will be outsourced.

### Inputs

#### Inputs:

- Historical information etc.
- Overall Funding for the initiatives Identified
- Approved PPM List of works generated from Initiative List

Reference:	PMO-WI-013
Rev:	1
Date of Impl:	18-Oct-10

## Outputs

### Outputs:

- Project Sponsor Appointed
- Approved Project Requirements/initial Business Case
- Other Supporting Documents
- Application to MoF for budget

## Process Flow

The schematic in Appendix A illustrates the processes and flow of the processes and templates for use by the Business Developer to complete the Initiation Phase

## 2. Initiation Phase

### Overview

The Initiation Process formally commits the performing organization to activate the project. The Initiation Phase defines the project objectives and produces the Project Charter, Preliminary Scope Statement and updated Business Case.

The inputs to the initiation process include elements of general management processes such as the initial product description, the respective business case, the performing organization's strategic plan, historical information regarding previous projects, previous project plans and actual results and preliminary constraints and assumptions.

This process ends when the Sponsor approves the project charter, preliminary scope, release of resources (core team) and project funding through a Gate Review to begin the next phase - Planning.

## Inputs

- Project Sponsor Appointed
- Approved Project Requirements/initial Business Case
- Other Supporting Documents and historical information etc.
- Overall Project Funding Identified

Reference:	PMO-WI-013
Rev:	1
Date of Impl:	18-Oct-10

## Outputs

- Project Steering Committee Appointed
- Project Manager Assigned
- An updated Business Case
- Financial & Technical Approvals as required
- Confirm Project Classification
- Approved Project Charter
- Approved Preliminary Scope Statement
- Approved Funding for the next Phase

## Process Flow

The schematic in Appendix A illustrates the processes and flow of the processes and templates for use by the Project Team to complete the Initiation Phase

Reference:	PMO-WI-013
Rev:	1
Date of Impl:	18-Oct-10

### 3. Planning Phase

#### Overview

The Planning Phase produces a comprehensive Project Execution Plan (PEP) which identifies the tasks necessary to produce required products / services. It provides plans for managing all aspects of the project including scope, time, cost, quality, resources, communication, risk and procurement. The planning phase acknowledges that requirements and conditions may change as the project proceeds and includes development of project change control procedures to manage the changes.

This phase ends when the Sponsor/Steering Committee/Gate Review Committee approves the Project Execution Plan and project funding to begin the next phase - Tender & Award (Consulting).

#### Inputs

- Financial & Technical Approvals as required
- Approved Project Charter
- Approved Preliminary Scope Statement
- Approved updated Business Case

#### Outputs

- Approved Project Budgeting and Funding
- Defined Project Organization
- Agreed upon Roles & Responsibilities
- Confirmed Project Staffing
- Confirmed Project Classification
- Completed Technical Surveys
- Completed Utilities Planning
- Defined Project Audit Plan
- Approved Project Execution Plan
- Approved Funding for the next Phase

Reference:	PMO-WI-013
Rev:	1
Date of Impl:	18-Oct-10

## Process Flow

The schematic in Appendix A illustrates the processes and flow of the processes and templates for use by the Project Team to complete the Planning Phase.

## 4. Consultant Selection Phase

### Overview

The Consultant Selection Phase performs the processes related to the execution of the MoW tendering procedures.

The tendering of a MoW contract is clearly articulated in the standard MoW Tendering procedure, which is governed by the Tender Law and is driven by the Tender Board policy, to which all government agencies must comply.

One of the key interim outputs during this phase is the Request for Proposal (RFP). This is a critical document in that it captures the technical, commercial, and legal aspects of the project. This document would form the basis for the final agreement between the Ministry and the Vendor, which is the main output of this phase.

All projects must meet the requirements of this procedure in order for the tender to proceed. The project requires the approval of the Tender Board for the tender process to be executed and the tender awarded.

This phase ends when the Sponsor/Steering Committee/Gate Review Committee approves the awarding of the contract and funding to begin the next phase - Design & Analysis.

Reference:	PMO-WI-013
Rev:	1
Date of Impl:	18-Oct-10

### Inputs

- Approved Project Budgeting and Funding
- Defined Project Organization
- Agreed upon Roles & Responsibilities
- Confirmed Project Staffing
- Confirmed Project Classification
- Completed Technical Surveys
- Completed Utilities Planning
- Defined Project Audit Plan
- Approved Project Execution Plan

### Outputs

- Contract awarded to consultant
- Approved Funding for the next Phase

### Process Flow

The schematic in Appendix A illustrates the processes and flow of the processes and templates for use by the Project Team to complete the Tender & Award (Consulting) Phase.

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## 5. Analysis & Design Phase

### Overview

The Analysis & Design Phase utilizes the MoW processes to ensure a cost effective design which satisfies all requirements. In this phase alternate solution strategies are identified and evaluated. An analysis of the strategies is completed to select the best solution approach based on explicit criteria and a recommendation made.

This phase ends when the Sponsor/Steering Committee/Gate Review committee approves design specifications and project funding to begin the next phase - Tender & Award (Procurement / Implementation).

### Inputs

- Contract awarded to Consultant
- Or
- Outputs from Planning Phase

Reference:	PMO-WI-013
Rev:	1
Date of Impl:	18-Oct-10

## Outputs

- Bills of Quantities Produced
- Permits / Approvals Received
- Way-leave Obtained
- Approved Design Drawings
- Approved Performance & Specifications
- Approved Funding for the next Phase

## Process Flow

The schematic in Appendix A illustrates the processes and flow of the processes and templates for use by the Project Team to complete the Design & Analysis Phase.

Reference:	PMO-WI-013
Rev:	1
Date of Impl:	18-Oct-10

## 6. Tender & Award Phase

<b>Overview</b>	<p>The Tender &amp; Award Phase performs the processes related to the execution of the MoW tendering procedures.</p> <p>The tendering of a MoW contract is clearly articulated in the standard MoW Tendering procedure, which is governed by the Tender Law and is driven by the Tender Board policy, to which all government agencies must comply.</p> <p>All projects must meet the requirements of this procedure in order for the tender to proceed. The project requires the approval of the Tender Board for the tender process to be executed and the tender awarded.</p> <p>This phase ends when the Sponsor/Steering Committee/Gate Review Committee approves the awarding of the contract and funding to begin the next phase - Construction / Implementation.</p> <p><b>NOTE:</b> This phase is not required for Class "C" Projects</p>
<b>Inputs</b>	<ul style="list-style-type: none"><li>▪ Approved Bills of Quantities</li><li>▪ Permits / Approvals Received</li><li>▪ Wayleave Obtained</li><li>▪ Approved Design Drawings</li><li>▪ Approved Performance &amp; Specifications</li><li>▪ Work Order Authorization Issued</li></ul>
<b>Outputs</b>	<ul style="list-style-type: none"><li>▪ Implementation Plan Approved</li><li>▪ Contract awarded to contractor</li><li>▪ Approved Funding for the next Phase</li></ul>
<b>Process Flow</b>	<p>The schematic in Appendix A illustrates the processes and flow of the processes and templates for use by the Project Team to complete the Tender &amp; Award (Procurement / Implementation) Phase.</p>

Reference:	PMO-WI-013
Rev:	1
Date of Impl:	18-Oct-10

## 7. Implementation Phase

### Overview

The Implementation Phase carry out the Project Execution Plan. The activities, outlined in the plan for definition, design, development and deployment of the required products/services, as well as to manage the project and provide required project outputs, are performed.

Project status reports are produced and distributed on a regular basis to all stakeholders, including team members, Sponsors, and Project Steering Committee.

This phase ensures the project is progressing as planned. It applies quality assurance techniques to ensure product deliverables meet the specifications outlined in the quality management plan and introduces corrective action to eliminate unsatisfactory performance.

This phase provides effective change management for all aspects of the project including overall change control, scope change control, schedule control, cost control, quality control, and risk response control.

This phase ends when the Sponsor/Steering Committee/Gate Review Committee approves the completion of the deliverables and project funding to begin the next phase - Close-out.

### Inputs

- Implementation Plan Approved
- Contract awarded to contractor

Reference:	PMO-WI-013
Rev:	1
Date of Impl:	18-Oct-10

## Outputs

- Completed Cost Statement
- Completed O & M Manual
- Completed As-built Drawings
- Training & Coaching Conducted
- Completed Inspection, Testing & Commissioning
- User Acceptance Certificate Issued
- Completed Project Deliverables / Work Order
- Approved Funding for the next Phase

## Process Flow

The schematic in Appendix A illustrates the processes and flow of the processes and templates for use by the Project Team to complete the Construction / Implementation Phase.

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## 8. Close-out Phase

### Overview

The Close-out Phase documents the final outcomes of the project both in terms of product delivery and project management delivery. Products and/or services are delivered, project actual results are reported, project contracts are closed and project lessons learnt are finalised and documented.

It is the responsibility of the Project Manager to ensure the tasks which extend beyond the project close-out are formally handed over to the relevant authority, the Director or Owner. The task includes but is not limited to the Administration of the Warranty Period.

Reference:	PMO-WI-013
Rev:	1
Date of Impl:	18-Oct-10

### Inputs

- Completed Cost Statement
- Completed O & M Manual
- Completed As-built Drawings
- Training & Coaching Conducted
- Completed Inspection, Testing & Commissioning
- User Acceptance Certificate Issued
- Completed Project Deliverables / Work Order

### Outputs

- Formal handover of continuing tasks
- Completed and Accepted Project Deliverables
- Project Completion Report Issued
- Final Completion Certificate Issued
- Contract Close-out
- Sponsor and Client Sign-off
- Retention money released and project finances closed
- Lessons Learnt Documented
- Warranty Administration Role assigned
- Project Documentation Archived
- Project Transferred to Client
- Lesson Learnt finalised.

### Process Flow

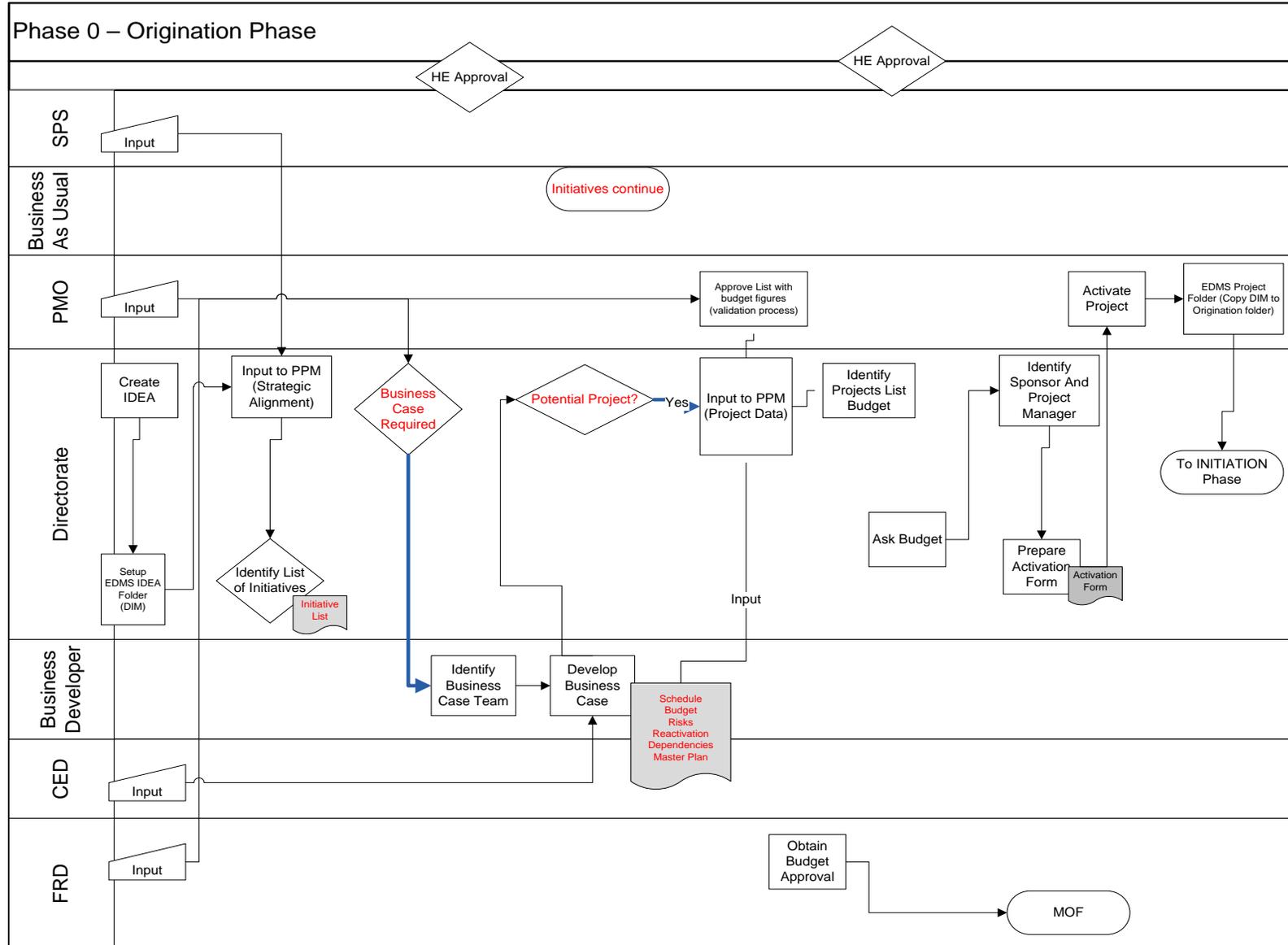
The schematic in Appendix A illustrates the processes and flow of the processes and templates for use by the Project Team to complete the Close-out Phase.

Reference:	PMO-WI-013
Rev:	1
Date of Impl:	18-Oct-10

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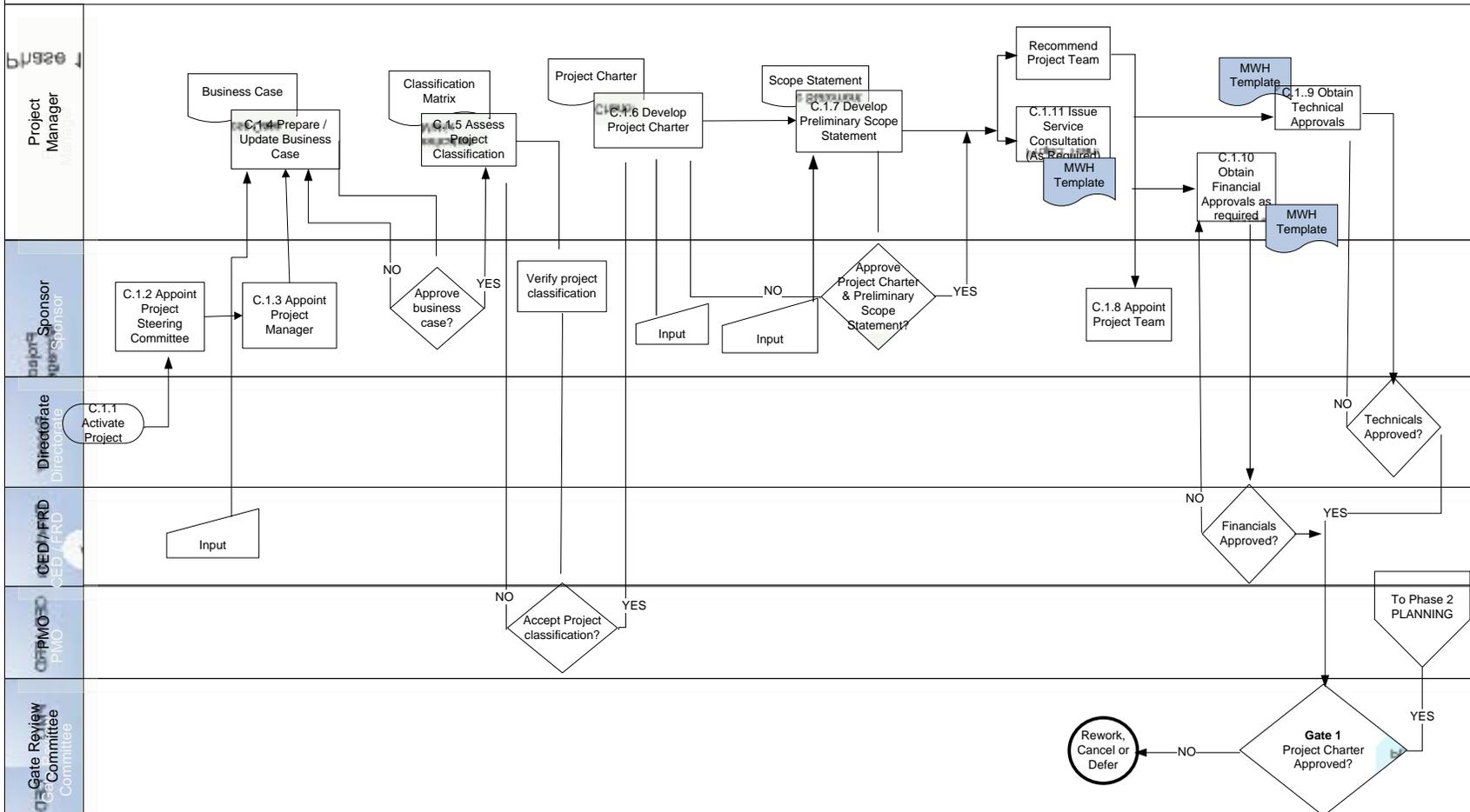
Reference:	PMO-WI-013
Rev:	1
Date of Impl:	18-Oct-10

## 9. APPENDIX A



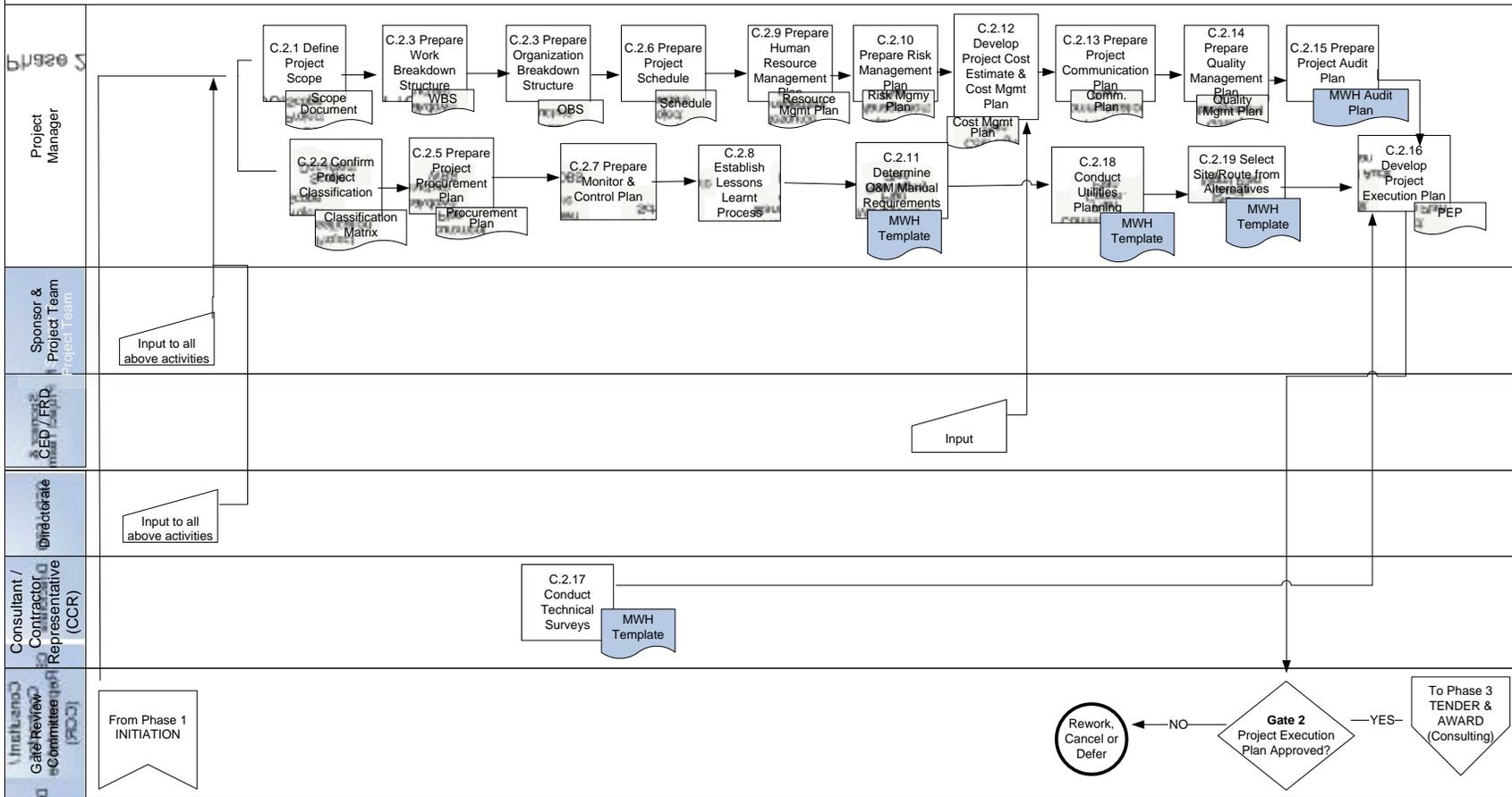
Reference:	PMO-WI-013
Rev:	1
Date of Impl:	18-Oct-10

Phase 1 – INITIATION – Construction Projects



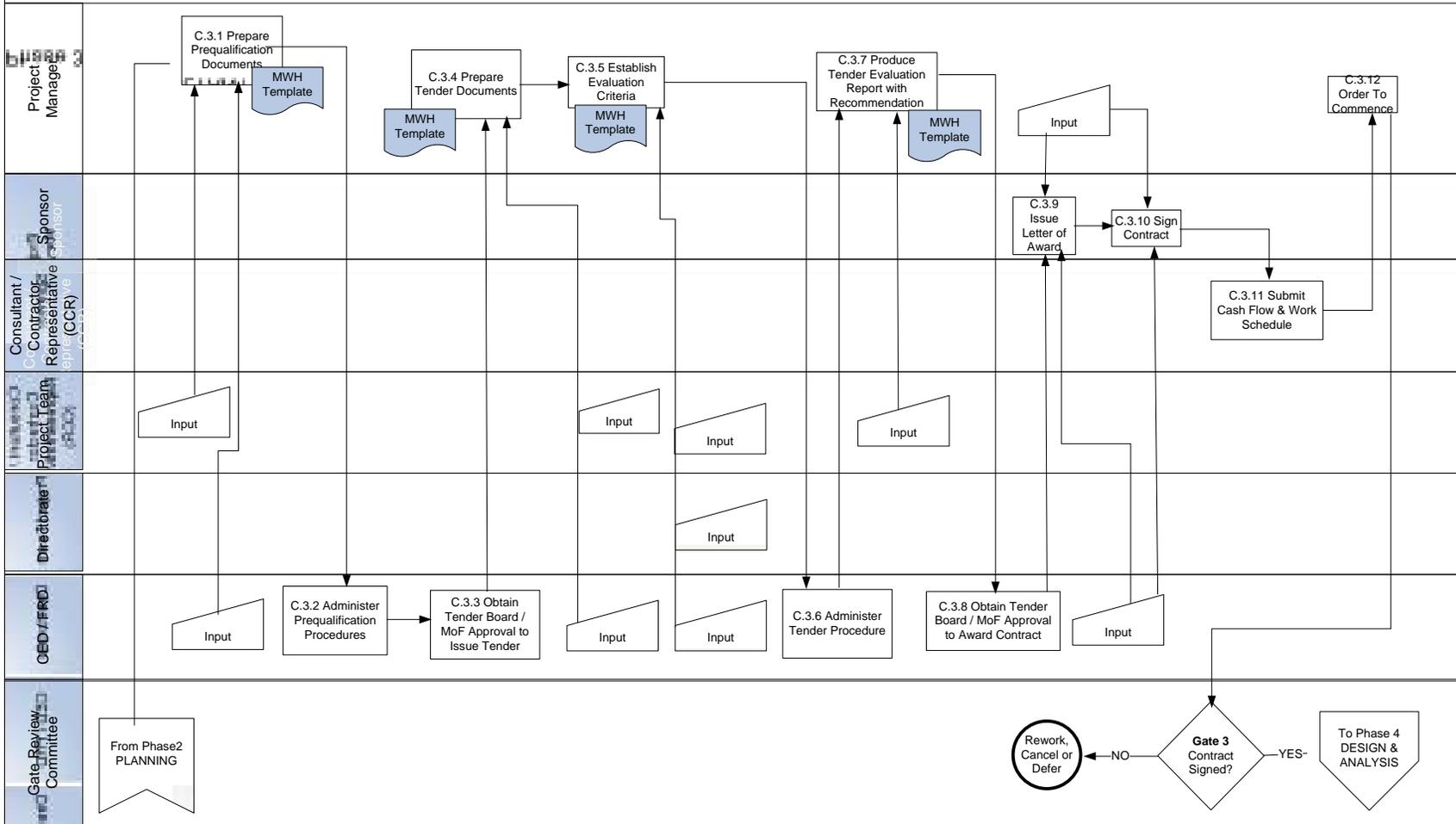
Reference:	PMO-WI-013
Rev:	1
Date of Impl:	18-Oct-10

Phase 2 – PLANNING – Construction Projects

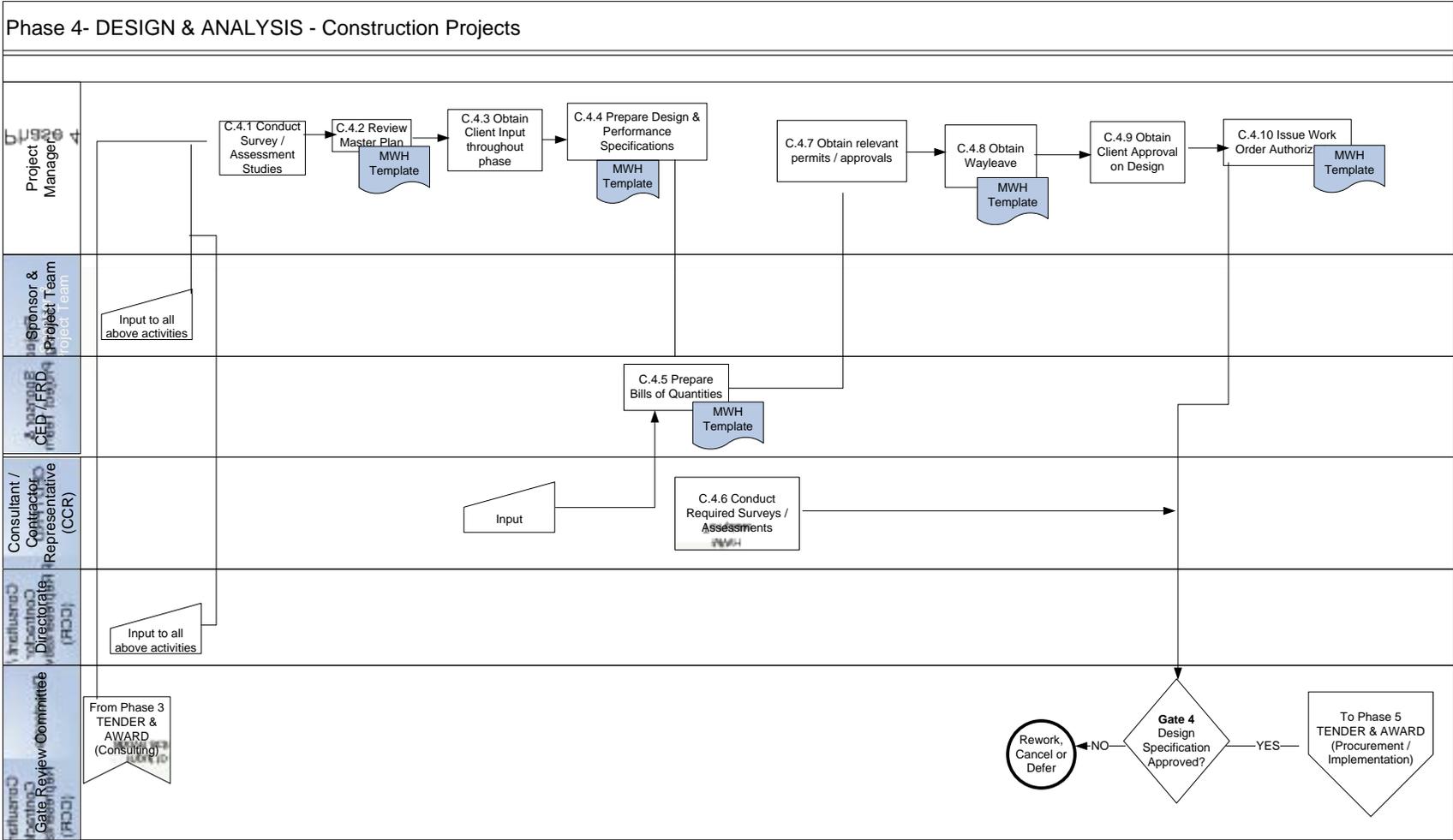


Reference:	PMO-WI-013
Rev:	1
Date of Impl:	18-Oct-10

Phase 3 – CONSULTANT SELECTION - Construction Projects

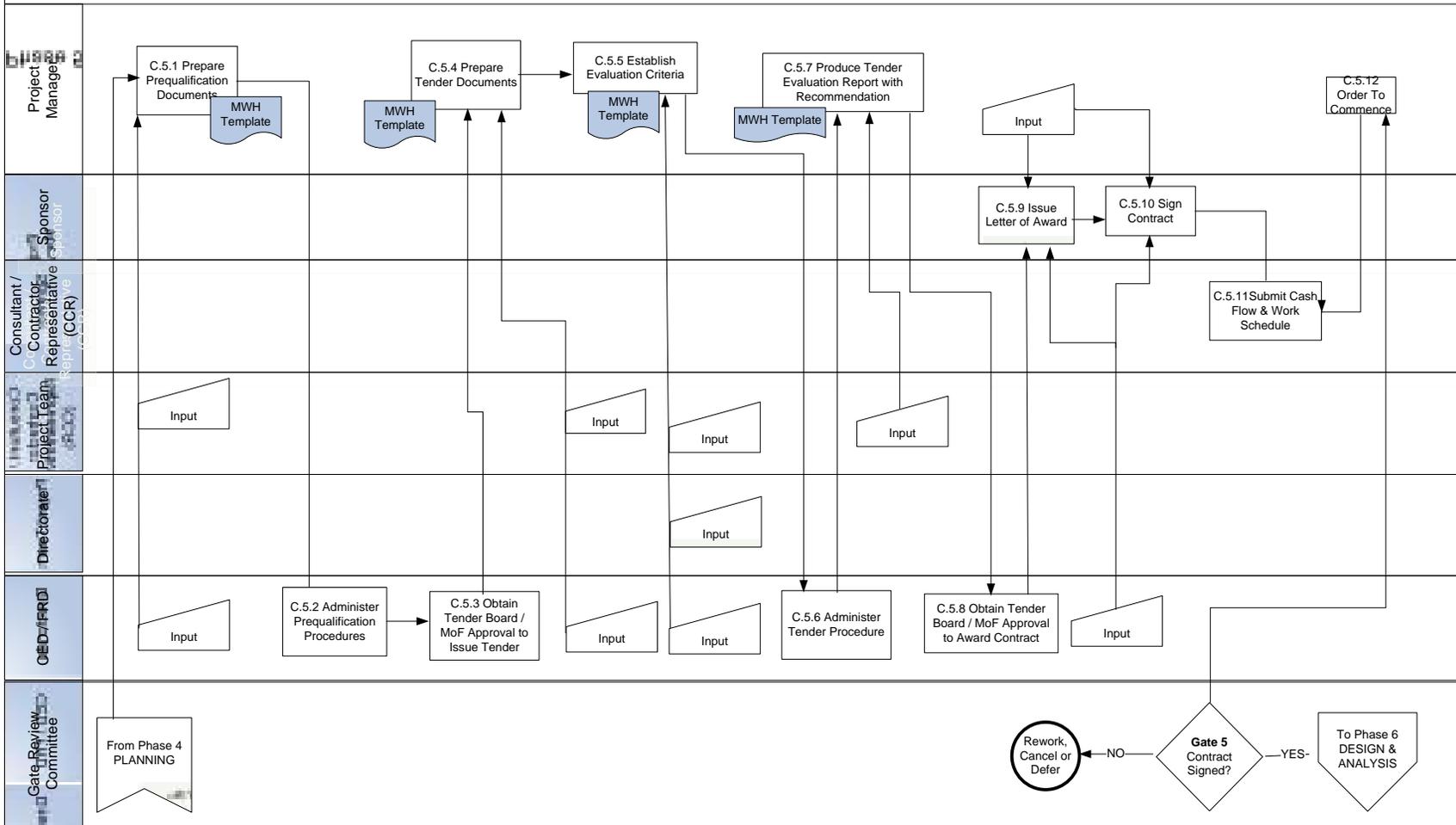


Reference:	PMO-WI-013
Rev:	1
Date of Impl:	18-Oct-10

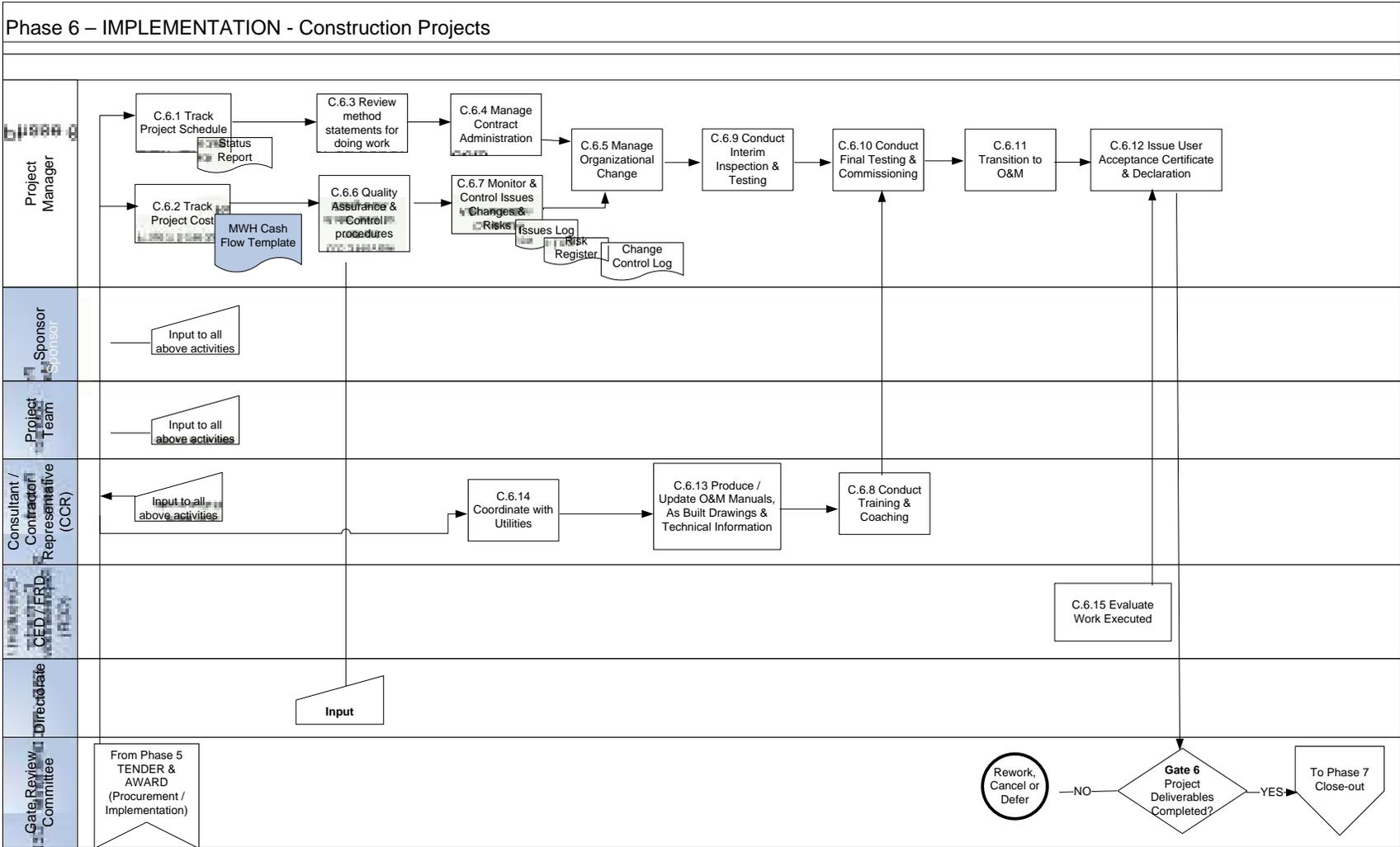


Reference:	PMO-WI-013
Rev:	1
Date of Impl:	18-Oct-10

Phase 5 – TENDER & AWARD - Construction Projects



Reference:	PMO-WI-013
Rev:	1
Date of Impl:	18-Oct-10



Reference:	PMO-WI-013
Rev:	1
Date of Impl:	18-Oct-10

Phase 7 – CLOSE-OUT- Construction Projects

