

# BIM Support & Strategy

# GEBLERTOOTH

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# Over 30 years of practice experience

Offices in London and Heathrow

# 50+ staff

High quality and high profile client list

£5.2m turnover YE 2017 **£4.95** m turnover YE 2018 £5.6M turnover YE 2019

BSI certified ISO 9001 Quality Assured

#### **RIBA** Chartered Practice

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**Chartered Practice** 





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# GEBLERTOOTH

# **BIM** Consultancy

Gebler Tooth can provide you with experienced BIM support to help you get the most out of the use of Building Information Modelling (BIM).

We provide independent client advice throughout all stages of a project and identify what help you require, to deliver services that fits your needs.

## Information Management

We will help you apply the information management throughout the delivery phase for each appointment, regardless of project stage, in line with ISO 19650

- Development of in-house company standards.
- Review, setup and implement a Common Data Environment (CDE).
- BIM Implementation plan.
- Reviewing project or company BIM documents and provide feedback.
- Support with bids and deliver the contract to satisfy all BIM level 2

## Why Choose Us

Our team has years of experience supporting project teams and businesses in utilising BIM services by designing and managing the delivery of those processes as required, to ensure the BIM services are utilised to their full potential.

- requirements.
- Model reviewing including reporting and auditing.
- Conversion of 2D information into a 3D Revit model.



www.geblertooth.co.uk

## Information Management Process:

#### ISO 19650 is a series of international standards based upon the UK 1192 series.

The series defines the collaborative processes for the effective management of information when using BIM.

#### How ISO 19650 benefits your organisation:

The ISO series is helping teams on a global perspective to adopt a simplified and common approach to managing information. It presents a real opportunity for the UK construction industry across their regions and offices, creating immediate efficiencies and increasing the mobility of their internal resources.

#### Next step to implementation:

With the two series published, the focus has moved on to the management of information during the operational phase of assets, and the adoption of a security-minded approach relating to sensitive assets.

We will support your organisation with defining the core roles an responsibilities and the project's framework.

We will help implement the information management process:

- Assessment and need
- Invitation to tender
- Tender response
- Appointment
- Mobilisation
- Collaborative production of information
- Information model delivery
- Project close-out (end of delivery phase)



Generic project and

management life cycle

# START - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - END



## Information management according to the ISO 19650 series

Before diving in to the stages of information management, it's important to have a perspective on, stages of maturity, and where the ISO series has application.

In the figure below, the information management is shown as a sequence of maturity stages, from 1-3. These stages show the development of standards, advances in technology and or sophisticated forms of information management. All these stages combined is to deliver increasing business benefit.

You can identify stage 2 as 'BIM according to the ISO 19650 series'. In collaborations a mixture of the manual and automated information is used from the Common Data Environment to generate a federated information model.



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A perspective on stages of maturity of analogue and digital information management

![](_page_4_Picture_7.jpeg)

## Implement a Common Data Environment and project's Information Standards

The ISO 19650 series of standards define the need to have a common data environment (CDE) for collecting, managing and disseminating information throughout BIM projects. In the UK, these standards have gone a long way to change the industry's mindset of BIM as '3D CAD' to 'information management' across the project team and throughout the project timeline.

The CDE workflow describes the processes to be used, and the CDE solution is the technology supporting these processes.

#### At the start of a new project before tender we offer you:

1

• Defining the roles to undertake the information management function using the Information Management Assignment Matrix (Annex A – ISO 19650-2:2018)

• Establish the information requirements using Asset Information requirements (AIR), as described in ISO 19650-1:2018, 5.3

![](_page_5_Figure_6.jpeg)

• Establish the project's information standard:

- The exchange of information
- Structuring and classifying information
- Level of information need
- The use of information during the operational phase

• Collecting the projects reference information and shared resources

• Implement a Common Data Environment (CDE)

![](_page_5_Picture_14.jpeg)

## 2/3 Invitation to Tender and Tender Response

Gathering and establish all exchange information requirements before inviting to tender. We will furthermore design, develop and help implement standards and protocols for your organisation. This includes:

- Organisational Information Requirements (OIR)
- Asset Information Requirements (AIR)
- Project Information Requirements (PIR)
- Exchange Information Requirements (EIR)
- Pre-Contract BIM Execution Plan (BEP)
- BIM Standards
- Pre-Qualification Questionnaire responses (PAS 91 questions)

![](_page_6_Figure_9.jpeg)

![](_page_6_Figure_10.jpeg)

In extension with the requirements we will help your organisation get the necessary response requirements ready for the next phase of the information management process. This includes:

- The organisations (preappointment) BIM execution plan
- The competency of the prospective individual – organising the core roles and

responsibilities

• The proposed mobilisation plan

• The information delivery risk assessment

![](_page_6_Picture_17.jpeg)

## 4 Develop, Review & Approve Key Documents

At this stage Gebler Tooth helps the team define the method for information exchanges between project processes that are crucial to successful BIM implementation. To define these exchanges, Gebler Tooth helps the team to understand what information is necessary to deliver each BIM service in line with ISO 19650.

We will provide our expertise in confirming the pre-appointment BIM Execution Plan and the development of the necessary documentation. This includes:

- Identify BIM Goals and services
- Confirming the BIM Execution Plan (BEP)
- Creating a more detailed responsibility matrix
- Establish more detailed exchange information requirements
- Creating the Task Information Delivery plan (TIDP)
- Creating the Master Information Delivery Plan (MIDP)
- Projects Standards

Exchange Information Requirements

BIM Execution Plan

Asset Information Requirements Organisational Information Requirements

Digital Plan of Works Task Information Delivery Plan

Project Information Requirements

![](_page_7_Figure_17.jpeg)

![](_page_7_Picture_18.jpeg)

## **Identify BIM Goals and Services**

The first step Gebler Tooth takes in developing a BIM Project Execution Plan is to identify the appropriate BIM Services based on project and team goals. We help our clients identify the potential challenges and opportunities that may be faced by the project team and identify the most appropriate services for BIM on a project given the project characteristics, participants' goals and capabilities, and the desired risk allocations. There are many different tasks that benefit from the incorporation of BIM.

We believe for BIM to be implemented successfully, it is critical that team members understand the future use of the information that they are developing. To emphasise the lifecycle of the information according to ISO 19650, a core concept of the BIM Plan Procedure is to identify the appropriate services of BIM by beginning with the potential end-uses of the information in the model. To the right is a list of potential BIM Services:

- Asset Management
- Disaster Planning
- Record Modeling
- 3D Coordination
- Design Authoring
- Code Validation
- Design Reviews
- Phase Planning
- Cost Estimation
- Existing Conditions Modeling
- Spatial Requirements
- Visualisation

![](_page_8_Figure_15.jpeg)

#### **BIM Execution Plan**

![](_page_8_Figure_17.jpeg)

## Configure and Test Project Information

In the mobilisation phase we support your organisation with confirming the available resources, mobilise the information technology and test the project's information production methods and procedures. This includes:

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- Procure, implement, configure and test the chosen IT infrastructure
- Configure and test the Common Data Environment
- Refine and verify the information structure and shared resources

hase leadership according to any project procurement route tead appointed party X Lead appointed party Y

Information exchange within delivery team

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Lead app

Information exchange with appon

## **Optimizing Collaboration Methods**

We will help optimise your organisations collaboration method, by checking that there's access to the relevant reference information and shared resources within the common data environment. This includes:

- Compliance and accordance to project's standard
- Required information level need
- Coordinate and crossreference all information

![](_page_9_Figure_12.jpeg)

# sharedCoordinate 3D models with other shared models

![](_page_9_Picture_14.jpeg)

![](_page_10_Picture_0.jpeg)

We will support your organisation with undertaking a review of the 3D models in accordance with:

- The Master Information Delivery Plan (MIDP)
- The acceptance criteria for each information requirement
- The exchange information requirements
- The level information need

![](_page_10_Picture_6.jpeg)

### **Archive Information** in accordance with **Project Information**

Upon acceptance of the completed 3D model, we will support you organisation with archiving the information within the project's common data environment. In this process we will include:

- Organisation of which information will be needed as part of the asset information model

Future access requirements

• Future re-use

8

- Relevant retention policies
- Capture lesson learned for future projects

Collaborative Project with Fosters + Par Image copyright - © Fosters + Partners + Partn

![](_page_10_Picture_16.jpeg)

### **Information Management** Key Points:

#### 2 3 4 5 7 8 6 START--END

![](_page_11_Picture_2.jpeg)

#### Assessment and Need:

- Information Management Assignment Matrix
- Asset Information requirements (AIR)
- Implement a Common Data Environment (CDE)

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#### **Mobilisation**

- Procure, implement, configure and test the chosen IT infrastructure
- Configure and test the Common Data Environment
- Refine and verify the information structure and shared resources

![](_page_11_Picture_12.jpeg)

#### Invitation to Tender

- Organisational Information Requirements (OIR)
- Asset Information Requirements (AIR)
- Project Information Requirements (PIR)
- Exchange Information Requirements (EIR)
- Pre Contract BIM Execution Plan (BEP)

- Compliance and accordance to project's standard
- Required information level need
- Coordinate and cross-reference all information shared

Collaborative production of information

 Coordinate 3D models with other shared models

### 3

#### **Tender Response**

- The organisations (pre-appointment) BIM execution plan
- The proposed mobilisation plan
- The information delivery risk assessment

Information model delivery

- The Master Information Delivery Plan (MIDP)
- The acceptance criteria for each information requirement
- The exchange information requirements
- The level information need

![](_page_11_Picture_33.jpeg)

Appointment

8

7

- Confirming the BIM Execution Plan (BEP)
- A more detailed responsibility matrix
- A more detailed exchange information requirements
- Task Information Delivery plan (TIDP)
- Master Information Delivery Plan (MIDP)

- Future access requirements
- Future re-use
- Relevant retention policies
- Capture lesson learned for future projects

![](_page_11_Picture_48.jpeg)