National BIM Standard - U.S., Version 4 BIM Execution Plan Template

National Institute of Building Sciences



The NBIMS BEP is

INTRODUCTION

The **NBIMS BIM Execution Plan (BEP) Template** may be used to create project-specific BEPs adhering to the U.S. National BIM Standard. The content may be used to make an organization's BEP template or to review content from online commercially available BEP applications. A BEP has become a recognized contract deliverable. The BEP process and this documentation will help all project members achieve an efficient and effective BIM process for project delivery.

UPDATES to the BEP Process

aligned to ISO 19650 and US project delivery. Various groups develop the BEP information. The **Owner** provides information on BIM projects in the Request for Proposal (RFP) phase. Owners providing this information in an RFP will better understand a team's capability to perform on a BIM project. **Proposers** respond with a **Proposal BEP**,

and the selected **Project Team** develops the **Project BEP**. The **Project BEP** is updated as new team members begin work on the project. It is used throughout a project to review BIM performance.

Template Sections

<u>Cover Page (Cover)</u>	BIM Uses (Uses)
Project & BEP Summary (Summary)	Technological Infrastructure Needs (Software) (Info Sharing)
Reference Information (Ref Info)	Quality Management (Quality) (QM Strat)
BIM Contacts	IM Risk Register (Risk Reg)
Organizational Roles & Responsibilities (Roles)	Model Federation and Standards (Federation Strat)
Project Phases & Milestones (Schedule)	Information Exchanges (IE)
Project Goals (Goals)	
Team Collaboration (Collab)	

References	
National BIM Standard - United States	https://www.nationalbimstandard.org
NBIMS-US BIM Use Definitions	
NBIMS-US BIM Execution Plan Standard	
BIMForum LOD Specification	https://bimforum.org/resource
Construction Specification Institute (CSI)	https://www.csiresources.org





BEP & PROJECT REFERENCE INFORMATION			
Instructions: Provide project, contract, and BEP information	on that will be used in this BEP.		
	Project Reference Information		
Project Name			
Project Owner Name			
Project Legal Address	City State Zip		
Facility Type Classification			
Facility Type Name			
Project Delivery Method			
Project Information Req. Title			
Project Information Req. Location			
Owner Modeling Guide Title			
Owner Modeling Guide Location			
BEP Development Standard			
BEP Path			
BEP Data Format			
Acknowledgements			
Team Selection Procedure			
BIM Contracting Procedure			

BEP Version Log							
			Creator	Creator	Approval	Approval	Approval
Version Number	Date	Description	Org.	Contact	Org.	Contact	Status

Add rows as needed.

Project Identification Table				
Project Identification Description Project Identification Value				

Add rows as needed.

Project Certifications Information				
Certification Information	Certification Value			

Add rows as needed.

Project Metrics Value				
Project Metric Name	Project Metric Value	Project Metric Unit		

BIM CONTACTS					
Instructions: Organizations and persons v	vith roles and	l responsibilities for p	roject BIM activities should be documente	ed in the BEP.	
Additional rows may be added as needed	•				
		Project Organiza	itions		
Organization Name	Abbr.	Phone Number	Office Location	Org. Role	

Add rows as needed.

Contacts					
Org. Abbr.	Name	Contact Role	Email Address	Phone Number	Primary Location

ORGANIZATIONAL ROLES & RESPONSIBILITIES					
Instructions: Provide a clear descript abbreviated code for us in the conta	tion of the various BIM related roles on a project along with cts table.	their responsibilities. Identify if they are required by	contract, and pro	vide a brief	
	BIM Roles & Re	esponsibilities			
Contact Role	Role Description	Role Responsibility	Req. Contract	Role Code	

PROJECT PHASES & MILESTONES					
Instructions: Define the various phases of the project, e.g., planning, design, construction, along with descrete milestones. A phase should have a start and finish date, while a milestone is on a specific date and resides within a phase.					
	Project Phases				
Phase Name	Phase Description	Est. Start Date	Est. Completion Date	Actual Start Date	Actual Completion Date

Add rows as needed.

Project Milestones					
Milestone Name	Milestone Description	Est. Date	Actual Date	Phase	

PROJECT GOALS										
Instructions: Identify project goals that would add value to the project and how it can relate to BIM Uses. These should be documented as part of the										
BEP process. Once collected, the goals and BIM Uses are prioritized and the final list of requirements is documented in the BEP.										
Project Goals										
Goal Description	Priority	Potential BIM Uses	Customer	Responsible Party	Constraints	Phase				

	TEAM COLLABORATION								
nstructions: Teams must act collaboratively. Document the collaboration activities to be performed, including meetings, modeling coordination, and information-sharing schedules. Standards for data and other details are provided in other									
Collaboration Strategy Description									
		Collabora	ation Activities						
Activity Type	Resp. Party	Phase	Frequency	Participants	Location				

BIM USES Instructions: Enter each potential BIM Use considered for the project along with the appropriate attribute. Reference the BIM Use Definition section of NBIMS-US to identify potential BIM Uses. Evaluate the value of the use for the project, competency levels and experience for each use. Document the current decision to proceed with the BIM use. BIM Uses Additional Resources / Additional Training IM Use Case Code **BIM Use Definition** Availability Competencies Req. Software Req. Additional Notes Add rows as needed.

BIM USE PROCESS								
nstructions: Include a path to the the Level 1 BIM Use process map showing the interaction of all BIM Uses. Include a list of the Level 2 BIM Uses and links to the Level 2 process maps for								
Level 1 BIM Use Process Map Path								
Level 2 BIM Use Case Proce	ss Maps							
BIM Use Name	BIM Use Process Map Path							

	TECHNOLOGICAL INFRASTRUCTURE NEEDS										
nstructions: Provide required software and hardware to be used on the project. Include how it can relate to BIM Uses. The software documentation includes what software, versions, who uses the tool, how it is used in the BIM or project process, and additional											
nformation to manage the software during the project lifecycle. Include a table of the types of hardware that will be used for Building Information Management.											
					Softwa	re Table					
Software Name	Version	File Format	Max Model Size	BIM Use	Resp. Party	Discipline	Contact	Hardware Considerations	Software Update Process	Notes	

Add rows as needed.

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Hardware Table									
Hardware Name	Owner	Specification	Quantity	BIM Use	Procurement Approach	Notes			

TECHNOLOGICAL INFRASTRUCTURE NEEDS

Instructions: Provide the methods of access to internet on the project. Include how and where the model can be accessed.

Internet Access									
Location Description	Access Method	Speed	Security Requirements						

Add rows as needed.

	Shared Model Development Resources								
Resource Name	Version	Owner	Description	BIM Use					

Add rows as needed.

Information Sharing Platforms									
Platform Name Version Owner Manager Capability Breadth Compliance w. (

	QUALITY MANAGEMENT										
Instructions: Provide a	nstructions: Provide a description of the overall strategy that will be used to manage quality of the model and derivative information. Include quality control acitivites that will										
be used on the project. Required tasks are defined in the BEP tables. Additional information should be documented in the QM strategy statement.											
Quality Management Strategy											
Quality Control Activity											
		Qu	ality Control A	Activity							
Activity Type	Contract Req.	Qu	Resp. Party	Activity Software	Frequency	Location	Reference Doc.				
Activity Type	Contract Req.	Qu Description	Resp. Party	Activity Software	Frequency	Location	Reference Doc.				
Activity Type	Contract Req.	Qu Description	Resp. Party	Activity Software	Frequency	Location	Reference Doc.				
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Activity Type	Contract Req.	Qu Description	Resp. Party	Activity Software	Frequency	Location	Reference Doc.				

QUALITY MANAGEMENT									
Instructions : Provide information regarding the model data accuracy and how the software will be tested for compatibility.									
Model Data Accuracy									
Discipline	Existing Conditions Data Source	Survey Data Type	Level of Accuracy						

Add rows as needed.

Software Compatibility Testing								
Export Software Application	Import Software Application	Test Date	Notes					

	IM RISK REGISTER										
nstruction: Add all risk items associated with information management tasks. These risk register entries should also be placed within the overal project risk register.											
Risk Register											
Risk Title	Description	Probability	Consequence	Mitigation Methods	Category	Status	Resp. Party				

MODEL FEDERATION STANDARDS

Instructions: Multiple models (by discipline and use) are shared and integrated during the project. Provide the strategy and methods used for sharing models and data.

Model Federation Description

Naming Conventions									
Convention Type	Naming Convention Title Req.	Naming Convention Version	Description	Location of Naming Conv. Details					

Add rows as needed.

Reference Coordinate System	
UTM Zone	
Horizontal Units of Measurements	
Vertical Units of Measurements	
Horizontal Datum	
Vertical Datum	
Project Origin Longitude	
Project Origin Latitude	
Project Origin Elevation	
Project Grid Offset from True N	
Reference Grid	
Reference Survey	

Building Information Management Standards								
Standard Name	Standard Version	Standard Purpose						

INFORMATION EXCHANGES																
Instructions: Information Exchanges document the technical information, the how and when for sharing models and data during a project. This works with the model element tables showing the individual elements "what" is to be exchanged.																
Information Exchange																
IE Name	IE Description	Milestone	Sender	Reciever	Frequency	Due Date	Location (Path)	Software	Source Format	IE Format	BIM Use	Req. Contract	Permitted Uses	Req. Approvals	Req. IE Delivery	IE Definition
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Project Phases	Project Delivery Method	Project Goal Priority	QC Activity Type	Project Types	BIM Use Value	Required by Contract	Proceed with BIM Use?	Risk Register Probability	Risk Register Consequence
Planning	Design - Bid - Build	4- Essential	Model Verification	ENTER ORGANIZATION PROJECT TYPES	High	Yes	Yes	High	High
Preliminary Design	CM at Risk	3- High	Survey Model Accuracy Validation		Medium	No	No	Medium	Medium
Design Development	CM Agency	2- Medium	Software Compatibility Test		Low	Maybe	Maybe	Low	Low
Construction Documents	Design-Bid	1-Low							
Construction	Integrated Project Delivery								
Commissioning									

Operation