BIM Execution Plan

[Company Name]

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1. BIM PROJECT EXECUTION PLAN OVERVIEW

1.1 Objective

This BIM Project Execution Plan (BAP) has been developed by the CJY Team to define the uses of Building Information Modeling (BIM) for the BERNAM Development project, along with a detailed process for executing Virtual Design & Construction (VDC) and BIM throughout its lifecycle.

By implementing this BAP, the project and its team members will:

- Clearly understand the strategic goals for VDC and BIM implementation.
- Define the content and Level of Detail (LoD) for models, and their delivery timelines to meet specific objectives.
- Establish a baseline for benchmarking process effectiveness and progress throughout the project.

1.2 BIM-Relevant Use Cases

(This section will reference specific BIM-relevant use cases, detailed in an **Appendix A**, similar to the original template's structure. Further detail would be added from your project-specific use cases.)

1.3. Model Level of Development (LoD)

This section will reference the applied phase-specific component representations, mapped in an **Appendix B**: Level of Geometry (LoG) Matrix, consistent with the original template's structure.

2. EMPLOYER'S BIM SPECIFICATIONS

Refer to appendixes (extracted from main contract):

Category	Specific Standards/Documents	Remarks	
Information Management	DIN EN ISO 19650 Series (e.g., ISO	Framework for information	
Standards	19650-1, ISO 19650-2)	management using BIM	
Modeling Standards	Refer to: Appendix B: Level of	Defines phase-specific geometric	
Modeling standards	Geometry (LoG) Matrix	requirements	
A their cutions Changelousele	Refer to: Information Delivery Manual	Specifies Information	
Attribution Standards	(IDM)	requirements	



CAD Standards	ISO 13567 (as of 2020)	-
Naming Conventions	Project Standard	Adaptable project-specifically
Drawing/Plan Coding	Project Standard	Adaptable project-specifically

3. PROJECT INITIATION

This section denotes the Core Collaboration Team, the project objectives, project stages, and overall communication plan throughout the project's stages required for the successful execution of this project.

3.1 Project Information

Project Name	:
Project Address	:
Project Description	:
Client	:
Commencement Date	:
Completion Dates	:
Contract Type	:

3.2 Software Usage

All models will primarily be developed using Autodesk Revit as part of a Closed BIM System. The tools for other project participants will be specified during project execution according to the scope of planning. This revised BEP incorporates the latest features and workflows available in Autodesk Construction Cloud (ACC), including tools such as BIM Collaborate, BIM Collaborate Pro, and Design Review.

Company / Role	Discipline	Tool	Version / Remarks
Client	Client	Project-specific	
	Bim Manager	Project-specific	
	Other (Project Mgr)	Project-specific	



Design Team	Architecture	Revit	Per Year (latest version)	
	Structural Engineering	Revit	Per Year (latest version)	
	Electrical	Revit	Per Year (latest version)	
	HVAC	Revit	Per Year (latest version)	
	BIM Manager	Revit, Navisworks, BIM Collaborate, Design Review	Per Year (latest version)	
	Model Responsible	Revit, Navisworks, BIM Collaborate, Design Review	Per Year (latest version)	
Other Planning	Surveyor	'		
	Building Physics			
	Fire Protection	D. win as nowed and		
	Traffic Planner	During project	execution	
	Soil Expert / Hydrology	/		
	Other (e.g., Kitchen)			
Executing Companies		To be listed here		

The project will leverage Autodesk Construction Cloud (ACC) as its primary Common Data Environment and collaboration platform, utilizing:

- **BIM Collaborate** for model coordination and issue tracking.
- BIM Collaborate Pro for co-authoring Revit models in the cloud.
- **Design Review** functionalities for design markups and review workflows.

3.3 Project Work Descriptions

Phase	Milestone	Madal Type	RVT	IFC	NWD	PDF
rnase	Milesione	Model Type	(3D)	(3D)	(3D)	(2D)
Concept	Phase	Concept Design Model	X	x	X	Χ
Design	Completion	Concept Design Model	^	^	^	^
Schematic	Phase	Schematic Design Models	x	X	X	X
Design	Completion	Scriemanc Design Models	^	^	^	^
Detailed	Phase					
Design		Detailed Design Model	X	X	X	X
	Completion					



Tender & Construction Docs	Phase Completion	Tender/Construction Documentation Model	X	X	X	X
Construction	Progress Deliverables	Construction Progress Models	Х	X	X	Х
Handover / As-Built	Project Completion	As-Built / FM Model	Х	Х	Х	Х

4. ADDITIONAL BIM PROVISIONS

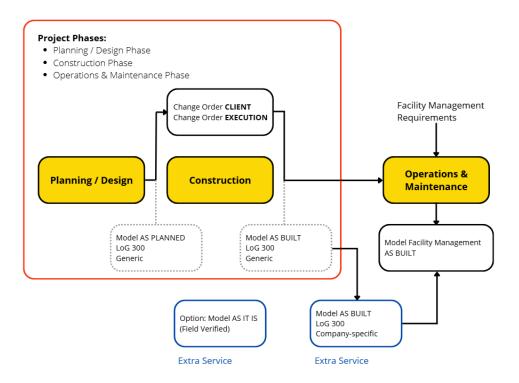
4.1 Existing Model / As-Built Model

If project planning with BIM requires the inclusion of existing buildings (renovation, extension, etc.), an existing model is needed. Should the Client not provide a model with sufficient accuracy and currency, a BIM existing model will be created by the designated project party utilizing the necessary surveying technical means and adhering to project-defined standards. The associated costs for this service must be determined during contract drafting and considered therein.

4.2 Maximum Level of Detail

Building Information Models are provided at a maximum level of detail in AS-PLANNED status, corresponding to a generic (= abstract) model status at Level of Geometry (LoG) 300 or a plan representation equivalent at a scale of 1:50. Further adjustments will only be incorporated into the model as part of any project changes (Change Orders) commissioned by the client or executing companies during building construction. This model status ultimately corresponds to a similarly generic, planning-side AS-BUILT status at the same level of detail (see diagram below). Any transformation from generic to realized data required for the operational model status or for FM handover will be performed by the executing companies as part of the awarded service, under established project Quality Management procedures and in adherence to relevant project standards, such as the Singapore BIM Guide.





5. VIRTUAL DESIGN & CONSTRUCTION GOALS

The primary objective for implementing Virtual Design & Construction (VDC) and Building Information Modeling (BIM) on this project is to enhance project delivery across its lifecycle. This encompasses facilitating and improving documentation, estimation, design coordination, and comprehensive building life-cycle analysis.

By leveraging BIM, the project aims to achieve the following strategic goals:

- Enhanced Decision Making and Communication: To utilize BIM models as a visual tool for informed
 decision-making, ensuring efficient interactions among all project consultants, the main Contractor,
 and Sub-contractors. This will foster a deeper understanding of project relationships and constraints,
 leading to a reduction in late changes.
- Optimized Coordination and Constructability: To achieve clear communication and effective BIM
 model coordination, minimizing miscommunication, delayed information, and on-site Requests for
 Information (RFIs) during the construction phase. This includes implementing robust workflows for
 conflict identification and resolution to reduce constructability and coordination-related change
 orders.
- Accurate Information Handover for Operations: To ensure the submission of accurate As-Built BIM
 Models that are fit for purpose, particularly for subsequent operation and maintenance activities,
 while maintaining a concise and usable model file size.



Improved Site Planning and Logistics (Optional/Low Priority): To potentially utilize the BIM model as a
foundational tool for site access planning, material movement, and on-site storage optimization,
contributing to site safety and efficiency.

5.1. BIM Model Applications by Phase

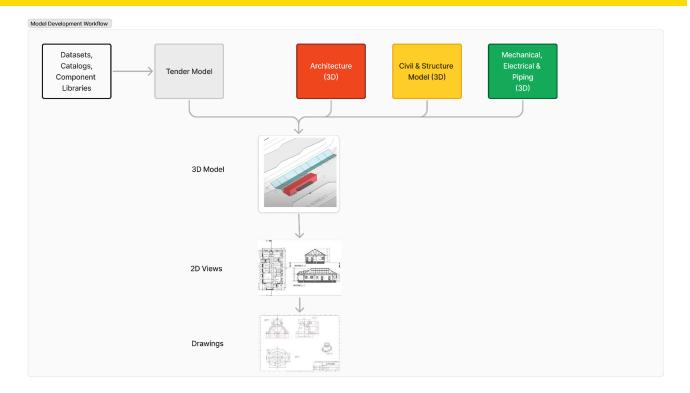
Model Quality	Concept	Schematic Design /	Tender & Construction	Construction /
Model Quality	Design	Detailed Design	Documentation	Handover
3D Coordination (e.g.,	V	v	V	V
Clash Detection)	^	^	^	^
Alphanumeric Content		v	V	V
(e.g., Component Lists)		X	^	\

Evaluations	Concept	Schematic Design /	Tender & Construction	Construction /
Evaluations	Design	Detailed Design	Documentation	Handover
Area / Quantity	X	X	X	X
Estimation	^	^	^	^
Cost Estimation	X	X	X	X
Model-based Bills of		X	V	X
Quantities (BoQ)		^	^	^
Plan Generation	Х	X	X	X

Calculations and	Concept	Schematic Design /	Tender & Construction	Construction /
Simulations	Design	Detailed Design	Documentation	Handover
Energy Calculations		X	X	
HVAC Calculations		X	X	
Lighting Calculations		X	X	
Escape Route Analysis		X	X	
Structural Calculations		X	X	
Visualizations		X	X	



6. BIM DELIVERABLES



Overall BIM Development: 2D Drawings Developed from 3D

BIM Deliverables encompass all digital representations of the Project, whether two-dimensional, three-dimensional, or other formats. These deliverables describe the physical, functional, and performance characteristics of the Project, serving purposes such as visualization, simulation, analysis, collaboration, planning, and documentation throughout the project lifecycle.

6.1. Principles of Deliverable Generation

- Model-Centric Documentation: 2D drawings (e.g., Combined Services Drawings (CSD), Coordinated Builders Plans (CBP)) shall be directly extracted from the coordinated BIM models. Where feasible, 2D drawings should be developed using native drawing tools within the BIM authoring software.
- Existing Conditions Modeling: Any existing buildings or structures that interface with the project shall be modeled to identify and address potential interferences, unless explicitly exempted by the Employer.

6.2. Deliverable Handover and Exchange

 Scheduled Handover Points: Specific BIM deliverables for each project phase, including model types and required formats (RVT, IFC, NWD, PDF), are detailed in Section 3.3: Project Work
 Descriptions / Milestones for Information Exchange.



- Cut-off Dates: The cut-off dates for the exchange of BIM deliverables between Model Authors and Model Users shall align with the information exchange dates stipulated in the Principal Agreement, unless otherwise mutually agreed upon and documented within this BIM Execution Plan.
- Collaborative Exchange: Data sharing and collaboration across disciplines shall be conducted interactively, leveraging appropriate software technology. This process will be led by the BIM Manager and agreed upon by all parties involved in BIM modeling, with documentation in this BEP. The BIM Manager shall facilitate an ongoing 3D review process throughout the Project duration, which may include regular coordination meetings where relevant BIM Coordinators and decision-makers are expected to attend.

6.3. As-Built Deliverables for Operations & Maintenance

• Contractor's Responsibility: During the construction stage, the Contractor shall revise and maintain the Released Models based on any updated documentation issued by the Consultants. The Contractor is responsible for developing these Released Models to be suitable for As-Built handover in accordance with this BIM Execution Plan, and for providing the As-Built Models to the Employer for subsequent operation and maintenance.

6.4. Quality Assurance

All BIM Deliverables shall meet the quality assurance guidelines as stipulated in the Singapore BIM
Guide. Any deviations from these guidelines must be clearly outlined within this BIM Execution Plan
for the Employer's review and acceptance

7. OWNERSHIP AND RIGHTS TO BIM DELIVERABLES

- 7.1 The Employer shall have the ownership and exclusive rights to all Project BIM Deliverables, unless otherwise mutually agreed upon by the involved parties.
- 7.2 The Employer reserves the right to grant its appointed agents the necessary rights to utilize these BIM Deliverables for the Project's objectives, including subsequent operation and maintenance of the Works, at his discretion.
- 7.3 To safeguard these rights and prevent unauthorized reproduction of underlying documentation, the transfer of BIM models, particularly those containing detailed plan representations, may be subject to specific conditions, such as the removal of certain graphical elements prior to broader distribution.



8. BIM EXCHANGE FORMATS AND SOFTWARE APPLICATIONS

This section defines the agreed-upon BIM exchange formats, data transfer protocols, and the software applications to be utilized throughout the project lifecycle. These provisions ensure seamless interoperability, efficient data exchange, and adherence to project requirements.

8.1 Data Exchange protocols and Formats.

BIM exchange formats and associated protocols shall be developed, agreed upon by all collaborating parties, and formally documented within this BIM Execution Plan. Released Models submitted at various stages of project development or upon Employer request shall be available in formats suitable for their specified purpose.

Data transfer to the Employer, specialized consultants (e.g., fire protection, traffic planners), and executing companies will follow defined handover procedures as outlined below:

Data Type		Internal Transfer (e.g., Arch/Struc/MEP)	External Transfer (to Client, Other Planners, Executing Firms)
Design Team (Arch + Stru)	Model	Models live linked, no separate exchange required	IFC, RVT
	2D-CAD		PDF
	Communication	BCF	PDF, BCF
Design Team (MEP)	Model	Models live linked, no separate exchange required	IFC, RVT
	2D-CAD		PDF
	Communication	BCF	PDF, BCF
Other Planners / Executing Firms	Model	IFC, RVT	IFC, RVT
	2D-CAD	DWG, PDF	DWG, PDF
	Communication	PDF, BCF	PDF, BCF



8.2 Software Applications and Requirements

All BIM authoring, detailing, and coordination software applications used on this project shall meet the following criteria:

- Be IFC-certified by buildingSMART
- Comply with BCA BIM e-submission guidelines and requirements, and possess a track record of successful full.cycle BIM e-submission for new construction projects
- Be fit for purpose and seamlessly interoperable with commercially available coordination software applications.
- BIM coordination applications shall specifically support the prevailing version of the Industry Foundation Class (IFC) file format.

The primary BIM authoring software is Autodesk Revit (as specified in Section 3.2). For various BIM outcomes, the following software and versions are proposed:

BIM Outcome	Software	Version
Design Model Authoring	Revit	Per Year (latest stable version)
	OpenBuildings	Connect 8
Model Coordination & Collaboration	Navisworks	Per Year (latest stable version)
	BIM Collaborate	Latest version (via ACC)
	BIM Collaborate Pro	Latest version (via ACC)
	iTwin Design Review	Connect 8
	Design Review	Latest version (via ACC)
Specialized BIM Processes	4D BIM	Synchro 4D (6.5.4)
	Document Transmittal	ProjectWise (2023)
	ConstructionScheduling	Primavera 6 (P6)
	2D Drafting & Detailing	Autocad

All BIM software applications and their respective versions to be used for the Project shall be consensually agreed upon by the parties contributing to the Released Models and proposed in this BIM Execution Plan for the Employer's approval prior to project commencement.



8.3 Common Data Environment (CDE) and Cloud Services

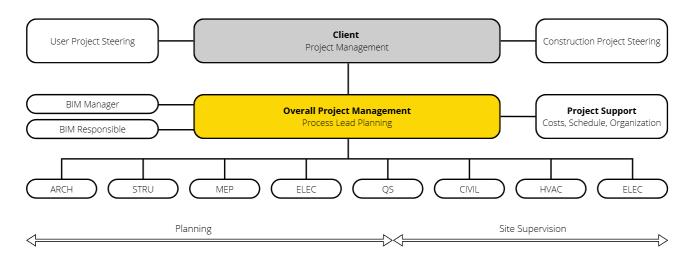
The project will utilize Autodesk Construction Cloud (ACC) as its primary CDE and collaboration platform, as introduced in Section 3.2. When employing any cloud services for data storage or exchange, these services are selected based on recognized information security certifications and established data management agreements. The extent of data permissible for exchange within such frameworks shall be mutually agreed upon and documented between the Employer and the Project Team.

9. BIM OBJECTIVE & RESPONSIBILITY MATRIX

For BIM-supported collaboration, project roles and their responsibilities will be defined at the project's commencement and updated during execution. The primary objective of these definitions is to ensure seamless digital collaboration and maintain high quality for both data and geometry models.

9.1 Project Organization Chart

The following organization chart serves to illustrate the performance relationships between the BIM project participants:



9.2 BIM Related Roles and Responsibilities

All project participants are assigned BIM-relevant coordination and project planning tasks. The names and contact details of individual persons will be recorded as needed during project execution and maintained in a dedicated project contact list (e.g., within the Common Data Environment).

The key task areas and scopes of service for the primary BIM-related roles are described below:



9.2.1 BIM Manager

The BIM Manager oversees and strategically manages all projects at a location and provides operational support to the Model Responsible persons in individual projects when necessary. They are responsible for setting up projects and additionally support the Model Responsible in drafting the BIM Execution Plan.

9.2.2 Model Responsible (BIM Lead Coordination Planning)

The BIM Lead Coordinator Planning is responsible for coordinating the involved specialist planners within the project and integrating their BIM discipline models. Within the group, this role is usually filled by the so-called "Model Responsible" and technically supported by the site's BIM Manager.

9.3 BIM Objective and Deliverable Responsibility Matrix

This matrix outlines the core BIM objectives for each project phase, the expected deliverables, and the primary project members responsible for their authorship (A) or utilization (U). This provides a clear framework for accountability and collaboration across the project lifecycle.

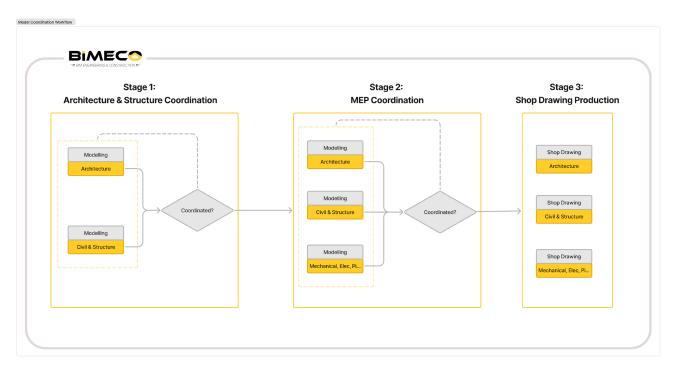
Project Phase	BIM Objective	Key Deliverables	Primary Responsible Party (A) / Key User Parties (U)
Concept Design	Define project goals & conceptual BIM uses	Draft BEP, Agreed BIM Use Cases.	A: All Project Members / U: All Project Members
	Develop preliminary models for visualization & analysis	Concept Models (Arch, Struc, MEP)	A: Discipline Leads (Arch, Struc, MEP) / U: All others
Schematic Design /	Produce detailed design	Schematic/Detailed Design	A: Discipline Leads
Detailed Design	models	Models (Arch, Struc, MEP).	/ U: All others
	Implement multi disciplinary coordination & clash detection.	Coordinated Models, Clash Detection Reports	A: BIM Lead Coordinator, Discipline BIM Leads / U: All disciplines
	Generate cost estimates & BoQ from models	Preliminary/Detailed Cost Estimates, Bills of Quantities	A: QS / Cost Consultant / U: Design Disciplines
Tender & Construction Documentation	Finalize models for tender & construction documentation	Tender Models (Arch, Struc, MEP), Final Coordination Reports	A: Design Discipline Leads / U: All others



			A. Dasieus
Prod	Produce 2D drawings from BIM models.	Coordinated 2D Drawings (CSD, CBP, etc.)	A: Design
			Discipline Leads /
			U: All others
	Update models with construction changes &	Construction Progress Models, Fabrication Models (if applicable)	A: Main
Construction			Contractor / U :
	integrate fabrication	r delicentent (ii depiredicio)	Consultants
	 Generate material		A: Main
	schedules & quantities for	Material Schedules, Quantity	Contractor / U :
		Reports	Project
	logistics		Management, QS
	Implement site-specific planning using BIM		A: Main
		Site Logistic Models	Contractor / U :
			Project
			Management, Site
			Teams
	Prepare final As-Built models	As-Built Models (Arch, Struc, MEP)	A: Main
Handover / As-Built			Contractor / U :
			Consultants
	Confirm As-Built model accuracy	As-Built Model Validation Report	A: Main
			Contractor / U :
			Consultants,
			Employer
	Integrate O&M info for		A: Main
	Facility Management (if	FM-ready As-Built Model	Contractor / U :
	required)		Facility Manager

10. MODELLING GUIDELINES





3-Stage Development of Coordinated BIM Model & Drawings

This section defines the fundamental principles and technical guidelines for BIM model development throughout the project. These guidelines aim to ensure consistency, quality, and interoperability across all discipline models. More detailed, software-specific guidelines, exhaustive naming conventions, and extensive lookup tables are provided in **Appendix C: Detailed Modelling Guidelines**

10.1 General Modelling Principles & Quality

All Building Information Models will be developed based on virtual building data models, with elements modeled according to their size, shape, location, orientation and quantity. Element properties will progress from generic and approximate in early stages to more specific and accurate as the project develops.

- BIM elements and their geometric and non-geometric properties shall be developed to a Level of Development (LoD) that is fit for the purpose of the BIM objectives, as referenced in Appendix B: Level of Geometry (LoG) Matrix and the Singapore BIM Guide Appendix C: BIM Modelling Guidelines.
- Clear modeling fundamentals, guidelines, and quality control plans are established to ensure the quality of all models.
- All models shall be created in millimeters (mm) to a 1-to-1 scale, with meters used for all models except MEP, which will use millimeters.

10.2 Model Structure and Naming Conventions



 Sub-Model Structure: The project shall be divided into discipline-specific or combined sub-models, such as Architecture + Structural, HVAC + Electrical, Outside Facilities, DWG data, and Site Coordination.

Building Code	Descriptions
SITE	Site-wide
ARCH	Architectural scope
STRU	Structural scope
ACMV	Mechanical and Plumbing
ELEC	Electrical
CCSM	Combined services model
LNSP	Landscape scope
THEM	Theming scope
EXTW	External work (access road, drainage, etc)

• **File Naming Convention:** File names will follow a structured approach, typically incorporating Project Code, Originator Code, Discipline, Revit Version, Model Status.

Example:

- o Project Code: BER (BERNAM Building)
- Originator Code: HOR (Horsol Switz Engineering Asia Pte Ltd)
- Discipline: ARCH (Architecture)
- Revit Version R20 (Revit 2020)
- Model Status: FREEZE / WIP
 - **FREEZE:** Denotes a finalized or locked version of the model, typically prepared for a milestone submission, handover or archiving
 - **WIP:** Denotes "Work In Progress", indicating a model that is actively being developed and is subject to ongoing changes.

BER_HOR_ARCH_R20_FREEZE.rvt



• Workset Strategy: Worksets shall be established and elements assigned based on

Workset	System Type		
	Supply Air Duct	:	SAD
	Return Air Duct	•	RAD
	Exhaust Air Duct	:	EAD
	Fresh Air Duct	:	FAD
	Pressurised Air Duct	:	PAD
	Toilet Exhaust Duct	:	TED
	Kitchen Exhaust Duct	:	KED
ACMV	Engr'g Smoke Ctrl Sys	:	ESCS
	Smoke Purging Fresh Air	:	SPFA
	Chilled Water Pipe (Supply)	:	CHW-S
	Chilled Water Pipe (Return)	:	CHW-R
	Condensate Drain Pipe	:	CDP
	Local Motorised Control Panel	:	LMCP
	Bldg Mngt Sys	:	BMS-
	Temp Chiller	:	CHIL
	Plumbing		PLUM
PSG-	Sanitary	:	SANI
130-	Gas	•	GAS-
	- Cus		
	Sprinkler System (Wet)	:	SP-W
FIRE	Sprinkler Sys (Pre-Action)	:	SP-P
	Wet Riser	:	WET-R
	Dry Riser	:	DRY-R
RWDP	Rain Water Down Pipe		

Workset	System Type		
	Electrical (N)	:	ELEC-N
ELECT	Electrical (E)	:	ELEC-E
	MATV / CATC	:	MATV
	PWD Intercom	:	EPWD
	Public Announcement	:	PUBA
	Carpark Guidance Sys	:	CARP



	Integrated Security Sys	:	SECU
	CCTV Sys	:	CCTV
	Card Access Sys	:	CARD
	Intrusion Detection Sys		ITRU
	Security Network Sys	:	SECN
	,	:	INTE
	, ,	:	KEYM
	Wireless UHF Radio Communication Sys		UHFR
	UPS for Security	:	UPSS
	Security Console	:	SECC
	Guard Tour Sys	:	TOUR
	,	:	PMS-
	Diesel Piping	:	DSEL
	IT Infrastructure	:	ITIN
		:	LIGT
	Lightning Protection System	:	LNIN
	Fuel Storage	:	FUEL
	Audio Visual	:	AUVI
	Singapore Cable Vision	:	SCV-
ADIW	Auto Drip Irrigation Works		
	Reverse Osmosis De-ionized Water		
PURI	Purification System		
WAFE	Water Features		
LIFT	Lift & Escalator		
SIGN	Signage Specialist		
IDWK	Interior Design Works		
KITC	-		
	Kitchen Specialist		
FACE	Building Façade Specialist		
PCPN	PC Panel		
SYSF	System Furniture		
STEE	Steel Structure Specialist		
BMU-	Building Maintenance Systems		

Worksets are a critical tool for multi-user collaboration, allowing multiple users to simultaneously work on a model file through the use of a central file and synchronized local copies. When properly utilized, worksets can significantly improve efficiency and effectiveness on large and multi-user projects. Appropriate worksets shall be established, and elements assigned, either individually or by category, location, or task allocation.



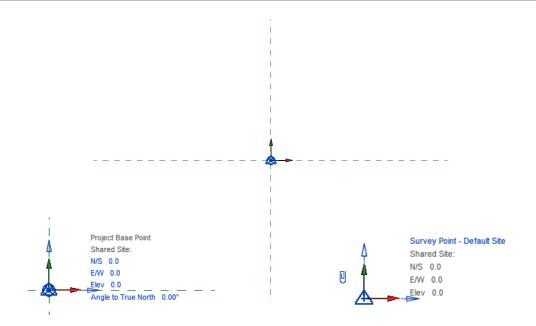
10.3 Coordinate System and Levels

A unified and consistent coordinate system is critical for model accuracy and interoperability across all disciplines, ensuring that all models align precisely in a shared digital space.

- Project Origin and Survey Point: A manually defined Project Base Point, typically established by the Architectural discipline, will serve as the unified project origin. Its coordinates will be derived from the surveyor-provided cadastral file and assigned to all sub-models via the site-wide coordination model (GES-Model) to ensure consistent geographical positioning and orientation.
 This Project Base Point shall remain fixed and must not be changed by any project participant.
 Furthermore, a physical object will be placed at this Project Base Point to facilitate an efficient verification of the alignment and position accuracy of individual sub-models.
 - Project Base Point and Survey Point Settings Example:
 Survey point and project base point shall be set as follows:

+	Survey Point	Project Base Point	Project Base Point
N/S	0.0	Example: 28460304.000	Example: 28460304.000
E/W	0.0	Example: 29197250.000	Example: 29197250.000
Elev	0.0	Example: 104300.000	Level 1 FFL
Share Sites			
Remarks	All Revit files	Site wide Revit files	Individual Building, Revit files





- Level Nomenclatures: To ensure cross-platform consistency, each floor will utilize a minimum of the following standard levels, with precise naming conventions established at project commencement:
 - **FFL (Finished Floor Level):** This serves as the finished floor boundary and the primary reference level in all models. It defines the top surface of the finished floor.
 - **SFL (Structural Floor Level):** This defines the top of the structural slab or floor, used for structural and building services coordination.
 - SBL (Structural Bottom Level): This defines the bottom of the structural slab or the lowest point
 of structural elements, used for vertical clearance and services routing.
- **Grid System:** The definitions for the project's axis grids will be established at the project's outset, providing a common framework for all modeling activities. Generally, the following naming conventions will be applied:
 - Axes in the Project's X-direction: Alphanumeric (e.g., A, B, C, etc.)
 - Axes in the Project's Y-direction: Numeric (e.g., 1, 2, 3, etc.)

10.4 Software-Specific Guidelines

General modeling rules will govern element creation regarding representation, feature attributes, and annotation to ensure a unified and consistent logic across all BIM models. Interoperability and accurate model linking are paramount for collaborative workflows.

Model Linking and Coordination: When linking Revit files, it is mandatory to use the "Auto - By Shared
Coordinates" option to ensure precise spatial alignment and consistency across all federated
models. For multi-user collaboration, all participants shall work on a local file created from a central
model file, synchronizing changes regularly.



• **Quality Control Practices:** Each discipline is responsible for applying program-internal quality measures during modeling to maintain data integrity and model performance.

For comprehensive and detailed software-specific guidelines, including specific view organization setups, 4D sequence integration, graphic overrides (e.g., insulation transparency, line weights, color coding), phasing management, and specific quality control checks, refer to **Appendix C: Detailed Modelling Guidelines.**

10.5 Appendixes

- Appendix A: BIM-Relevant Use Cases
- Appendix B: Level of Geometry Matrix
- Appendix C: Detailed Modelling Guidelines

