

2 Project Goals / BIM Uses

2.1 Major BIM Goals / Objectives

Goal Description: As the Owner is not planning to use BIM during the operational phase of the facility, the construction team can identify and limit their effort to BIM uses that will provide direct benefits during construction of the store.



As the BIM champion on this project, the Construction Manager (CM) immediately identifies their business needs to keep the project on time and budget as key goals. The remaining goals identified already have non-BIM processes to support them but should still be reviewed at this stage.



Priority	Goal Description (Value Add)	Poten
	Ensure construction stays on time	
	Ensure construction stays on budget	
	Ensure quality targets	
	Identify cost savings opportunities	
	Simplify handover	



Challenge: Identifying goals beyond the immediate project commitments can be difficult. One potential approach is to look at existing practices for instances where having a digital model can reduce or eliminate work, costs or time required.

Priority	Goal Description (Value Add)
High	Ensure construction stays on time
High	Ensure construction stays on budget
Medium	Ensure quality targets
Low	Identify cost savings opportunities
Low	Simplify handover

Priority: The first two goals are high priority as they directly pertain to satisfying the CM's project contract requirements.

It is more difficult to assign a priority to the remaining goals without thorough consideration of the expected benefits.

When used right, BIM use has a good record in delivering higher quality products and this blends well with the corporate goals leading to a medium priority rating. Cost savings and handover goals are less likely to yield significant benefits given the design phase is past and client has not expressed interest in handover models.



Priority	Goal Description (Value Add)	Potential BIM Uses
High	Ensure construction stays on time	Site Utilisation Planning, 4D Modeling, Existing Conditions Modeling
High	Ensure construction stays on budget	3D Coordination, 4D Modeling
Medium	Ensure quality targets	
Low	Identify cost savings opportunities	Digital Fabrication, 3D Coordination, Record Modeling
Low	Simplify handover	Digital Fabrication, 3D Coordination Record Modeling



Potential BIM Uses: Picking goals **before** specific BIM uses serves to ensure modeling efforts are driven by business or project level objectives with tangible benefits.



9 Technology Requirements

The Construction Manager works with Autodesk® products, in particular in this project, [REDACTED]. The CM will build a model of the project for architectural and civil elements in [REDACTED]. The CM will also import BIM models delivered by the Concrete Contractor in Revit® format and import [REDACTED] models exported from [REDACTED] by the Steel and other structural Fabricators. Integrated models will be used by the CM for the purpose of validating constructability and project scheduling.

If, for any reason, other modeling packages are required they must be compatible with [REDACTED]

9.1 Software

The table below summarizes the planned use of BIM capable software by the project team. Upgrades to the accepted software for the project may happen if all parties involved agree.

BIM Use	Discipline	Software (and version)
Design Validation	CM – Architectural	[REDACTED]
Design Validation	CM – Civil	[REDACTED]
Design Authoring and Validation	Concrete	[REDACTED]
Fabrication Design	Steel Structural and Glulam Structure	[REDACTED]
Design Review and Scheduling	CM	[REDACTED]
3D Design Coordination	CM	[REDACTED]

9.2 Hardware

Stakeholders are responsible for setting their own hardware requirements or standards

At the worksite, the CM will provide one workstation for model review. The workstation will have the following capabilities: 2.5 MHz 64 bit Dual Core Processor, 8 GB RAM Windows 7.

9.3 Modeling Content and Reference Information

BIM Use	Discipline (If Applicable)	Modeling Content / Reference Information	Version
Design Authoring	Arch	AIA Architectural Graphics Standards	11 th Edition (2007)
Structural Design	Structural Engineer	AISC Shapes Database	V14.0 (2013)
Virtual Construction / Model Authoring		National BIM Standard - United States™ Version 2 Minimum BIM Standard	December 2007 Edition with May 2012 Revisions