In recent years, BIM has proven its benefits in handling design conflicts and project workability for complex projects. In addition to these complex and huge projects, there are lots of smaller projects that still are having problem to deal with reworks and cost overruns. Knowing that most construction projects issued by the clients are less than $5M in their budgets, one may be wondering what benefits the clients can gain from applying BIM to their construction projects.

The main objective of this research is to investigate the benefits of applying BIM to construction projects with less than $5M, the White Rock Library is selected, which is a $4.2M project. To apply this research topic to the project the following steps have been taken so far:

1. Visiting the job-site for several times during the construction period;
2. Taking photos from conflicts in project process in job-site, esp. clashes between MEP and structure of the project;
3. Building 3D MEP model based on latest MEP drawings handed by the subcontractor in Autodesk® Revit® MEP;
4. Receiving architectural and structural model from the contractor and combining them by created MEP model;
5. Running clash detection in Autodesk® Navisworks® between model and providing the list of important clashes between them (esp. between MEP and structure);
6. Matching the real world clashes captured in job-site during construction and by those detected in the software;
7. Determining the cost range of solving clashes by performing interviews with 7 experts in construction projects.

Right now, all the above mentioned steps have been taken. By gathering data from those interviews, the research has shown the range of costs that could be saved in case the clashes were detected before getting into the job-site.

The calculations showed that the estimation for the cost of those 10 clashes ranges between $12,000 to $62,500.

For the selected project which had the total budget of $4.2M this range in almost equal to 0.3% up to 1.5% of the total project cost, which is only based on 10 clashes. This result shows the importance of using BIM (even only clash detection) in small size projects.