



DP20658

# Organizing the chaos: How to create and implement a BIM strategic plan for your company.

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## Learning Objectives

- Learn how to identify, organize and report on your Company Revit improvement goals
- Learn and understand what a roadmap for developing and improving Revit standards is and how to measure staff compliance
- Take home ideas for providing just in time training solutions to staff.
- Learn methods for improving documentation quality and continual improvement of office standards.

## Description

This class will present a real world experience of writing a BIM strategic plan for an office. A BIM strategic plan is organizing a 3 year blueprint for all things related to BIM and Revit from drafting to analysis. The plan identifies office operation areas that need improvement and outlining new software avenues to explore. Specific tasks that need to occur with an office operations of designing and drafting a building are listed and categorized. We will go through the process of creating the plan including goals and action plans. Implementing and revising the plan will also be discussed along with successes and lessons learned.

## Your MSF Forum Expert(s)

Manda Magee has over 16 years' experience in the HVAC building industry. She started using Revit in 2001 and hasn't stopped, working on a variety of projects from university work to lab design. She has presented at a number of different venues from ASHRAE and USGBC events to conferences. As a project manager she has both the users and managers perspective with her Revit experience. In her early years, she taught as an adjunct professor at GVSU from 2000 to 2006 teaching ProE.



## Company History and Previous Experience

WSP | Parsons Brinckerhoff has offices throughout the world, with 19 offices in the US alone. Some of these offices have been acquired so they have different operating standards. The challenge is getting all of these offices on the same platform. This has been done historically with a network of CAD / BIM managers and a working group called the BIM process group made of users tasked with defining standards. A national Level of Development documents and BIM Execution Plans were created from the Managers. The BIM Process group created a national shared parameters file and project template but it was slow to create. Members lost traction after 2 years.

## Global Strategic Plan

A global strategic plan was created through a brainstorming session from top managers. The following 5 goals were determined as priority:

Goal A – EDUCATE Staff of Programs

Goal B – PROMOTE the use of Revit and BIM both internally and externally

Goal C – DEVELOP content for Revit and other programs

Goal D – Improve documentation QUALITY

Goal E – Upper management and staff to provide SUPPORT for the strategic plan

With reviewing of the global strategic plan, the goals were in line with what we wanted to accomplish as a company, but the specific tasks outlined were behind where our local office was operating at. A revised strategic plan with a local office focus was required, one in which Educate, Develop and Quality were the main focus.

## Brainstorming and Writing of the Plan

Two days were devoted to the brainstorming for the revised plan. It included 3 hours each day consisting of users from all trades along with some senior staff. At the beginning of the effort, an inspiration icon was required to help keep momentum and energy up in the group. Whenever I would discuss Revit Standards or improving our Revit Process, it was described to me as a, “black hole that will suck everything and everyone in it.” It turns out that the light from a neutron star as enough velocity to escape a black hole. So we used the neutron star as our mascot.

### Day 1

The committee split into three groups assigned to one of the three goals to be outlined, Educate, Develop and Quality. The subgroups added content on post-it notes that was to be included. The main rule of thumb is only one idea per post-it with no AND / OR's allowed. The brainstorm was accompanied with probing questions to keep the discussion going. The post-its were then organized into general tasks and prioritized. Some post-its were moved to different goals and duplicates were removed. Once each subgroup was done, we presented to the group as a whole to validate and provide consensus.



## Day 2

The content from Day 1 was typed up onto large poster paper. Day 2 was dedicated to assigning time frame for completion with 6 month, 1 year and 3 year milestones. Some edits were made as well with reprioritizing some of the content and shifting tasks between goals. The outcome was the outline of our strategic plan which was then provided as a form of Meeting Minutes to upper management and department heads for review.

## Writing the Plan

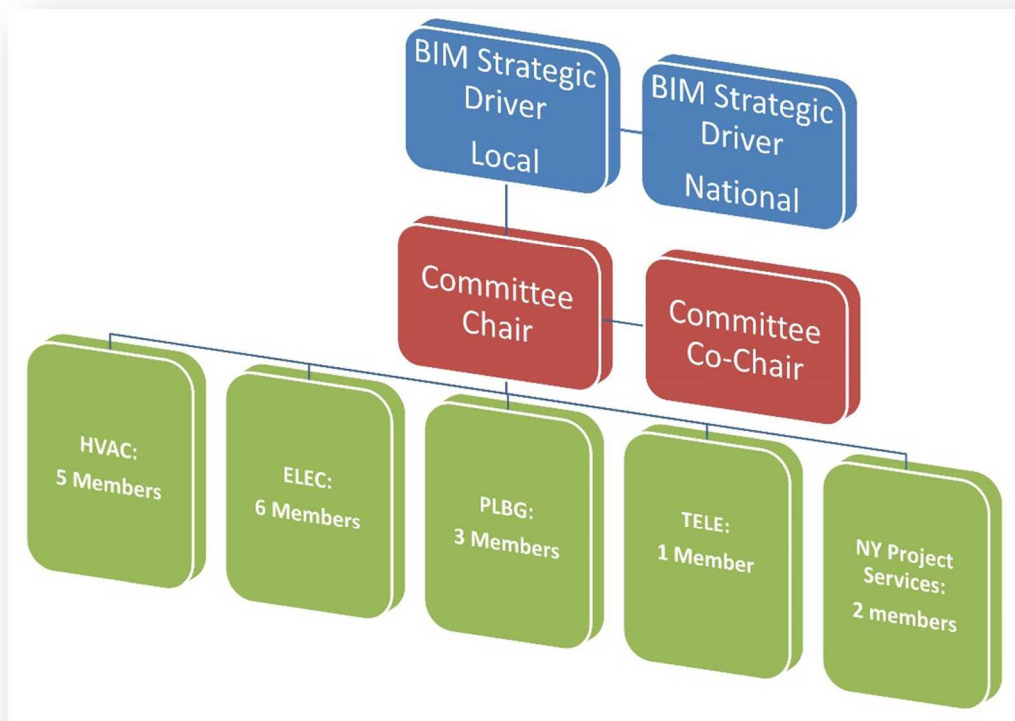
Each goal was assigned a champion from the committee to formally write up content for the final strategic plan. The tasks were provided in a spreadsheet format with the time frames assigned to keep tracking in the future easier. The committee chair was assigned to writing the executive summary and introduction to the strategic plan. An action plan template was created for each of the tasks to organize specific steps to completion. In addition, the sub-committee chairs were instructed to watch overlap between the different groups. Content can bleed from develop to quality to educate, and we didn't want to be working on the same thing.

There were rounds of review between selected staff members fluent in Revit and department heads. All comments were documented and responded to formally. A common theme was to complete items sooner, the 3 year milestone was too long for some items.

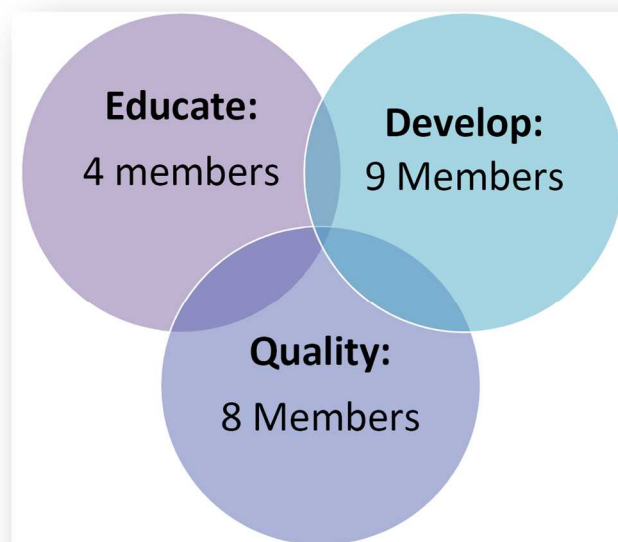
## Implementation and Maintenance

Once the plan was completed, the document was rolled out to the staff both via email and presentations. In addition, the plan was provided to the National Committee. Regular emails are scheduled to the staff on revisions / updated content with training sessions scheduled to emphasize the information. In addition, developed content is included in a published BIM binder to be maintained. Bi-weekly meetings are held with the committee, alternating between sub-committee working session and all members reporting session. A presentation to the department heads are provided every three weeks. Meeting minutes are important to keep track of decisions.

After one year of operation, the progress was slower than originally outlined. Not all tasks could be completed with-in the 6-months / 1-year time groups. New members are rotated into the committee every year to keep new blood and excitement into the group. We've also reallocated members in the committee, provided more emphasis to educate based on feedback from the office and department heads. The overall intent is to keep the content fun. Refer to the images on the next page on how the Strategic Plan committee was organized.



COMMITTEE STRUCTURE



SUB-COMMITTEE STRUCTURE



## **Training Platforms and Corporate Connection**

Staff training requires multiple platforms to get content across. We have an on-line training assessment which creates a list of training video modules based on your specific knowledge. Regular meetings with staff on office processes are required. In addition, a weeklong training group of new upcoming features and topics that push the use of the program. We continually have to emphasize to the staff and supervisors to make time for training. Which is not easy to do with deadlines.

### **Weeklong training session “BIMco de Mayo”**

The first week in May (during Cinco de Mayo) is dedicated to training on specific software content. One hour lunch time sessions were provided dedicated to analysis content and features that are new with the program the staff might not be presently using. The atmosphere was kept fun with the theme. Below is the general schedule our office created:

- Day 1: Smart scheduling
- Day 2: Mechanical duct pressure loss analysis
- Day 3: Plumbing fixture analysis
- Day 4: Electrical panel schedules
- Day 5: Trade coordination

The sessions were very successful, with standing room in the back for attendance. Feedback from the staff was that it was useful and some of the content presented would be implemented in their daily operations.

### **The Corporate Connection**

The content created thus far was local in focus with reporting to national on our activities. Our company has a National BIM Champion organizing the different groups in each office with regular meetings. The intent is that content to be developed will be coordinated between the offices. Leadership support is necessary to make any progress on the strategic plan.

## **Autodesk Review**

After one year of committee operations, Autodesk provided our office with a Revit MEP assessment. A report commentary was generated with a similar outline to our strategic plan. The assessment identified that more emphasis should be placed on implementation of the strategic plan. The priority list provided by Autodesk was in a different order than what the users created. There was more of an emphasis on workflow diagrams and formal documentation. For example, level of development and BIM execution plans to be revised. This was a helpful exercise and further validated the strategic plan.

### **Project Audits**

Project audits were conducted for three large scale projects. The models were compared to our office standards and the industry standards. A list of improvements was generated.



## Next Steps and Lessons Learned

### Next Steps

The next steps for our office are to update the strategic plan with a revised time frames and cross out items that have been completed. We will be adding new content that has been discussion over the year's operations. In addition, new staff was included and allocated to different goals. There will be more of an emphasis on the educate goal. We originally only had 4 team members, which has been changed to 6. We will include a monthly meeting with the staff to report on the committee's activities. Each committee member will be in charge of one day to present on and items from the plan will be discussed. Maintaining a project template with the latest content from the committee. We will continue a regular email schedule for each sub-committee.

In order to confirm that staff are utilizing the new features and content that are developed by the committee, we are to create a check-list for project audits similar to the Autodesk review audits. We will schedule regular in-house audits of project. We are looking at adding it as an ISO QA process as part of our certification.

### Lessons Learned

- Regular presentations to department heads is key for maintaining momentum
- Project Template is a living item and should be updated continuously
- Each office will have slightly different operations, start with a baseline project template and allow the content to be revised by each office
- Continual Training on software is required for all staff members
- Set more realistic with time frame for completion for each task