

CS227204

Planning for BIM: Using Construction Schedules to Enhance the Coordination Process

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Learning Objectives

- Learn how to create a coordination schedule in BIM 360 Plan or Excel
- Learn how to collaborate with stakeholders to build your schedule
- Learn how to hold stakeholders accountable using the schedule
- Learn how to start implementing scheduling strategies within your organization

Description

Many BIM execution plans set good requirements for modeling and model management. However, many forget about managing the schedule. This session will focus on how to create and manage a detailed schedule. We will explore strategies and options for telling the BIM coordination story through the schedule using BIM 360 Plan and Microsoft Excel. We will also talk about applying the 6 Ps (Prior Proper Planning Prevents Poor Performance) and how to avoid creating lessons learned by managing the schedule.

Speaker

Nick Dyer received his Bachelor's Degree in Construction Management from Weber State University. He has been using Building Information Modeling (BIM) technology for the last 10 years and has been applying his knowledge in technology to both the design and construction sides of the industry. Currently, Nick works for Okland Construction as an Integrated Construction Manager working to expand and implement technology on the jobsite through the use of models and reality capture. He is also helping to support new talent in the industry as an adjunct professor at Weber State University and working with the local Revit Users Group. Pulling from experience on both sides of the industry, Nick is able to support the BIM process from design to project closeout.

Building your schedule

Similar to pull planning, the best strategy for planning BIM activities is to work backwards. The nice thing about BIM is that you are usually (and hopefully) not on the critical path for the master schedule. However, BIM information should be aiding activities that are on the critical path or have a high likelihood to become part of the critical path. Initially scheduling becomes easy because all you need to do is select the activities you want to have BIM influence and then count backwards from there, so you know when to start. Starting early is always a big factor in a successful BIM activity, whether it's a virtual mock up or for the entire coordination effort. For the purposes of this course, we will be diving deep into scheduling a coordination effort for a medical facility.

The Excel Spreadsheet Vs. BIM 360 Plan

When it comes to scheduling, the key is that you use a system that allows you can create and update schedules easily. It's also important that you can add activities later as well. I have chosen to look at using Excel, and BIM 360 Plan not because I think they are the best, but they are easily accessible. BIM 360 Plan can be accessed by anybody who has access to the BIM 360 suite from Autodesk, and just about everybody has access to Excel. Scheduling principals stay constant no matter what software you use, you could choose to use P6 or Microsoft Project.

Our example project

For this class, we are going to work through scheduling a 2-story medical facility with a mechanical penthouse. Since this is medical facility, we know we need a high level of detail/development (LOD) in order to reliably coordinate the space. We are also going to assume that the design team will be providing us models, but that due to fee constraints there was not an official design coordination phase.

Scheduling Stages

It might seem like common sense that each part of the coordination effort happens in sequence. However, in order to show a proper amount of detail, sometimes it feels like we need to over communicate. Since we have broken down the process into stages, they become much easier to schedule. For instance, if we say we need 6 weeks for the coordination effort of level 1, that's not very descriptive. But if we say we need 1 week for submittals, 2 weeks for content modeling, and 3 weeks for coordination, we still get to 6 weeks total for the coordination effort, but now it looks more legitimate. There are a lot of ways to break down the coordination effort, we are going to talk about just one of those ways.

Starting to build our schedule

In the additional files for this class, you can find a template of the Excel spreadsheet we will be using in this class so you can follow along. Unfortunately, there is a not a good way to allow access to BIM 360 Plan, but we will demonstrate during the class.

We need to work backwards so we know when our start date should be, for the intent of this activity, we are going to break the work down by floor and then stage. We are also going to consider our end date to be 7 calendar days before the pour of the level above. For instance,

we need to have coordination done for hanger rods to be dropped from the level 2 deck for level 1 rough installation. So, the construction ready date for level 1 is 7 calendar days before the deck pour of level 2. This gives the MEPF trades 7 calendar days to drop rods before the level 2 deck is covered in concrete.

Looking at the master schedule for the project, it looks like we need to have these dates as our end date:

- Level 2 Slab Pour – 1/4/19
- Penthouse Slab Pour – 1/11/19
- Roof Slab Pour – 1/18/19

In Excel, we enter these dates into the construction start line. Then, because we need to finish all coordination activities for this level 7 calendar days before this date, we need to place a 7 in the days column next to the construction start. In Excel, a simple data formula will then give us the latest date we can finish all coordination activities this level. As we work through the excel spreadsheet, this is how we will edit an activity's durations.

Ready for Const. Start	Days	Construction Start
12/28/2018	7	1/4/2019
1/4/2019	7	1/11/2019
1/11/2019	7	1/18/2019

In BIM 360 Plan, you need to add new activities for the slab pours. Then, add a Construction Ready activity with a duration of 7 days. Next, add a future handoff to the construction ready activity and tie it to each respective slab pour. This will create an FS relationship between activities. As we work through BIM 360 Plan, this is how we will add activities, durations, and relationships.

Fill out this information for the start date of the slab pour

Add new activities

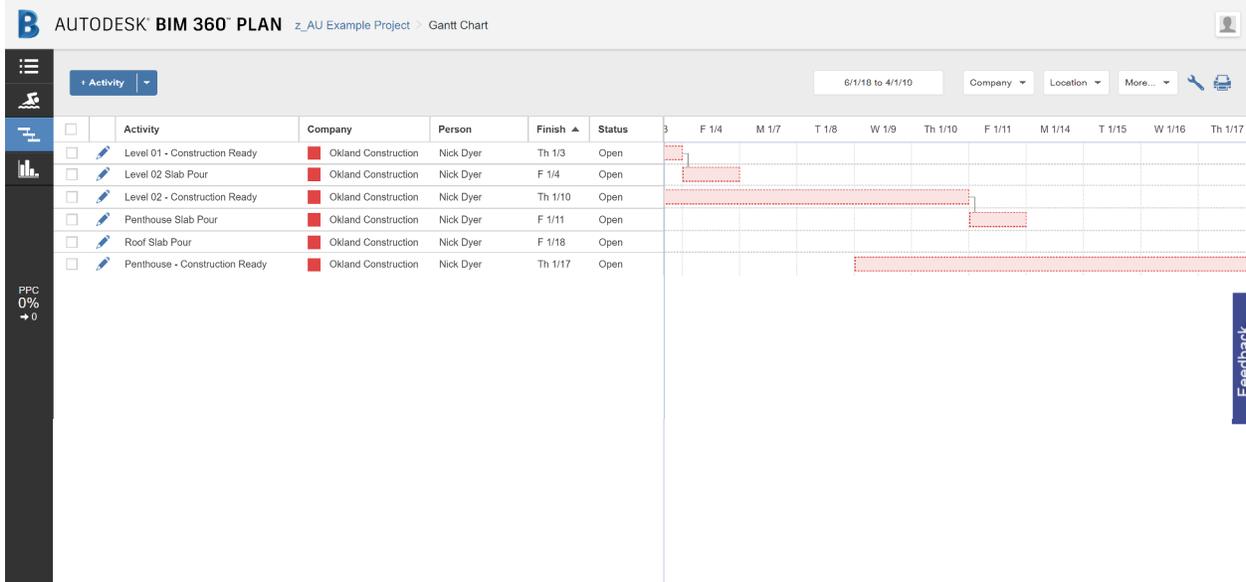
Create a construction ready activity

Add new activities

Add the slab pour of your respective floors.

Add a future handoff, this will create a FS relationship

Finish	Activity	Company	Location
<input checked="" type="checkbox"/>	F 1/4 Lower Level 02 Slab...	Okland ...	
<input type="checkbox"/>	F 1/11 Lower Level 01 Slab...	Okland ...	
<input type="checkbox"/>	F 1/18 Level 01 Slab Pour	Okland ...	
<input type="checkbox"/>	F 1/25 Level 02 Slab Pour	Okland ...	
<input type="checkbox"/>	F 2/1 Level 03 Slab Pour	Okland ...	
<input type="checkbox"/>	F 2/8 Level 04 Slab Pour	Okland ...	
<input type="checkbox"/>	F 2/15 Level 05 Slab Pour	Okland ...	
<input type="checkbox"/>	F 2/22 Penthouse Slab Pc	Okland ...	
<input type="checkbox"/>	F 3/1 Roof Slab Pour	Okland ...	



Construction Ready Vs. Construction Start

Working backwards, we need to be ready to start construction 7 days before the slab pour. Really, we could play semantics about this, but what's important is the distinction that rods can start on a certain date (in this case 7 calendar days before the slab pour) and the slab pour has a specific date.

Shop Drawing process

We need to account for the amount of time it takes to create shop drawings. Shop drawings have to be created, reviewed by the general contractor, and then submitted to the design team for review. Shop drawings are then used to pre-fabricate portions of the MEPF systems, order material, and are used in the field for installation. It's important to not cut this time out of the schedule as it's critical to making sure everything shows up on the jobsite. We have talked with the trade contractors and received the following durations.

- Duct 2 weeks
- Plumbing 2 weeks
- Electrical 1 week
- Fire Protection 2 weeks

Since most of the trades gave us 2 weeks, we will use this duration. We always want to use the longest duration given.

Shop Drawing Review time?

There are 2 parties who need to review shop drawings. The General Contractor and the Design Team. Usually, the GC review time can be pretty short. In this case assume 3 days. Contracts dictate a 3-week duration for the design team to review shop drawing submittals. Even though we can assume this is a worse case duration, it's the one we want to plan for.

Material Procurement?

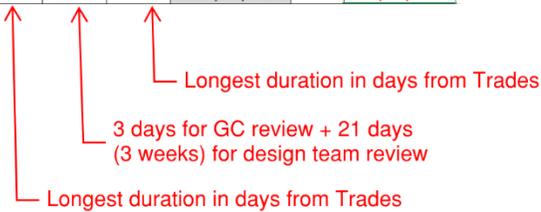
In this example, we have discussed with our trade contractors They have given us the following durations for material procurement:

- o Duct – 3 Weeks
- o Plumbing - 2 Weeks
- o Electrical – 1 Week
- o Fire Protection – 1 Week

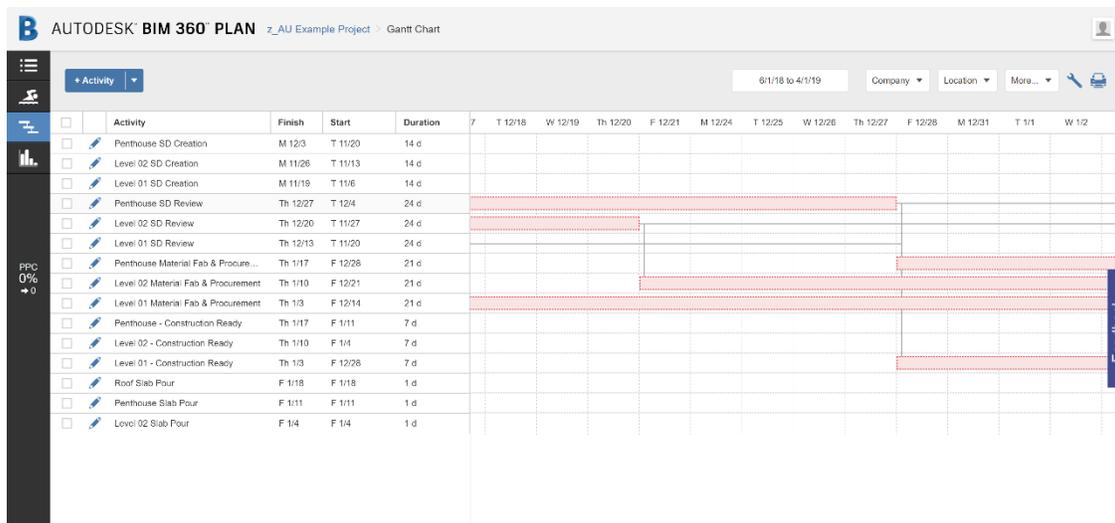
Since duct has the longest duration, we will use this one.

Since material can be fabricated and ordered while rods are dropped, we need to keep this activity concurrent and manually subtract a week out of the Excel spreadsheet. Making the duration 2 weeks instead of 3.

Shop Dwg Start	Shop Dwgs Finish	Days to generate SD	Shop Drawing Review Time	Material Fab & Procurement	Ready for Const. Start	Days	Construction Start
10/30/2018	11/13/2018	14	24	21	12/28/2018	7	1/4/2019
11/6/2018	11/20/2018	14	24	21	1/4/2019	7	1/11/2019
11/13/2018	11/27/2018	14	24	21	1/11/2019	7	1/18/2019



In BIM 360 Plan, we don't need to manually take the time out of the equation as material procurement will be tied to the construction start activity.



Model Sign-Off

The model sign-off is the point in the schedule when coordination activities officially end. Model sign-off is triggered by one of two events, schedule or the level is clash free. If the level is clash free, we just sign it off early. Since you can't schedule when the exact point of clash free will be, we schedule to our best ability.

In the Excel spreadsheet, the formula automatically places model sign-off the day before shop drawing creation starts. In BIM 360 Plan, we need to make an activity for model sign-off and tie it to the start of shop drawing creation.

Model Sign-off	Shop Dwg Start	Shop Dwgs Finish	Days to generate SD	Shop Drawing Review Time	Material Fab & Procurement	Ready for Const. Start	Days	Construction Start
10/29/2018	10/30/2018	11/13/2018	14	24	21	12/28/2018	7	1/4/2019
11/5/2018	11/6/2018	11/20/2018	14	24	21	1/4/2019	7	1/11/2019
11/12/2018	11/13/2018	11/27/2018	14	24	21	1/11/2019	7	1/18/2019

Coordination Phase

The coordination phase is the part of the process where we will be uploading models, and going the rounds with clashes. During this phase, it could mean 1 meeting per week or a meeting every day. It really doesn't matter how many meetings you hold during this period of time, as long it's no less than three. You need at least one initial meeting, one meeting to follow up on assignments, and one to sign-off the model. There is usually a lot of modeling and drafting that needs to be done during this period of time, so holding only 3 meetings over 3 is unreasonable unless you have a very low requirement for coordination. You should consult with your trade modelers before setting these times, but also consult your own historical data as well.

For a project like this, 3 weeks per level with 2 meetings per week would be a good place to start. In the Excel spreadsheet, you need to add the 21 days per level. In BIM 360 Plan you need to add an activity for each level.

Coord. Start	Coord. Finish	Days	Model Sign-off	Shop Dwg Start	Shop Dwgs Finish	Days to generate SD	Shop Drawing Review Time	Material Fab & Procurement	Ready for Const. Start	Days	Construction Start
10/7/2018	10/28/2018	21	10/29/2018	10/30/2018	11/13/2018	14	24	21	12/28/2018	7	1/4/2019
10/14/2018	11/4/2018	21	11/5/2018	11/6/2018	11/20/2018	14	24	21	1/4/2019	7	1/11/2019
10/21/2018	11/11/2018	21	11/12/2018	11/13/2018	11/27/2018	14	24	21	1/11/2019	7	1/18/2019

Initial Model Upload

This is the date that the initial upload for a level should be. The model they upload to you should meet all the guidelines for spelled out in your BIM execution plan. Usually try to get my trades to get everything except hangers into their models. Also, models should be clear of structure and architecture by the time we reach initial upload.

In the Excel spreadsheet, the formula automatically pushes this activity to the day before coordination begins. In BIM 360 Plan, you will need to create another activity before and tie it to the coordination activity for each level.

Model Upload	Coord. Start	Coord. Finish	Days	Model Sign-off	Shop Dwg Start	Shop Dwgs Finish	Days to generate SD	Shop Drawing Review Time	Material Fab & Procurement	Ready for Const. Start	Days	Construction Start
10/9/2018	10/7/2018	10/28/2018	21	10/29/2018	10/30/2018	11/13/2018	14	24	21	12/28/2018	7	1/4/2019
10/16/2018	10/14/2018	11/4/2018	21	11/5/2018	11/6/2018	11/20/2018	14	24	21	1/4/2019	7	1/11/2019
10/23/2018	10/21/2018	11/11/2018	21	11/12/2018	11/13/2018	11/27/2018	14	24	21	1/11/2019	7	1/18/2019

Content Modeling

This is the time the trades have to elevate their model from the content the design team provides up to the content and LOD required by the BIM execution plan. A lot of project teams have criticized this time because they feel like if the design team created a model, the trades should not need any time to elevate them. Design teams have a different goal than the construction team. Thus, their modeling requirements are different than ours, and it takes time to convert the model up to the standard we need for a typical coordination model.

You should review the designers' models and consult with your trade modelers as well to ensure you are providing enough time. There is always a balance between what is pushing too hard and what is too loose, but the time for this process will be different from project to project. For this project, we are going to add 2 weeks.

In the Excel spreadsheet, all you need to do add the days to the column and the dates automatically update. In BIM 360 Plan, you just need to create another new activity for each level and tie it to your initial model upload.

Content Modeling			BIM Coordination				Shop Drawing Process								
Start	Finish	Days	Model Upload	Coord. Start	Coord. Finish	Days	Model Sign-off	Shop Dwg Start	Shop Dwgs Finish	Days to generate SD	Shop Drawing Review Time	Material Fab & Procurement	Ready for Const. Start	Days	Construction Start
9/24/2018	10/8/2018	14	10/9/2018	10/7/2018	10/28/2018	21	10/29/2018	10/30/2018	11/13/2018	14	24	21	12/28/2018	7	1/4/2019
10/1/2018	10/15/2018	14	10/16/2018	10/14/2018	11/4/2018	21	11/5/2018	11/6/2018	11/20/2018	14	24	21	1/4/2019	7	1/11/2019
10/8/2018	10/22/2018	14	10/23/2018	10/21/2018	11/11/2018	21	11/12/2018	11/13/2018	11/27/2018	14	24	21	1/11/2019	7	1/18/2019

Submittals

In order for any model to be complete, we need a certain amount of submittals to be complete. This actually doesn't mean they need to be approved yet, but they do need to be compiled and submitted to the architect. This way, the trades can accurately model the equipment, light fixtures, etc. knowing that on most projects, they are going to be approved as noted. The individual trades need some time after they are hired to start compiling these submittals, and that is what this time is meant to represent.

Here we will assume that everybody needs 3-weeks to compile their submittals. In the excel spreadsheet, this is added in the column; in BIM 360 Plan, this is added as more activities tied to the content modeling activities. This now finishes out our schedule.

Level / Location	EQ Submittal		Content Modeling			Model Upload	BIM Coordination			Model Sign-off	Shop Drawing Process			Shop Drawing Review Time	Material Fab & Procurement	Ready for Const. Start	Days	Construction Start
	Submit Equipment Submittal	Days	Start	Finish	Days		Coord. Start	Coord. Finish	Days		Shop Dwg Start	Shop Dwgs Finish	Days to generate SD					
Level 01	9/3/2018	21	9/24/2018	10/8/2018	14	10/9/2018	10/28/2018	21	10/29/2018	10/30/2018	11/13/2018	14	24	21	12/28/2018	7	1/4/2019	
Level 02	9/10/2018	21	10/1/2018	10/15/2018	14	10/16/2018	10/14/2018	21	11/5/2018	11/6/2018	11/20/2018	14	24	21	1/4/2019	7	1/11/2019	
Penthouse	9/17/2018	21	10/8/2018	10/22/2018	14	10/23/2018	10/21/2018	21	11/12/2018	11/13/2018	11/27/2018	14	24	21	1/11/2019	7	1/18/2019	

Schedule Detail

At this point you might be asking a couple questions; why would you spend all the effort working in BIM 360 Plan when the spread sheet is so simple? Or, why would you use the spreadsheet when a software like BIM 360 Plan gives you so much flexibility to add detail to your schedule? Both questions are very appropriate as it depends on your project. Typically, I will use the spreadsheet when planning the project based on my experience with the trades and the type of building. Then create a schedule in a software like BIM 360 Plan, with more detail and leave that live throughout the coordination phase.

Everyone in one activity Vs. separate activities for each trade

One thing you might note in our schedules thus far is that we have grouped all of the coordination effort into single activities instead of one activity per trade. I know this goes against common scheduling practice, but if you were to split the schedule up by trade and level, you end up with a lot of concurrent activities for essentially the same thing. 3D coordination is an all-for-one type of activity, and my argument is to treat it as such within the schedule.

Phased Coordination Work

If you run your coordination effort in a phased method, it would be appropriate to schedule each trade as a separate activity. Your schedule should have a level of detail to ensure that each trade know which areas they should be working on and when.

Master Project Schedule

Some might ask, why not just put this level of detail into your master schedule? Depending on your company best practices, you can, and probably should. However, I take the approach that I should be keeping track of my own activities and what might be road blocks. A weekly schedule update meeting may be appropriate to keep the master schedule up to date, but you probably want a way to keep track of your schedule on a daily basis.

My suggestion is to create a separate schedule you can update regularly on your own. Then the master schedule should be updated at least once a week to reflect your schedule.

Collaborating with Stakeholders

There are a few ways to collaborate with stake holders for schedules. I am a big fan of having a pre-kickoff meeting. I typically will drive around to each of the trades offices and hold these meetings where they will be creating the model. This allows me to meet the modelers face to face, since most of our meetings will be held online, these types of interactions are rare and help kick things off on the right foot.

The Pre-Kickoff Meeting

The pre-kickoff meeting is a quick meeting to discuss just a few items with the trades before the kick-off meeting. If you have ever been blind-sided in a kickoff meeting, it means you have not done your due diligence in understanding your trades' portion of the work. These meetings can be fast, and a little informal. It just important that you hit the important items and you are prepared with an agenda.

The Agenda

- Proposed Schedule
 - You should already have a proposed coordination schedule put together before the meeting. Review the schedule with each of the trades and incorporate their concerns. This also give them time to evaluate if they have put enough modelers on the project.
- Submittals
 - Talk about the submittal that will affect coordination. The electrician may have parking lot light poles, but those types of submittals are of a lower concern to coordination, we want panels and light fixtures. Make sure priorities are being set based on the schedule.
- RFIs
 - Chances are that your trades have already submitted RFIs that have not been answered yet. Those RFIs are important to start tracking for coordination. Others may have different opinions, but any RFI that affects MEPF, structure, or architecture is a potential roadblock no matter who submits it.

The Kickoff Meeting

The kickoff meeting is again in person. This is a very formal meeting with as many people as possible in the same room. This allows for everybody to meet and see that there in fact is another person on the phone during the coordination meetings. As part of this meeting, you should have an agenda. The agenda will be different for each project, but at a minimum, you should hit these points:

- Proposed Schedule
 - Because you should have had a pre-kickoff meeting with each trade, this will show everything to date.
- Submittals
 - Talk about the key submittals from every trade
- RFIs

- Talk about all current RFIs. Just because the sheet metal trade submitted an RFI, it could have a domino effect and push around other systems as well.

The Coordination Meetings

The next meeting you will be collaborating with your trades who will be in your coordination meetings. Obviously, coordination meetings will primarily focus on coordination items, but they should also touch on, the following items. (by now you're seeing a pattern).

- Schedule Update
 - Review where you are in the timeline and make sure everybody is tracking their end dates.
- Submittals
 - Even though we can start coordination without approved submittals, we need to have those submittals approved or approved as noted before we sign-off any effected levels.
- RFIs
 - RFIs are potential roadblocks and plan changes. These need to be tracked throughout the entire coordination process and pushed hard.

Accountability

Since you are reviewing schedules with all coordination team members in every meeting, it should be almost automatic that people know what needs to be done and by when. They can then appropriately prioritize their efforts to meet schedule deadlines. However, we need to address red flags when they arise.

One big issue are trades falling behind. You can tell after about the 2nd or 3rd meeting. You might think, well they are falling behind, but they know they need to catch up and they will surely do what needs to happen, right? Assume Nothing. Maybe they have already addressed the issue, but sometimes only the modelers realize they are behind and not the trade project manager. You don't need to call out this type of issue in the meetings, but you do need to make a call after the meeting.

This example is just one of many red flags you could encounter. The take away is that no-one should be blind-sided by an issue. Those situations embarrass the trade, and make you look like an ass. And vice versa. The only way to hold everybody truly accountable and build a level of trust, where red flags are knocked down as fast as they popup, is to over communicate.

Road Block Vs. Schedule Delay

I don't care what you call it, if it prevents sign-off of a level, it's a schedule delay. However, BIM 360 Plan, and commonly used terminology will refer to these as roadblocks. Start keeping a roadblock log so you have an accounting of everything happening, and everything that has happened. As the BIM manager on the project, it is up to you to track these issues in your schedule. Let's work through an example

Example Road Block:

The design team placed an entire bathroom group over the top of your main electrical room. During coordination, it was determined that just adding drip pans under all pipes would be acceptable. A confirming RFI was sent in after the meeting to account for the decision. However, when the owner sees the decision they respond that it will not be acceptable and that all plumbing needs to be outside of the electrical room. This response creates a roadblock because we can't continue to coordinate the space because either the level above will be re-designed, or the level below will be re-designed. Either way, it's too many unknowns to responsibly continue coordination in this area till we have a clear path forward.

Since this is a big issue, it will surely delay the schedule. Whether you are use Excel spreadsheet or a scheduling software, you first need to add this to your roadblock log. Part of your log should include the anticipated date you expect this to be finished. Let's say for instance, this change was anticipated to take 21 days. This RFI response was received on day 9 of your coordination effort.

However, because this RFI response places so much of this level on hold, you really can't work on this level until its resolved.

In the Excel spreadsheet, copy and paste the schedule tab so you have 2 schedules showing the exact same thing. Next, in your new schedule tab, do some simple math, take 21 days originally scheduled and subtract the 9 days of coordination, then add the 21 days from the

anticipated delay, and add 7 days for the coordination team to incorporate the new design changes into their models.

BIM Coordination				
Model Upload	Coord. Start	Coord. Finish	Days	Model Sign-off
9/17/2018	9/18/2018	10/28/2018	40	10/29/2018
10/16/2018	10/14/2018	11/4/2018	21	11/5/2018
10/23/2018	10/21/2018	11/11/2018	21	11/12/2018

— New coordination duration from delay.

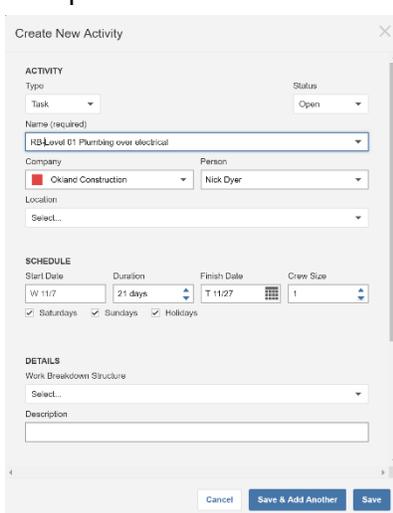
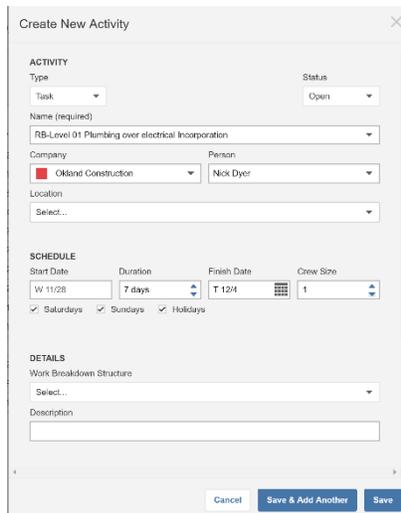
Then adjust the end date till your coordination start date matches your baseline schedule.

Model Upload	BIM Coordination				Model Sign-off	Shop Drawing Process			Shop Drawing Review Time	Material Fab & Procurement	Ready for Const. Start	Days	Construction Start
	Coord. Start	Coord. Finish	Days	Shop Dwg Start		Shop Dwgs Finish	Days to generate SD						
10/9/2018	10/10/2018	11/19/2018	40	11/20/2018	11/19/2018	12/3/2018	14	24	21	1/17/2019	7	1/24/2019	
10/16/2018	10/14/2018	11/4/2018	21	11/5/2018	11/6/2018	11/20/2018	14	24	21	1/4/2019	7	1/11/2019	
10/23/2018	10/21/2018	11/11/2018	21	11/12/2018	11/13/2018	11/27/2018	14	24	21	1/11/2019	7	1/18/2019	

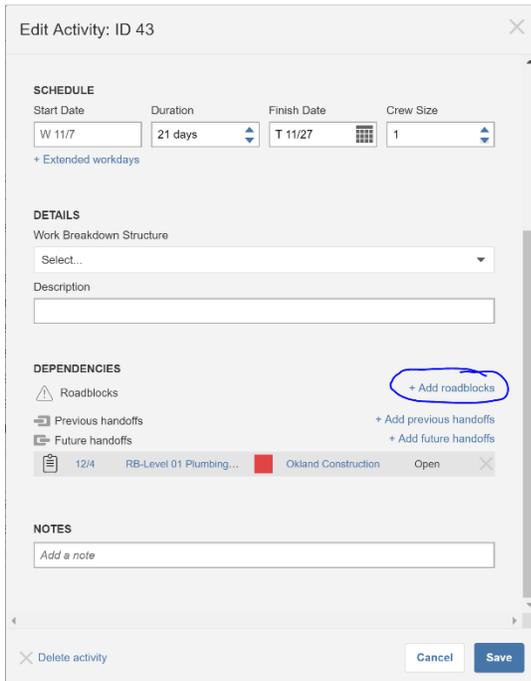
— Dates Match baseline

Adjust the end date —

In BIM 360 Plan, we add two activities, one for the design phase, and one for the subs to incorporate it into their models.

Then, we select the sign-off model activity, and add a roadblock. What this will do is tie this roadblock to the activity, and should the durations change, we can update them without affecting the baseline schedule because BIM 360 Plan tracks these as roadblocks.



It's important to evaluate each issue as it comes. I automatically track every issue as if it's a road block until it reveals itself to be less. Also, a bunch of small issues can turn into one big roadblock. I have had 5 large ASIs issued in a single week, which easily creates a schedule delay.

Drop-Dead Dates

I have used these dates both directions. Meaning, I have submitted RFIs with a drop-dead date of the latest day they could answer the RFI and avoid a schedule delay. For instance, an RFI written on day 6 of coordination, but not answered till day 20 can't be accounted for in time to sign-off the model the following day. As a rule of thumb, I always place the drop-dead date as no less than 3 days prior to sign-off. Any later, and it automatically becomes a schedule delay. This also goes both ways, if we discover after we start coordination that we can't get an air handler submittal until day 19 of a 21 day coordination, this also creates a schedule delay.

ASIs, RFIs, PRs, Bulletins, CCDs, Etc.

Every plan changes, and no matter how small, it needs to be tracked as a potential roadblock. Even the smallest ASI could have a domino effect that causes re-coordination of a portion of a floor. Maybe the change only took 3 days to absorb, but those were 3 days lost as people were not able to work on their regular coordination assignments.

The point of all this tracking is to make sure the story is told, and people are held accountable for their responses to issues and whether that adversely affected the schedule or not.

Implementing Scheduling Strategies

Starting to implement strategies of scheduling is easy. All you need to do is start creating documentation. If you don't know how to use a scheduling software, use Excel. Another idea is to hold a training with your schedulers about BIM.

GET ON THE MASTER SCHEDULE!!

I am not sure how to say this louder. This is a key to tracking your information. Even though you will be tracking your schedule separately; something is better than nothing in the early stages of the project, but as soon as the project takes form, you need to make sure your activities are accounted for.

Review your historical data

If you currently are not, start keeping track of how long it takes you to coordinate a floor of a building. Different building types will probably have different durations. The important thing is that you are not guessing what your durations are. Part of your historical data should be how well your trades performed in the past as well. This will help you advocate for them and give them the time they need to be successful.

Insist on being part of schedule update meetings

If you are not part of a regular schedule update of the master schedule, all the work you are putting into maintaining your coordination schedule is shot. The trades and project team are not looking at three or four different schedules when they pull up the schedule in sub meeting, they are looking at the master schedule and if your stuff is not accounted for, it won't be looked at.

Train your scheduling department (If you have one)

Hold a training with your schedulers about BIM. Let them know the real durations for your activities, so you don't just get a blanket 6 weeks with no detail. Even if all you're training them to do is give you a skeleton in the master schedule, at least it's being added and accounted for in the early stages of creating the schedule.

In Closing

We have covered how to create a coordination schedule by working backwards from the construction start date. We also are going to collaborate with our trades and project stake holders so all of the items that could effect coordination are accounted for in our schedule. Once a schedule is set, we need to track all changes and roadblocks. Communicating these with real dates will help hold project team members accountable for their portions of the work. Starting to implement some of these strategies is key to making all this effort worth it.