

What happens when strategy, delivery, and client success all rest on one person's shoulders? Daniel McCaulley talks about the unique challenges of being both project lead and business owner, as he shares lessons from building his company from the ground up, highlighting how leadership, technical expertise, and human connection intersect. He explains why true project success is rooted not just in skill, but in communication, trust, and a relentless drive to improve.

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## **Intro**

DANIEL MCCAULLEY: I see something one way, you see something another way, whether it was a miscommunication, a misunderstood assumption, or somebody just flat out did something wrong. People generally don't do something wrong out of malicious intent. And I found that this is true in business relationships. It's true in personal relationships. If you're faced with a challenge, and you can overcome that challenge, that relationship is going to be stronger at the end of the day.

WENDY GROUNDS: Hello, and welcome to Manage This, the podcast by project managers for project managers and anyone out there trying to keep their projects on track. We are so thrilled to have you with us today. I'm Wendy Grounds, and in the studio with me is Bill Yates, the expert on all things project management.

If you're enjoying the show, we would love to hear from you. If it's on our website, [Velociteach.com](https://www.velociteach.com), or our Velociteach social media, LinkedIn, Instagram, Facebook, your feedback helps us keep inspiring and supporting project managers. Also, if you have any questions about our podcasts or project management certifications, we're here to help. Feel free to email me at [manage\\_this@velociteach.com](mailto:manage_this@velociteach.com).

So today our question is what happens when the project lead is also the business owner? And how do you juggle strategy, day-to-day demands, and still keep your clients happy? Our guest is Daniel McCaulley, founder and principal of [Ultimus Engineering](https://www.ultimus-engineering.com), and he brings a perspective that's both technical and deeply human.

Daniel built his own engineering company from the ground up, and along the way discovered that successful project management isn't just about expertise, it's about communication, trust, and the drive to constantly improve.

In this conversation, we're going to hear lessons learned from someone who has stood in both the project owner and the consultant role, and we'll explore how balancing technical know-how with relationship building can make all the difference.

Daniel McCaulley brings more than a decade of experience in oil and gas construction. He's a licensed professional engineer with dual master's degrees in mechanical engineering and business administration. He blends technical expertise and business

strategy to deliver more efficient projects. Daniel has led designs for projects exceeding \$80 million and is known for his proactive “do it right the first time” approach.

Hi Daniel, welcome to Manage This. We are so honored to have you with us today.

DANIEL MCCAULLEY: Yeah, good morning. Thanks so much for having me. I'm super excited about the conversation.

### **Meet Daniel**

WENDY GROUNDS: Yeah, it's been great meeting you, and I think that you bring a lot to the table for project managers. So first of all, though, can you tell us a little bit of your background story? What led you to starting your own engineering company?

DANIEL MCCAULLEY: Yeah, absolutely. I think it's kind of maybe a unique beginning for an engineer and someone starting a company. But I really probably started 35 years ago. You know, I was one of those kids that my mom, if there was an application form for it, she was filling it out for me. Only child, single parent, she was like, I've got to get this wild child out of the house. And so, everything from boy scouts to science camps to literally every sporting activity under the sun, I was out doing it. And I even remember vividly changing uniforms in the back of her Ford Taurus on a Saturday going from a football game to a soccer game to a baseball game all in one day.

WENDY GROUNDS: Wow.

DANIEL MCCAULLEY: Yeah, it was a lot. And so, God bless her for doing that. And yeah, one time I think it was seven or eight sports in one year.

BILL YATES: Wow.

DANIEL MCCAULLEY: And just that being involved with sports back 30 years ago, the participation trophies weren't quite as popular as they are now. So really it was – it was all about winning. And so, the competitive drive was embedded in me deeply from the very beginning. Finally, by the time I got into college I was really just playing football and running track, sort of narrowed it down a little bit. And I knew I was going to go to school to play football, but I didn't know what I wanted to study.

And so in the spirit of challenges and competitions, I just thought, well, what's the most difficult degree I can think of? And that was either going to be engineering or med school. And then I realized med school took 15 years, and I didn't have time for that. So, when I graduated college, I had a degree in mechanical engineering, and I went to go work for Halliburton as a mechanical engineer designing downhole completion tools.

And it was at that point I was introduced to this concept of third-party engineering. And even Halliburton with 40,000 of their own employees or whatever it was, they still had a partner firm overseas that they would outsource a lot of this engineering work to. And so, as a staff engineer, I was responsible for my projects, but I was also required to collaborate and coordinate with people from overseas. At high value, it seems like that's a great idea because you have these really bright people from the other side of the world who can work while we're asleep and vice versa.

But what didn't work well was communication, the methods in which we did engineering, the business practices in general. And yes, maybe, again at face value, the pennies on the dollar that we would pay for that engineering resources, I felt like, at least for me,

I was spinning my wheels because I would have to do twice the work to make sure my projects were still successful.

And it was about that time that another really good friend of mine, a college friend that I had brought on to work there in an adjacent department, we kind of had this joke like, like, well, why don't we just leave and go start our own consulting company? They can hire us. We'll do the work that we're already doing. And then we'll just go consult from our boat on the Keys. And at the time it was kind of a joke.

I spent about five years with Halliburton, left and went to another oil and gas company. And it was at that time I started moving into some more leadership-type roles where I was managing teams, managing projects, having much more client-facing opportunities, doing some more project management, but still staying very technical in my roles. And it was there I was afforded the opportunity to go look for my own, call it outsourced engineering. And I was like, ah, I'm going to be smart. I'm going to find a domestic engineering provider to do this.

So, I did that. But what I realized or was you know, generally engineers are not great communicators. They're not someone that you're going to be scrolling through your phone, like to say, who do I want to get coffee with today? Oh, I'll take the professional engineer, said no one ever. And I think it's inherent to the fact that as engineers, we're so technically focused, we're so in the weeds of like the black and the white and one plus one is two, that sometimes it's hard to see the forest through the trees. And we lose touch with some of those soft skills and relationship building and communication. It's just, give me the information I need. Let me do my work, leave me alone, and I'll let you know when it's done. And so, it was just like, man, you know, you people give us a bad name sort of thing.

And so, as I'm building these professional experiences over the years, I left the oil and gas industry, went to go work for a company that makes building wire, copper and aluminum building wire for the construction industry. That was sort of my segue into construction.

And it was there I had this really fantastic opportunity to work for a \$4 billion company that operated like three best friends sitting around a coffee table. Their culture was phenomenal. Their customer service was phenomenal. Their relationships, everything was focused on building relationships and building communication. And while they sold arguably one of the most commoditized products in the construction industry, they did it in a way that truly separated them from all of their competition.

And then that little thing happened called COVID. And we were all afforded an opportunity to take a step back and do some soul searching and realize, well, this could go horribly wrong and then nothing matters. And if we come out the other side of this, which thankfully we did, or at least we're certainly on the lighter end of things, what do we do with this new lease on life? For me, it was, well, what's the next challenge? What's the next big thing that I need to overcome?

And it was through some soul searching, through some Holy Spirit guidance that I realized that my next challenge was how do I take all of these professional experiences that I've had, working for small companies, working for large companies, managing large teams across the nation? How do we bring something to an industry, in a way that brings value?

And the value prop that I decided was going to be important for starting a company was that concept of a blend of worlds, a blend of technical expertise and relationship-

focused service model. Effectively, at our core, we build relationships. We focus on communication. The engineering kind of works itself out; right? If we're all professional engineers, we have that stamp, we have the certificate to say, hey, you're technically competent. Okay. Well, what's the next level? What's the next threshold that we can achieve? And that focus on relationship and communications really accelerates us and, and again, separates us from a lot of our competition.

### **Achieving a Balance**

BILL YATES: It's so good to get your background, Daniel. You've got a unique perspective that we're excited about talking to you about. It's like you've been in the weeds as a project manager. You've also been responsible to make payroll; right? It's like...

DANIEL MCCAULLEY: Sure.

BILL YATES: ...okay, I have a company, and I have projects, and I have experience in both. As an owner now, you have these responsibilities. You've got to balance the strategic decisions of the company with the day-to-day decisions that the project teams have to make. Now that you have that perspective, how do you achieve that balance?

DANIEL MCCAULLEY: Yeah, it's a really good question. And it's a tough balance a lot. I think the value that I bring is that, like you mentioned, I've done it. I've been the engineer. I've been on the manufacturing floor. I've built products with my hands. I've done the strictly project management role where we're doing the herding cats thing. I think that's a great, maybe a one-line job description of project manager. You are

herding cats. And then now, as the leader of the organization, I think what's the most critical piece is that, at the end of the day, it's sort of twofold; right?

So, it's one, at the end of the day, it's the people working on our projects have to be set up for success. So, what information do they need? I've been blamed as being an over sharer before. And it's like, why would you give your engineers insight into your cost models? Why would you give your engineers direct access to your clients? Like shouldn't you have some kind of middlemen separating them? I don't think you should. You know, I think our engineers should understand because, if they see, all right, well, this company made \$50,000 on this project, and it only took me a month, like, where's all that money going? Right? I don't think that this corporate veil and this secrecy of separating finances from engineers, I don't think that that's really value added.

I don't necessarily inundate them with all of the minutia and things that don't matter. But I think it's important for them to understand that, look, your billable hour to the client may be this. Your salary is this. Obviously, they're very smart people. They can add and subtract and do multiplication. Like, they know that there's dollars; but, like, where do those dollars go? And it's not going in my pocket. You know, I drive a 2013 Acura TSX. Like, it's not going into my Range Rover. It's going back into the company.

And so, we show them where marketing dollars get spent. We show them where all the money goes to then grow the business, to find bigger projects, better projects, things that they want to work on. It gets put back into professional development curriculum. It's put back into the benefits program.



## **Focus on Communication**

And so, I think when we're managing a company, it's like, yes, you have to take care of the project. Project deadlines in the construction world are the number one thing everybody complains about, especially when you get that last 10%. That's always the hardest part of a project to bring through. And so, when we're really dealing with construction administration activities, for us it's about keeping those engineers engaged as much as possible. It's not about hiding them behind PMs or hiding them behind account managers. It's bringing them to the forefront. And then for me it's making sure that, again, since we are focused on relationships and communication, how do we maintain all of that?

So, it's getting those repeat clients. And that's the piece that, again, like you said, makes payroll. And that's a big part on me and that's a big part on the rest of the business development team, but we tie in the engineers, and we tie in the technical experts, so that they are involved as much along the process as possible.

BILL YATES: One of the key statements that you've made, Daniel, I love is what information do they need? The perspective you have, having been in the weeds and done the projects day to day with the team, you know what information is helpful and what information is just going to slow them down. Yeah, that's really good.

DANIEL MCCAULLEY: I think it helps build trust.

## **Being Honest and Building Trust**

WENDY GROUNDS: Yeah, helps build trust and the honesty. What you're talking about is just being honest with your employees, with your engineers. What are some of your go-to practices to build trust with your people?

DANIEL MCCAULLEY: Yeah, that's a good question. And actually, while you were mentioning that, it kind of reminded me of a story. And this is back in the early days and not just trust internally, but it's trust with our client. I know we always like to talk about our successes, but I kind of want to mention a story where we maybe didn't do something the right way, and we learned from it. So, we had a project really early on. And as a new company, I didn't have a full team of W-2 full-time Ultimus Engineering employees.

And so, we were utilizing some 1099 contractors, all domestic, you know, U.S.-based, local here to DFW, licensed professional engineers, just individuals that had their own companies. And I was subcontracting them through. And we started a project with a client. It was about a 24,000, 25,000-square-foot development. So decent little project for a growing company.

And through the conversations, there were some questions asked about our staff and resources and how we could support. And I gave some information like, yeah, we have employees, we have engineers who can work on stuff. But I just because I didn't think it really mattered, but I wasn't necessarily forthcoming to, hey, these are 1099 subcontracted engineers. They're not W-2 employees of Ultimus Engineering.

And we got maybe three or four weeks, maybe a little bit longer through the project, and the project owner somehow doing research on the names of people that he's finding.

And I do this too. Like if I get brought a project, I'm going to do a little quick research. Hey, is this a real architect? Is this a real engineer? Public databases for that.

And so, this project owner did that and found one of the engineers that I was subcontracting had his own firm and that he wasn't a full-time employee of my company. And he felt that he was in some way deceived. He felt that maybe we weren't upfront and honest with the employees that we had. And he pulled the project from us. Yeah, it was kind of a shock. And I tried to explain to him like, look, this engineer has been with us for, at that point it was like over a year and a half, has done over \$300,000 in work for us. But his comment was, look, I feel deceived. I can't trust you. I feel like you gave me bad information. And I was a little bit taken back by that. But what I realized was that there's really no reason to hide our business model and to hide the people that are working on it.

And so now as we've grown, and now we do have full-time staff of several W-2 engineers, but a lot of those 1099 contractors we actually still use today. They've been with us since the very beginning. They just not W-2. And at the end of the day, it doesn't really matter. And so now when I go into new meetings, I'm very upfront about that.

And what I've discovered, which the beauty of it is, people actually like that business model even better. They're like, hey, look, if you're using 1099 contractors, and you're not going to charge us more for it, which we don't, we eat that cost a little bit internally. But the beauty is we can get projects out the door faster. And that's all anybody cares about. Are you competent? Can you get it done? Can you get it done quickly? And if you do, they don't care if they're a W-2 employee or not.

BILL YATES: They just want resources. That's right.

DANIEL MCCAULLEY: They just want resources. And so, from a building trust standpoint, it is the full transparency. And yeah, anyway, so that's just kind of one story.

BILL YATES: Yeah.

DANIEL MCCAULLEY: Yeah, and then the stuff internally, that all works itself out. But being upfront with the clients and sharing more about how we do business and how we work operationally, that's been a really cool foundation. Not many people do that or are willing to have that flexibility. It's like, there's pros and cons to it, but we see that there's a lot more pros, and it really helps our clients out.

### **Deepening Relationships**

BILL YATES: So, you've seen it now, again, from both sides as a project manager or project leader. You've also seen it as a company owner of the value, the importance of building stronger relationships with key clients, stakeholders, other contractors, or 1099s that are working with you. Project managers are in the same kind of boat. You know, they're thinking, okay, how can I get my customers to trust me? I've got key contractors that I'm counting on. How can I deepen that relationship with them? So, what advice do you have to those project managers?

DANIEL MCCAULLEY: I would say learn your company and learn your craft. As a certified PM, you can really go anywhere and do anything. It can be aerospace. It can be oil and gas. It can be construction. It can be consumer products or cosmetics. I mean, at the end of the day you're – I kind of using this jokingly earlier. I'm not

diminishing the role, but essentially you are helping people, helping organizations communicate more effectively, organize timelines, process deliverables, and make sure that things stay on time and everything is complete at the end of the day. That's a super, super critical function. There's no way to do that better than if you really appreciate the industry that you're working in.

So, talk with the technical experts, spend time with the engineers, spend time with the account managers, spend time with the accountants. Really sell out and understand the industry that you're working in because let's talk about construction. If you're talking with an architect or a general contractor or a developer, if you can talk their lingo, and you can understand what their pain points are, more so than just, well, I understand your timelines. I talked with our people. Here's our timelines. Make it better than just an email forwarder. Don't be just a middleman or a communicator. Make it more than that and really try to bring value.

But come from a place of learning because a lot of engineers, anyway, get this in their head, like, "Well, I'm the professional engineer. This is what I said. And just agree to it. Like go with it." Like they're maybe a little softer when dealing with clients. But if they're dealing with an internal project manager, I've seen some, I mean, honestly, some rude conversations. It's like, "I'm the engineer. You're just the project manager. Go report back and don't bother me anymore."

And that can be a really hard place for a PM. So, I would say come at it from an opportunity of wanting to learn. If you come at it from, "Hey, you are the subject matter expert. If you're going to tell me this project's delayed, help me understand the technical challenges." And then if you can articulate that back to your client, that's going to be a valuable resource, one, to the client, because now you're a value add.

You're not just an email forwarder. You're providing some additional explanation. Let's step back from the emails. Let's step back from the tech messages. Pick up the phone and call. And if you want to follow up with your conversation in writing so everyone's on the same page, always recommend that.

And that's going to make you more valuable to your internal teams. They're going to appreciate you. They're going to see you as an ally. Come at it from an opportunity of learning, and you'll be surprised how well that goes.

BILL YATES: That's good.

DANIEL MCCAULLEY: Yeah. If you give them something what they want. This is – this is Negotiation 101. Give the other person exactly what they want, which most of the time a lot of engineers, what they want is to be left alone. It's like, "All right. I will leave you alone if you just help me understand this a little bit better."

### **Professional Backpack**

BILL YATES: Early in my career, I was thinking, "Oh, I'll just be the liaison. I'll be the betweener here." In this case it was tax professionals, accountants, CPAs; and then the technical side, the software, the code writers. And I thought I was just going to, you know, as long as I can know a little bit about both. But man, the deeper and deeper I went, the better it became. Then you can start to do some troubleshooting. You can start to answer some of those questions yourself, and you have a better sense, for future projects, and then you start to build up some of that expertise yourself just by osmosis, you know, your being around it and having to try to explain it to clients. So, it's good.

DANIEL MCCAULLEY: That's right. And kind of like I said before is that PMs, you can serve any industry. Consider it as your professional backpack. Every conversation you have, every meeting you're in, every project that you're a part of, take something out of that and put it in your backpack. Save it for later. And as you go about your career, it may be three months later, it may be 13 years later.

There's something that's going to spark you in your mind like, man, that one conversation I had, that one technical detail, if you're going to reach into your backpack, and you're going to pull that out, and that's going to be valuable. So, take one or two or three little nuggets out of everything that you do. Save that for later because at some point you're going to bring that back up. And it may be 30 years down the road. And it's like, man, that very first project I ever had, that client that messed up that conversation; right? It's all going to be skills that you build on.

### **Ren Love Projects from the Past**

REN LOVE: Ren Love here with a glimpse into Projects of the Past; where we take a look at historical projects through the modern lens. Today we're heading to the Middle East to talk about a marvel of modern architecture, the tallest building in the world, the Burj Khalifa in Dubai.

In the early 2000s, the city of Dubai was looking to increase tourism, inspire foreign investment in the city; and so the Sheikh approved the construction of a large development that included 30,000 homes, hotels, parks, commercial buildings, and even an artificial lake. The crowning glory of this development was going to be a record-breaking, attention-grabbing tower, or Burj.

Construction of the tower began in January 2004. The design was heavily inspired by both Islamic architecture and an unusual source: the Hymenocallis flower. The tower is made of up three wings around a central hexagonal core, and the design tapers as it rises, ensuring stability against the powerful winds of the desert. The primary structure is made of reinforced concrete; and by the end of construction, roughly 330,000 cubic meters of concrete had been used. Because the end result was so tall, the construction company had to develop new types of concrete pumps in order to get that concrete in place.

Challenges to construction were pretty enormous; starting with the fact that this was being built in a desert. So, the temperature in Dubai can pretty regularly hit 120 degrees Fahrenheit, most of that concrete was actually mixed with ice and poured at night.

The official grand opening happened on January 4, 2010 - just six years after construction began. The Burj Khalifa is 2,717 feet tall - nearly twice the height of the Empire State Building in New York city. Inside, you'll find a fancy Hotel, office spaces, private residences, and observation decks that draw millions of tourists every year.

The total cost of the Burj Khalifa was approximately \$1.5 billion USD, a massive investment—but one intended to pay off by transforming Dubai's global image.

So, was this project a success? All signs point to yes. It broke multiple world records upon completion including: tallest building in the world, highest observation deck, longest elevator travel distance, and the world's highest restaurant. In addition to breaking world records, the Burj Khalifa has won lots of awards – most of them celebrating the innovations in structural engineering and architectural design that allowed such a massive structure to come into existence.



Thank you for joining me for Projects of the Past, I'm Ren Love. See ya next time!

## **Having Those Tough Conversations**

WENDY GROUNDS: Something else that we can maybe give our audience to put in that professional backpack. It's handling those tough conversations when something goes wrong. So, what would be your advice to our audience if, you know, we have a project manager who's having to handle something that's going downhill. How would they handle that conversation?

DANIEL MCCAULLEY: Yeah. Everything comes down to communications. And it's about, can we get everybody on the same page? Let's get all the cards on the table. Let's understand where everybody's coming from. I think a lot of times difficult conversations, projects that go sideways, a lot of it comes down to assumptions.

And there's kind of that old quip. It's like, you know what assumptions mean; right? And so, if we can clear assumptions, the first thing to do is let's get all the assumptions on the table at the beginning before it starts to derail. Project scope, contract documents. If you're going to make an assumption, let everybody know. But assuming we don't have that upfront, and things do start to go sideways, there's a difficult conversation, let's take a step back. Sometimes you've got to go slow to go fast.

And I think just during those conversations, if you can get everybody aligned on what's really happening, at least you can start to make amends. You can start to reassess. And we could get into some heated conversations. At the end of the day, 99% of the time, it's not personal. It's only personal because it's somebody's project. But if I'm having a, we'll call it a focused conversation with you, or there's other people having to

maybe a heated conversation, generally it's not, "I don't like you as a person." That's not what this is about.

This is about, I see something one way, you see something another way, whether it was a miscommunication, misunderstood assumption, or somebody just flat out did something wrong. People generally don't do something wrong out of malicious intent. And I found that this is true in business relationships. It's true in personal relationships. If you're faced with a challenge, and you can overcome that challenge, that relationship is going to be stronger at the end of the day.

Now, let me be very clear. I'm not saying go out and pick fights just for the sake of having something to repair. That's not what I'm saying. But invariably things will always come up. And if you can work through those, don't be scared of losing a relationship because you have a difficult conversation.

Focus more on how do we resolve it? How do we come to a conclusion at the end of the day? And more times than not, that client is going to come back. That project is going to come back around. And they're going to give you another opportunity because they already know, hey, look, things went really bad. But at the end of the day, it worked out; right? Like nothing absolutely catastrophic happened. It worked out; right? It really did work out.

And again, it's really all about get the cards on the table, understand where everybody is coming from. Once all the cards are on the table, you have everybody's pain points. You have a good understanding of what the issue is. Make a list, prioritize with everyone, get everyone on the same page, and just go down the list. Project managers love lists just as much as anybody else. That's a really good way to make sure that you

have covered everything. But again, it's all about, I think, getting the cards on the table first.

### **The Five-Why Technique**

BILL YATES: That's so good. Tough conversations are – I think it's natural, it's human nature that we try to resist them. We put them off sometimes. We procrastinate.

DANIEL MCCAULLEY: Yeah.

BILL YATES: But if we look at it as there's a reason, we need to have this conversation, you know, we're not in alignment. We've got some assumptions that maybe we should not have had. To me it's almost like looking for cause and effect; right? I'm reading a book on Toyota right now and just looking at some of the history of the company and the five-why technique, which project managers love. It's almost like we have disagreements or we need to have a difficult conversation with a team member or a client. It's almost like we go into this cause and effect. Let's keep asking those deeper questions to get at the root of this disagreement or this conflict that we have and see what it is.

Because, yeah, many times it's we've made a bad assumption. We forgot to communicate something a long time ago that we should have. And we can clarify things pretty quickly. And then, the team appreciates it; the customer appreciates it. We're able to have the confidence to go on and have that difficult conversation and just get it all out there and get on the same page again.

DANIEL MCCAULLEY: Yeah, and I think that project managers are in a unique position to really facilitate those conversations because they can do it on both sides of the coin. You won't necessarily have to bring both people together to have that conflicting conversation between a client and a customer. Let that project manager kind of serve as that intermediary. Be sort of that counselor between two parties.

And timelines I think are the easiest thing to have visibility over when things are starting to slip. It's the internal reviews. It's the conversations, the project updates with the clients. It's like, that's the number one thing, just to keep visibility at a high level, is timelines.

But like you mentioned, the five-why, that's a really great concept. And I don't know if you want to explain it, or I can just briefly. But essentially, it's if you don't understand something, ask why that is. And then whatever the answer is, you ask why again. And by the time you ask why five times, you've probably gotten enough information out of that person or the situation to really understand the why.

And that's super important. And you mentioned earlier, it's the deep dive. It's how much further can we go in getting more information? But from a tough conversation standpoint, and I tell our engineers this too, it's like, if you're stuck on something, I would rather you come to me than spend two hours racking your brain over it.

If you have a question on a project, you don't understand the scope, let's get that figured out because time is very, very valuable – in every industry, but certainly in ours. And if you're spending time because you don't understand something, go ask, go ask another engineer, go ask a colleague, go to the client and clarify it, come to me, go to your PM, get those questions answered sooner rather than later.

Because the worst thing that a company can do, and this is outside of even project management, the worst thing a company can do is get a project, not understand, sit on it for a week and a half, and then go back and say, “Hey, could you clarify this?” And the client’s like, “That’s on page three, paragraph four.” They’re going to be happy to answer that question on day two. On day 12, you look incompetent.

So, ask those questions early. One of the practices that we have is all projects need to be reviewed. We kind of use an 80/20 principle on this. Not every rock is going to be turned over, but let’s look very high level. In the first 48 hours that we’re assigned a project, our team should be reviewing all of the submissions, all of the details, asking for clarifications on scope, asking for additional documents. In that first 48 hours, people are ecstatic to answer questions and help you with the information you need.

But if you miss a big picture concept, “Oh, I didn’t realize this apartment complex had a swimming pool on the fourth floor.” Hmm, maybe we should have checked that out day one or day two, because on day 12 now, what have you done for the last two weeks?

I think those are good things to think about is don’t be afraid to ask questions. I don’t think clients are generally going to be upset if you ask a question. Ask it sooner rather than later because, the longer you wait, they’re not going to be mad you asked the question. They’re going to be mad why it took you so long to ask the question. Yeah.

### **Facing Challenges with Clear Understanding**

WENDY GROUNDS: One of the things we love to do is to hear practical examples. And you’ve shared a few examples of things that you faced and how you’ve tackled them. Do you have a really tough client contractor story you could tell us?

DANIEL MCCAULLEY: Yeah, we kind of talked about the one where there's a miscommunication in the staffing. But, you know, I would say another thing that comes up very frequently is a client goes into a project with a certain goal in mind. They want to see things done a certain way, or I'll use a very basic example. I've kind of got two examples here.

One example is there was an HOA near us that the HOA manager perceived that the retaining wall, so concrete retaining wall, brick screen wall on top, kind of a privacy wall, they perceived that the retaining wall was failing. They contract us to come out. We did our assessment. And they said, hey, we want you, as part of this contract, we want you to design a new set of plans for this failing retaining wall.

During that conversation, the engineer – and I was not as involved with this project, but the engineer that went out – did their assessment, took the photos, created a set of drawings, and submitted them. And there was some confusion because, in this particular instance, there's several different ways to do this. I won't get so far into the construction detail weeds, but the brick screen wall that sits on top can either be attached all the way across the length of the retaining wall, or it can just be supported on columns, and you've got sort of a little, call it a water flow space. So, it's not just like a hard seal.

And the HOA manager was under the impression that we could just replace the concrete retaining wall at the bottom and not have to touch the brick screen wall at the top. Well, when the engineer did their assessment, they said, you can't do that because this wall is attached. So, when we submitted the drawings, the drawings are the whole thing. And this drug out for six months on contractors being confused, HOA manager

telling them just replace the screen wall, them saying, but the drawings are to replace the whole thing.

And what eventually happened was we sent another engineer out, got a second opinion, and that engineer was able to more articulately clarify, listen, there's actually nothing wrong with this wall.

The only thing wrong with it is whoever built it 15 years ago used either subgrade mortar or didn't use enough grout or whatever it was. And you just have some stones coming off the face, but it's all cosmetic. Like your wall's fine. And the client was like, all right, well, that's great, but why didn't you tell me this six months ago? Why didn't the first engineer do this?

And I think talking about tough conversations, when we get asked to do something by a client, generally the first response is, okay, well, the customer's always right. And in some instances, they are, and in some instances, well, maybe we can offer them a better way to save them money on a project.

And in this instance, the right answer would have been, hey, listen, I know that you requested us to provide drawings to rebuild this wall, but it doesn't need to be done. You just need to go down to Home Depot and get some mortar and stick these stones back up there. And then a little bit crude simplification, but essentially that's, that's what we offered.

And so, they were happy at the end of the day that they didn't have to spend the hundred thousand dollars to fix their wall, but they were a little, kind of had their feathers ruffled, like, why didn't you just tell us that upfront? And the first engineer's comment

was, well, that's not what you asked for. Yes. And no, it wasn't what they needed. And so, and that's generally not a tough conversation; right?

If a client says, hey, I want to do this project, I want to spend a hundred grand, it's like, well, you could do it for 20. Is that going to be okay? Like you want to take me to lunch afterward? The other side I think is sometimes when it's a little bit more difficult is when the client says, "Hey, this is all I want you to do." And as engineers we're like, well, hold on, you can't do it that way. That's not going to work. Or we need more information. And we get that conversation a lot where it's like, listen, just do it. And we can't. And we have that conversation where maybe a client will say, well, I'll find someone else. You probably can. Yeah, you probably can find someone to just do it.

But with our company kind of being my baby and my licensure's on the line, the company licensure's on the line, we do things the right way. And sometimes that costs a little bit more money. An example of that is if you were going to build a building, and you don't want to go get what's called a geotechnical soils report, where you get an assessment of those soil conditions, we have to design this to essentially worst-case possible conditions and the lowest strength values allowable by the international building code.

Maybe down the street, you did another project, and you built it this way. But our calculations don't allow us to design it in that fashion. There are some caveats that we can put on our drawings that indemnify us from anything that could possibly go wrong. But that's not doing that contractor a service. It's certainly not doing that building owner a service.



And let's say in the aspect of a multifamily complex, what about all those families that live there? Right? Like let's not take the quick and dirty and cheap way out when you could have 400 families that are potentially at stake because we wanted to take a shortcut and use a value that you use down the street, but we're not 100% confident. I'm not going to do that. I'm not going to do that.

So, I think sometimes that those are difficult conversations to have.

### **Habits to Improve Communication**

BILL YATES: Just for the project managers that are listening in, Daniel, give them a tip or some habit that they could do to improve their communication.

DANIEL MCCAULLEY: I mean, we are blessed to live in this age of technology. And if you are not utilizing AI, you might as well be in the 19th Century. The good part about using things like language models, ChatGPT, Grok 4, Claude, whatever it is you want to use. They're all great. They all have their pros and cons. If you're having a difficult conversation with email, generally I wouldn't advise it, but if that's the situation that you're in, you can't get that person in person, you can't get that person on the phone, it does have to be done during an email, go into your language model, ChatGPT, for example. Type up, you can have a stream of consciousness.

It doesn't have to be coherent. It doesn't have to be in order. It can just be the most like venting, I'm yelling and screaming conversation, scream at AI, prompt it and say, "Hey, can you word this in a coherent, organized, chronological, calm, poised, professional fashion?" And your mind will be blown. It is some of the most articulate,

well-thought-out, calm, emotionally removed presentation of thoughts. And the other thing that don't ever take their first response and just copy paste.

But that is a really, really good way to vent. You've probably heard the strategy before. It's like, if you're going to write a nasty email, write it, review it, delete it, rewrite it. Well, ChatGPT gives you the option to have someone else help you rewrite that. You can cover all your thoughts, and you can even prompt, and say like, "Look, write this as a high-powered executive who is an industry leader, an industry expert." You can prompt it to have different tone of voice. And I want to talk to someone who is also an industry expert. I want to word this email to somebody who is not an industry expert."

And you can list all kinds of technical jargon and have it simplified in a way that somebody who isn't a technical expert can understand.

So, utilize these AI technologies in a way that it helps you be more articulate. Get your point across, but do it in a way that is appropriate. Now, the caution I would have for that is don't become so reliant on that that every single email you send comes from ChatGPT. As you read more emails, and as you get more responses from these AI models, you realize that AI kind of has a way of writing that, if you read enough, you can start to discern what's AI and what's not. And it's not ways that you typically will talk in regular conversation.

So, use it in moderation, just like anything. But use it in a way that can help you be more articulate, help you get your point across. And then the last thing on the AI piece of it for helping people communicate and improve communication is use some of these AI tools that help record meetings, summarize notes. You can also just, even in conversation, if I'm going to sit down for coffee with a client, I'm going to take my phone

– let them know you're doing this, always highly recommended. Hit record. Record the whole conversation. Then you can dump that back into a software, get a transcript, put that into some kind of AI model, and it'll summarize it for you.

And other than if I'm at a client meeting, I don't want to just be sitting down handwriting notes because you're not engaging. You're not actively listening. Use this technology that we have to help summarize notes. You're not going to miss anything. You can be engaged. You're going to have better conversation. You're going to get more out of them. But leverage technology to help capture critical information, I think, is the quick summary of that.

### **Personal Motivation**

WENDY GROUNDS: Daniel, we're almost running out of time. This has been so good. And I really do want to ask you a personal question. Could you tell me how you personally stay motivated? What keeps you going?

DANIEL MCCAULLEY: Well, I'm a firm believer that, if you find yourself the smartest person in the room, you're in the wrong room. And that goes back to my own personal upbringing of challenge and competition and always striving to be better. But I purposely put myself in conversations, and I purposely put myself in situations where I'm not the expert. I don't want to be. There's always going to be somebody better. And if it's not today, it's tomorrow.

Tom Brady, greatest quarterback of all time, but he's not today. So, there's always somebody coming in your footsteps. And so, if you're not getting better, if you're not improving, you're going to fall behind. And as a business owner, we want the company

to grow. We want to improve. I want my employees to be better equipped, better engineers, better family members. And so, it extends beyond the organization. But really it's all about purposely putting myself in challenging or borderline uncomfortable situations.

I think I might have mentioned this earlier, but we only grow when we're challenged. We don't grow when we're complacent or stagnant or living in the status quo. And so, to keep myself motivated, to keep myself growing and experiencing new things and achieving more, I always have to step back and ask myself, like, all right, are we doing the same thing we've always done? And if we are, are we comfortable? Are we okay with getting the same thing we've always gotten?

And so, to continue to grow, you know, motivation for me personally is let's do something new. But it's the constant challenge that keeps me always striving to be more. Because I want to be comfortable. Everybody wants to be comfortable. But if I purposely make myself uncomfortable, then I'm striving to be comfortable. And in turn I'm getting better and growing myself, my company, my family, personal growth, spiritual growth, relationships with friends and employees and clients and everything in between. And so, I think it's just, it's dangling that carrot. It's just keeping yourself on the edge of being uncomfortable. So there's always something more to push for.

BILL YATES: Mm-hmm, I like that. That's such a great attitude to have.

DANIEL MCCAULLEY: Yeah.

BILL YATES: Love it.

## Get in Touch

WENDY GROUNDS: So, if our audience would like to get in touch with you or find out more about what your company does, where should they go?

DANIEL MCCAULLEY: Yeah, absolutely. So, you can find us on the web at [ultimus.engineering](http://ultimus.engineering) or [ultimusengineering.com](http://ultimusengineering.com), more conventionally, easy to find us there. We're active on LinkedIn. You can reach out to our general mailbox, which is info, [I N F O at ultimusengineering.com](mailto:INFO@ultimusengineering.com). You can call us on our corporate line at 972-825-7741, or you can even reach out to me personally by email. Would love to hear from you. It's my first initial, last name. So [dmccaulley@ultimusengineering.com](mailto:dmccaulley@ultimusengineering.com). And I would love to hear from you.

BILL YATES: Daniel, thanks so much for sharing your insights and your experience with us. I love talking with people who have that balance of deep technical expertise and then project management experience. And just the perspectives that you bring are very valuable to our audience. So, thank you for sharing.

DANIEL MCCAULLEY: Yeah. Thank you, Bill. It's been a pleasure. And Wendy, thank you so much for the opportunity. It's been a blast. Enjoyed the conversation. I'd love to stay in touch. Hopefully we can come back, and we can do this again, and we'll dive into some of the other pieces.

## Closing

WENDY GROUNDS: So that's it for us here on Manage This. Thank you for being with us today. Don't forget, you can visit us anytime at [Velociteach.com](https://www.velociteach.com) to subscribe, catch up on past episodes, or read the full transcript of today's show.

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Until next time, keep your projects and your coffee cups filled to the brim. Stay curious, stay inspired, and keep tuning in to Manage This.