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"The Formula for Successful Home Modifications"

>>CART Provider: Standing by.

[The webinar will begin shortly. Please remain on the line]

[The broadcast is now starting. All attendees are in listen-only mode.]

>>CART Provider: No audio. Just heard some typing -- but no longer any audio.

>> To all the attendees, there's a bit of technical challenges right now. If you will hold on for few seconds, Lindsay will be joining us shortly.

>> Good afternoon. I hope you can hear me. We had a little bit of a technical problem in the beginning. Thank you for join us. Titled "The Formula for Successful Home Modifications". Lindsay Elliot, I'm a

social worker here NSCIA, and I'll be your moderator. Find our webinars at [www.spinalcord.org](http://www.spinalcord.org).

Taking on a home modification project can be a daunting task, but this webinar will provide a blueprint and all tools to make your next home modification a successful one. We're pleased to have Frank Gucciardi here. He's the CEO and owner of Frangeli. Trained professionally as a physical therapist, he practiced in a variety of hospitals and rehabilitation settings and saw a need for rehab professionals to have an impact. He opened a full service design construction firm in 2003. Adapting Homes for Access. Simply accessible bathrooms to full-scale additions, elevators and the like. In early 2013 Frangeli dropped construction services and focused their value proposition to clients. It's the unique ability to marry the client's functional ability to their current home after a life changing medical event. This was done by designating accessible environments and selecting appropriate materials that will foster independence. Time is made to made sure that it heads value and in no way allows a medical feel. Mr. Gucciardi speaks at summits, and national ranked hospitals on top of residential accessible. Located on Long Island, New York. They can serve clients nationwide. We will be able to field questions. And you can see a window. Please we'll do our best to get to them in the end. If are not able to address them all, Frank whether be able to follow up with you with the e-mail you used to log on to the day's webinar. I would like to now turn the presentation over to Frank.

>> Thank you, Lindsay. Welcome, everyone. I am going to spend the next 40 minutes going over a tap to the home modification process which has historically and traditionally been overlooked. What I would like to do is first thank United Spinal Association for all they do. I have been a friend with the organization and worked closely with them over the years. They really are a fine group. For those of you who may be new to it, my suggestion would be to seek out their resources. The website is a host of good information. And there's not enough good things that can be said for the folks at United Spinal.

With that said, we'll talk about the topic today. "The Formula for Successful Home Modifications". We'll cover the five Ws and the H, right?

Who are the players in the process, what is the process itself, how should it flow, why does functional ability matter, when do you bring the builder into the process that we will outline, where do you find the resources, and then at the end what does it cost.

So what I want to be very clear about is that this lecture, this webinar, is not designed to instruct you on what to do in terms of the design itself. The formula for success is in a two-part process that we'll get into. That's designing it first to make sure it works on paper first and then we bring in the builders. So it's a little bit off topic in the sense that it's an overlooked section that after ten years of being in the

industry, we found a process that works all the time. And that's what we want to share with you today.

So, like Lindsay said, I am a trained professional as a physical therapist. Ran some departments, worked in a variety of settings and then in 2003 ran into some clients that needed some modifications and gave my insight. As a result, we opened up a full design build company and ran that from late 2003 to the end of 2012. 2003 to 2012.

They didn't need my crew to pour foundation or put tile on the while, any of the sort of commodity, if you will, in the construction process, what they needed was the design. They needed the ability for the therapist in me to be able to design the space. Finding the builder, again, that's the commodity in the process.

So we occupy a very unique spot in that I live here. I live in the world where rehab therapist overlaps in the home modification, the design, build, world.

The medical professional in the rehab setting, which I like to call the land linoleum, where everything is personality. They have a lot of textbook knowledge. And you'll find in the market place, we'll talk about this later being the occupational and physical therapists are becoming more involved in the home modification design. The

problem is they don't have any of the build side. They have theory but not the practical knowledge.

On this side of the designers and the builders, they know how to do the work, but they don't know how function relates to the build-out, how do the equipment needs fall into place.

So independently they're each messing something. Again, I live in this -- they're each missing something. I have lived in this world for the past 17 years or so that has this nice overlap and overflow of combination of really multiple trades and professions. So, you know, if you go to our website at some point at a later date, you will see -- you'll never see any manufacturer provided studio pictures displayed of their own work. If you're taking note, this would be maybe the first one you want to jot down. . You're evaluating companies that may meet your needs or look to meet your needs, if you see the same picture of products or completed projects over and over again on other builder or designer websites, it probably means they're not installing the items. At some point you need to have your own work to off. And everyone needs to get a start some place, and admittedly when we didn't have a vast volume of work to be able to show, we would use an example of stock photography of an accessible kitchen. After a while, that needs to go to the wayside your own work needs to come up. As you dig deeper and start to evaluate other companies, you are going to see the same products again and again and I put it like this, my

experience is not borrowed, it's painstakingly Ben earned over the years.

So let's get into it.

The series I developed and worked on with United Spinal and piloted at Kessler rehab, and Mount Sinai, and Helen Hayes hospital in [Name?], New York. What the first of this was designed was to address the fact that there's very if you glide lines for residential -- guide lines for residential accessibility. You will hear a lot about the ADA but it only applies to public space, it doesn't apply to the residential. We use it as a loose guide only. It will get us there, but the ADA is meant to meet everyone's needs in a public space. If you think about the bell curve, the majority of people fit into the bell curve if you're a wheelchair user. But what uni-- if you're on the margin, your needs or your equipment needs don't marry properly with what ADA specs out. In a private residence, you should be always measured in your own personal chair, and equipment, and if there's a co-morbidity to your shoulder or a reach challenge, all of these things need to be assessed first before an answer can be derived.

So we designed this because, No. one, if you accessible residential

access county was not there. Secondly, it's not easily found, as to what will and will not work. I know that United Spinal has a nice library of resources but ultimately when you need to determine what needs to be done to your property, you need to get it done the right way the first time. Unfortunately, there's very few designers, and answers. No one will tell you that they don't know, they will tell you that they understand, but the reality of it is that when there is a request for accessibility, then the knee jerk reaction is to then -- for an architect, I know ADA, and that's not what you want to hear. Again, this is probably a time for a note. You may want to avoid any firm that has no experience with accessibility in their design and then expect that they can apply the ADA to your home. That's just not going to work. It will get you close, but if you're going to spend your hard-earned savings and money on a solution to the house, it better be right, and it better be right on the first shot. Again, you may want to avoid or reconsider any firm that has no experience with accessibility in the private residence and expect that they can apply the ADA criteria to your home.

Here's the other side to the coin. There's an endless number of under qualified professionals available. They will he never come to your home and say, I don't know what to do. That's just not going to happen

At least I would be surprised if a builder walked into your door, through your front door, and said to you, I don't know how to help you. You know I don't see that happening.

So there's an endless number of people that are under qualified that say they can help you.

How do you make sense of it all?

You know?

In my experience, a lot of builders here in the local market that do a lot of state-funded project, they really only know how to push out a medical grade product.

>> I'm going to tell you here at the very beginning of our time together that your home doesn't need to look like a hospital. We'll go through some slides and look at pictures that will screen that. It does not need to look tuitional, does not need to be -- institutional, medical, it doesn't need to detract value from your home, as long as you know how to lay this out and what products to install.

Let's look at the traditional method of tackling a project.

tackling a project.

Typically, the hunt for the builder begins first. Go to the friends, family, trusted resources and you call them and say who did that family room for you, or who did your kitchen. Mike who has been working in the neighborhood for years, and that's who everybody



uses.

Or, if the church or some other charitable foundation comes around and they typically take the lead and you are just kind of listening to them. The reality of it is, no one things twice about.

But what happens is when you go to bid the project, and you do your due diligence and you find two or three reputable firms and bring them in and say you need this bathroom or addition built to meet my needs, you typically get the two or three different ideas with bids that are all over the map. And who is right?

Is anybody right?

You don't know. So it becomes a very difficult process that you have to make heads or tails of. Typically the choice on the builder is coming to a price decision. Who is the cheapest. And unfortunately this is what you get. It's not like buying a car. You buy a car, you get burned once. You go and ask your friends and family who is reputable dealership in town. You deal with a certain man. You kind of have been burned a couple times and you know what to look out for. You go through this process of back and forth. You educate yourself and eventually you get a little older and you bought your third or fourth car

and you have it kind of down right. But this is a completely different set where chances are you don't know anyone else that is dealing with what you're dealing with, and there's no sense of comparison to say how do I get my needs met. You just kind of are groping along and hope somebody to do the best things for you. But even the best reputable what I call a hand shake builder, doesn't necessarily mean that he know you how to design the space to meet your needs. I found the clip here. Bringing the builder in first is putting the cart in front of the horse. So there is a method that works. There is a process. That absolutely works. And will work every time for you. In the end, the result is you'll save money, you'll get the product that works for you, and you'll have control of how this process and how the project rolls out.

So it's a team effort. It's a team that many entities with different sets of skills where one set gets exhausted and the next professional picks up the ball and helps to carry it. In essence a bridge is built between rehab the, the designer and your builder. A definitive method for success that I want to share with you today.

This is how the process should flow all the time.

You put your plan and design to paper first. And then you find your builders.

If two separate sets of skills, two separate processes, that will lead you to a successful outcome. See what families do, and they find the contractor, they get estimates, that's your first step, and that's absolutely the biggest and costliest mistake you can make on multiple levels.

A lot of times when families come to us, they're trying to leave rehab, a hospital setting and maybe trying to get needs met before they get home, and always limited on time, space, and finances are always a concern. But you really can't afford to not two step the process of planning and design first and then building second. You should always flow this.

It's like this too, just because this builder may have done one or two accessible projects is not enough. Many times tremendous amount of thought goes into the right solution. The goal is not finding a builder with lots of accessible construction experience and we'll discuss that in a bit okay but that's not the goal. It's their job to signal the -- we'll talk about this, but the builder's true responsibility is to install what you tell them to. Don't expect any more.

The designer's job is to sift through the functional ability that you have

and what's the burden of care by the care giver or what type of equipment is needed, and put that to paper and hand that over to the builder so they can get competitive bids on what you need based upon what your function is.

In the case where there's a well-meaning family or -- sorry about that -- in the case where there's well-meaning friends or family, or charitable organization, that's great. The church is supposed to rally around. And family is supposed to circle the wagons and help out and do the right thing, but if they don't know what to do, they're guessing at it. It's a lot of energy and effort and money spent to build something wrong. So to have the design in place first makes sense.

So in my practice, and the way that really this should flow, is that there's really a three-step process up front.

We always go through medical discovery. Rehab therapist is really one of the cornerstones to getting this right in the beginning, in the very beginning phases. They should be a part of the design team. Functional input and good knowledge of what your particular special need is necessary. Understanding what type of equipment that you're going to need is paramount. Being able to determine what the to kick

height is on the wheelchair while you are seated and what's the toileting and the methodology, and what does the care giver need in order to meet your needs. So the therapist input is critical. In my instance, I'm wrapped up in one individual, but finding then your architect and other designer, again, depending on the size and the scope of the project, in conjunction, that rehab, can review the plans and talk with the designer, and helping to work hand in hand. Each has their own unique skill sets that will most likely not overlap.

So the next step from here is diagnosis the problem. We go through medical discovery and diagnosis the problem. We look at the as-built environment, what does the house look like now, and where are the problems and the pinch points to accessibility. It's not how to get to the front door, it's how do you get in the house.

So we go through medical discovery, we have a list of problems and then we establish what do you need on one side of the paper. And then what do you want. Sometimes those two things are separate. Needs and wants are not always the same list.

We set priorities. We evaluate the budget. When you're dealing with the designer, dealing with putting this to paper up front and not with the builder, you have somebody that a objective. You have somebody that is going to sit with you and has no stake in what you build, and so now you can evaluate your budget independent of -- there's conflict of

interest. So I go back to the car example. If you have a budget for \$15,000 for a new vehicle, you don't go into the Acura or Audi dealership, you go to the Honda dealership. When you engineering the design, you sit with the designer, and you say, Charlie, I have \$20,000 available in my budget, and these are my needs. How do we get these he met?

That's the intelligent way of doing this. Once you know what your needs are, and you have your priority set, and you have your budget down on paper, then a scope of work is created that outlines what will be built. We'll go into some examples of what does the scope of work look like. Sometimes it's narrative. Sometimes it's a little more of a strip-down version of conceptual floor plan. Sometimes if you're building something, adding to the footprint of your home in the form of addition or elevator on the outside of the property, the foot fingerprint of the property, you would need a -- footprint of the property, you need a set of construction documents by the local department and local municipality. But with that said, in your design documents we would list what shower body will be use, make, model number, what type of tile and drain. Whatever will be installed is all listed. Everything is very clearly put on paper. Now you have a package

Now let me come back to here point that I made earlier. Function

always drives your solution. The point I made earlier.

So function always drives your solution. In this instance here, if your functional ability allows you to be in a self-propelled shower chair you need significantly less space than in a tilt and space shower chair. A high quad and you require this type of space for your tilt and space shower chair, the overall dimension of the space is going to increase versus something here.

And so knowing this as our foundation, what is it that you have available to you in terms of how do we maximize your level of independence, will determine the design. And, again, notice how nothing looks institutional.

And, yet, products that you see here, the tile, some of the decorative pieces through here, is all sort of mid-level \$5, \$6 square foot tile, but it's done on purpose. Slip resistant. Very, very durable. Through body so that if it gets chipped you're not going to see any type of damage to the wall. Very hard. Next to impossible to damage. So, again, it's understanding the product that's going to go in, pricing it at a reasonable price point, understanding that it needs to take a probably a bit more of a beating because there is equipment involved and potentially a care giver, and so this is all done first by function. But without knowing this, you really could have a mess on your hands.

And so case in point, without knowing that this is your last option, and knowing why this is your last option, a builder may come in and suggest, well, let's take out this shower stall, and we'll put this here unit in, and you can just transfer from your wheelchair over here to this bench. But if you don't know why that's a real problem, especially thinking long-term because of shearing and potentially skin breakdown and what if you have tendonitis in the shoulder or some other type of injury, or a urinary tract infection, and the function dips for whatever reason, and you can't make it in to the shower, that's a real problem. And if you don't know that, and the builder says I will do this, and it makes sense to you because you're dealing with limited insight, which is not your fault, you have less than an optimal solution. And listen, this can work if you have no other options and you go into it with your eyes open. Nothing should ever be a surprise. It -- options should be laid out for you.

Laid out up front before any work starts. So I hope that makes sense.

But even on the details, the devil is in the details. It always is.

You look at a snippet here, maybe a small piece on accessible cabinetry, and this is critical. You want to be able to go head in into this piece of cabinetry, yet no one wants to seat ugly plumbing



underneath. There's a way to hide that, for it to look nice for your ability to access the bank of cabinets closer but the toe kicks are higher or deeper, and meshing your functional ability. Typically the countertop from here to here, this spacious is lower. So this suffice this space lower.

this space to this space lower. Underneath there's space for the sing. This is very shallow. Maybe 4.5 inches deep. Toe kicks enlarged. Functional design and yet it can look beautiful.

All right. Let's see ... I hope that makes sense. I hope I'm able to drive home the point that you need to know where the function is first. Without that, you're going into this without the full scope of knowledge.

And, again, I brought this up earlier. Having objective information is paramount. It's absolutely necessary. You need an advocate to act in your best interest, and you need a buffer to what gets built and what you need in terms of price, in terms of solution.

The designer should always create the ideal solution first. Say, Mr. Smith, this is the perfect answer to your problem. You go through the needs, wants, and budget. If budget doesn't match up with the ideal solution being then you work backwards, and you say, okay, how do we scale this back?

So you need to know your options, and then decided what you want to do. If you can't have the ideal solution that's fine, but you go into the compromise solution with your eyes open. Don't ever be surprised that -- and this is where folks get into a lot of trouble. Their expectations are set that the room or the -- for ease of example being say that there's a bathroom that's going to work a certain way, and then when it doesn't you look at the builder and say, but, Charlie being you said that I could roll in here and the water would stay put. Why is it in my kitchen?

And you know I have a client that we saw, they retained us to come in and consult with them. They brought us in just in the nick of time. They hired -- not hired but brought in a builder first. The gentleman sustained a stroke, and non-ambulatory and needed a roll-in shower. The builder had counseled the family and submitted a bid that would take out the tub and replace with a walk-in shower, and insisted that glass ambassadors go up. She showed me the bid. And you can't have glass doors. And the footprint that a bathtub is too small and you need another 18-inches.

I explained that the wall needed to be pushed out. And she said, well, why?

And I showed them, drew it out on paper, and showed them back and forth on what he was proposed was going to be a problem. And he was insistent that the doors needed to be in place and probably knew it would be a problem. So it's like this, the spatial requirements

needed to contain the water is never big enough in the footprint of a bathtub. You always need more space.

And if you don't, even if it's tiled perfectly, the water is still going to run, and you're still going to have a wet mess. And there's tiles and a whole host of other challenges. If your budget doesn't allow to you move that wall, that's fine, but just know it going in that you're going to have a little challenge with water containment. Don't be surprised on the back end. That's the point. You need someone that can help you through this. You can not rely on the contractor to give you proper counsel because there's a conflict of interest, and there always will be. Even though you find some good guys, you know, we've walked into situations where a lot of money has been spent to fix a problem and they don't fit into the space or barely fit and the water hits their body and water runs down their legs and on outside the shower area. They've run the water he, the water runs off of them and into the kitchen and they spent \$30,000 on a half bath to full bath conversion he and in the end, they bought themselves a \$30,000 puddle in the kitchen. And the problem is not solved. It's close. Looks nice. But it was not functional and doesn't do what it was supposed to do. And I don't want to beat a dead horse, but most of the time the builders will not know enough to meet your needs and they're probably guessing.

So what is the role of the contractor?

Again, you can't leave your very specific needs to be solved by a GC with little to no experience. What you should expect here, their responsibility is to install what you, what you, the customers, tell them to install. Don't expect more. If you limit your expectations you will never be disappointed. I will give you a case in point. When we were still building a couple years back, we had a family that needed an accessible project that was to take care of some multiple areas in the house. And the family brought in two friends who were builders, they said, Ms. Thompson, tell us what to build, and we'll build it. We'll submit this to the courts for oversight, and you tell us what to do, and we'll do it. We came in and said, well, based upon the function, and the equipments and care giving needs, this is what needs to be done. We gave rationale behind it, and there's a vast difference between tell me, just tell me what to do, and the family doesn't know. They're looking to the builder. And then coming to us we say this is what needs to be done. Because of AB and C we can give you the why we're doing it, and then enthusiastic how it's going to get done -- and then this is how it's going to get done. You should expect from the builder, professionalism, competency, good reputation, licensing references, competitive prices. This is their role. And I mean no disrespect to my colleagues in the building trades. You will find some talented men or women for that instance that can design, but it's like

finding a needle in a haystack. It's much easier to find a builder with these tried and true characteristics of a professional than it is to now add on to it the design capability. It just doesn't make any sense.

And, unfortunately, what we've found, and this is sort of -- this goes into the hall of shame. This was an actual ramp that we were called in. The gentleman was in a power chair. A back entrance. And a well meaning Masonry contractor came in and built this thing. And I have no explanation to what he was thinking but on multiple levels this was wrong. Done with the right intention but without the right knowledge. This cost \$5,000. That's a waste. And now there's battling back and forth with the homeowner and the builder as to who will fix this, and the builder doesn't quite, you know, he wanted to do the right thing, and the home he owner didn't know, didn't give him direction, and you're left with this mess. Unfortunately, this is typically the norm. This is not an abnormal thing that we run into.

So let's do a quick recap. Because we're about 30 minutes in.

And medical input is a must. Independent objective advice and design in place first. At this point where product selection comes in and then you go to get the builder.

It ensures apple to apple bidding and allows for proper price negotiation. We'll talk about that next. It's really the pricing and how do we ensure this piece here.

I think I've beat this pretty well into place. Let's talk about this now.

So there's really three tools that are based on the size of your project.

A simple narrative where it's a verbal description.

a simple -- narrative. And specs. And you have a bathroom, and you're really not enlarging it, not too much, or you are going to build a back deck or maybe not that, poor example, but some type of interior renovation that's almost a direct replacement and a simple narrative would be appropriate.

You might have some type of conceptual drawing. Again you're not pulling permits and concept is really okay. And then he, again, on the larger scope of work, and you may be putting on an addition or a big connect off the back with a integrated ramp, you have a full set of construction documents. I want to quickly show you examples. This is a simple narrative scope of work that I pulled out that's specific to let's just say the plumbing. When you hand this to multiple bidders of

the job, and they give this to the plumber and know that they're maybe doing the plumbing them he selves, you tell them what exactly needs to be done. Base board heating, and the pre-pitched shower basin, and what the finish will be, and the shower body and make and model numbers and what the budget will be for this.

And here's your toilet. This is the model number. It will be in white. Here's your budget. And wall-mounted sink in this color. So everything now is listed. There's no surprises.

We have seen estimates submitted on cocktail napkins and scribbled on the backs of napkins and all sorts of crazy things. But unless you direct the builders as to you need a price on this, give me a number on this, the number also start coming in pretty close and pretty accurate.

That's a narrative. And, again, if it was -- there will be on for electric and for tile, and there would be budgets, but this, again, is a narrative.

Now on a conceptual floor plan, maybe it's a little bit larger in scope. And you have a sort of a -- this is a pre-existing condition. Again, if you go back to bringing in three builders without a design in place, you have three builders that come into this sort of entry grade level accessory, kind of a grade level basement, that's just open with your water heater and your boiler and duct work overhead and it's just big open space. Basically you have a big canvas.

You asked builders to come in. One guy comes in with a price of \$35,000 to meet your needs and the next guy at \$80,000, and the next guy at \$120,000. Again, you go back to the first slide, first couple of slides, and who is right?

Is anybody right?

What is he going to build?

I don't know?

But if you give him there, well, now, now you know what's going in here. You can see where the bathroom is, and how it will be laid out. And the builders, believe me, they will be thrilled to hand them the sheet ever paper. There's no thinking on their part. They're just installers. No disrespect, don't want to belittle the trade, but they want to work off blueprint, that's what builders do. You have then the ability to -- let's see I want to pull this up for you.



Bear with me a second.

Here's the same space and for your own benefit now, you have the ability to look at it. You can say, okay, this makes sense. I see what we're going to purchase. I see what's going to be made. Here's my bathroom. Here's my appropriately sized shower base. My bed will be here. Here's my ceiling lift. And let's take a look. Okay the garage here as we consume the house. And the reality is -- as can he up with into the house. And the reality is, most people don't have the ability to see this in their head. But it's very nice when you can put this to paper. And you can then look at how things fit. And now there's no surprises. You know exactly where you can put furniture and lay this out. And then, again, when you hand this off to the builder, he knows what's going to be built.

And you know what, the prices at that point should be really coming in pretty darned close. They should come in 10-15%. Now when builder A comes in with a bid of \$65,000, and builder B has a bid of \$72,000, and you have a \$7,000 spread or \$8,000 spread, and you really like the more expensive guy, you can say to him, Charlie, listen here are

the other bids and why are you here?

If he's a professional, and it's apples to apples, ask him to tighten his pencil, can you pull it down, my budget is \$67,000, if you do that, we'll do it today. And there you go. You have the ability to negotiate because now you know where the product will be installed and there's no surprises.

This is the systematic way of pushing the process along.

Now, if you are doing something of significant construction, code compliant required. You're building -- you need the permits and it has to go through plan review. It's a bit more, again, larger project. The mistakes families make is they call up a builder. They say they're thinking about putting up a 25X25 addition to my home. Mike, why don't you come out and tell me what it will cost. It's an exercise in futility until they know what's built and what's going in there, they'll just add confusion.

You need to go first, and you need to first sit down with -- in this case, in this instance, you absolutely would need an architect.

This is a larger project for a property out here on Long Island. And a gentleman has an L4 injury. This area was being added on. The full basement which was sort of at grade was going to be re-configured.

And this is much more detailed. It has demolition plans. It goes into foundation. We'll zoom it in here for clarity's sake.

And what will it look like with the call-outs and the back deck. It's going to give a door schedule. This is a very common set of construction documents that a builder would come in and say based upon his measurements this is where we set electric heights and light switches and outlets would be higher than normal. It's because we measure the client. And here's, again, in the basement we have to be very conscious of installation. We need to have the right environment so it's not too damp. But all of this detail now is given. Takeoffs are made. This is a very common is the of documents that you would see.

And, again, we can come here to this -- let's open this up a little bit.

And now you can look at the property.

You can say here's entry level, and here's a new garage, and if we come over here like this, and then we can come over here and open this up and then we're able to look around. We can say that makes sense. And you as the homeowner can sit with your designer and say, okay, well, I like the size of the bathroom. That makes sense. We can put furniture here and talk about where this will get wired for the TV, et cetera.

And so once that is in place, then you go get the builders. You invite them in. You say I need -- for us to receive bids on the project, I'm going to need to see the proper insurance, proper workman's comp, this is what will be submitted. You can talk to the designer if you have questions for clarification. It's a quick meeting. They take field measurements and takeoffs request then guess what, the numbers should come back pretty darned close.

All right. So let's try to hustle up through here.

So if the design and the diagnosis and the prescription of design is the front side of it, now we get into we've brought the builder in. We have a design in place. Now we want to interview and hire a builder.

How do you go about finding that if you don't have an uncle Bobby in the house or the family. Or local churches helping. There's no relationship there. And you're on your own?

Well, you can look to the excise national association of home builders -- National association of home builders. NAHB.org is I believe the website. Going into the local zip code. Look for a CGB or a CGR. . You look for a CGB or a CGR. Certified graduate builder or a certified graduate remodeler.

These designations are proof that a builder is professional, gone through testing, has traveled, and taken the course work, and passed the tests. He's dedicated to his profession. It's a pretty good place to start in starting to identify who may be able to help you.

There's another designation called certified aging in place specialist which you probably see a lot about or a CAPS designation.

The challenge with CAPS is just that just because they have that, again, you're not looking for someone to solve the problem, you're looking for someone to install the solution to the problem. Not the person that has a designation -- to be honest, it's a little light for the special need client or the client with special need. We find that a lot of manufacturer reps that make shower basins have a CAPS designation. That doesn't mean they can build out your addition or bathroom. With that said, you may call up the local supply house. Call the local 84 lumber or a real supply house and ask for the owner or the manager and ask them who would you have build an addition on your house. If you had to hire somebody, who would you hire?

Pretty good chance that's a longstanding customer that's honest, skilled, and going to do the right thing. That's a great resource. The local building supply house. Not the Home Depot, not Lowes, but a real lumber yard. Better Lumber, 84 Lumber, the trades are in here all the time. Call the Department of Consumer Affairs and the licenses

are Joe legit.

go through the specification sheet he with the design, and have fun, and go through the installation. You budget more time and money, and everything hits a snag.

So when are you talking to the builder, or really any professional, how fast did they return calls or e-mails. If you talk to the builder, can I go see -- can I see some finished work?

Where are you working now?

You want an address. You know he what, ask them, can I visit?

When I was building, I always gave my clients two or three Jobs I was working at any given time and I said please come down and do a drive-by or talk to the homeowner. Because I welcome the inspection. Every builder has three good references. Their uncle, fifth grade teacher, and then some job that went off well. No one is given a bad reference. They're always going to be good references, so why bother asking. I want to know what does the job site look like?

Are the guys showing up and flicking their cigarettes into the bushes?

Are they coarse language and you have little kids around. I would go talk to the homeowner.

Is the team punctual?

Are they respectful?

Are they on budget, and on time, and more importantly, would you

use them again?

If you go to two or three job sites and you don't get good answers, they may not be the guy for you. If someone is coming in and doing a large scope of work, you want to be pretty sure who you bring in and spend the next two or three months with. Again, if designed properly, the accessible project should never have an institutional feel.

Aesthetics is limited only by magic and budget. It's how do you -- imagination and budget. It's how do you fit, and what products go in. Everything after that is a commodity. Setting tile and framing can be found fairly easy. Knowing how to create the space, and what product to install is the tough side of it.

All right. So what does all of this cost?

Again, we go back to this from the very beginning. You don't have to pay a premium to bring in a contractor who -- with a high skill set. It's like this. If you need to get a package delivered to Anchorage by noon tomorrow you can do it, but you will pay a premium. You don't need to find the specialist. If your needs and designs are clear, it's often less expensive to hire a non-specialist. What if you put this out to bid, you have your design in play, one builder coming in at \$65,000, and the other guy comes in at \$64,000. You can have an open

conversation. Maybe you can get that number down to 6 -- \$60,000, or \$58,000, and tighten the pencil is, how can we do this, I want to work here, he's given me he this number, and now they're bidding for your job. You can only do that if you compare apples to apples. Not if you have apples and cucumbers. If you don't have that, it's anyone's guess. And then now it's there's an issue on the back end. Again, you do not need a specialist to put tile on the wall. You need the designer and the rehab therapist to tell you what tile to use and how to move the walls but you don't need the builder to tell you what to do. You need just them to do what you tell them to do.

So I will tell you this, when it comes time to install the project, you get to pick two of the following, you get to pick two of the following three variables, how quickly it gets done, the quality, or the cost, the best cost.

You can not have all three.

You get to pick two.

Because if you pay with peanuts, you will definitely get monkeys. And unfortunately, there's no clear scope of work in place, it always



goes down to cost, and I have seen too many families get burned over time. I'm all full of witty comments but it's all true here.

If you're engaged in -- this is the answer, it's clearly the answer, and we went through and I can only tell you from personal experience that we went through a tremendous re-branding and re-configuration of our company because we figured out that it's not the building, it's the design.

It's the design that's the foundation of what you will do.

And so what will a set of documents cost with you? that's a tough question he to answer, but I will tell you that it all hinges on what you will build. Syrup plans, narrative -- simple plans, narrative, conceptual, under \$1,000 could cost you. A large project would be several thousand dollars. There's no way around it. But the point is, if you are building something knew outside of the footprint of your home in the form of an elevator or an addition, you need the building documents anyway. It's a part of the process for permitting. So it's a part of the process. And you should always expect to have a 12 to 17% soft cost for documentation and permits. That's the way it works in the commercial world, that's the way it works in the residential

world. It's just a part of the process. If you're filing for permits, you need a set of documents.

Don't fall for the builder saying, well, I'll provide you with a free set of documents.

Nothing is free. It's free or it appears free because it's rolled into his price. And you don't own those documents. So you may not be able to bid that job out to other builders. He'll show you but how do you document this against -- how do you bid this out and have possession of the documents because chances are you will not own. You need the independent set of documents. Invite the builders down been pass them out. Take certificates of insurance. And then you start receiving the bids and you start now analyzing what will happen. Again, do you that on the larger scope, but do you that on the simpler, you do it on a basic bathroom. A narrative is sufficient there.

It gets a little bigger, question is if you pull permits or not, you probably do well with a concept. Again, obviously, you pull permits, and you need a full set of documents.

Again, ten years of doing this, and I tell you that proper preparation is

the answer. And with that you always have success. So I, we're right there on a little short of an hour. I think I went a little long, but I guess we can open it up to questions.

>> Okay. Great. Thank you so much. We have some questions coming in. So we'll get to a if he of these so we don't run over too factor. I will start with the very first question. That. With the projects smaller in nature, and there are not the financial resources to hire a design professional, what tips would you suggest for works directly with a builder to ensure function drives the project?

>> Frank: Unfortunately, that's a tough one. There's no way around it. You really need to know, you have to be able to define what the function is first. Because the answers to your, the answers to your building project starts there at function. So that has to be documented first and then at a bare-boned minimum, you need even just a narrative, and it's going to be helpful. It puts you in the driver's seat when you are speaking builders. The builder will coming and tell you what he will do, and what if it's not right?

There's never enough money up front to do it properly but always enough money on the back end to fix it, and so it's one of these paradigm shifts that families need to make that states I'm going to do the proper preparation up front to ensure successful outcome on the back side. Because most families, and again, the drive for putting the

lecture series together that I mentioned in the very beginning, was that families many times only have a one-time shot to get it right. If they don't get it right, they have to live with it. So budget is always a challenge.

But there has to be some kind of -- it has to be in there somewhere.

>> The next question, we have a couple of these. People are curious as to what design program you use, or drawing program?

>> Frank: We use a very sophisticated program called Revit. Cad, Autocad is the -- was traditionally and is still really traditionally the software of choice for architects and designers. Revit is a much more robust and powerful and expensive software that pulls all this together and does our renderings and what not. That's trade specific, profession specific software.

>> Great. You talked about locating the right builder, how do you connect with a designer. Are there certain specifications to look for, and do you look for someone local?

>> Franks: That's a great question. I wrestled with this putting it together. This is in its infancy, and I noticed across the country -- I have been asked this a lot -- across the country, there are firms starting to look in this direction.

For a long time the special need population, the catastrophically injured, the catalyst for the amp DA to be -- ADA to be passed in the late '80s was always a quote unquote minority group that was

overlooked. The vast majority of the population didn't need this. And it was almost a Civil Rights movement. As we move now into a time in American society where we have the grain of Americans, and -- graying of Americans, and having healthy able bodied individuals, Boomers, that are now in the next couple of years, turning 65 in 2010, and by 2020 they'll be 75. Things also start to break in mass numbers. The national aging process will catch up. So we can see across the country more and more people becoming interested in serving this population. So the disabled population, or Americans with a disability, will benefit from this change in society. So how do you locate it? It's tough. We're sort of like the unicorn out there. [ Chuckling ] We're a physical therapist with a designer and builder background. We have this all in one shop. And, yes, we can -- the nice part about dropping the construction service and pulling in the design services is that this can be done at a distance. We don't need necessarily to be on site. We have had clients through Iowa and Kentucky and Monticello, New York, and places that are distant that I have not visited but we can help them along the way. But with that said, if you have to patch this together, you could find if you're still attached with a rehab facility, you might grab your OT or PT. You might grab an interior designer or architect. And get the plans drawn and have input from rehab and kind of piece meal that together. Unfortunately, this is in its infancy right now. At some point there will be some type of association where credentialing and things like that will occur. I would

be a little Leary, again, of that CAPS designation. We were one of the first to get it back in 2005. It's great at raising awareness but the CAPS designation is not really designed to train a builder to help somebody who is a C had -- 4 quad in a tilt and space chair, or vent dependent C2 quad, and all of the other things that come along with that level of injury. That's just way out of there -- CAPS is not educating them. You really need to have input from the therapist. But they can't do it themselves because they don't have the building experience. It's kind of a Catch-22. If you are taking on a larger project, like the one we showed with the addition and the full basement, you need a architect, therapist, or find someone like myself.

>> Okay. Wonderful. We are he getting a lot of questions. I can continue to ask a couple more. I know that we've run over a little bit. We have several about funding. Any recommendations on where to start for funding?

>> Frank: Very difficult. Unfortunately, I don't.

>> Okay.

>> Frank: That's a tough spot. But, no, I don't have any recommendations.

>> Okay. And this was, I thought very interest question. Overall, do you think it would be more cost effective to buy a house and adapt it or build new and incorporate all the adaptations right off the start?

>> Frank: That's a great question. We do that a lot here in the local market. We help evaluate a purchase and what makes sense. You go through that part of the analysis. On that example that I showed you with the garage addition and the -- what was it -- here on this example, on this example the family had me come in and evaluate their existing property. They were renting. And they said you know what, this doesn't make sense. And they brought me along with their realtor and we evaluated three properties, A, B, and C, and I liked B. It was the easiest for conversion. And then they lost out in the property and C was this one here that we have.

And so if you're building new, if you can build new, and that's in your budget, clearly that's the way to go. You can do it all on paper. And do it a modular or systems built home and just knock it out. You know it will all be done. In the renovation world, always in-level thresholds and slight imperfections and trying to tie old into new. Older building, and open up a wall, and a can of worms and it's always the unknown. And it's more cost effective?

That's hard to know without the variables but if you can build new, that's a great option.

>>: Great. Somebody asked about the presentation being available later.

Yes. It's been recorded. We archive all of our webinars.

[Www.spinalcord.org](http://www.spinalcord.org).

So you will be able to have the whole presentation and PowerPoint and audio to watch at a later time. It should be up within a week, most likely, from today.

Also on the funding question, I do, we he work on the resource center here at United Spinal and we do have some financial assistance and funding sources available in our resource center which you can also find at our website at [www.spinalcord.org](http://www.spinalcord.org). Go to the resource center tab and click on spinal cord central. Head over to the financial assistance section. And then you'll be able to apply for some grants that way too, if people are interested.

Let's see ... somebody was asking that you're trained as a physical therapist. Did you train as a builder, surveyor, or architect, or does someone else in your firm put together the work schedules, and drawings et cetera?

>> Frank: That's right exactly right. Trained as a therapist. Went out, built for a years. Didn't want to say trained my architect, but we do have two architects on staff here. So our practice is for me or my therapist to do a functional intake, speak with rehab, and the physician, and determine the level of function. We make the site visit.



We open up the case and take a peek. If we know that we're going to do something size that will requires permitting, we come out and we take an as built dimensional measurement. We get a set of old blueprints that gets sent over to the architect who puts it into the Revit software. He pushes the as built environment, the existing conditions to me. And then I make that translation from function to the existing environment. I push it back to him. He gives it back to me. We kind of go back and forth. Once we get it to a point where it's ready for submission, it comes back in. I sit with one of my carpenters. We then take the design off. The design hat on. And then we look at it with our contracting and building expertise. We say, if we were building this, what would we want to see on these documents.

So we pick through it and we add he in and take out comments or say let's put it like this. We kind of get he into it -- it going bass into the architect, and he adds to it, and it gets stamped by licensed, assured, registered architect, and goes for submission into a local building department.

>> Great. Okay. In physical rehab we conduct home visits prior to going home, and take measurements and make recommendations and alternatives that need to be made. We are not designers. Our recommendations are limited to simple adjustments. What should we be given to our patients as resources for designers for renovation?

>> Frank: That's a great question. I appreciate the comment. I have

this ongoing dialogue with the occupational therapist down at Shepard. We have this conversation all the time. My knowledge is only so much. I can't -- we really can't go past that. You're exposed now. You start telling families, well, move the wall. They listen to you. You work for an institution. You work for Craig or Spalding or whatever. And they are looking to say who said to do this. And it's difficult because it's not a tremendous amount of resources. Not a one stop association to say utilize this. Yes, the therapist role is exactly what was described. You go in, make a house visit, request maybe pull out your DME catalog and make suggestions for maybe off the shelf stair lift or some kind of out of the box solution. Once you get into moving walls, etc., that's out of the therapist domain. But if the family knows -- so the therapist can say, listen, you are not going to fit in this space with a chair. Wears the white lab coat. Local here in the New York market we have a large healthcare system. The LIJ system, and we have been working diligently the past ten years to get credentialed and reputation and now the system is brings us in-house and adding us as a part of the discharge planning process. So in my process of educating staff, and in wherever I go when I talk to my colleagues, you guys are wearing the white lab coats. You have families in a terrible spot. And you're looking for a resource. And wearing the white lab coat. I tell you to lead them. Absolutely lead them. They feel lost at sea. They don't know where to turn. Just telling them that you can't take the tub out and make it a roll-in

shower because the bathroom is 5X7. You don't need to tell them what to do, but at least tell them that can't be done, or you need to think about this or that. When they know they're going to do a larger project that requires permitting, you can make yourself available. Let the architect do his bit and you can certainly have a look and say, well, will the wheelchair fit in the space. You know what the -- the wheelchair fit in the space? You know the dimensions. And the radius needs to be. You can absolutely add value. But up front it's almost to dispel what's not reasonable as opposed to telling them what to do. So the therapist will have a tremendous role in here in the future and moving forward, and you wear the white lab coat. You need to lead them. And in my practice, I absolutely rely on the therapist in house or if they're under medical care, I'm on the phone all the time or one of my therapists. And it's, what is his ability, his transferring ability, and how old, and the co-morbidity, somewhat does the care giver need to do, and do you expect return, and function, and what due think about this, because I'm not going out into the field for a functional assessment. I get that from the medical professional. If I can't, we get by with a good subjective intake. We do some measurements but we don't go through the paces of show me how do you get in and out of bed. But the therapist role in house is paramount. It's to take this message of not going to the builder first, if that's all you, did that's a big help.

>> Okay. Great. Do you know anything about the mnemonic home elevator?

Pneumatic?

>> Pneumatic home elevator?

Well, do you have a -- maybe you can -- this is difficult to ask a question back. Do you have a make or a model number?

Or a manufacturer?

>> I don't know. We'll see if they.

>> Elevators typically come through hydraulics. They're fluid based.

There are some elevators that work off of a sort of a screw turn where you travel between floors on the inside versus putting the elevator on the outside. Each have their pros and cons.

To evaluate, to answer the question on a pneumatic, something operated on air, I wouldn't have that information at my fingertips but that would be something easily researched. We would have the right resources to evaluate one product versus the other.

>> Great. And that will wrap up. I guess with the last question and just some clarification, your company does consult with everybody nationwide, correct?

>> Frank: That is correct.

>> And what's the best way for people to get a hold of you?

Website, phone number, do you want to share with everybody?

>> Frank: Sure. If you look over here. Here's our website.

Frangeli.com. That will be on -- what I'll do too, Leslie, I will add one more slide on the back end of this and include all of our pertinent contact information so it will be available for download.

>> Okay.

>> Frank: But if I was to do this quickly ... hang on. Bear with me real quick.

I'll just post this up

>> Perfect.

>> Frank: So here is my e-mail address to me personally. This is our toll-free number if you call outside of the New York area. This is my direct office line. So if you want to -- typically what I do for my clients at a distance is very similar to this in a go to meeting. I will give you a real-life example. I have a client whose wife is dealing with long-standing MS, non-ambulatory but is seeing some return. He lives

about three hours away. And it's close enough to where I could drive, but to keep costs down, we can do our initial work here on a Go and to Meeting. He surprises me with video, pictures and a rough drawing. And kind of getting the ball moving as to what are some of the options. We spoke with the therapist and the Doctor and now we have pulled together a nice plan of action without ever having to be on site. And we kind of go from there. In an instance where it was definitively, Frank, listen, we're going to build new, and put an addition on the house, we would be able to source local talents to get the measurements we need. We do owl at work in house and push it out back and forth. We worked out a method of working with families at a distance. With technology the way it is now being it makes the world a very small place without having to, you know, pay for airlines and hotel rooms and rental cars and all of the other nonsense. Yeah. Wonderful. On behalf of National Spinal Cord Injury Association I would like to thank you, Franks, so much for sharing your professional knowledge and the form -- formula for successful home modification with us today. It was really great. Think it was a wonderful overview. Thank you again so much for that great presentation. Just to let E else know. March 13 the next webinar. 3:00 p.m. eastern standard time. Titled *Transitioning from Canes to Walkers and Wheelchairs* it'll this webinar will explore the various device ask equipment that a person may need as their progression impacts and changes and limits on mobility. If you would like to sign up to join webinar or view past

webinars or sign up to receive the webinar newsletter you can go to the website at [www.spinalcord.org](http://www.spinalcord.org). Thank you all very much to joining us today. Frank, thank you again for the wonderful presentation.

>> It's my pleasure. Thank you all.

>> The organizer has ended the session and this call will be disconnected. Good-bye. [Meeting is complete].