

Oral History Interview

with

LEE SANDAHL

November 13, 2008

Pasadena, Cal.

By Michael R. Adamson

Adamson: Bob Heisler, your partner, indicated that he and, from what I take it, you, started Key Mechanical Industries in 1955.

Sandahl: That's right.

Adamson: So my question is, how did you come about to be become partners and know each other and start this company?

Sandahl: Well, we first met at USC when we were in our junior year, and we ended up in the same classes a lot. I met Bob in a thermodynamics class, and the reason I met him was I found out—my M.O. was to find the smartest guy in the class, so I could learn from him if I didn't understand it. So Bob had the highest score in there, so when I talked to him about it, I found out he didn't know any more about it than I did. [laughs] Then he told me, he said, "Well, you must be the only guy that doesn't know that they're giving the same tests as they did last year." [laughs] So he didn't get 100 on purpose. So, anyhow, that's how we met. Then I was living on campus at USC, and Bob and another

friend he'd gone to high school with, Don Smith, had a trailer there. So we ended up we joined together to eat at Bob's trailer and save some money.

So it went on from there. I graduated in '49, Bob graduated in '50, and he went to work for General Electric in Schenectady, and then he came back to California and worked for them in their San Jose motor plant, and so we used to get together socially because I was working for a company that sold tools to their motor plant. So it went on from there.

So finally, Bob took a—you could see what was going to happen. If he got ahead, he was going to end up back in Schenectady. [laughs] He didn't want that, so he took a job with, what you call it, Key Air Conditioning Supply Company, in Los Angeles, which was owned by a friend of the family's. So Bob was doing well in that, so he called me and wanted [me] to go to work for him. Because at that time I was working in the San Francisco area—they weren't doing air conditioning in San Francisco; they were just opening the windows. They didn't have any high-rise, and they had no high-rise plans at the time. So I came down, back to Los Angeles in 1953.

We worked together at the Key Air Conditioning Supply Company until we bought this other company and Bob went to work with them. Because the company was basically bankrupt, and we bought it for \$21 a share or something like that, or, no, a total of \$21, and that's how we got into the actual air-conditioning business. We were basically engineers, but we were working with contractors who learned the business from the other end and worked our way in backwards. So it was really our engineering experience that got us involved with a lot of people who didn't have engineers working for them when we were in the supply business, and then when we started, it was

originally Key Refrigeration and then changed the name to Key Air Conditioning Supply, and then it became Key Mechanical Industries when we had other companies.

Adamson: These are other companies you set up or that you bought?

Sandahl: They were satellite companies, like Key Mechanical Service Company was originally Key Refrigeration, and we kept the name Key Refrigeration, and the main company became Key Air Conditioning Company, and from there it's all—we had KMI. Originally, it was Key Engineering Company, and we changed the name to KMI Engineers when we added, and then they were all under the Key Mechanical Industries. So that was our input to getting in business. I stayed working for Key Air Conditioning Supply Company until 1960, then I came in to work for Key Air Conditioning Company at that time. I basically ran the engineering department. I was doing outside sales also.

So I went on from there. I don't know, Bob probably talked about June Casey [phonetic]. She originally worked for Greer Hanson [phonetic], which was a large manufacturer of air handling units that we used in our business, and Key Engineering Supply Company was the local rep for them. So June worked for—I can't remember the last name. Charlie. I'll think of it. Anyhow, he was the controller for Air Conditioning Supply Company. So anyhow, we hired June to come to work for us as our controller, and she worked for us for until about 1996, I think. She was our controller and excellent at it.

Adamson: No, I don't think he mentioned her, so that's good.

Sandahl: She was a great, great part of our company. In fact, we still keep in touch with her; been having some problems.

So from there, that's how we—I'll throw in this other one. We were doing work for May Company, and they did a shopping center in West Covina. Did Bob [Heisler] talk about that?

Adamson: He talked about the—is it Dick Brewer?

Sandahl: Yeah. That was the Dick Brewer association, and Dick, after he left May Company, went to work for Winmar Company, and that was how the introduction that Bob made from Dick Brewer to the Pankow Group. So Dick actually, and Charlie [Pankow], worked primarily with Frank Orrico, who was the president of Winmar. He liked to deal with the presidents. That was his M.O. He thought if you're with the top man, you can't go wrong. Right? If you've got any bad information, get it right from the horse's mouth.

Adamson: As I understand it, Frank Orrico was in Seattle.

Sandahl: Yes. Frank Orrico wanted everybody in Seattle, including Dick Brewer. Finally, Dick moved up there, and he stayed up there for about a year, and he told him, he said, "This is not working, Frank. If I can't go back to Los Angeles, then I'll have to resign." So he let him go back to Los Angeles, because he was a major part of Winmar.

The problem was, they had formed Winmar with a group of people and gave them interest in Winmar because those other people could run the company if they had to. So Frank being very wise, he gave them all interest in it before Winmar was started. They were owned by Safeco. He told Safeco, “Here’s what we want. If we can’t have that, we’re going to start our own company.”

So they said, “Oh, okay,” and that’s the reason he gave the information to these other people who could have run the company for Safeco. So he covered all his bases on that, and that’s how Winmar was born. So Dick was head of operations, so he was able to get himself back to Los Angeles and set up his own offices in Century City.

But prior to that, I’m sure Bob [Heisler] told you, we did some work for Peter Kiewit Company when Charlie was the head of their—I guess they called it their Concrete Division, where they built their concrete things. The first job we did with them, I think, was a school job, and then the next largest job, of course, was the ADC [Air Defense Command Headquarters] Building in Colorado Springs, which I’m sure Bob [Heisler] talked about.

Adamson: He talked about that building.

Sandahl: He ran that job pretty much himself. I did the engineering on it, along with Bob. When they put in the building, it was all done under Peter Kiewit. We were doing it for Ralph Kiewit, who was the—his father was the older brother of Peter. So anyhow, he had other partners in there that—Jack Howard was one that fronted the money to build it. In fact, the price that [Charlie] Pankow came up with was so low compared to the

other bidders that they almost threw their bid out. But it was the type of work that Charlie was used to doing, and that was why at that time they were doing work for the—it was sponsored by the—what do they call it? The General—

Adamson: The General Services Administration.

Sandahl: Yes, the General Services Administration.

Adamson: So this project was while Charlie was an employee of Kiewit?

Sandahl: Yes.

Adamson: So when did you personally first meet Charlie Pankow?

Sandahl: I met Charlie probably sometime in 1960. I'm sure Bob [Heisler] told you about it. I can't remember the date. It was somewhere around '61 or '62, we went on a pack trip with Charlie, and Charlie brought his sons along. We went up to Mammoth Lake Pack Station, and we packed into Purple Lake for, I don't know, three or four days.

Adamson: No, he [Bob Heisler] didn't say anything about that.

Sandahl: That's where we met all the—we met Steve and Rick and Chip [sons of Charlie Pankow]. There was no Betsy then; she wasn't born yet. So we had a great time, and, of

course, we were always friends with his boys since then. So from there on, I can't—I think Charlie went into a—when he started his own company was in 1972 or '73.

Adamson: '63, yeah.

Sandahl: Yeah, '62 or '63.

Adamson: In that interim, that time period, '61, '62, was he already talking about wanting to start his own company or was that a discussion—

Sandahl: Yes, he was. Well, he tried. The problem was, the way I understand it from Charlie, was he wanted Peter Kiewit to let him start a separate division, the Concrete Division, which he could run here locally, and then he could set up branches at their other offices around the country. Apparently Pete didn't want to do it. Charlie said, "Well, in that case, I'll have to go out on my own." [laughs] That's what he did, and he started out with—I don't know if he had—he had some projects lined up. I know the first job he did with his company was—they did a shopping center in Oakland. We didn't do it, so I'm not familiar with that part of it. But the person in their organization that I became personal friends with, and so did Bob, was Ralph Tice, because when they started their company, didn't have any jobs, so we were adding an addition to our building in Santa Fe Springs. So Ralph Tice came down and supervised the addition until they got some other jobs, and then Ralph went off.

Adamson: Ralph was a Kiewit person, too? Or did he come from—

Sandahl: He was originally a Kiewit person, but he came with Charlie when—Ralph [Tice] was—not strange, but different. All the people that worked for Pankow, Charlie went to Purdue, were either from Purdue or some other engineering company in that area, though I don't think Bob Carlson was. In other words, all their project managers at that time eventually were engineers except for the on-site foremen like Ralph Tice. He was a carpenter foreman, but he was a very smart individual, and he was one of the guys that learned how to do these high-rise slipforms, which are very complex. You can't afford to make a mistake, particularly when you get to the twentieth floor of it and you have to go to thirty.

So Ralph Tice and Alan Murk were the two guys I knew the best in those days, and they were their two top foremen or superintendents.

Adamson: Did Alan come from Kiewit, too?

Sandahl: That I don't know. He could have. In fact, Alan Murk, as far as I know, is still alive. Do you have him on your list?

Adamson: He's on my list. I haven't interviewed him yet.

Sandahl: I don't know where he's living. Do you have his address?

Adamson: Yeah. He's in Walnut Creek. I just have to set it up.

Sandahl: I think he moved back up there because his daughter or something lives up there.

Adamson: In general, a lot of the people I'm going to ask you about, including Ralph [Tice], many of them came from Kiewit. Do I infer from what you said before about his first job or two, these were jobs that he probably would have done at Kiewit or these are jobs that Charlie developed once he said, "I'm going to start my own company"?

Sandahl: No, these are jobs they set up. In fact, the first job, big job, that Ralph ran was the—it was in Stockton. Did Bob [Heisler] talk about that one?

Adamson: Right. He mentioned Stockton. He didn't talk about—Broadway MacArthur in Oakland was what other people say is Charlie's first project.

Sandahl: Right.

Adamson: But Bob's the only one who's mentioned the Stockton project.

Sandahl: Yes. That was a Sears store in Stockton that was fronted by Winmar, so they took it over, and Ralph [Tice] was the superintendent on that job. He was one of those—well, this is the way Charlie trained his guys to be. When they were the superintendent,

they knew more about the subs themselves or their job than they did. That's what he wanted, because they wanted them to cover all the bases so they had no open ends. You get down here on the job and say, "I don't have that," or—so they had all these things straightened out. I give that as an example.

The San Jose jobs that Alan Murk ran, I was up there at the same time. Charlie was there and Charlie was talking to Alan and said, "You got any problems?"

Before that, I'd been talking to Alan about what problems they had on the job, and he said, "No, I've got everything under control."

So Charlie leaves and I ask Alan, "Alan, why didn't you bring up those things we were talking about?"

He said, "Well, you don't know Charlie like I do. He'd say, 'Look, Alan, if you can't handle the job, we'll get somebody else.'" Charlie wanted a guy—if you brought up a problem to Charlie, you had to have the answer in your mind or alternate answers, and you didn't just come up and say, "What do I do now?" You came up and you said, "I have this problem. It's a foul-up between the structural and the architect," whatever. "Here's my solution." Now we can do it and it gets Charlie's approval, and then they'd go ahead and do it that way because it was something that was out of the scope of work. So they'd either get an extra for it or they'd balance it out some way. But anyhow, that's the way Charlie ran the jobs he was involved with, was he wanted them to know everything about that job. He always put the foreman on the job early enough so he could put the whole schedule together, because that was really their forté. They said, "You've got eighteen months to build the job," they could do it in twelve. That's what

their forté was, and that's how they'd pretty well make money for themselves and also for the owner.

Adamson: Was this the way Charlie operated at Kiewit, or did he now sort of—

Sandahl: Well, he had more limitations at Kiewit because Peter was always nervous about Charlie, because Kiewit was a major piper and dam builder and didn't know a lot about office buildings, particularly high-rise office buildings. So when you got over two stories, I think Pete got nervous because he hadn't done any of those.

Adamson: So this job in Colorado, was this an outlier or was Charlie's career at Kiewit spent doing those sorts of projects (buildings)?

Sandahl: Well, yes, that was the biggest project they had done for Kiewit as far as—it was only a two-story building; it was 300,000 square feet. It was a good-sized building, and it was actually done for the General Services Administration. We tried to pay the tax on that. I don't know if Bob mentioned that. As far as the government was concerned, the IRS was concerned, they thought it was a government building. Well, it wasn't a government building; it was a leaseback. So we were never able to pay the tax on it, so we finally just kept the money and gave up. [laughs]

Adamson: The term “design/build” doesn’t show up until later. In fact, I think someone has already told me that in 1963 what Charlie was doing, he probably wouldn’t have called it design/build, but that’s what he was doing.

Sandahl: Right.

Adamson: I’m wondering just basically what of that approach he learned at Kiewit and how much he developed once he went out on his own.

Sandahl: The problem always occurred with the builder and the owner and the architect. The architect normally was hired by the owner. Then if he came up with a structural system that wasn’t compatible with other things, then the whole thing cost more money. So that’s where Charlie’s expertise was, was convincing the owner that the architect should work for them, and the owner would still have approval. But that way he could control the structural frame, which was his secret to minimizing any overruns or costs because of having to work around the structure. So once you got the structural frame established, then the architect could do whatever he wanted to, but he couldn’t do too many things wrong at that point. So that was the true design/build formation, and at that time he added electrical, plumbing, and ourselves, and we all worked together to coordinate the jobs, so we eliminated all the interference at the beginning of the job.

Adamson: So from what you know of [Welton-Becket architects] George Hammond and Art Love, they were good with this role?

Sandahl: Oh, yes, they were excellent with it. They were. Not many people had done it. For example, in that Louisville high-rise, the Citizens Building, it was a concrete panel job, and their subcontractor went broke on them before they were about halfway through the job. Ralph Tice knew how to do that, so he took over and ran the casting yard besides building the building. Actually, they made money on it, so it was at that type of experience that they were good at.

Adamson: I'm going to go through a list of some of the people who started with Charlie or—most of them, I understand, came with him from Kiewit—but I'm just going to go through the list. Ralph Tice is on the list. You've said a couple things about him. How long did he work with Pankow? How long did he stick around?

Sandahl: Well, he worked—let's see. That was the story I was going to bring up. Somewhere before they started the Citizens Building, before they had the job, Ralph Tice had left the company. He had an anxiety [*sic*] to run a ranch in Colorado. He bought property up there and was growing crops, corn, alfalfa, whatever. Then he wasn't doing too well at it, and so when they got this high-rise job in Louisville, Russ Osterman took it upon himself to hire Ralph Tice back to run that project, and it was Charlie's—when somebody left the company, he never hired him back. That was his—

Adamson: M.O.

Sandahl: So Russ's argument was, "There's only four people in our company that can build that building. It's myself, Bob Carlson, yourself, Charlie," and, he said, "or Ralph Tice." That's why Ralph came back. So anyhow, Charlie accepted that on that basis. So it went on from there, and Ralph stayed with the company until he had a heart problem and then retired.

Adamson: But he remained in that same sort of role throughout his career?

Sandahl: That's right. Bob Carlson was head of construction until he retired. He had a falling-out with Charlie over something. I'm not sure what it was.

Adamson: What year was this, roughly?

Sandahl: Oh, let's see. It was probably around 1980, I guess. I'm not sure of that. They were doing the Washington Square Mall in Portland, Oregon, and this was a Winmar project. But they were doing—they did the Penney's store, they did the Nordstrom store, and some other project. Bob Carlson was basically running that. Things weren't going well, so he called me up one day and chewed me out over something, and I said, "Bob, I respond better to kinder words than that. What's your problem?"

He said, "This job is driving me nuts," because it was actually the steelworkers going out on strike and then you know how the whole thing falls apart in a strike.

Adamson: Right. That will do it to you every time. Since you're talking about Bob Carlson, let's talk more about Bob Carlson. So he was at Kiewit, came with Charlie. Now, all these guys who came with Charlie, they all wanted to build buildings? Is that why they came with Charlie?

Sandahl: Yeah. They were basically in Charlie's Building Division.

Adamson: So Ralph had set up a—I know Kiewit is sort of broken up geographically. There's Kiewit of California.

Sandahl: Right. Seattle.

Adamson: If Kiewit was doing dams and roads, how did they end up, the California people, having a Building Division? Was that Charlie or—

Sandahl: Yeah. Well, that was Charlie. I don't know what he was hired as. He wasn't hired as obviously a dam builder. He was hired basically to run the Building Division, mostly, and then they were doing some schools and some small office buildings at that time. Gradually it got bigger and bigger, and that's what made Peter Kiewit nervous, I think. Charlie wanted to charge ahead, and Kiewit wanted to back off. So that's when they came to the separation of ways.

Adamson: So Bob Carlson right away was the guy who headed up the actual construction—

Sandahl: I'm not sure what his position was, or even if he was with Kiewit. I just assume that he was.

Adamson: Okay. Yes, I'm just going off lists of other people who've said that these people either came in at the start and there was a set of people who came from Kiewit. Ralph Van Cleave?

Sandahl: Yes. Ralph was a project manager for Charlie. He ran certain jobs, which they've set up—now they call them something else. They call them sponsors. But at the time, they were just—he ran basically the jobs in Los Angeles, let's see, we were doing for—I forget the name of the guy now. Anyhow, Sixth & Harvard was one of them. They were relatively small. There were six eight-story buildings that were done with precast planks and exterior panels precast.

Adamson: The big picture that I got from Dean Stephan was that the first ten years and probably until they did this Citizens Bank Building kind of put them on the map as a—

Sandahl: Right.

Adamson: If you leave Hawaii aside with George, they were only doing, I don't know, a couple, half dozen projects a year.

Sandahl: Right.

Adamson: So the size, these guys, there were only one or two projects going on at any one time. So these early guys pretty much worked on all the projects.

Sandahl: That's true. In fact, I went over—speaking of George Hutton, the first job they did in Hawaii was 1963, I believe, and they did the bank building. I forget the name of it now. But I went over in the airplane with George, and he was going over there as a project manager. I'm not sure what his experience was before then, but I think he came from Purdue. But he was a very bright individual.

Adamson: But he was a Kiewit person, too, or just came in with—how did he—

Sandahl: No, I think he was hired strictly out of college, and I don't think he was a Kiewit person at all. I don't know what he worked on here before he went to Hawaii. I think it was the Hawaiian Bank Building or Bank of Hawaii or something like that.

Adamson: Then you mentioned Alan Murk.

Sandahl: Right.

Adamson: He was there from the beginning, too.

Sandahl: As far as I know, yeah.

Adamson: Then Russ Osterman came in a little later maybe?

Sandahl: No. He was working for Kiewit.

Adamson: Oh, he was at Kiewit.

Sandahl: Yes. He left Kiewit to go with Charlie, because he was working in the Building Division.

Adamson: But he wasn't a Purdue man. He was from Michigan.

Sandahl: No, he wasn't. [laughs]

Adamson: I've heard that. Now, mentioning George and Russ brings up the one topic I wanted to get at, was where in Hawaii Charlie and George, and in the mainland it was often Charlie and Russ, where they were actually the developer as well as the builder.

Sandahl: That's true.

Adamson: Is that something they just sort of fell into or is that something that just kind of were opportunities that came up?

Sandahl: Yeah, they were opportunities that came up. I think that's where the San Jose buildings came from. Russ made this deal with the telephone company to build its first building, and then they were able to build the second building. But these buildings were—they weren't owned by Pankow. I think they were owned by Charlie and Russ. That's where they started making real money.

Adamson: Now, on projects where they were the developers and you worked on them, was there any difference in approach for you to build these buildings?

Sandahl: No. No, they were design/build buildings, except they had complete control over the architect and everybody else, and even in the ADC Building, the architect was Bob Ewing [phonetic], and he worked directly for the organization.

Adamson: Bob [Heisler] talked about design/build. In the beginning, everyone gets in the room, the architect, Charlie, you, ah, structural engineer. Everyone's early on involved in designing the building.

Sandahl: Right.

Adamson: Then you all agree and then take your pieces. So my question to you, because I didn't get into any detail with Bob, is you just take one of these situations you're involved in. What would be the interplay between Charlie and you or Bob? I mean, what would a dialogue between the two of you go early on in the design of the building?

Sandahl: Basically, they were spec buildings with enough of a tendency to handle the financing, so unless you had a client that wanted certain things, like we did some IBM buildings in San Jose for IBM, and they had a different criteria. So we had to meet those criteria, otherwise the criteria was to provide adequate air conditioning for the spec tenant. If you have a long-term tenant, they have a little more to say on their own criteria, where they're almost like a part owner. They have a fifteen-year lease or something. But still the design concept was the same. In fact, that's where we got into some problems with the original structural engineers that we worked with when we got into high-rise buildings. What the structural engineers were looking at was a different deflection in the floor slabs where we have our major equipment on top of the building. We had trouble convincing them that we needed to get the deflection down a tenth of an inch, otherwise we can't isolate the equipment. That was going to shake the floors.

We had that problem on the first building we did in San Jose—I forget the name of it now—where we had a rattling window on the first floor, and coming from the central plant, we could tell by turning the equipment on and off. So we had to go through some very high—we had to change it from springs to an air-suspension system to get rid of that problem. But after that, then we were able to work better with the structural

engineers, particularly in a steel frame building because they can design it to code. They can design it to one over thirty, which doesn't work for us at all.

So, in fact, fortunately, Dean's a Stanford man, and there were two guys there that wrote the book on mechanical vibration.¹ They were both structural engineers, [J. P.] Den Hartog and—I forget the other guy's name now. Timoshenko. So mostly that's what I brought up to them. The engineers I hired, when we first meet, I ask them if they've ever heard of these guys and they say, "Who?" and that's when I knew we were in trouble. So we'd get that straightened out in the beginning. That was one of the problems we had one time with Ralph Van Cleave. He said, "Why are these things so—we've got all these heavy supports up there, what are they for?" And I said, "They keep the building from vibrating. That's what they are for."

That was part of the design/build problem that we were able to work into. Along with the electrical and the plumber, we took the responsibility of overlaying our plans and get rid of any problems initially. We didn't have computers in those days, so we had to do it manually. We'd take each plan and overlay it, make sure our risers didn't interfere with the electrical risers or the plumber's risers and all that stuff.

Adamson: So after the building is designed, how much time would you or Bob spend at the job site to see your part through?

¹ Literally: See, J. P. Den Hartog, *Mechanical Vibrations*, 4 eds. (New York: McGraw-Hill, 1934–56); Stephen Timoshenko, *Vibration Problems in Engineering*, 3 eds. (New York: Van Nostrand, 1928–55). Den Hartog was professor of mechanical engineering at MIT; Ukrainian-born Timoshenko joined the faculty at Stanford in 1936. In 1957 the American Society of Mechanical Engineering established a medal in Timoshenko's name for distinguished contributions in applied mechanics; he was its first recipient. Den Hartog received the award in 1972.

Sandahl: Once the job had established itself where it was up to the top floor, we'd probably only go there once every two weeks, but during the construction time we'd be there. We'd have our own people on the job continuously to make sure, because in the slipform, we had to put in our dampers and blankouts in the core wall, and they had to be in the right place or nothing worked. That's why we had people on the job. We had a general foreman on the job to take care of that.

Adamson: I know people have mentioned, especially later on when there were several jobs going, people mentioned Charlie always liking to visit the job sites. Would you go with him, coordinate your—show up with Charlie?

Sandahl: Yeah, a lot of times we would. Usually, he would, or whoever the job superintendent was, know when Charlie was going to be there, and we'd either be there or I'd have somebody there so I could answer any questions.

Adamson: So besides this relationship with Winmar that you've talked about, what would you say are some of the other key factors why Pankow—Charlie, his company—was successful on his first, say, decade?

Sandahl: He gained a reputation of doing these other jobs where he was on schedule and on budget, and that was what gave him the background when he was working with a new client. He could show them these things that were positive proof that he knew what he was talking about. It's good to say all of these grand and glorious things, but if you can't

have some backup on it, people become suspicious because they've heard the story before from other contractors. Particularly at that time, there wasn't a lot of contractors who could do the design/build properly. They talked about it, but unless you had an owner that was educated or, for example, would hire somebody like they did in the Citizens in Louisville, the bank didn't have anybody who knew anything about construction. They hired a separate company—Diesel Construction was their name—and they had one of their top executives there that would come to the meetings once a month, and he'd approve everything for the bank. Otherwise they'd have never had the capabilities to approve it and they would hold up everything, so without that, it wouldn't have worked.

So they had to have somebody like that knowledgeable to have confidence in Charlie's group. The smart people would say, "I'll give you the job, Charlie, but I want Ralph Tice to run it," because if they investigated it enough, they'd know who his top guys were. And if you got other jobs, you'd put somebody else on it. But if you knew the organization like Ralph Kiewit did, that's why Ralph Tice ran that job. So that's something that a normal developer doesn't really know about unless he's working that business himself. Most of them are developers, they work with contractors, but they don't know the internal workings of the contractor to ask those questions.

A friend of mine is a construction manager and has a construction management company in Chicago, and that's what he does because he knows he represents the owner to do the same thing that the bank had to do because they didn't have anybody who knew anything about anything. So that's why they're able to do these things because it gives them comfort that they have somebody there that knows the inner workings of the

contractor, local group, like a lot of the work that he does is with Pepper Construction Company in Chicago. They have a small office out here, too. But he knows everybody in the Pepper Group. When they work with him, they can work together, and it gives a comfort level to the developer who isn't sure what's happening exactly.

That's the main part of it, and Charlie did that himself. He was able to convince the owners that his own people could do all of this work and they didn't have to have any outside people. [They took part in project] inspection. They had a structural engineer. I don't know of any job probably recently that said where they had construction management on the job.

Adamson: Just to step back to these names a second. I think I skipped over Russ Osterman. I know people have talked about the development deals you did with Charlie, but what was his expertise coming from Kiewit? I mean what was he originally doing for—

Sandahl: Originally, he was running a construction job down in San Diego. I don't know the name of the job at the time. We didn't do it. But Russ turned out to be an expert at financial work, and he was the one that set a lot of things up, like the phone company, and set up the leases and things that made their own things go. They did a job that we did in Eugene. It was a Citizens Building up there, too, and I think that's the last building they built together, and then they got into some arguments over it and they finally—Russ Wahl, who does building management work, he was managing the building. It was a gold mine in making money, but they couldn't agree on selling the building or buying

each other out, so they finally ended up selling the building, which didn't make Russ Wahl happy. [laughs] But that was basically a deal that Russ had set up with Charlie, and Russ was an expert at finding or getting these things sold at a level, and then he had to sell it to Charlie. That was the problem. In fact, I think, I don't know, they still had some property together over in San Jose. I don't know what happened to that. Probably Rick knows—Rick Pankow.

Adamson: I have a few quotes from Charlie. I'm just going to read you the quote and then ask you to give an example. The first one's about innovation. But before we go to Charlie, just in general, what would you say, in terms of innovation, your company brought to Pankow projects over time if you look at it?

Sandahl: Well, that's a good question. See, Charlie would come up with these ideas like the slipform the main ducts in the building, and then we would be able to work out the details and work with it and make it meet code and all the other things. In fact, for some reason, he tried to get a patent on that. He was never able to get it because other people had used this on low-rise buildings, but they had never used it on anything over eight floors. So, anyhow, he was the forefront of that, but wasn't able to take advantage of it, getting any kind of a patent on it.

It was kind of like a jigsaw puzzle of sorts. Charlie would come up with these ideas and some didn't work out and some did, that was one that worked out. So it was those sort of things that you had to keep working on to make sure you could solve these problems or he'd get somebody else. You know what I mean?

Adamson: So there was this—I'm going to call it a training video—that was made about a year before Charlie died. It was shown to me last month, and it's one of the few instances of actually getting Charlie on video talking about his company, so these quotes come from that video. So one of the things he said was, "Innovation is our main theme." So I'm just going to ask you if you can give me an example of a project that sort of brings out Charlie's dedication to innovation and efficiency on a construction project.

Sandahl: Well, yeah, basically it went back to the training of his foremen or project managers at the job site. An example of, let's see, was the IBM building in Milwaukee, 411 East—

Adamson: East Wisconsin.

Sandahl: Yeah, East Wisconsin, where they were able to build the building. It was a thirty-story building also, and IBM was occupying, I think, the eighth to the twentieth floor, something like that. We were able to put in the central plant, finish the tenant finish work while they were still working on the building, and move the tenant in. Now, a lot of people can't do that, particularly with IBM, because they have a lot of requirements to satisfy their own board and so forth, and we were able to do that.

And another one was the Long Island job.

Adamson: Roosevelt Mall.

Sandahl: Roosevelt Field Mall, right, where they took a one-level rise shopping center, built another level on top of it, and kept all the tenants working, operating below. One of the problems they had was with Woolworth. Woolworth wouldn't give Pankow right to get into their space at all, so they had to put steel, heavy steel over that whole space in order to build the center and not have Woolworth unhappy. They just covered them. So it was those type of things that they were able to solve, those type of problems which were tough.

Adamson: I guess that gives me an example for the next quote, and so I'll give you the quote and ask you to give me another example. So Charlie also said, quote, "We don't rest on our laurels. If you're good, you'll find solutions." Can you think of a project where the mechanical solution applies, that you had to find a solution to something that came up because of the site of the project or the requirements that was unusual?

Sandahl: Well, basically, yes, probably the worst one was when they did the American Cement building downtown. The gas company agreed to give them the same rate that they used at their cement plant. Well, they wanted to use an absorption system, which was probably, in my opinion, the worst system you could use because they're not too efficient, they're very cumbersome, and they only last about at the most fifteen years. We warned them of all these things, so we set up things so that we could get this equipment out of the building and put in other equipment, which they did, I don't know,

probably ten years later. I'm not familiar with absorption machines, but as this one of the clients asked me, "How does the absorption machine work?"

I said, "Well, first you have to heat it to create this chemical reaction to form the cooling water."

He said, "If you have to heat it to cool it, forget it." [laughs]

I said, "Well, that's my idea, too."

But they've improved on that, at least the Japanese did. They came up with a better system. It's still a problem. It uses ammonia, and ammonia is very corrosive, so you have to have excellent maintenance. If you don't have that, the whole thing falls apart. Well, that was one area where we looked ahead, because we knew we were going to have to replace that equipment, and a lot of times stuff gets buried in there, and you have to spend a fortune to get it out. It's very difficult. It's very heavy equipment. It's hard to move in and out unless you have a way to do it. They weigh so much, they typically go on the ground floor. I forget all the details on it now, but we looked ahead to solve that problem.

Adamson: In that same video, Tom Verti talked about the culture of respect at Pankow.

What does that mean to you, looking at the company?

Sandahl: Basically, the Pankow organization was gradually changed after we got out of the full design as they got new people in. Like one of Tom's close friends was with [unclear: Amiati?]. He's the president of another air conditioning company. So as they got other people in there, then the design/build business becomes more competitive on

the basis of—that's where Ralph Van Cleave came in. He convinced Dean that he'd have four good guys on the bid list, and you'd have a fifth guy who would drive the price down, but you never give him the job. You give it to one of the other four. So that was Ralph's way of keeping everything competitive.

But, normally, Dean represented his company very well. Like he called us and wanted to know if we wanted to do that Roosevelt Field Mall job. We said, "Yes, we'd love to do it." So he told Tom and the other guys in the organization that this was our job. "Don't get any bids." That's what I think Tom meant by we work with somebody, unless you foul up somewhere, you're going to get the job.

Adamson: Another person I interviewed, one of the few people who had come hired in from another company, observed that when he showed up at Pankow, he was impressed with their intellectual level, shall we say, relative to other people in the construction business. Is that an observation you would make in your experience? Was it one of the things that set Pankow apart as a construction company?

Sandahl: Well, that's true. That was because of where they pick their personnel out of college. They were looking for a specific type of person, particularly one that had more experience in construction rather than just the schooling portion of it. Those people were kind of hard to find, but they did that. In some cases, they sent some of their own guys back to—that's why Charlie was involved with the [American] Concrete Institute. He fronted that for a long time, and then he had Dean [Stephan] front it, and then he had Tom [Verti] front it. So they were major players in the Concrete Institute. Of course,

unfortunately, they had to give away some of their secrets, but a lot of people weren't in that business so it didn't make any difference.

Adamson: I throw this out to everyone to comment on. In 1973, the General Services Administration administrator, a guy by the name of Arthur Sampson, stated in an article that construction was the worst managed industry in America.² And [in] a book that was published last year by a lawyer, Barry LePatner, called *Broken Buildings, Busted Budgets*, he seems to have reached the same conclusion more than thirty years later.³ So my question is, is management in the construction industry as bad as these two people have portrayed it, and why hasn't it changed if it's—what is it about construction that—

Sandahl: Basically, I would say the problem with construction that's different the way the Pankow organization is set up, a lot of them are brokers. They don't do any work themselves, so they're all only as good as their subcontractors are.

I can't even remember the name of this guy now. We had a local contractor. I'll think of the name shortly. But his forté in selling things, where he said, "We get all the sub bids, and we add all those numbers up, and that's your price. We make our money by coordinating the job and getting the money back from the subs." Well, actually, the subs had to put in seven percent to give back to the contractor. So, anyhow, that's where they got in trouble.

² "Change: The Building Team Is Getting Together for a Change," *Building Design & Construction* 14 (December 1973): 34.

³ Barry B. LePatner, *Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry* (Chicago: University of Chicago Press, 2007).

You can't, when you have subcontractors—for example, we did a school job, which we very seldom did. At the time, things were kind of slow. We did a school job, and the guy we bid to was a broker. We gave him a higher price, but he had a trailer on the job and a superintendent and that was it. So we finally took our foreman, put him in charge of the plumbers and the electricians and other associated trades. Otherwise we'd have lost money on that job. So we don't bid to those guys anymore. We haven't for a long time. That really is, I would think, what he calls by mismanagement. But Pankow never ran their jobs that way. As I said earlier, guys like Ralph Tice and Alan Murk, they knew what the subs were supposed to do and formed a schedule up that they would work through if that were their schedule, and they'd always have some lead person on the job. Typically on a high-rise building, it would be the drywall guy. If you didn't follow their schedule, you'd get closed out. So you had to keep up with that schedule on that type of work. So it's that type of organization you have to have.

Also, they were the first group when we started doing these condominiums, which was always a problem. They hired a guy, had a quality engineer on the job to make sure that the subs themselves were doing the job according to the plans and specs and not get in trouble. I told Charlie, I said, "You shouldn't sell any of those condominium apartments to lawyers." [laughs] "Just wipe them off the list or have an agreement that if they didn't like it, you'll buy it back from them for the purchase price," because before five years is up, you always had a lawsuit with a condominium. They'd dream something up. Those weren't our best jobs.

Adamson: So I think Bob had said that 25 or 30 percent of your work over the years was with Pankow.

Sandahl: I don't know what the exact percentage was. It was probably something like that, yeah.

Adamson: So the other 70 percent was a different animal, to work for other people.

Sandahl: Yeah.

Adamson: Simply because no one else was doing what Pankow was doing or the approach?

Sandahl: Well, that's true. That's true. There weren't a lot of people doing design/build work. Now, we did a lot of work in Chicago, particularly with the Fuller Company, which we changed our portion of the work. They were willing to do this, where we did the air conditioning on the design/build basis, particularly we did a large Kodak job. They had an architect, I forget his name now, out of Grand Haven, Michigan. He's a major architect anyhow. The engineer kept changing our plan. I said, "You can't do that. I want to take a set of your working drawings and make up the as-built drawings, and that's where we're going to put it in." We finally agreed to that, otherwise we would have all kinds of trouble, because you can't have two engineers on one job. They all think differently.

But we probably did with Fuller, did quite a bit of work, over a five-year period, we probably did 50 to 75 million dollars worth of work. It was on a different basis, because they were not true design/build contractors.

Adamson: I ask Pankow people, as design/build became more and more accepted, I think Bob Law was one of the people who mentioned that then design/build in some circles got a bad name because people who weren't really doing design/build were calling themselves design/builders.

Sandahl: That's right. Yes, right. They didn't. They fumbled the ball, made a bad name for everybody.

Adamson: So when I asked him and others why it took—design/build can deliver these results for the owners, why would it take so long to become accepted? He cites that as one of the reasons that it got kind of a bad name because people were—

Sandahl: Yes. What they didn't do was what Charlie and his company produced, was a set of preliminary drawings that showed the entire scope of work, and that's what the owner would be able to review with separate groups or whatever, his architect, to see that everything was covered. I don't know how the other guys did it, but they didn't do that. They came up with a proposal that was not complete. Our final working drawings were all developed from these regional drawings, and I suppose a few companies did that, but not a lot. Otherwise, if you went out and the owner hired an architect, he developed his

own. Some had their own engineering group, structural group and everything. You developed a set of plans. Typically, they were about 40 percent over-designed, because they didn't worry about costs. They just had a picture in their mind what it was going to look like, and that's what they drew. Once you started with the wrong structural frame, then from there it went downhill.

We did a Penney job in Washington Square Mall, and we did a lot of work individually ourselves for the Penney company. The architect that Winmar used, I can't remember his name now, either, he was a large architect in Los Angeles, and he wanted to put this large brick façade on the building to make it look different from the Penney, and Penney didn't want it. Winmar didn't want it. But he finally won his way, which probably cost the developer, cost Winmar, probably \$400,000 to put this stupid thing in that nobody wanted. But the architect wanted it, and that's the problem you run into when you don't have real control of the architect. So it's that kind of thing that gets out of control, and then they go back to say we have value engineering. We go back and we change certain things. [laughs] But the horse is already out of the barn by then, and it's hard to get back to where you should have been.

Adamson: So if you or your company or one of your companies is on one of these projects, what do you do? Are you just caught up in it?

Sandahl: Yeah. It becomes a real fiasco in keeping track of things and getting—it's like doing a government job. I mean, you have to have a whole accounting section to take care of that because of certified payroll and a bunch of other things like that. So you end

up with a fiasco. That's why we did very few government jobs. Fortunately, the ADC building wasn't a government job.

Adamson: Yes. I wasn't aware of that one when Bob [Heisler] was talking about that.

I wanted to come back to George Hutton for a second. You mentioned that with the first project that you did, there were subsequent projects that you did in Hawaii with George?

Sandahl: Yes, we did some work. They had an architect I think they used on that building, called Leo Wou, and we did some other work with Leo and sometimes we did the jobs, sometimes we just did the engineering. But most of the work, after George got there, he got set up with some of the local guys.

The only problem, Winmar built a large center over there called Windward Mall, and we did that on a design/build basis. In fact, Rik Kunnath ran the job. So it was—I'm not even sure. I guess George was still with the company then, and shortly after—I'm not sure how long it was—he got in an argument with Charlie and he left. [laughs] So Tom [Verti] took over.

Adamson: You mentioned Russ leaving. When was it? What was his year, do you know, roughly?

Sandahl: Who?

Adamson: Russ Osterman, he was with the company till when? Do you know?

Sandahl: I don't know. It was probably in the early nineties. I'm not exactly sure when he left.

Adamson: Because that's about the time that George left, too.

Sandahl: Yes. Well, because of the agreement—Bob [Heisler] knows more about it than I do—that Charlie and Russ had, Charlie had a—if you wanted to resign from the company, basically, he had to have Charlie's approval or you didn't get the money from the stock he owned. So anyhow, that's what Charlie and Russ ended up in a big argument over that, and Russ sued him. He won the case for—I think it was \$8 million or something like that. Charlie wanted to settle, offered a counteroffer of \$6 [million], and we, Bob, primarily, and myself, convinced Russ he ought to accept that rather than get into burying bodies all over the place.

Then George Hutton ran into the same thing. So I don't know how that came out but they were—Charlie, that was his way of controlling everybody. Dean [Stephan] got out without a problem. He used subterfuge. Did Dean ever tell you the story, at least the way we heard it?

Adamson: No. He told me that he left because—what I heard only is that he left because his family had a history of dying early, and he wanted to get out while he could have a few years left.

Sandahl: That's exactly right, and Alzheimer's. That's what he convinced Charlie of. So Charlie let him go without prejudice.

Adamson: Okay. I didn't know that was used to—

Sandahl: Yeah.

Adamson: When people I've talked to talk about George Hutton said, well, because this is where the money lies, he was more interested in the development of the deal than adhering to necessarily a design/build approach on all of his buildings.

Sandahl: Right.

Adamson: And in fact, left most of the construction to other people. Was this something even on that first job that you mentioned that you got a sense of?

Sandahl: No, he was strictly—

Adamson: Or was that something came later?

Sandahl: Yes. He strictly ran it as a design/build project, plus he had the architect, which wasn't a true design/build job, because they didn't have control of the architect. So they

were able, with the architect's help, they would convince the bank—I think it was the Bank of Hawaii—that everything was working fine. So that was as a side story.

We had confined room in the equipment room, and we had major duct running across it. The bottom of the duct was about five foot six. I thought we're going to have trouble with that, but when the architect came through, he was only about five foot tall, and he walked under it with his hardhat on. [laughs] So they never had a problem. It's good to have small architects.

Adamson: The story goes, I guess it must have been at the end of this project, that Charlie was out there and George asked him, "Well, I'm done with this project. What do I do now?"

And Charlie basically left him out on the tarmac, said, "Well, you'll figure it out. I've got a plane to catch." The development interest must have come from there, looking around what to do next.

Sandahl: Well, yeah. He got in with a lot of locals, mostly Japanese, and from there, they were building condominiums over there like crazy, and he did most of those condominium projects, which we never got involved in those.

Adamson: So he recruited most of his own people, or did people get sent from Southern California?

Sandahl: No, they had to send guys over from here that were familiar with the concrete high-rise because some of the—I don't know. I forget. Both George and Charlie had a condominium in one high-rise. But those things sold out before they even broke ground. At that time, people were buying them on speculation, you know, because they sold out so fast. Then that fell apart gradually as they got to the overbuilt stage, and then they had some problems.

Then George did quite a few projects, and then he finally got to the point where he could see that he could make more money by being on his own, I guess. What happened, I don't know. I didn't talk to George about that.

Adamson: Yes. I haven't talked to George yet either.

So we've been talking about mostly your work on projects. Did you ever just talk to Charlie about where his business was going and just generally what he wanted to do with the business and where he wanted it and how big he wanted it to be and how many projects a year he was shooting for, that sort of thing?

Sandahl: Well, his forté was really he had a general foreman or project manager that was capable of doing a \$400 million job, he didn't want to put them on a \$100 million job. So he wanted to get maximum efficiency out of his organization. So that's the way basically he did it.

Charlie's point, if you asked Charlie what are you doing, he said, "Selling, selling, selling." He liked to meet the people, sell his program, and then he'd have Dean or somebody take over from there, and then they'd come in with a proposal, a design/build

proposal, and went on from there. He developed these design/build plans. Charlie looked at himself as the salesman of the organization.

Adamson: So where did he find all these? Did he knock on doors or did he—how did he go about—

Sandahl: I'm not sure. He'd meet them through associations, and he was involved in a whole bunch of associations, including the Concrete Institute. The latest thing—I guess Dean developed it—the latest thing was the carbon fibers that were used in the precast.

So let's see. Some people, for whatever reason, don't like to use things that haven't been out there for thirty years or something. But I did a lot of work with the Penney Company, besides with Pankow, and Joe Beck [phonetic] was the head of their electrical and mechanical, and when we approached Joe with the new, I said, "Westinghouse came out with these new chillers that are pretty good."

He said, "Well, call me after they've been in for seven years." [laughs] He would not subject his company to any new things that weren't tried and tested, which I don't blame him, and a lot of people were that way. That's why it's so hard to sell in many cases the inexperienced owner. Once Charlie's done a job for them, they use him on more jobs. In fact, Dean can tell you about that. One of the groups that Bill whatever his name was that did those jobs in San Jose, he finally decided to start his own business, and he hired away Bill and—I don't know, you've probably got their names down there somewhere. He started another company in San Jose called Webcor, and he stole two of Charlie's up-and-coming guys. I don't remember the name [unclear].

Adamson: Only one person's mentioned Webcor and he said, "Come back and I'll tell you the story some other time." [laughter] So I don't know that story at all.

Sandahl: We did the Long Island Penney's store, and I'm trying to remember. Ross Edwards was one of the guys, and the other guy was Bill—I think it was Boyd. I'm not sure it was Boyd or it was something like Boyd. [It was David Boyd.] We'd worked with them on a lot of projects and then finally—Bill Wilson it was. Bill Wilson hired them away and started Webcor and stole these guys.⁴ Charlie doesn't like that kind of what he calls loyalty to the company. If they'd come to Charlie and told them they had this opportunity to start their own company, I think he'd have—but they just kind of walked away. He doesn't like that, and I don't blame him. He expects more loyalty from his people. If they went and explained the situation, I think he would have let them go with his blessing, but they didn't do that, to my knowledge. So we never did any work for Webcor after that, because they were on our blacklist.

Adamson: Were there people who came to Charlie and Charlie helped set them up?

Sandahl: Not that I know of, no.

Adamson: You either stayed or—

⁴ William Wilson III started Webcor with Ross Edwards and David Boyd in 1971. He also founded William Wilson & Associates. He has been a commercial developer in the San Francisco Bay Area for more than four decades.

Sandahl: You either stayed or you're out, except for Ralph Tice.

Adamson: Right. Bob Heisler answered this question in the affirmative and said that he was—the question, is many of the Pankow Company's Christmas parties and social events were at Charlie's house.

Sandahl: Right.

Adamson: I asked Bob if he was ever at those events, and he said, "All the time." He and Charlie were off in the corner talking. So if you were there, I assume you were at some of these events—

Sandahl: Oh, yes.

Adamson: I guess you weren't in the corner with Charlie.

Sandahl: I just talked to Doris. No, we were there. We talked to Charlie a lot.

Adamson: Then subsequently, I've talked to Rick and Betsy out at this ranch he set up, and I guess they had parties out there, too. He also had 3800 Washington, the art.

Sandahl: Right.

Adamson: Were you ever up there?

Sandahl: Oh, yeah. I didn't go to the parties. Heisler went to those parties.

Adamson: Any anecdotes from any of these parties that sort of illustrate what type of events these were like?

Sandahl: Well, that was the art interest in Charlie. Particularly when he would take a trip with somebody, Dean or Bob and their wives, Charlie would spend all of his time shopping for these things that he liked and ship them back to Washington Square or Washington Street, whatever they call it. So that was one of his hobbies. I understand Rick sold it all, so I don't—

Adamson: Right. For the Foundation, who he left it for.

So these are sort of summing-up questions. We've been talking about Charlie Pankow as a builder. If we look at Charlie as purely a businessman—and you've already mentioned sales and selling—what traits other than being a successful salesperson made Charlie a successful business person? What else did he have that stands out?

Sandahl: Well, he had a good personality and he could talk well with anybody at anybody's level. He had a lot of knowledge particularly in the construction business and in the general overall mood of the marketplace. So in their business, timing was everything. Like when he worked with Dick Brewer, he would give him a budget and

say, “If we can build this building for X and have it on the market by X, we can lease it out and make money on it.” So that would be the criteria that he would work with, and he’d go back to his troops and assign it to them, and they would come up with something they could sell to either Winmar or some other developer. Of course, that was their big forté, was meeting delivery schedules, and that was part of it.

The story about Ralph Tice when he was running that Sears job in Stockton, the Sears guys called him and—I say Sears. I think it was Montgomery Ward’s. Called them and said they wanted to change something. We called them on a Friday afternoon, I think, and said, “Well, that’s already in.”

I said, “I know. We can’t be that far off. Here we are.” So we worked all weekend and finished that area out. They came over on Monday and saw it all was done, and said, “Oh, then forget it.” He didn’t want to change anything because he knew it would upset the schedule. But that was an individual trait.

Adamson: One of the reasons I mentioned it is people have pointed out that Charlie was successful in some non-construction businesses as well, and when I ask if he had any failures, no one can name any, so he seemed to be successful in whatever he dabbled in or invested in.

Sandahl: Yes. They usually were in a situation where they were financially capable of taking advantages of certain situations. Of course, that’s like the stock market; you want to buy low and sell high.

Adamson: When business was down at certain points, whether it was in Hawaii or here in California, did you ever get a sense of what Charlie wanted to do to smooth out those low points? I mean, did it affect your business? Did you have to go out and find other work?

Sandahl: Yes, we had to pick up other work somewhere else.

Adamson: I guess the broader question is relative to your company's needs to get work and, say, Charlie was in a position to weather a downturn better than you or other structural engineers, did you get a sense that you had a need to broaden out, that you couldn't just rely on Charlie to carry you through every bit?

Sandahl: We always kept ourselves available to do whatever he needed, but we had to have a certain level to keep competitive, so we typically at that time had to have at least fifty sheet-metal men working for us to absorb the overhead. We had to keep them busy somewhere.

Adamson: And on the upswing of the cycle, was it ever a point where you had to say no to Charlie because he didn't have the capacity because you're all—

Sandahl: No, we pretty much were able to handle whatever he came up with, I'm sure. Like, we didn't do any hospital jobs at that time. Still don't. They're poorly designed,

and even with a good group like Charlie's group, it was always a problem. It was like doing a government job.

Adamson: Do you have a favorite anecdote about Charlie that you haven't mentioned yet?

Sandahl: Not really.

Adamson: What is the best way of understanding Charlie or his company's contribution to the building industry?

Sandahl: Well, as I said, he was involved in a lot of organizations in the building industry. Consequently, he met and made a lot of contacts there and his associates did also, so that's neither good, bad, or indifferent. Actually, one of the problems being a design/build contractor, you're on the outs with the architects. You're interfering with their whole business. In Europe, the architect is most likely the contractor in most cases. So the architects over here don't like that. So that's part of the risk you have to take.

Adamson: Bob [Heisler] explained to me that you had four or five of these companies that you basically sold back to the people who were heading them.

Sandahl: Right.

Adamson: Do these companies still do work with Pankow?

Sandahl: Oh, yeah.

Adamson: In your capacity, you're fully retired, semi?

Sandahl: Basically. No, I do some—Richard Rivera owns the—he now calls it Key Air Conditioning Contractors, Inc., does most of the sheet-metal work, but they don't have a registered engineer in their group right now, so I do mostly coordination for signing and reviewing their plans to see that they meet the requirements of the code.

Adamson: I think I got it from Bob that he's more or less retired.

Sandahl: Right. [laughter] Well, in a sense. We still have this NW [Mechanical] company, which we're selling. I told you about that. I mean, one of the guys that bought our—Frank Lederer [phonetic] bought our company in Washington, and so we made him secretary of NW, and he's basically taken over that company. Eventually he's going to buy that company from us. So that will allow Bob to retire completely, because he handles the Northern Division. So we only have two shopping centers, Washington Square and it's that mall and the office building in Eugene, which was originally owned by Charlie and Russ.

Adamson: We've kind of covered forty years of Pankow Company history in an hour and a half or so, so is there any part of your relationship with Pankow that I haven't asked you about or that comes to mind that you haven't said anything about yet that you want to mention?

Sandahl: Let's see. No, basically I think that pretty much covers it all that I can remember. I'll have to review the notes and things will come back to light. So I'll review your notes when you get them printed out, and if I come up with something, I'll write them down.

Adamson: Certainly. I thank you for your time and coming in. It's a pleasure to talk to you.

Sandahl: Well, you're going to have all kinds of information. How you sort it out, I think, is—that's why you have a doctor's degree, right?

Adamson: That's right. I thank you for your time.

Sandahl: Okay. It's been a pleasure.

[End of interview]